



*Detailing Existing  
Conditions, Visions,  
Goals, Objectives,  
Strategies and Initiatives  
for Bradford County  
for the next 20 years.*

# Bradford County, Comprehensive Plan

Adopted March 11, 2004



**BRADFORD COUNTY**  
**OFFICE OF COMMUNITY PLANNING & GRANTS**  
*ADMINISTRATIVE AGENCY FOR THE  
BRADFORD COUNTY PLANNING COMMISSION*

*Bradford County Commissioners:*

*NANCY SCHRADER, CHAIRMAN  
JANET LEWIS, VICE CHAIRMAN  
DOUGLAS MCLINKO, COMMISSIONER*



*Bradford County Commissioners' Office*

*Chief Clerk:  
GARY L. WOOD*

*Solicitor:  
JONATHAN FOSTER*

Resolution # 2004 - 08

**Bradford County Board of Commissioners  
Adoption of the County Comprehensive Plan**

**WHEREAS**, the Bradford County Planning Commission, in conjunction with the Northern Tier Regional Planning and Development Commission, adopted its original County Comprehensive Plan in June of 1982, without endorsement of the Bradford County Board of Commissioners;

**WHEREAS**, §301.4 of the Pennsylvania Municipalities Planning Code (Act of 1968, P.L. 805, No. 247, as reenacted and amended) requires that counties prepare and adopt a comprehensive plan, and that municipalities be generally consistent with the adopted County Comprehensive Plan. Moreover, § 302. (d) stipulates that County Comprehensive Plans shall be updated at least every ten years; and

**WHEREAS**, the Bradford County Planning Commission (the Planning Commission) serves as the official Planning Agency for Bradford County; and

**WHEREAS**, the County Board of Commissioners and the Planning Commission organized a Plan Advisory Committee (PAC) to oversee the preparation of the County Comprehensive Plan and conducted a public involvement process through four (4) regional focus group meetings, four (4) regional visioning meetings, numerous informal interviews and a final municipal officials forum to gain insights on existing conditions and issues and formulate goals, policies and action strategies to achieve the county's vision for the future; and

**WHEREAS**, the socioeconomic and housing data, transportation and land use patterns, cultural and environmental resources, and County facilities and services were analyzed to create a framework for the plan and to provide a guide to future growth, development, land use and community character; and

**WHEREAS**, the County Planning Commission held a Public Meeting on October 21, 2003 in Courtroom of the Bradford County Courthouse at 6:30 p.m. pursuant to § 302 of the Pennsylvania Municipalities Planning Code as amended, to present the Draft County Comprehensive Plan and begin the forty-five (45) day public review process that included a

request for comment sent to seven (7) county school districts, fifty-one (51) municipalities and seven surrounding counties in Pennsylvania and New York states, and has taken comments of these entities into consideration in preparing the Comprehensive Plan; and

**WHEREAS**, the Bradford County Planning Commission recommended the Bradford County Commissioners adoption of the County Comprehensive Plan by Resolution #2003-02 at their monthly meeting held on November 18, 2003; and

**WHEREAS**, the Bradford County Commissioners held a public hearing pursuant to § 302 (b.) of the PA Municipalities Planning Code on December 5, 2003 at 10:00 a.m. in the County Courthouse, Commissioner's Conference Room to collect further comment on the plan;

**NOW, THEREFORE BE IT RESOLVED**, that the Bradford County Board of Commissioners, a Sixth Class County under the laws of the Commonwealth of Pennsylvania,

**AND IT IS HEREBY RESOLVED:**

1. The Bradford County Board of Commissioners recognizes the Planning Commission of Bradford County as the official planning commission for Bradford County and that such agency promote public interest in, and understanding of, the Comprehensive Plan and the planning profession.
2. The County Comprehensive Plan presented and adopted by the Planning Commission is hereby adopted by the Bradford County Board of Commissioners as the official Comprehensive Plan of Bradford County and supercedes any previous County Comprehensive Plan(s).
3. The Bradford County Board of Commissioners will consider the community development goals and objectives presented in the Comprehensive Plan when dealing with planning issues requiring action by the Board.
4. The Bradford County Board of Commissioners strongly encourages all authorities, boards, commissions and departments in Bradford County to follow the recommendations of the Comprehensive Plan that may apply to them.
5. The Bradford County Board of Commissioners strongly urges all the municipalities in Bradford County to follow the recommendations and studies of the County Comprehensive Plan, and develop local and regional planning efforts consistent with the County Plan.
6. It is further **RESOLVED**, that the Chief Clerk, County Solicitor and other appropriate officials and staff of the County are hereby authorized to take all necessary and incidental steps necessary to carry out the actions set forth in this Resolution.
7. Any resolution or part of a resolution conflicting with the provisions of this Resolution is hereby repealed insofar as the same affects of this Resolution.

8. The County Chief Clerk shall distribute copies of this Resolution to the proper officers and other personnel of Bradford County whose further action is necessary to achieve the purpose of this Resolution.

**ADOPTED THIS 11th Day of March, 2004.**

**Bradford County Board of Commissioners**

  
\_\_\_\_\_  
Nancy Schrader, Chairman

  
\_\_\_\_\_  
Janet Lewis, Vice Chairman

  
\_\_\_\_\_  
Douglas McLinko, Commissioner

**ATTEST:**

  
\_\_\_\_\_  
Gary L. Wood, Chief Clerk

3/11/04  
Date

SEAL



**BRADFORD COUNTY  
OFFICE OF COMMUNITY PLANNING AND GRANTS**

North Towanda Annex No. 1  
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Towanda, PA 18848

*Administrative Agency for the Bradford County Planning Commission*

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Resolution # 2003 - 02

**Bradford County Planning Commission  
Endorsement of the County Comprehensive Plan**

**WHEREAS**, the Bradford County Planning Commission, in conjunction with the Northern Tier Regional Planning and Development Commission, adopted its original County Comprehensive Plan in June of 1982;

**WHEREAS**, the Bradford County Board of Commissioners possess the legal authority to adopt or amend the County Comprehensive Plan under Article III of the Pennsylvania Municipalities Planning Code (Act of 1968, P.L. 805, No. 247, as amended through December 2002 by Acts 2 and 43). Moreover, § 302. (d) stipulates that County Comprehensive Plans shall be updated at least every ten years;

**WHEREAS**, the County Planning Commission held a Public Meeting on October 21, 2003 in Courtroom I of the Bradford County Courthouse at 6:30 p.m. to present the "Draft" County Comprehensive Plan and begin the forty-five (45) day public review process that included a "request for comment" sent to seven (7) county school districts, fifty-one (51) municipalities and seven (7) surrounding counties in Pennsylvania and New York states;

**WHEREAS**, the Bradford County Planning Commission shall publish advisory guidelines to promote general consistency with the adopted County Comprehensive Plan and promote uniformity with respect to local planning and zoning terminology and common types of municipal land use regulations;

**WHEREAS**, the Bradford County Planning Commission recognizes that the Bradford County Comprehensive Plan is a policy document that will assist the Bradford County Commissioners in the decision-making process regarding Community Character and Development, Economic Development, Housing, Land Use, Natural Resources, Recreation, Transportation and Historic and Cultural Resources;

**PLANNING COMMISSION MEMBERS**

*- Emerson Abell - Glenn Albens - Kerry Dibble - Robert Kendall - Warren Knapp - Don Murray - Lincoln Waller, Jr. - Steve Westbrook - Charles Woodard -*

NOW, THEREFORE BE IT RESOLVED, that the Bradford County Planning Commission hereby endorses the Bradford County Comprehensive Plan, <sup>in its</sup> as amended ~~in its~~ <sup>entirety</sup>, and recommends that the plan be adopted by the Bradford County Board of Commissioners on December, 5, 2003.

IN WITNESS THEREOF, we have hereunto set our hands and seals this day, Tuesday, November 18, 2003.

Bradford County Planning Commission

Warren M. Knapp  
Warren Knapp, Chairman

ATTEST:

Sue Strickland  
Sue Strickland, Secretary

SEAL



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**Bradford County Board of Commissioners**

Nancy Schrader, Chair  
Janet Lewis, Vice-Chair  
Douglas McLinko  
John Sullivan (former Commissioner)

**Bradford County Planning Commission**

Emerson Abell	Don Murray
Glenn Aikens	Lincoln Welles, Jr.
Kerry Dibble	Steve Westbrook
Robert Kendall	Charles Woodward
Warren Knapp	

**Bradford County Office of Community Planning and Grants**

Ray Stolinis, Jr., AICP, Director  
Robyn D'Anna, Grants Coordinator  
Jason Finnerty, GIS Coordinator  
Aaron Lankford, County Planner  
Steve Polzella, Comprehensive Planner

**Planning Advisory Committee**

Nancy Baker	Joe Joyce
Julia Beach	Anthony Liguori
Fred Bechtel	Mike Lovegreen
Rick Biery	Mark Madden
Marilyn Bok	Gary Matson
Bill Bower	Chris McLaud
David Buck	Clark Moeller
Ed Bustin	Marvin Meteer
Bob Butler	Clyde Robbins
Cindy Campbell	Diane Sadler
Richard Eaton	Charlotte Sullivan
Rich Farr	Phil Swank
Gary Goeckel	Bob Veleker
Mary Graham	Nina Vroman
Douglas Graybill	Jeff Warner
Gary Hennip	Steve Westbrook
Debbie Howard	
Rich Howard	

**Consultants**

Gannett Fleming, Inc., Camp Hill, PA  
Clough, Harbour, and Associates, Syracuse, NY

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## To the Citizens of Bradford County:

This Comprehensive Plan is a timely accomplishment as we move ahead in this new century. With this document and the planning process that created it, we have defined for ourselves a collective vision for Bradford County's future – a vision that integrates our rural character with sound community development, a healthy economy, and coordinated public and private resource management in order to sustain and enhance our quality of life.

This Plan outlines an approach that will enable us to achieve our vision. The policies of the Comprehensive Plan provide a guide for evaluating daily decisions made at the County and local levels. The action items detail the tasks to be carried out by Bradford County and its many community partners.

The priority initiatives will be our first area of focus. The initiatives will focus our efforts on building Bradford County's capacity to manage and catalyze future growth and development, while protecting the rural character that defines our County landscape.

We hope that you will find the Comprehensive Plan to be visionary and inspiring. As we look to the future with great anticipation, we believe it will be filled with many opportunities for the citizens of Bradford County.

### **Bradford County Board of Commissioners**

Nancy Schrader, Chair  
Janet Lewis, Vice-Chair  
Douglas McLinko  
John Sullivan, former Commissioner

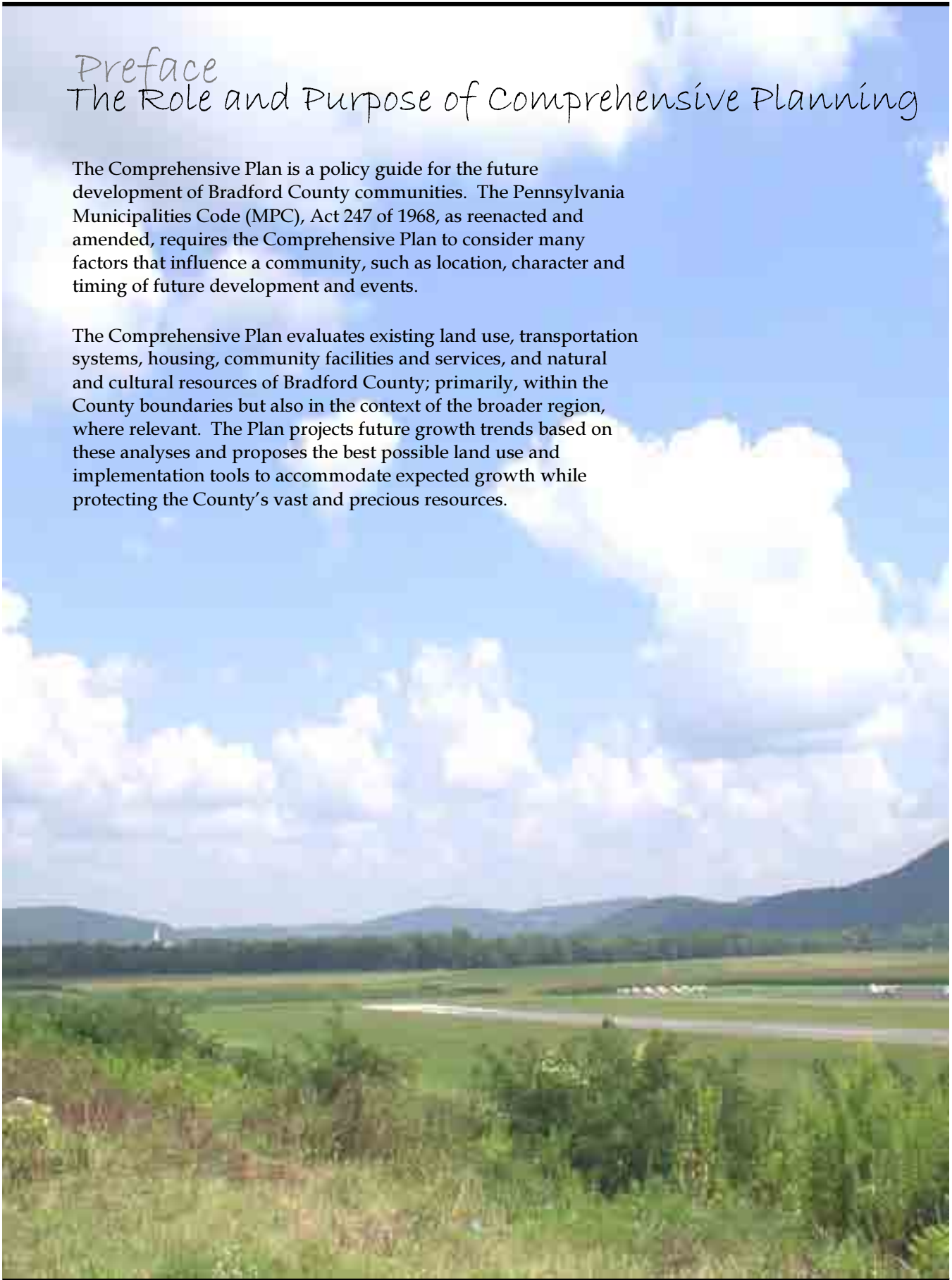
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# Preface

## The Role and Purpose of Comprehensive Planning

The Comprehensive Plan is a policy guide for the future development of Bradford County communities. The Pennsylvania Municipalities Code (MPC), Act 247 of 1968, as reenacted and amended, requires the Comprehensive Plan to consider many factors that influence a community, such as location, character and timing of future development and events.

The Comprehensive Plan evaluates existing land use, transportation systems, housing, community facilities and services, and natural and cultural resources of Bradford County; primarily, within the County boundaries but also in the context of the broader region, where relevant. The Plan projects future growth trends based on these analyses and proposes the best possible land use and implementation tools to accommodate expected growth while protecting the County's vast and precious resources.



The Pennsylvania Municipalities Planning Code, Act of 1968, P.L. 805, No. 247, as reenacted and amended empowers local municipalities, including County governments...

...to plan for their physical development,

...to develop a “blueprint” for housing, transportation, community facilities and utilities, and for land use.

...to establish community development goals and objectives that guide future growth and development.

### **What the Comprehensive Plan does:**

- Focuses on current trends and issues in Bradford County and addresses these with innovative solutions.
- Provides the best possible projection on future conditions based on current patterns and strategies to create a more desirable and sustainable future.
- Directs future change through a vision of community potential.
- Establishes the framework for consistency between future land use policies and land use regulatory measures.
- Assists State, County, and Township officials in their decision making processes.

### **What the Comprehensive Plan does not do:**

- Does not affect regulations of individual properties.
- Does not determine land development, neither public nor private.
- Does not preclude future analysis or decision making.

Ninety years ago, Frederick Law Olmstead, Jr., renowned designer/planner of several communities in Pennsylvania including the first planned industrial town designed to be sold to its worker, urged municipalities to “...create or acquire statistical databases on the physical, social, economic and financial environment; compile information on relevant legal and administrative matters and draw up accurate topographical maps.” To this end, a comprehensive plan entails such an inventory and makes recommendations regarding policies designed to guide future development thereby avoiding costly unwise development. Olmstead also noted that “prevention is cheaper than the cure.”

### **Relationship between the Comprehensive Plan and Other Plans**

The Bradford County Comprehensive Plan gives policy guidance and direction to Township regulations and codes. The Plan makes policy recommendations to update the following plans and regulations to provide residents of Bradford County with the best possible quality of life;

Bradford County Subdivision and Land Development Ordinance

Municipal Zoning Ordinances

Municipal Subdivision & Land Development Ordinances

Act 167 Stormwater Management Plans

Act 537 Sewage Facilities Plans

Parks and Recreation Plans

### *Local Municipal Comprehensive Plans*

The Bradford County Comprehensive Plan acknowledges the local goals of the municipalities while making broad recommendations appropriate for the County.

## **FAQ - Frequently Asked Questions**

### *Why is the Bradford County Comprehensive Plan being updated?*

As the pace of change in northeastern Pennsylvania continues, public policy must be reviewed. Bradford County's previous Comprehensive Plan, prepared in the 1980s, has become outdated in terms of the guidance it gives to the County and its relevance to existing planning law. This plan update will review and revise relevant goals and strategies, and introduce new methods to guide the future character and development of Bradford County.

### *How will the Plan be used?*

The Plan will be used by County and local officials, citizen volunteers, land owners, and developers to evaluate proposed changes against the Plan's vision and goals.

### *Who is in charge of making this Plan work?*

While the County Board of Commissioners, Planning Commission, Office of Community Planning and Grants, and municipal officials will implement this Plan, public support for the vision and recommendations will be most important. This public includes residents, business owners, and organizations that have a direct interest in the future of Bradford County. With support from the public, these officials and community leaders can make the recommended changes to public policy – the way community development is guided – and program community improvements to benefit County residents.

*Does this plan protect the County's natural areas and open space?*

The Planning Advisory Committee identified natural areas and open space conservation as priorities for the County. Through a variety of recommended strategies, this Plan proposes conservation of these areas.

*What is the Planning Advisory Committee?*

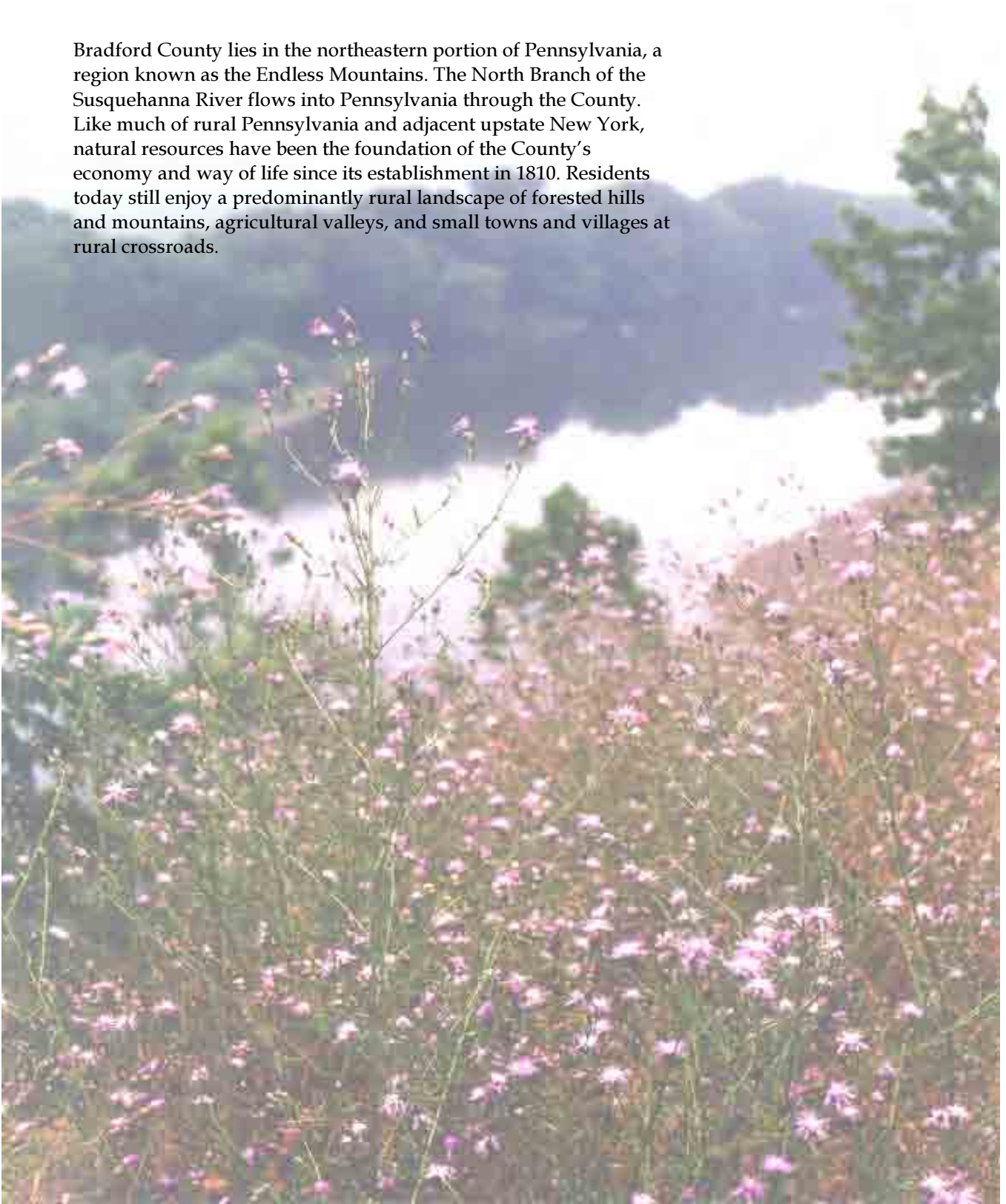
The Planning Advisory Committee was a group of approximately 50 citizen, organization, and agency representatives that met regularly with the consultants throughout the preparation of this comprehensive plan. Their input helped to define the key issues that the Bradford County faces, the community values of the County, the "big picture" vision of what County residents want for their future, and the strategies for sustaining and improving quality of life in the process of community development.

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# Chapter 1

## Introduction to Bradford County, Pennsylvania

Bradford County lies in the northeastern portion of Pennsylvania, a region known as the Endless Mountains. The North Branch of the Susquehanna River flows into Pennsylvania through the County. Like much of rural Pennsylvania and adjacent upstate New York, natural resources have been the foundation of the County's economy and way of life since its establishment in 1810. Residents today still enjoy a predominantly rural landscape of forested hills and mountains, agricultural valleys, and small towns and villages at rural crossroads.



## Location and Regional Context

The County is located within two hours of Wellsboro, Williamsport and Wilkes-Barre – Scranton, as well as Binghamton and Elmira, New York. New York City and Philadelphia are within a 4-hour drive.



*Bradford County: Regional Location*

## Settlement and Development History

Bradford County was established in 1810 from portions of Lycoming and Luzerne Counties. Early residents of Bradford County migrated from southeastern Pennsylvania and from New England, particularly from Connecticut. Many came directly from eastern ports looking for physical and political open space in which to lead their lives and raise their families. Having moved from Europe, these people were rooted in conservative religions and strong work ethics. They cleared the floodplain lands for fields and pastures, and set up farms along the stream and river valleys and the mountain foothills. The County's first white settler was Rudolph Fox in 1770.

Among the early County pioneers was a group of French exiles who settled along the banks for the Susquehanna River in the autumn of 1793. Some of them were refugees, who because of their loyalty to the King, had left France to escape imprisonment or death at the hands of the Revolution. Others had fled the French colony of Santo Domingo (Haiti) to escape the slave uprisings. The community may also have been the chosen destination for Marie Antoinette and her family. Within a few years, a lively community was established including several small shops, a schoolhouse, a chapel, and a theatre around the market square; a gristmill, blacksmith shop and a distillery were erected; and the manufacture of potash and pearlsh was begun. In time money became difficult to obtain, income sources in France stopped and many of the emigres drifted away by 1803. A few families, the LaPortes, Homets, LeFevres, Brevosts and D'Autremonts remained in

Pennsylvania where their progeny helped to establish Wysox, Wyalusing, Athens, Towanda and other communities.<sup>1</sup>

Farmers and forestland owners found a market for the timber they cleared from their lands, as the eastern seaboard cities grew. Raw timber was cut, floated downstream on the streams and rivers, and milled en route to lumberyards supplying the building materials for the construction up and down the east coast. The Endless Mountains seemed to have endless forest stands to be harvested for profit. These profits filled the pockets of land, rail, and mill owners from the 1840s into the 20<sup>th</sup> century and built many of the County's towns and villages. The abundance of Victorian architecture found across the County is due to wealthy residents who invested their money in elaborate homes.

As the timber heyday declined, lumber companies moved south and west. The prosperous communities they had supported faced economic collapse as wages declined and jobs disappeared.

Fortunately, agriculture was still strong and moving rapidly from subsistence farming to commercial production. Crop production and surplus levels increased with the introduction of chemical fertilizers, pest controls and intensive cultivation techniques of the early 20<sup>th</sup> century. Livestock production also grew with improved feeds and formulas. Agricultural products were shipped first to local processors and later to regional processing centers.

The regional economy has changed significantly over the past 30 years as the worldwide agricultural industry and markets have affected the way local farmers do business. Agricultural processing moved closer to production sites. Cooperatives established set prices for agricultural products.

## Facts about Bradford County

**Location:** Northeast Pennsylvania, USA

**Date of Establishment:** February 21, 1810

**Namesake:** General William Bradford (1755-1795)

**Number of Municipalities:** 51

**County Seat:** Towanda

**Form of Government:** 6<sup>th</sup> Class County; elected 3-member Board of Commissioners

**World Wide Web:** [www.bradfordcountypa.org](http://www.bradfordcountypa.org)

**Size:** 1,151 square miles (736,640 acres); 2<sup>nd</sup> largest in the Commonwealth of Pennsylvania

**Region of the State:** Northern Tier

**Population (2000):** 62,761

**Population Change (1990-2000):** + 2.9 %

**Population per Square Mile (2000):** 55 persons

**Median Age:** 38.9

### Community / Economic Profile:

#### Leading Industries (by employment)

Manufacturing  
Educational, health, and social services

#### Leading Industry (by revenue)

Agriculture – dairy, veal

#### Employment centers

Towanda-Wysox  
Athens-Sayre-South Waverly  
Wyalusing  
Troy-Canton

#### Hospitals

Memorial, Towanda  
Robert Packer, Sayre  
Troy Community, Troy

#### Schools

7 public districts  
7 private institutions

**Public Libraries: 10**

<sup>1</sup> Source: <http://www.frenchazilum.com>



In our modern economy, with growing concern for resource protection and conservation, nature-based and historic tourism are a rising part of the economy.

## More Facts about Bradford County

### **Largest Municipality by population (2000)**

Sayre Borough: 5,813 persons

### **Smallest Municipality by population (2000)**

Armenia Township: 166 persons

### **Natural Setting:**

**Elevation Range:** 600 to 2380 feet above sea level

**Mean Temperature:** Annual 48.7°, Jan 25.4°, July 70.6°

**Annual Precipitation:** 37.7 inches

### **Major waterways/watersheds:**

Susquehanna River

Chemung River

Sugar Creek

Towanda Creek

Wyalusing Creek

Wysox Creek

**Forest cover:** 432,000 acres (59% of County)

Predominant hardwoods: oak, maple, cherry and ash

Predominant softwoods: hemlock and pine

**Mineral resources:** flagstone, gravel, sand, sandstone, natural gas, and coal

### **Public Lands:**

**County Parks:** 3

Numerous municipal parks

**State Lands:** Mount Pisgah State Park,

Tioga State Forest, 10 State Game Lands

### **Historical Figures:**

**David Wilmot**, Towanda (1814 - 1886), author of the Wilmot Proviso, suggesting no slavery in the lands seized from Mexico

**Stephen Foster**, song-writer: Tioga Waltz and Gwine to Run All Night (Camptown Races) celebrating a race from Camptown to Wyalusing

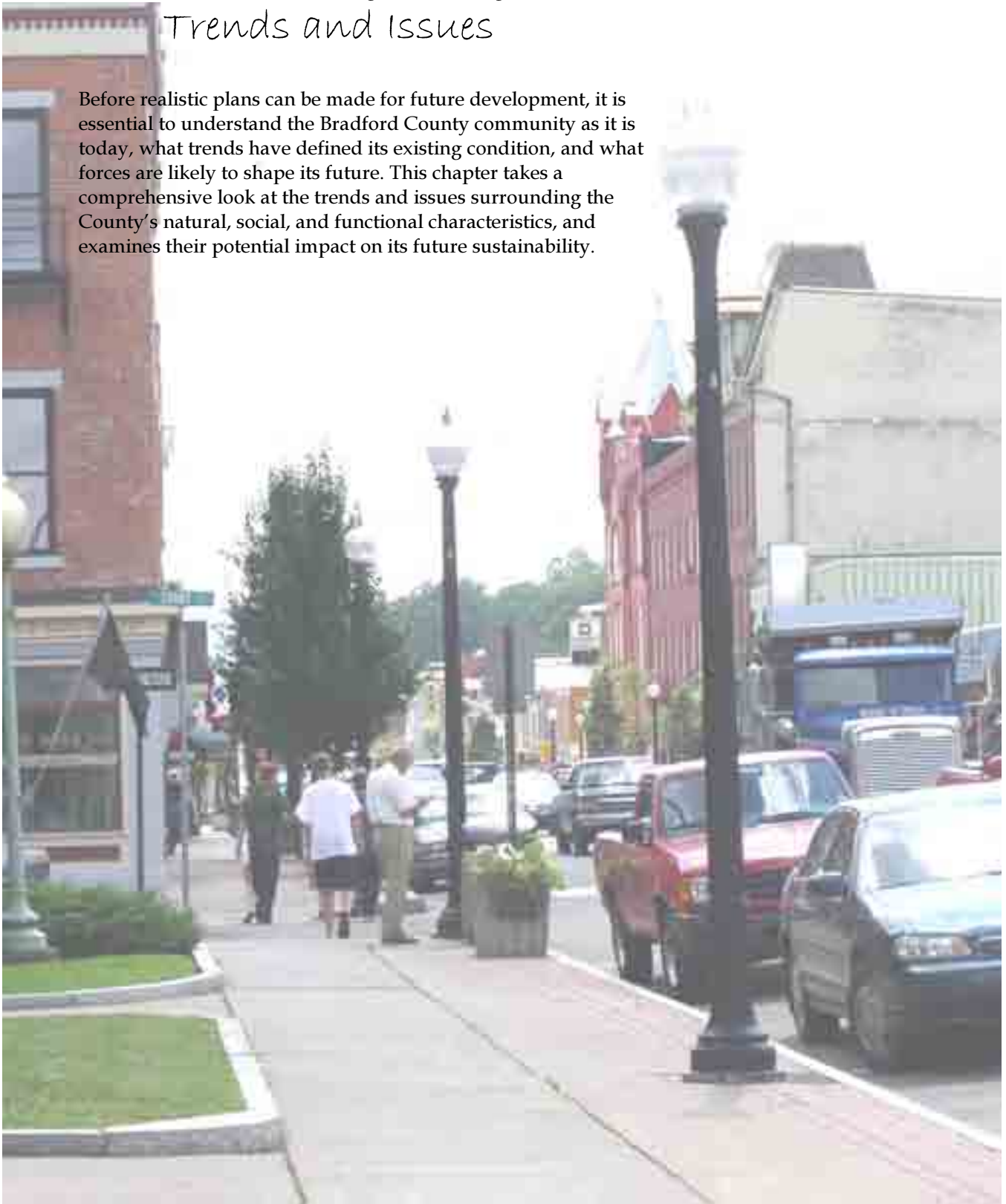
**Philip P. Bliss**, Rome (1838-1876), prolific hymnwriter, including such songs as Let The Lower Lights Be Burning

### **Historical Sites:**

**French Azilum** and the LaPorte House - site of French settlement built by exiles loyal to the king during the French Revolution; legendary destination of Queen Marie Antoinette and her two children; visited by Talleyrand and Louis Philippe; LaPorte House built by the son of an original settler in 1836

## Chapter 2 Bradford County Today Trends and Issues

Before realistic plans can be made for future development, it is essential to understand the Bradford County community as it is today, what trends have defined its existing condition, and what forces are likely to shape its future. This chapter takes a comprehensive look at the trends and issues surrounding the County's natural, social, and functional characteristics, and examines their potential impact on its future sustainability.



## Trends and Issues in the Socio-Economic and Socio-Cultural Environments

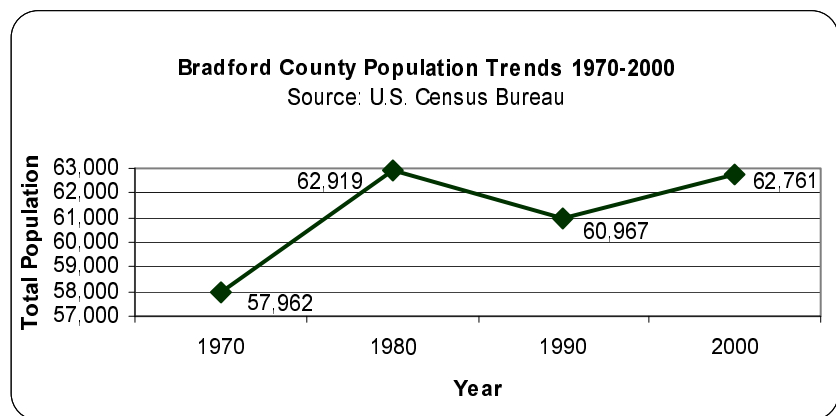
The social environment captures the human characteristics of the Bradford County community. Such characteristics are evaluated by focusing on the County's population and housing trends, as well as the economic conditions and cultural amenities that affect the daily lives of the people who live there.



### Population Conditions and Trends

Population statistics were collected from the 2000 Census and used to characterize the County in terms of number of residents, distribution of age groups, education completion, income and economic condition, and household composition.

- **Bradford County's population has increased 8.3 percent since 1970.** The population peaked at 62,919 persons in 1980, fell slightly during the eighties, and has experienced an increase of 2.9 percent through the nineties. The 2000 Census reports a current population of 62,761.



- **Bradford County residents are choosing suburban and rural living over that found in the County's boroughs.** Eighty percent of Bradford County's municipalities experienced population increases between 1970 and 2000. The majority of those municipalities that lost population were boroughs.
- **Older generations appreciate the quality of life Bradford County has to offer.** Between 1990 and 2000, the county experienced significant population increases among older age groups, including a 33.1 percent increase in the 45-54 age group, a 28.3 percent in the 55 to 59 age group, and a 30 percent increase in the over 85 age group.
- **Younger generations have chosen to leave Bradford County.** During the 1990s, the county experienced a 29.1 percent decrease in the number of people in the 25 to 44 age group. This group is usually the most heavily engaged in the labor force and home buying.

- **Though the vast majority of residents are white, racial diversity is increasing in the county.** According to 2000 Census data, the non-white percentage of the County's population is still small at 2.1 percent; however, this is double the 1990 percentage.
- **Increasingly, county students are completing their high school education and pursuing college education.** Approximately 82 percent of Bradford County citizens age 25 and over have a high school diploma, while nearly 15 percent have a bachelor's degree.
- **Bradford County school enrollments are down compared to previous years.** Six of the seven school districts throughout Bradford County saw a decrease in enrollments between 1990 and 2000. This reflects the decline in the young adult segment of the population, which is the primary childbearing age group.
- **While the County's median household income saw negligible growth, the County's per capita income rose significantly between 1989 and 1999.** Bradford County's 1999 median household income saw real growth of 1.7 percent, while per capita income experienced real growth of 10.3 percent. However, the County's per capita income is still below state and national levels.
- **Poverty in Bradford County is declining.** Of the total population, 11.8 percent was considered to be below the poverty level in 2000, which is down 1.5 percent since 1990.
- **Non-traditional households are increasing in the county.** The types of household groups that experienced the most growth between 1990 and 2000 were non-family households (3.4 percent), followed by female-headed households with no spouse present (3.0 percent).

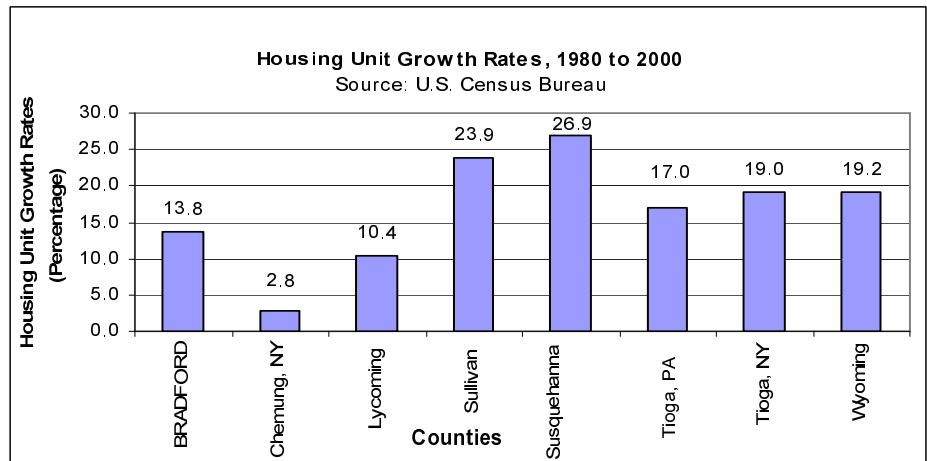




## Housing Conditions and Trends

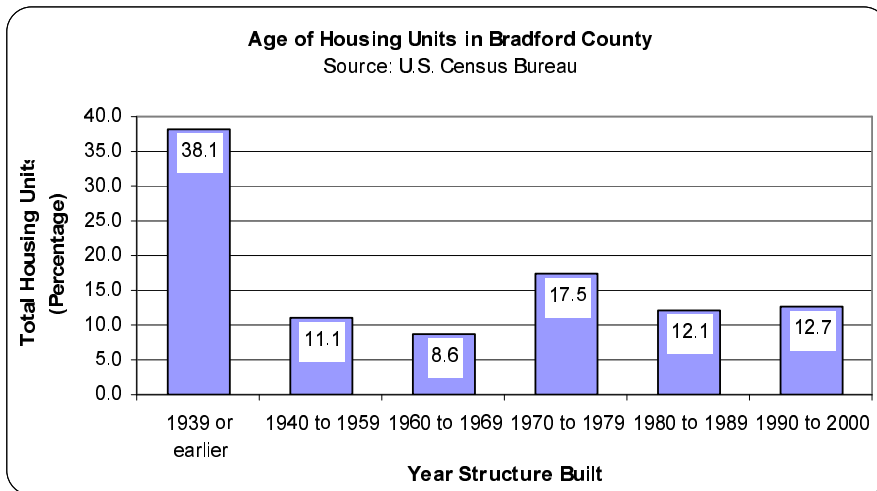
Housing is important to the prosperity of any community. Affordable, available, and attractive housing creates a sound tax base that will continue to appreciate in value. Housing unit growth, density, type, age, ownership, vacancy, and affordability are key characteristics in this housing inventory.

- **The number of houses in Bradford County is increasing but at a slower rate than other counties in the region.** The county experienced one of the lowest housing unit growth rates in the region between 1990 and 2000 – only 5.9 percent.

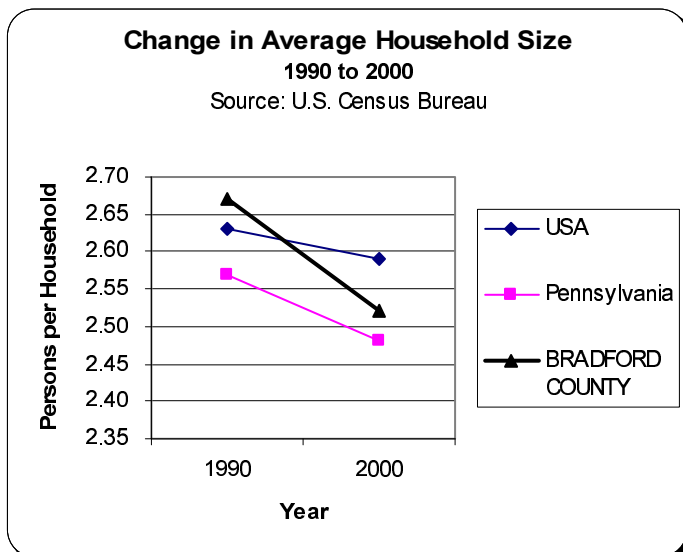


- **Most homes in Bradford County are owner-occupied, though the number of renter-occupied units is increasing.** Over 75 percent of occupied housing units in the County are owner-occupied. This was an increase of only 0.2 percent between 1990 and 2000; at the same time, the number of renter-occupied units increased by 3.9 percent. This may correlate into County residents' ability to afford home ownership.
- **Bradford County's housing vacancy rate has increased, though the number of seasonal residences has declined.** The 2000 Census reported that 9.5 percent of Bradford County's total housing units are classified as vacant, a 2.3 percent increase since 1990. While seasonal housing units previously comprised over 10 percent of the housing stock, this figure has declined to 9.1 percent.
- **Most Bradford County residents live in single-family homes, though a significant percentage of residents live in mobile homes.** According to the 2000 Census, the predominant type of residence in Bradford County is the single-family detached dwelling, which comprised 67.7 percent of the entire housing stock and compares to 55.9 percent at the state level. Bradford County also recorded the largest percentage (19.1 percent) of mobile homes and trailers in the region.
- **The majority of housing units in Bradford County contain five or more rooms – 77.6 percent.** These typically include traditional two-story single-family residential dwellings.

- **Private water supply and sewage disposal systems serve the majority of County residents.** The majority (69.5 percent) of the County's housing stock is serviced by private on-lot septic systems and over 60 percent of residents have private water supply sources (wells).
- **Older homes still outnumber newer ones in the county.** Just over 75 percent of the County's housing units were constructed prior to 1980; more than one third of all housing units were built before 1939.



- **The County's average household size is declining more rapidly than state and national rates.** The average household size has decreased from 2.67 in 1990 to 2.52 in 2000.



- **Housing values in the County typically fall below state and national levels, but are consistent with surrounding counties.** Just over 60 percent of the County's specified owner-occupied housing units fall within the \$50,000 to \$99,999 value range; an additional 18.7 percent had values less than \$50,000.

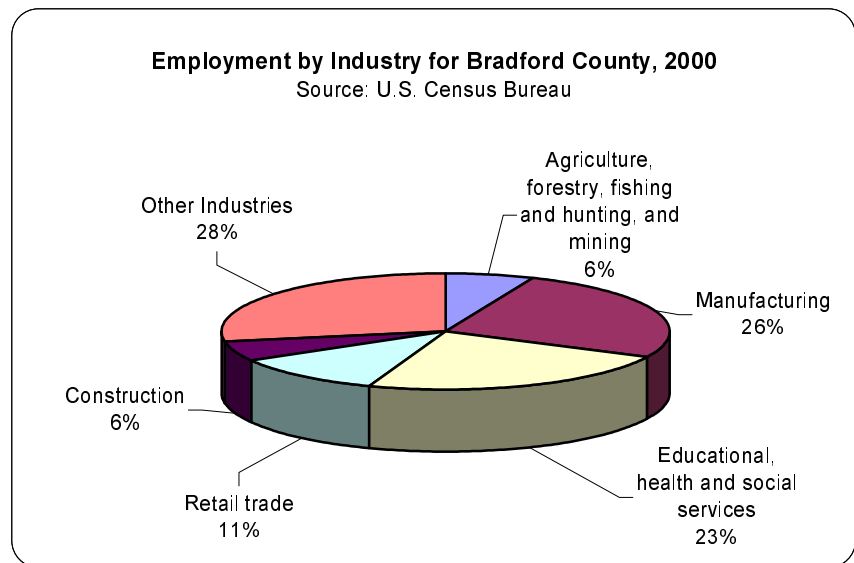


- **Most of the County's housing stock is affordable to most county residents.** Almost 80 percent of the housing stock is under \$100,000, which is affordable for a large portion of county residents based on reported income levels. Rental unit costs are also below state and national averages.

### Economic Conditions and Trends

The inventory and analysis of Bradford County's labor force and economic resources reveals patterns in business structure, employment types, and industry leaders. These characteristics demonstrate strengths and weaknesses in the County's economy, regarding economic diversification and development.

- **Small business prevails in Bradford County.** The majority of County businesses (56.4 percent) are categorized as micro-businesses, consisting of 1-4 employees.
- **Five percent of Bradford County residents work at home,** which is the second highest rate in the state, behind Tioga County. This represents a decline from the rate of 6.75 percent in 1990.
- **The County's labor market appears tight.** Bradford County has one of the lowest unemployment rates in the region (3.8 percent) according to 2000 Census data.



- **Recent labor force growth statistics reflect an aging population.** The total civilian labor force has declined slightly since 1990.

- **Manufacturing and human services employ nearly 50 percent of the work force.** The leading industry types in Bradford County are manufacturing and educational, health, and social services. They employ 26.0 percent and 23.3 percent respectively of the County's work force.
- **Over 60 percent of Bradford County residents are employed in white-collar occupations.** Management, professional and related occupations account for 27.6 percent of these. Almost 26 percent of residents are employed in the production, transportation, and material moving occupations.
- **Tourism and its related service industries are growing in the county.** The history and natural resources of the area attract more and more visitors, and all indications are that this trend will continue.
- **Bradford County is a leader in Pennsylvania agriculture.** The market value of agricultural products sold in 1997 was nearly \$97 million, a value that earned the County an 8<sup>th</sup> place ranking within Pennsylvania. The majority (90 percent) of this value was earned through livestock sales; the remainder of the value (10 percent) was earned through crop sales.
- **The County is competitive at the national level as well, earning a 49<sup>th</sup> rank in county dairy products sales (third in Pennsylvania).**
- While the number of farms in the County has decreased, individual farm acreage has been increasing. (The County's average farm size is approximately 199 acres, according to the County's Agricultural Land Preservation Board.) When compared to Pennsylvania as a whole, the County has a high number of farms with annual gross sales over \$50,000 and a high percentage of farmers who farm as their principal occupation.
- **The Northern Tier Regional Planning and Development Commission provides economic and community development services to business and communities throughout Bradford, Sullivan, Susquehanna, Tioga and Wyoming Counties.**
- **Bradford County receives approximately \$350,000 in CDBG funds each year.** The County pursues Community Development Block Grants (CDBG) through the Office of Community Planning and Grants. The CDBG Coordinator plays a vital role in distributing grant funds, through the Bradford County Commissioners, to municipalities that qualify as low to moderate income municipalities or to projects that meet Community Development Block Grant eligibility criteria.
- **The County's economic development efforts have been consolidated into the Central Bradford Progress Authority (CBPA).** The CBPA is working to enhance the County's business environment.







## Cultural Resources

Cultural resources are those characteristics of a community that make it socially and historically different from other communities. The comprehensive plan reviews cultural resources in order to promote a better understanding and appreciation of the local heritage by decision makers that will improve the County's overall quality of life.

- **Bradford County is home to eight sites listed on the National Register of Historic Places.** An additional 36 sites are eligible for listing. The majority of eligible sites became eligible during the 1990s. Sites range from churches, bridges, railroad stations, and homes to two post offices, a park and a library.
- **The Towanda Historic District is listed on the National Register.** Eligible historic districts include Athens, Canton, Sayre, and Troy. Wyalusing and Athens Borough are both actively exploring historic district designations.
- **There are 38 Pennsylvania Historical Markers located throughout Bradford County.** The markers commemorate significant people and events in County, state and national history. Confrontations with Native Americans, including Sullivan's March in 1779, the establishment and naming of Bradford County, and the rural electrification program are among the markers' topics.
- **Bradford County is known for several historical figures.** David Wilmot, author of the Wilmot Proviso, Stephen Foster, composer of the Tioga Waltz, Philip P. Bliss, singing evangelist and gospel song writer, and Lester Frank Ward, father of American sociology, were Bradford County residents.
- **There is a desire to preserve historic and cultural resources throughout the County.** Since 1998, the Endless Mountains Heritage Region Inc. has funded numerous historic preservation projects in Bradford County. Concerns for historic preservation efforts include designations that could impose excessive financial burdens on property maintenance.
- **French Azilum, a Pennsylvania Historical and Museum Commission (PHMC) property, is perhaps the most well known property of historical significance in Bradford County.** Restoration of the LaPorte House has been in progress. Residents would like to see further development of the site for tourism.
- **Bradford County has an outstanding collection of late 19<sup>th</sup> and early 20<sup>th</sup> century architecture.** This asset can be attractive to tourists, as well as to specific small business operations.
- **There are 35 Century Farms in Bradford County, representing the County's long-standing agricultural history.**

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## Trends and Issues in the Natural Environment

### Natural Resources

Bradford County enjoys a wealth of natural features. Identification and preservation of these resources will help ensure that future development takes place in an environmentally sensitive manner.



- **Natural resources across Bradford County are inventoried by various federal, state, and county agencies, as well as by private organizations.** These groups inventory and assess the abundance, diversity, productivity, and general health of the County's forests, farmlands, waterways and habitat areas. These documents prepared by such agencies as the U.S. Forest Service, USDA, PA Environmental Center, Conservation District, and other organizations provide data and analysis, as well as recommendations for public policy.
- **Protecting groundwater supply and quality is critical.** The natural quality of the groundwater is good to excellent. Current and future water supplies in the County will be dependent upon underground aquifers that are susceptible to pollution from a number of sources.
- **There are approximately 6,000 acres of surface water in Bradford County,** primarily the Susquehanna River and its tributaries. Natural and man-made ponds and lakes are scattered throughout the County.
- **The quality of the surface waters in Bradford County is currently being assessed by PA DEP.** DEP's Surface Waters Assessment Program is conducting a state-wide water quality review, which should be completed in the County during 2004. In addition, numerous local watershed organizations are conducting definitive environmental inventories of the County's main waterways. These inventories include such information as farmland loss, proximity of the streams to endangered buildings, roads, bridges and other facilities, the probability of continued soil/streambank loss, and establishes the most cost effective solutions for corrective action.

**Bradford County  
Watershed Organizations**

- Bentley Creek (Penn York)
- Laning Creek
- Mill Creek
- Satterlee Creek
- Schrader Creek
- Seely Creek
- Sheshequin
- Sugar Creek
- Towanda Creek
- Wyalusing Creek
- Wysox Creek



- **Private activism for water quality is high in the County.** There are eleven local watershed associations working to sustain and improve water quality and stream corridor health across approximately three-quarters of the County. The associations have fostered inter-municipal cooperation for resource inventories and assessments. Together, these groups have tapped grant monies in excess of \$ 3.5 million over the past 5 years to support their initial organization and activities.
- **Soils depth and drainage follow topographic patterns.** Generally, the soils are deep in the lower valleys and shallow on the slopes. The flood plain areas along Sugar and Towanda Creeks, as well as the Susquehanna River, are of great value for agricultural purposes. These flat lands are rich in minerals and are usually well drained, which results in high crop yields. Generally, poorer soils and steeper slopes are utilized for pasturelands. County-wide, approximately 27 percent are moderately deep and well drained, while 68 percent of the soils have drainage problems.
- **Prime agricultural soils and soils of statewide importance are abundant in Bradford County.** According to the Bradford/Sullivan County USGS Soil Survey, Bradford County has approximately 14,800 acres of Class I soils and 59,200 acres of Class II soils, most of which are prime agricultural soils. Class I soils are found in the Susquehanna River Valley and Class II soils are dispersed across the County. There are 348,300 acres of Class III soils in the County.
- **Surface waters across the county have been impacted by soil erosion and deposition.** Soil erosion occurs as a result of exposure to forceful wind and water. It commonly occurs along poorly managed streambanks and on steep slopes. It is of particular concern to farmers as the loss of topsoil on croplands and pasturelands causes reduced soil productivity. Streambank erosion (field loss) is also a threat to farm productivity, and is generally caused by mismanagement, improper sizing and placement of obstructions and riparian issues. Soil erosion results in deposition of sediment in streams, pollution of stream beds and waters (two distinct aquatic habitats), and reduced water quality for all uses. Many creek beds are filled with sediment and flows are minimal until storm events occur.



- **A number of soils are particularly sensitive to disturbance and development.** Under conditions of disturbance and pressure, these soils are unstable and contribute sediment to surface waters. Soils found on steep slopes are particularly sensitive. With the exception of Athens Township, there are no municipalities in Bradford County that regulate development on steep slopes.
- **There are few local ordinances in place that protect the County's natural resources.** Only one watershed, Wysox Creek, has a completed Act 167 Stormwater Management Plan. In addition, there are few local measures to protect prime agricultural soils. The effects of stormwater are considerable, increasing the potential for pollution, streambank erodability, flooding, and its profound influence on watersheds in general.
- **There are three basic types of wildlife habitat in Bradford County, openland, woodland, and wetland.** There are many types of wildlife in the County, including deer, bear, grouse, turkey and fox, among others.
- **Over half of the County's existing land use is forest.** According to the Bradford-Sullivan Forest Landowners' Association, approximately 59 percent (433,000 acres) of the County is forested land. By encouraging sustainable forestry, this resource can continue to be productive for a wide variety of uses.
- **The estimated value of standing timber in the County is in excess of \$287 million.** As a result, this forest plays a significant role in the economic well being and quality of life in the County. This and forestland in surrounding counties support approximately 35 wood products establishments, including significant employers such as Mill's Pride, Craftmaster and Oak Hill Veneer. In addition to those involved directly in the wood manufacturing sector, there are many loggers, foresters and truckers that are employed in the forestry sector - a sector which contributes an additional \$15.3 million to the local economy.

- **Flood hazard mitigation plans have been completed in “the Valley” area that includes Sayre, Athens, and South Waverly.** Approximately 25 percent of the County’s population falls within this plan area. As funding becomes available, more plans will be completed. Currently all municipalities in Bradford County have adopted floodplain ordinances with the exception of Herrick Township. In addition, each municipality participates in the National Flood Insurance Program.
- **Mining in Bradford County takes place in the glacial outwash deposits for materials such as sand and gravel.** Other resources in this area consist of flagstone, bluestone, natural gas, and coal.
- **The abundance and quality of natural resources in the area provides numerous recreational opportunities for both residents and visitors, and demand for nature-based recreation and tourism is increasing.** The Pennsylvania Fish & Boat Commission maintains three access areas along the Susquehanna River in the County – in Sayre, Wysox, and Terrytown. There are also locally owned access points at Riverfront Park in Sayre and Eastside Park in Wysox Township. In addition, the PA Game Commission maintains 35,000 acres open to hunting and recreation while the PA Bureau of Forestry maintains 6,414 acres of State Forest Land open to recreational use in the County. Pisgah State Park and Mt. Pisgah, Sunfish Pond and Hornbrook County Parks also provide recreational areas.



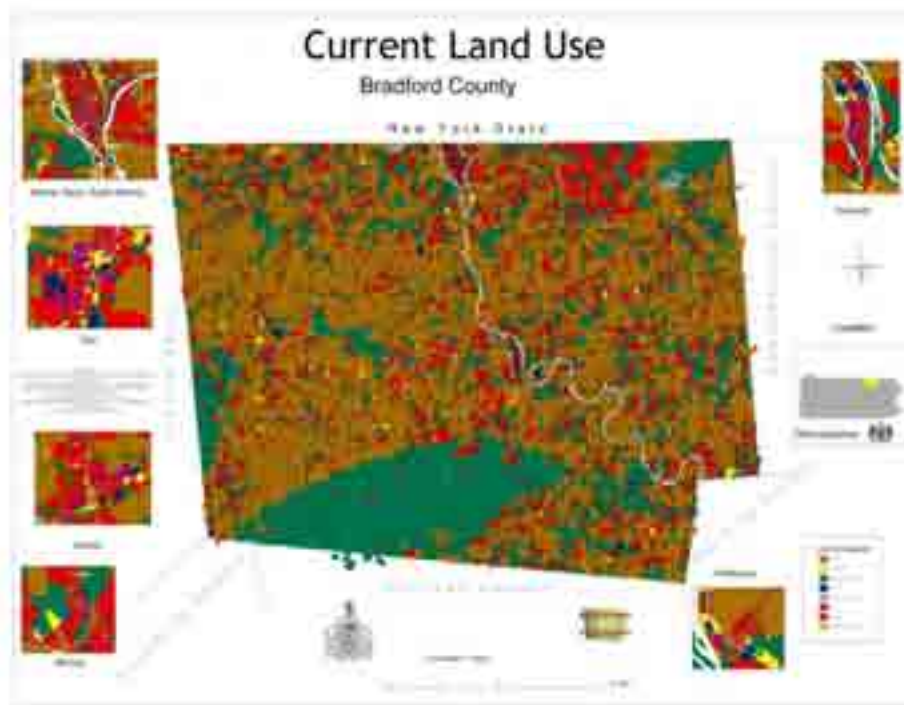
- **There are many scenic natural landscapes throughout Bradford County.** As one of the most scenic highways in the country, Route 6 traverses Bradford County from east to west following parts of the meandering Susquehanna River through high rock cuts and fertile farmland. Route 6 is considered a destination, as well as a travel way, because of all its natural wonders. Other scenic sites include Mt. Pisgah, Wyalusing Rocks, Quicks Bend, French Azilum, Lambs Lookout, Mountain Lake, Alpine Meadows Lakes, Round Top Park, Tioga Point and the Marie Antoinette Overlook.

## Trends and Issues in the Built Environment

### Land Use

A review of historical and recent land use developments allows decision makers to examine land use demands, the effectiveness of existing regulations, and the forces that shape land use patterns, such as natural features and the location of transportation routes. Together, agriculture and forested lands account for 88 percent of land uses in the County.

- **Agricultural cropland and pastures account for 29 percent, or approximately 213,626 acres of Bradford County, according to the Penn State School of Forest Resources.** Agricultural parcels in the eastern portion of the County are smaller on average than those in the western portion of the County, as a result of higher subdivision and development pressure.
- **The Agricultural Security Areas (ASA) and the Clean and Green Programs are heavily used by County landowners.** These programs provide incentives for private land owners to maintain agricultural and forest land. The tax incentives associated with these programs reduce property taxes paid by the land owners and the tax revenues received by the local municipalities. ASA properties are found across the County in all but five townships. The heaviest concentrations of such properties are located in the eastern part of the County. While more people are participating in the Clean and Green Program, resource productivity and management potential is decreasing due in part to parcelization.



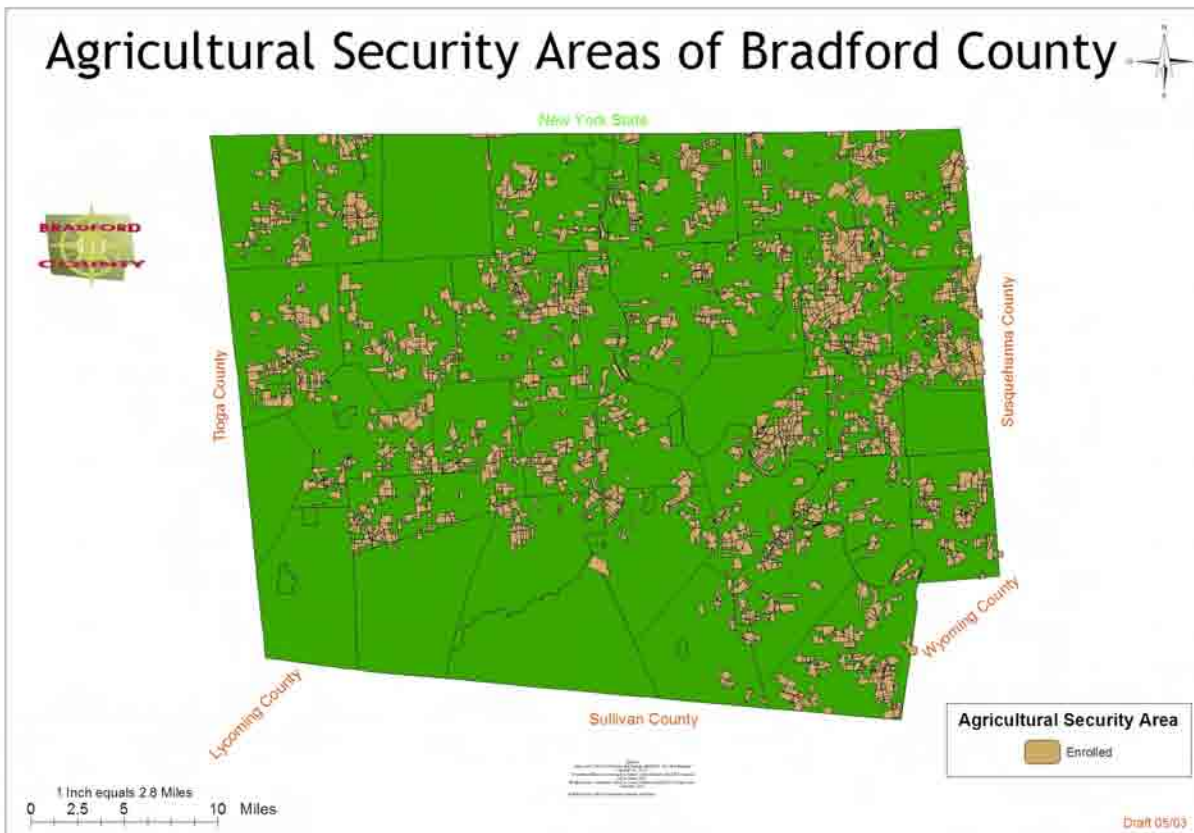
**Bradford County**

**Top Municipal Agricultural Security Areas  
by acreage**

1. Orwell Twp	10,598
2. Albany Twp	9,353
3. LeRoy Twp	8,669
4. Wilmot Twp	8,095
5. Pike Twp	7,416
6. Warren Twp	7,054
7. Smithfield Twp	6,854
8. Athens Twp	6,292
9. Troy Twp	5,929
10. Columbia Twp	5,813
11. Herrick Twp	5,772
12. Springfield Twp	5,441
13. South Creek Twp	5,031
14. Tuscarora Twp	4,805
15. Granville Twp	4,726
16. Standing Stone Twp	4,513
17. Litchfield Twp	4,476
18. Burlington Twp	4,424
19. Terry Twp	4,354
20. Windham Twp	4,203
21. Rome Twp	4,107
22. Wells Twp	3,981

Portions of agricultural lands are reverting to forest and range lands, as noted by the Planning Advisory Committee.

- **Forests, open space, uncultivated fields, and public and private recreation areas occupy over 59 percent of the County's lands.** According to the Penn State School of Forest Resources, 84 percent of the forestland is in private ownership while 13 percent is public land. State Game Lands are found in sixteen different municipalities within the County. Mount Pisgah State Park, owned by PA DCNR, and the County parks also offer public recreation areas.
- **Mineral resource extraction operations cover about 2,392 acres.** Two large tracts represent the vast majority of such uses. One is located along the PA-NY State line west of Sayre, and the other is found in Warren Township and is surrounded on three sides by State Game Lands. Other extraction lands include areas of Stevens Township south of Wyalusing Creek, Tuscarora Township, Wilmot Township and parcels scattered along the Susquehanna River Corridor between Towanda and Wyalusing. Small mining and quarrying is one of the most pervasive conservation issues the County is facing in regards to natural resource management. Many small "mom and pop" quarries and mining operations are emerging - particularly in the eastern part of the County.



- **Mineral resources extraction has significantly increased over the past 25 years**, perhaps as much as tenfold, but accounts for less than one percent of total land area in the County.
- **Bradford County statistically remains a rural county.** Developed uses account for less than 17 percent of Bradford County land. However, development patterns are impacting the rural character, as large tracts, expansive valleys and scenic viewsheds are fragmented by parcels and subdivisions of new development.
- **Developed land uses, particularly residential uses, have significantly increased in recent years.** While population has increased by approximately 4 percent since 1978, residential lands have increased by 14.2 percent, indicating the development of second/vacation homes and the shift from smaller lots to larger lots. There is more development pressure in the eastern portion of the County and along the New York border.
- **Historically, residential uses were concentrated in the County's boroughs and villages**, though homesteads associated with agricultural operations were located throughout rural areas. Today, non-agricultural residences are just as common or more common than agricultural homesteads in rural townships. Other areas of notable residential development include township-borough borders.
- **The highest concentration of commercial properties is found in the boroughs of Athens, Canton, Sayre, Towanda and Troy, and their adjacent Townships.** Additionally, there are a number of larger commercial parcels located along the major transportation corridors of the County. According to the County's data, commercial lands account for less than one percent of the total land area of the County, approximately 5,800 acres.

### Land Use vs. Land Cover

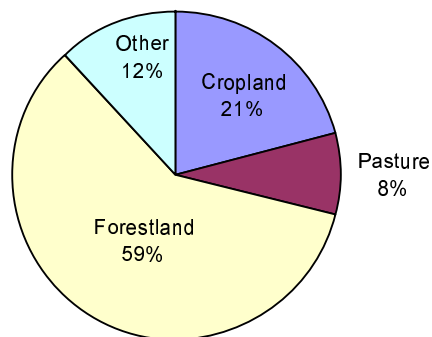
Detailed existing land use information is needed to evaluate potential development areas, conservation opportunities and to monitor existing development changes over time. Applications for detailed land use are many, from stormwater assessments, sewerage assessment, economic growth analysis and watershed assessment to detailed planning/zoning.

Land use / land cover data is intended to be used by municipalities in providing a snapshot in-time for the purpose of providing mapping and acreage calculations for planning. With this method, 'use' categories take precedence over 'cover' categories when determining land code. A golf course for example would be coded as a community facility (commercial) rather than rangeland - mowed grass.

Land cover, however, takes precedence from an environmental/natural resource management point of view.



**Existing Land Cover**  
Bradford County



Source: Penn State School of Forest Resources



- **Industrial uses total over 2,200 acres in Bradford County.** Most are located near the boroughs of Sayre, Troy, Canton, Wyalusing and Towanda. However, several meat packing and wood processing operations are located outside of these communities.
- **Fewer than 2,000 acres are used for transportation facilities (not including the roadway network) and communications and utility rights-of-way within the County.** Notable parcels include the Bradford County Airport south of Towanda, the Towanda-Monroeton Shippers Lifeline shortline railroad, Norfolk Southern Rail properties in Towanda and Sayre, as well as the Tennessee Gas Pipeline and Penelec/Claverack/Tri-County rights-of-way.
- **A significant percentage of the County's open space land (16.2 percent) is owned by state and County entities.** There are almost 45,000 acres of public land within Bradford County (16.2 percent of total land area). They include 35,000 acres of State Game Lands and 6,414 acres of State Forest. The remaining acres are located in Mt. Pisgah State and County Parks. Public land is a significant asset to the County.
- Additional lands for public facilities constitute another 2,770 acres. Public lands include municipal, County and state government properties (not forested), schools, cemeteries and churches. In addition, a few significant public parcels are located outside these urban centers, including the Bradford County Manor, the County Correctional Facility, and the County Library on Route 6.
- Bradford County recently adopted a new Subdivision and Land Development Ordinance.
- Of Bradford County's 51 municipalities, 13 have local zoning ordinances and five have local subdivision and land development ordinances. Most of the local zoning ordinances have not been updated in quite some time. Bradford County regulates subdivision and land development regulations in 46 of the County's 51 municipalities.



## Transportation

The transportation network is critical for a community's development and prosperity. By providing access to residential and business properties, transportation networks and improvements influence future development patterns. A carefully planned and maintained transportation system will help sustain the County's existing quality of life.

The importance of the road network to Bradford County cannot be overstated. While it does not constitute the entire transportation network, it is the backbone around which the other modes interact. In a large, rural county where destinations are far apart, the condition and performance of the roadway network is critical. Nearly 89 percent of County commuters rely on personal automobiles and the road network to get to and from work.

- **Residents' reliance on the personal automobile reflects Bradford County's dependence on the state and local roadway network.** Of the 89 percent of residents who commute to work, 77.5 percent report driving alone, while 11.4 percent carpool. Additionally, nearly 5 percent of Bradford County residents walk to work. Due to the challenges of operating a public transit system in a rural county, the percentage of individuals indicating that they use public transit in their daily commute to work was negligible.
- **Thirty-six percent of roadways in Bradford County are owned by the state.** PENNDOT maintains 902.3 miles of the state transportation network in the County.
- **Dirt and gravel roads continue to play a prominent role in the County's roadway network.** According to Penn State University's Center for Dirt and Gravel Road Studies, Bradford County's 1,300 miles of public dirt and gravel roads is the most of any county in Pennsylvania\*. According to inventories completed by the County Conservation District, over 1,500 sections of these roads are in need of repair and improvement due to their impact on water quality.
- **Maintenance program planning is needed at the local level.** There are 1,592.9 linear miles of local municipal roads in Bradford County. Each municipality maintains its own roads with financial assistance from the PENNDOT Liquid Fuels Program. Maintenance is programmed as needed but lacks long-range planning.
- **Of the 629 bridges in Bradford County, 52 are County-owned.** These are important links in the overall transportation system, even when they carry low traffic volumes.
- **State-owned bridges are in better condition than their counterparts in other counties.** Thirty-four percent of the County's state-owned bridges longer than 20 feet in length are "substandard" (yet still safe), according



\* This total includes municipal and Game land roads, but not private roads and farm lanes.

to the Federal Highway Administration's National Bridge Inventory. This is the eighth-lowest rate in the Commonwealth.



- **The need for bypassing communities and for more direct linkages to major highways continues to be an issue.** Truck traffic through downtown areas poses numerous safety and economic concerns.
- **Aviation facilities at the Bradford County Airport continue to be upgraded.** Recent expansions have included the runway, hangars, and fuel facilities, and more are being planned. Aircraft operations average 50 per day generally comprising of approximately 82 percent local general aviation, approximately 18 percent transient general aviation, and less than one percent military operations. A 700 foot runway extension is needed in order to compete for Federal Aviation Administration (FAA) funds and would provide extra capacity for area industries.
- **Rail infrastructure is available in the northern, central and southeastern portions of the County.** Discussions by the Northern Tier Regional Transportation Advisory Committee have expressed concern for the future use of the Norfolk Southern Rail Line in Bradford and Wyoming Counties.
- Two rail freight lines operate within Bradford County. The Towanda Monroeton Shippers Lifeline is 5.6 miles long and runs from Towanda to a feed mill in Monroe Borough. The Norfolk Southern Railway Co. operates a tactical rail freight line that runs from within New York State to Wyoming County where it connects with the Reading Blue Mountain and Northern Railroad at Mehoopany.
- **The Endless Mountains Transportation Authority (EMTA) provides public transportation in Bradford County.** Ridership on the EMTA has increased by an average of 15 percent annually over the past three years. Much of the increase can be attributed to increased ridership on the agency's Blue Buses, which run on a set schedule between major communities. Additional services provided by EMTA include access to work, shared ride services, and (in Tioga County) the Mansfield Mountie Express.
- **More coordinated efforts are needed between state, county and local governments in establishing bike/pedestrian routes,** particularly for providing connections to downtown areas and recreational facilities.
- **The Northern Tier Bicycle and Pedestrian Transportation Plan identified the following action items for Bradford County:**
  - Development of off-road trail mapping
  - Development of off-road trail systems/greenways trails
  - Shoulder improvements on PA 414 between Canton and Monroeton.



- 
- **During the 1990s, PENNDOT's Transportation Enhancement Program has been actively used in Bradford County, resulting in the following projects:**
    - Endless Mountains/Marie Antoinette Overlook
    - Rehabilitation of 1881 Train Station in Sayre
    - Upper Susquehanna Valley Intermodal Trail System.

## Community Facilities and Services

Community Facilities and Services include the public safety, health care, education, and utilities services that residents and businesses rely on for safe, clean communities in which to live and work.

- **Police services are provided through local governments and the Pennsylvania State Police.** Local services include 11 municipal and one regional police force. The County Sheriff is housed at the Bradford County Courthouse in Towanda.
- **The development of a County Geographic Information System (GIS) has grown in need and usage over the past 10 years.** In 2003, the Bradford County Office of Community Planning & Grants developed a GIS Needs Assessment for the County. Data was collected from primary, secondary and tertiary users of GIS information. The Needs Assessment concluded that users should have web-based linkages to GIS information, edited and housed with the Office of Community Planning and Grants.
- **The County is working to improve response time to 911 calls.** Due to large service areas, duplicative road and street names, and other factors, response times have historically been higher than desired. The County is in the process of completing several projects, including the Enhanced 911 Re-addressing Project, which is aimed at reducing response times.
- **Fire departments continue to provide excellent volunteer service coverage.** There are 25 fire departments in the County with some having multiple stations. Some municipalities have a fire tax to fund this service.
- **Increased volunteer and financial support for EMS units is needed.** The emergency ambulance services are provided by fourteen (14) Emergency Medical Services located throughout the County. Many EMS units lack sufficient volunteers to handle the number of calls received. There is also a lack of modern equipment in many rural stations.
- **The Emergency Management Agency has expressed a shortage of funds for hazardous waste cleanup that is required throughout the County.** Bradford County relies on TEEM Environmental Services Inc., a private consultant located in Old Forge, Pennsylvania, to contain and dispose of hazardous materials, e.g., a chemical truck spill.

The Emergency Management Agency has formed a partnership with local industry under SARA Title III, called the LEPC (Local Emergency Planning Committee) for emergency planning, training and end education for emergency responders.



- The County is served by seven public school districts and seven private educational institutions. Consolidation of district facilities is occurring due to declining enrollments and limited financial resources.
- **There are four institutions of higher education in Bradford County:** Keystone College, Lackawanna College, the Mansfield University/Robert Packer Department of Health Sciences – Nursing Program, and the Penn State Wilkes-Barre Northern Tier Center. Robert Packer is the only County-based institution while the rest are satellite facilities.
- **There are three community hospitals in Bradford County, as well as five local Guthrie clinics.** The hospitals are located in Towanda (Memorial Hospital), Sayre (Robert Packer Hospital), and Troy (Troy Community Hospital). The main Guthrie clinic is located in Sayre, and there are satellite offices located in Athens, Canton, Towanda, Troy, and Wyalusing.
- **Both the number of hospital beds and total admissions are on the decline in Bradford County, similar to other rural Pennsylvania areas.** The number of hospital beds has declined by 29.2 percent, while admissions have fallen by 17.6 percent.
- **Bradford County has nearly twice as many physicians as the average rural Pennsylvania County.** In 1999, Bradford County had 103 active primary care physicians. This number equates to 164.1 physicians per 100,000 residents, which is nearly double the average across rural Pennsylvania (76 per 100,000 residents).
- **Bradford County has nursing home facilities located in both urban and rural settings.** Public and private facilities are located in East Canton, Wells Township, Sayre, Wyalusing and Athens, while the County Manor is located along Route 6 in West Burlington. **There are senior centers located throughout the County.**



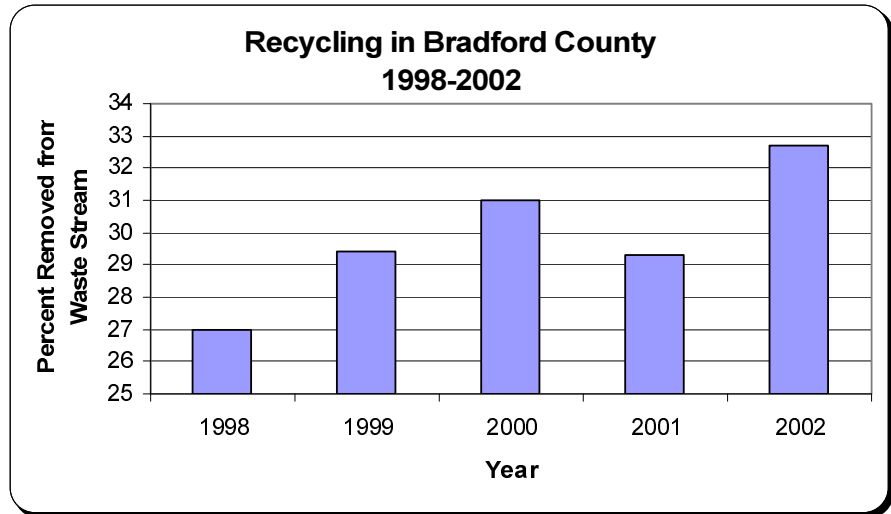
- **The Bradford County Library System is comprised of ten member libraries.** The Bradford County Library system headquarters is located on Route 6 near Burlington. This facility is also the bookmobile and literacy program headquarters. (The bookmobile in fact makes over 30,000 materials available to nearly 4,000 County residents.) The County’s library system plays a substantial role in public education and also supports the County in areas related to tourism and economic development. Approximately 40,000 people pass through library doors each year.
- The County Library on Route 6 is challenged with space requirements which limits its ability to meet the County's future needs. Library staff and volunteers need the financial support of the County and its municipalities to address current library-related needs, as well as the physical requirements to provide a regional literacy program.
- **Public water and sewer facilities are provided in the more densely developed areas of the County and are extended based on demand.** Approximately 35 percent of municipalities within Bradford County are serviced by public water. Presently, public sewer service in Bradford County is provided to local residents by local municipalities at the township and borough levels of government.
- Increased residential and commercial development in Bradford County has increased demand for natural gas, electricity, and telecommunication services and raised service standards levels for service providers.
- Lack of cell phone coverage and reliable service is a problem in the County, even though there are several providers in the area. Cell phones are increasingly used by emergency service providers. Reliable service is a marketable and necessary business feature.
- **Solid waste planning is on-going in Bradford County.** The Northern Tier Solid Waste Authority (NTSWA) updated the Northern Tier Municipal Solid Waste Management Plan for Bradford, Sullivan and Tioga Counties in 2000 as per Act 101 requirements. The 2000 Plan contains information regarding NTSWA’s operations and plans for solid waste collection, recycling and disposal.
- **Bradford County is on target for meeting the 35 percent recycled waste goal by 2003.** In 1998 Bradford County exceeded the previous State goal of 25 percent by recycling approximately 27 percent of its waste stream. This total increased to 29.4 percent in 1999 and 31 percent in 2000.



**Bradford County  
Municipal Water & Sewer Availability**

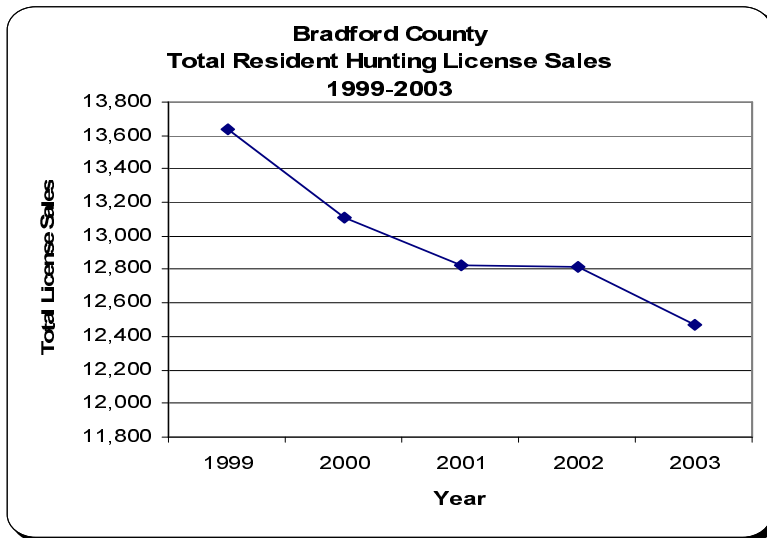
Municipality	Sewer	Water
<i>Athens Borough</i>	Full	Full
<i>Athens Township</i>	Partial	Partial
<i>Canton Borough</i>	Full	Full
<i>Canton Township</i>	Partial	Partial
<i>Herrick Township</i>	Partial	None
<i>LeRaysville Borough</i>	Full	Full
<i>Monroe Borough</i>	Proposed	Full
<i>Monroe Township</i>	Partial	Partial
<i>New Albany Borough</i>	Full	Full
<i>North Towanda Township</i>	Partial	Partial
<i>Ridgebury Township</i>	Partial	None
<i>Sayre Borough</i>	Full	Full
<i>Smithfield Township</i>	Partial	None
<i>South Creek Township</i>	Proposed	None
<i>South Waverly Borough</i>	Full	Full
<i>Towanda Borough</i>	Full	Full
<i>Towanda Township</i>	Partial	Partial
<i>Troy Borough</i>	Full	Full
<i>Troy Township</i>	Partial	None
<i>Ulster Township</i>	None	Partial
<i>Wyalusing Borough</i>	Full	Full
<i>Wyalusing Township</i>	Partial	Partial
<i>Wysox Township</i>	Partial	None

Source: Bradford County Office of Planning & Grants, 2004



- **The NTSWA's Landfill #2 will serve the region for another 20 years.** The landfill is located on an 88-acre tract of land along U.S. Route 6 in West Burlington Township. Permit conditions allow for 46.3 acres of disposal area as a double-lined municipal solid waste landfill. Remaining acreage is for support services and operation.
- **The County's government and public service facilities are primarily located in Towanda.** There are twelve public facilities owned and operated by Bradford County.
  - Athens Township Magistrate's Office
  - Bradford County Courthouse
  - Bradford County Library
  - County Manor
  - County Correctional Facility
  - Court Street Annex
  - Fourth Street Annex
  - North Towanda Annex #1
  - North Towanda Annex #2
  - Sage House
  - South Towanda Annex
  - Wysox Magistrates Office
- **Bradford County lies within the Endless Mountains Heritage Region** and includes some of the most beautiful landscapes in the country. The Endless Mountains Heritage Region is comprised of four counties in northern Pennsylvania: Bradford, Susquehanna, Sullivan, and Wyoming Counties. The Endless Mountains Visitors Bureau is the regional tourism promotion agency for the four counties.
- **Recreation is an integral part of life in Bradford County.** Activities such as hunting, canoeing, fishing, hiking, boating, swimming, snowmobiling, and sightseeing are major attractions for residents and non-residents of this region. Fish and wildlife resources are important assets to the recreational environment in Bradford County. Related services for sportsmen such as equipment sales and rentals, supplies, and lodging provide additional revenue to the local economy.





Source: PA Game Commission

- **Fish and wildlife health have been impacted by natural and man-made conditions.** Major problems that are affecting fish resources in the area include erosion, sedimentation, pollution, low flow, particularly during recent drought periods and heavy fishing pressure. Changes in land use patterns, farming techniques, hunting pressure, and excessive deer population are the major problems affecting game resources.
- **State lands are popular for hunting and fishing.** There are 11 game lands and approximately 48,190 acres owned by the state that permit hunting and fishing. Most of the game lands are found in the southern part of the County.
- **Mt. Pisgah State Park is the only State Park in the County.** The park is comprised of approximately 1,300 acres just north of U.S. Route 6 in the western part of the County. Constructed facilities include a swimming pool, court area, pavilions and a nature center. Stephen Foster Lake provides fishing and boating opportunities. There are also 10 miles of hiking trails (some of which are designated for cross-country skiing), 9 miles of snowmobile trails, and approximately 1,100 acres for hunting.



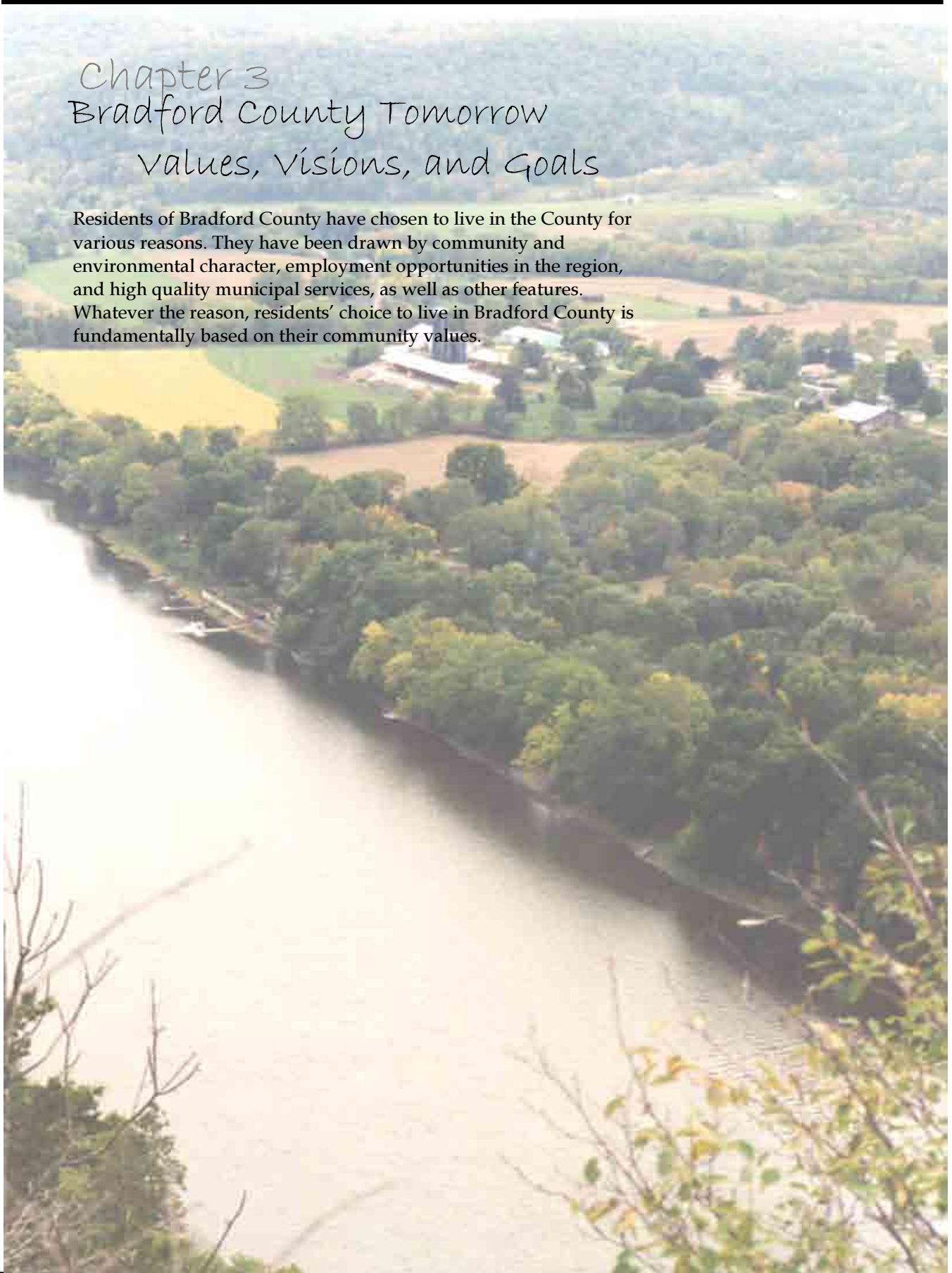


- **Tioga State Forest** covers 6,414 acres in Bradford County (out of an overall total of 160,000 acres in both Bradford and Tioga Counties). Most of the forest in Bradford County is located in Armenia Township, although there are some small sections in Albany, Asylum, Canton and Monroe Townships. The composition of the forest is a result of regeneration after 50 years of timber cutting and occasional fires. The forest has picnic areas and scenic vistas - including Lamb's Lookout. Hiking, biking and groomed snowmobile trails are available in Tioga County.
- **The County's public parks reflect its rural character.** Bradford County owns and maintains three public parks:
  - Hornbrook
  - Mount Pisgah
  - Sunfish Pond
- **Municipal parks and private recreational establishments play a large recreation role in Bradford County.** Municipal parks (such as Roundtop Park) and recreational facilities owned by fire companies provide many of the athletic recreation sites throughout the County. Private recreation opportunities include facilities such as campgrounds, golf courses, horse clubs, hunting clubs, bowling alleys, and youth camps.
- **Demand for recreational facilities is increasing, particularly in natural settings.** This continues to bring more visitors to Bradford County. According to *The Pennsylvania Economic Impact*, visitors to Bradford County spent approximately \$68.9 million in 1999.



## Chapter 3 Bradford County Tomorrow values, visions, and Goals

Residents of Bradford County have chosen to live in the County for various reasons. They have been drawn by community and environmental character, employment opportunities in the region, and high quality municipal services, as well as other features. Whatever the reason, residents' choice to live in Bradford County is fundamentally based on their community values.



Residents of Bradford County were asked to help focus the planning process on the unique issues and assets of the County. From the responses given, central themes for the plan emerged. The intent was that these ideas would be used to develop and refine a County-wide vision, statements of community goals, and objectives, and strategies to address pressing issues and to preserve and enhance existing assets.

Much of this chapter reports on the public involvement components of this planning process. The primary and on-going source of public input was the Planning Advisory Committee (PAC). Participation in the PAC was comprised of individuals appointed by the County Commissioners as well as volunteer members from various county, regional, and local government organizations, as well as local interest groups.

Other public involvement opportunities included regional public meetings, to enhance the discussion of County values and vision, and a project newsletter and project information on the County website to provided project updates and public meeting announcements.



### **County Values**

The PAC began by identifying and prioritizing countywide assets and issues or concerns. Initially a list of over a hundred liked and disliked features of the County were identified. Prioritization narrowed the list to sixteen assets and forty issues. This list, shown on the following pages, was validated at regional public meetings.

### *Regional Values*

In order to encourage public participation in the planning process, public meetings were held in communities around the County. Over 100 residents of Bradford County responded to a request by the County Commissioners for residents to take part in the planning process by sharing their thoughts, ideas and values.

Participants in the first round of regional meetings were presented with the prioritized list of assets and issues and asked if the list represented their regional perspective. Highlights from these regional discussions are provided below. They reflect local perspectives on family and community challenges, municipal government, community planning, employment and economic needs, and resource management, as well as other topics.



---

## **Bradford County Assets**

### Community Character

- Strong Sense of Community / Small town atmosphere
- Good Environment for Raising a Family
- Good work ethic



### Community Development

- Successful public-private partnerships
- Agency support for the elderly
- County receives \$350,000 in CDBG funds annually

### Economic Development

- Quality of industry is high
- Active agriculture
- New businesses
- KOZ sites available
- Available rail infrastructure
- Ongoing improvements at Bradford County Airport



### Housing

- Affordable housing
- Values consistent with surrounding counties
- Available rehabilitation programs



### Community Facilities

- Small, friendly schools
- Available landfill capacity
- Good medical and emergency services
- Enhanced 911 Re-addressing Project
- Four institutions of higher learning
- Twice as many physicians as the average rural Pennsylvania county
- Bradford County Library System assists in economic development and tourism

### Land Use

- Nearly 60 percent forested
- New County subdivision and land development ordinance
- Thirteen municipalities with zoning

### Natural Resources

- Active watershed organizations
- High activism for water quality
- Rural character (forests, open space)
- Beautiful scenery/viewsheds
- Valuable standing timber



### Recreation

- Volunteer driven
- Many state games lands for hunting and fishing

### **Bradford County Issues**

#### Community Character

- Presence of Drug and Alcohol Problems
- Lack of Property Maintenance

#### Community Development

- Difficult to keep up with high tech
- Lack of design standards for newly developing areas
- Sprawl development

#### Economic Development

- Lack of career opportunities and job diversity
- Tax base
- Lack of decent paying jobs (especially youth)

#### Housing

- Substandard housing
- Lack of affordable housing, especially for young people
- “Shotgun development”
- Gaps in housing (old, price)



#### Demographics

- Young people leaving
- Fewer county residents pursue higher education than surrounding areas
- Middle-aged population has increased significantly

#### Community Facilities

- Local government fragmentation
- Inadequate road maintenance
- Lack of continuing & higher education opportunities
- Codes enforcement



#### Land Use

- Lack of land use controls (creates reactive land use)
- Scattered development
- Lack of zoning
- Lack of available land that is good for businesses

#### Natural Resources

- Opportunity for more collaboration between County and public land managers, watershed organizations and related environmental interest organizations

#### Recreation

- Opportunities to incorporate trails/greenways with riparian buffers along stable streams
- Opportunities for greater use of fire-company owned recreational facilities
- Opportunity to use school facilities more

#### Transportation

- Truck traffic in small towns - need to bypass downtown
- Need for US 220 spot improvements
- Lack of transportation options
- Lack of truck climbing lanes



#### Utilities

- Lack of cellular service - discourages businesses
- Lack of infrastructure - discourages businesses
- Lack of renewable energy resources
- Funding constraints to sewer/water extension

#### Healthcare

- Expanding health care facilities
- Affordable and physically accessible



#### History /Culture

- Preservation/Commemoration of historic resources: historic districts, RR depots, century farms, cemeteries, mill sites, etc.

#### “The Valley” and northern region

- Residents feel trapped by limited utility options. Infrastructure is not conducive to big industry; need diversity.
- Unclear on whether infrastructure can direct business development.
- Health insurance is expensive.
- Historic resources are underutilized; local knowledge exists, but is not well-documented.
- Consolidation is hard to talk about (independent spirits) and harder to achieve.
- Resistance to zoning/building permits and the associated costs (tax increases).
- Local discrepancies over zoning districts. How to achieve a balance between rural character and safety of roads.
- North-south routes needed to tie into I-86.
- More soccer fields and trails would be beneficial.
- Limited housing available for those moving in and for seniors.

#### Canton and western region

- Property maintenance, enforcement and personal economics.
- Each community has something to offer tourism; preference for grassroots efforts with local leadership over top-down.
- Canton is dependent on 3 major employers. Otherwise is a bedroom community.



- Family farms and businesses have helped form the community spirit and identity; their loss would be strongly felt.
- Housing – old and mobile homes; costly to build new; lack of return on renovation.
- Keeping young people would keep their money (bigger spenders than other demographic groups).
- Residents are good land stewards but many still take it for granted.

#### **Wyalusing and southeast region**

- Opportunity to capitalize on historic sites and architecture, but it is expensive.
- School system is good.
- Lack of conference facility in the County.
- Agriculture is an important part of the community now and should continue.
- Lack of cultural entertainment.
- Opportunity for more nature-based recreation.
- Concerns over balancing the integrity of historic properties and property rights.

#### **Wysox and central region**

- Rural communities are self-sufficient and independent; community pride and cohesion.
- Growth may negatively impact the rural character with “urban improvements (paving)”.
- Employment opportunities are limited in number and diversity (vertical options). Cottage industry is important.
- Agriculture is strong, though character, structure, and economics are changing.
- Young people are strongly affected by limited employment and housing options.

#### **Community Vision**

With an understanding of how residents view current community life in Bradford County, a vision for an improved community life was developed. Since residents recognize both assets and issues within the County, a vision was built upon these ideas. The vision framed County assets as resources and policies to be preserved and enhanced. It projected issues as items that will be assets to the County in the future. This resulted in a vision statement with many parts that address a variety of aspects of quality of life in Bradford County.

By 2020, Bradford County will be a community where...

...residents feel a strong sense of local community, take pride in their historic architecture and community landscape, and actively participate in promoting a positive family environment.

...potential development, consistent with community values, e.g. conservation of the natural environment, finds sites with superior utilities and complies with sound community planning and development.

...residents find diverse job and career opportunities, including those in agriculture, that provide an adequate living wage.

...housing is sound, affordable, and accessible, meets a decent living standard, and preserves the rural landscape character.

...community facilities, such as modern health care facilities, primary and secondary education, and higher and continuing education opportunities, and social programs, e.g. child and adult care, are affordable and accessible.

...agriculture and forestry remain a sustainable component of the County's economy and scenic landscape.

... historic, cultural, and natural resources are sustainably managed for recreation and tourism and utilized and appreciated by residents and tourists alike.

...large-scale transportation routes provide through travel routes, while smaller state and local roadways support resident travel patterns.

...local governments work together through councils of governments to maintain and improve the local quality of life.



### **Goals**

With an understanding of a more desirable community condition, a list of goals, objectives, and strategies that would enable the County to achieve its vision was prepared. Each item from the vision statements was categorized by its relationship to municipal planning and written as a Goal—a broad directive for enhancement or improvement. Objectives were then written to support each goal, describing various means by which to achieve progress. Finally, strategies detailed specific actions to be taken and were accompanied by relevant tools, partners, and funding resources in the various action plans (see Chapter 4). This categorization and development process involved the Planning Advisory Committee, the County Planning Commission, and the County Commissioners as goals were deemed relevant to the County as a whole.

### **Future Land Use**

- Continue sound land use planning efforts that is consistent with town, village, and countryside settings
- Foster community values
- Assure that land uses do not harm sensitive environmental resources

### **Housing**

- Provide sound, affordable housing that is consistent with town, village, and countryside settings

### **Economic Development**

- Enable employment that provides livable wages and a modern standard of living
- Promote viable agriculture, forestry and natural resource industries while retaining the County's scenic landscape
- Support small business merchants, especially in downtown business districts
- Develop the Susquehanna River corridor and the Route 6 corridor as tourism corridors

### **Transportation**

- Develop, maintain and improve travel routes that interconnect communities and provide access to regional highways and interstates
- Provide transportation alternatives, such as bicycle, pedestrian and transit routes, between communities as well as to natural and cultural assets

- Continue to support the presence and expansion of a multi-modal transportation network

### **Community Facilities and Services**

- Provide modern, affordable, and accessible health care and educational opportunities for all residents
- Support councils of government and other inter-municipal initiatives that coordinate community and educational planning, development, and facilities and services
- Provide for recreational and cultural programming opportunities that encourage social interaction among all age groups and income levels
- Develop the Susquehanna River as a recreation corridor
- Protect the scenic, natural landscape that defines the County's quality of life

### **Public Utilities**

- Upgrade utilities to provide superior service within desired service areas
- Coordinate efforts between local municipalities and service providers to address present gaps in access to utilities and communication systems

### **Natural and Cultural Resources**

- Promote agriculture, forestry and natural resource management practices and use while retaining the scenic landscape as part of the land use heritage
- Support efforts of natural resource agencies and watershed organizations as they address long-term solutions to critical environmental issues
- Establish local regulations to protect environmentally sensitive areas, particularly water resources, from undesirable development practices
- Identify and promote local community values and identity
- Cultivate a County environment that fosters regional interaction
- Support the preservation of historic architecture and architectural styles through both public and private funding



## Chapter 4 Bradford County Changes Planning

For Bradford County to achieve the vision it has defined, a number of policy changes or revisions must occur. These changes are outlined in the following action plans. Each action plan corresponds to specific regional planning activities (e.g., land use, transportation, housing, etc.). These actions plans provide a guided approach for achieving the County's vision identified in Chapter 3. While the action plans address policy changes, the capital improvements program (CIP) outlines the various community development projects that embody the greatest potential for community improvement.

### **Action Plans**

Action Plans answer the question "How can we change what we do today in order to become the community we want to be?" The Action Plans build on the goals and objectives developed earlier in the planning process to identify and recommend policies for decision making and tasks for making change. There are seven Action Plans with accompanying maps that address particular components of community planning. These include:

- A Land Use Action Plan
- A Housing Action Plan
- An Economic Action Plan
- A Transportation Action Plan
- A Community Facilities and Services Action Plan
- A Public Utilities Action Plan
- A Natural and Cultural Resources Action Plan

In these Action Plans, the goals and objectives for each planning category are followed by action strategies for the County and its partners to follow or implement, as well as other resources and references.

## Land Use Plan

The Land Use Plan for Bradford County is comprised of land use policy and the future land use map, and constitutes the most important component of the comprehensive plan. The Land Use Plan emphasizes local planning that expresses and fosters community values and protects resources from harmful development and development impacts through regulatory and incentive programs. The Plan acknowledges that most land use decisions in Bradford County are made at the local level, therefore the County's role is primarily advisory. However, even an advisory role can lead to better decision-making and community development results. Through education targeted to municipal officials, increased coordination with state and federal agency programs, and the County's development plan review process, the County can inform decision makers of precedents and best practices.

## Future Land Use Map

The Future Land Use map has designated four general land use categories:

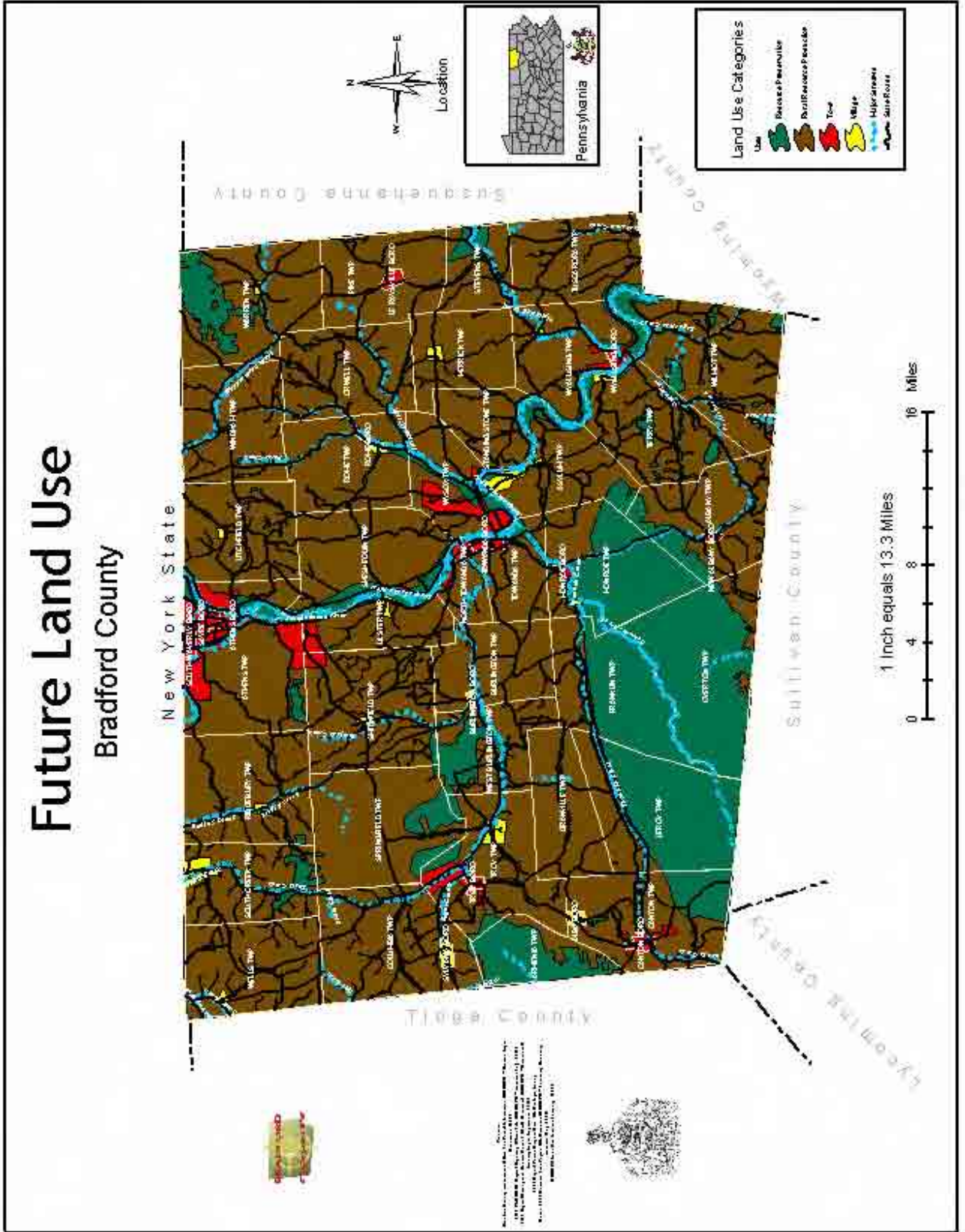
- Town Growth Areas
- Village Growth Areas
- Rural Resource Production Areas
- Resource Preservation Areas.

These four categories will guide future uses to appropriate areas, as authorized by the Pennsylvania Municipalities Planning Code (MPC). Amendments to the MPC approved in 2000 allow for the designation of growth areas, future growth areas, and resource areas in municipal comprehensive plans.

"Designated growth area," a region within a county or counties described in a municipal or multi-municipal plan that preferably includes and surrounds a city, borough or village and within which residential and mixed use development is permitted or planned for at densities of one unit to the acre or more, commercial, industrial and institutional uses are permitted or planned for and public infrastructure services are provided or planned.

"Rural resource area," an area described in a municipal or multi-municipal plan within which rural resource uses including, but not limited to, agricultural, timbering, mining, quarrying and other extractive industries, forest and game lands and recreation and tourism are encouraged and enhanced, development that is compatible with or supportive of such uses is permitted and public infrastructure services are not provided except in villages.

Act 2000-67 (amendment to the PA Municipalities Planning Code)



## Town Growth Area

### Purpose

To accommodate and permit growth and development of intensive land uses (residential, commercial, industrial and institutional) at overall densities of one unit per acre or less and where public infrastructure services (water, sewer, and telecommunications) are provided or planned



### Primary Uses

- Residence or accommodation functions
- General sales or services
- Manufacturing and wholesale trade
- Transportation, communication, information, and utilities
- Arts, entertainment, and recreation
- Education, public admin., health care, and other institutions
- Construction-related businesses

### Secondary Uses

- Agriculture, forestry, fishing and hunting

### Reference Pattern of Development:

- Boroughs of Athens, Canton, Sayre, Towanda, Troy and Wyalusing.

## Village Growth Area

### Purpose

To accommodate and permit growth and development of intensive land uses (residential, commercial, industrial and institutional) at overall densities of one unit per acre or less and where public infrastructure services (water, sewer, and telecommunications) may or may not be provided or planned



### Primary Uses

- Residence or accommodation functions
- General sales or services
- Manufacturing and wholesale trade
- Transportation, communication, information, and utilities
- Arts, entertainment, and recreation
- Education, public admin., health care, and other institution
- Construction-related businesses

### Secondary Uses

- Agriculture, forestry, fishing and hunting

### Reference Pattern of Development:

- New Albany, Monroeton, Ulster, Rome

## Rural Resource Production Area

### Purpose

To encourage natural resource based industries and non-developed uses and to accommodate limited growth and development

### Primary Uses

- Mining and extraction establishments
- Agriculture, forestry, fishing, hunting and recreation

### Secondary Uses

- Residence or accommodation functions

### Reference Pattern of Development:

- The Sugar Creek Valley



## Resource Preservation Area

### Purpose

To protect natural resources from direct and indirect development and disturbance impacts and to accommodate limited, non-intensive growth and development

### Primary Uses

- Agriculture, forestry, fishing, hunting and recreation

### Secondary Uses

- Residence or accommodation functions

### Reference Pattern of Development:

- Susquehanna River corridor



The following Land Use Policy and Action Plan outlines the position Bradford County should maintain for future land development and conservation. The recommendations focus on four areas: planning and regulations, community values, and resource protection;



## LAND USE – PLANNING AND REGULATIONS

**Goal: Continue sound land use planning efforts that are consistent with town, village, and countryside settings**

### Desired Outcomes

- Update or prepare municipal and multi-municipal comprehensive plans
- Update or prepare municipal and multi-municipal zoning and subdivision and land development ordinances based on local settlement patterns and densities
- Make growth and development attractive to areas where previous investment has already been made

**Policy: Support municipal and multi-municipal planning throughout the County.**

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1. Prepare an outline of suggested planning components and tools (e.g., designated growth and resource areas, growth management tools, resource protection recommendations) that would assist municipalities and multi-municipal partners interested in preparing a comprehensive plan and in achieving consistency with the Bradford County comprehensive plan.

This outline could identify key points of consistency for all municipalities or be tailored to the most relevant points of consistency for a given municipality.

This action item is a continuation of efforts the Bradford County Office of Community Planning and Grants has underway. The Office is currently assisting in the preparation of comprehensive plans for several municipalities.

2. Provide an outline and assistance for preparing a local zoning ordinance for those municipalities that choose to do so.
3. Provide model ordinances, ordinance language (districts, overlay districts, definitions), or ordinance topics for municipal and multi-municipal consideration, as they undertake such planning efforts.

The logical follow-up action to this recommendation is to assist municipalities in tailoring the reference to their individual needs.

4. Provide model ordinances, ordinance language, or design guidance manuals to regulate or suggest housing design that is compatible with Bradford County's rural communities.

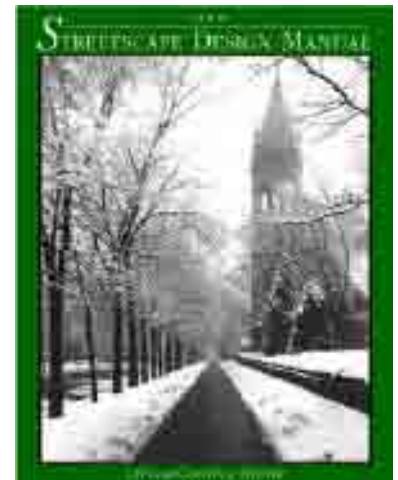
The Municipalities Planning Code gives local jurisdictions the authority to designate where uses can develop and how development of the land can occur, however it does not give authority to specify what development should look like. Without this authority, many municipalities feel restricted when new development contributes little or even detracts from the visual character and functional qualities of the community.

Across the nation, municipalities are applying new tools to guide development to benefit their communities. Illustrated ordinances and design manuals have been used to display the visual aspects of local character in architecture, site design, landscaping, bicycle and pedestrian facilities, and highway and streetscape design. A Design Guidance Manual could be used in Bradford County and its municipalities to present preferred design ideas for architectural styles, patterns, and details, conservation subdivisions, stormwater Best Management Practices (BMPs), and recreational lands. Such guidance could be applied across the County or to specific use corridors or neighborhoods.

While the Manual would not require developers to follow the guidelines, it would provide a visual description of what is most desirable for the community and offer ideas for enhancing submitted development plans.

5. Provide model ordinances or ordinance language for cluster housing, also known as conservation design and open space design subdivision techniques.
6. Utilize simple zoning, where appropriate.

Simple zoning can provide the zoning framework upon which to build or expand zoning districts and provisions, as needed. Simple zoning establishes a few districts (as few as 2, as many as 5 (suggested)) to guide and segregate incompatible or conflicting uses. If and when the municipality determines the need for more specific land use controls, the ordinance can be amended to increase the number of districts, to re-assign permitted, conditional, and special exception uses, or to adjust other provisions.



Streetscape Design Manual, City and County of Denver, CO

Conservation Design for  
Subdivisions  
Randall Arendt



Growing Greener: Conservation by Design: This publication by the Natural Lands Trust and their Senior Conservation Advisor, Randall Arendt, provides guidance for conservation land design standards. Arendt and the Natural Lands Trust have been leaders in Pennsylvania and elsewhere in encouraging local government officials to adopt new conservation design techniques that are effective in preserving open space. Conservation Design is a relatively simple technique for rearranging the density on each development parcel so that only half of the buildable land is consumed by homes and street. The remainder is left as open space for the homeowners and the community to enjoy. The same number of homes can be built in a manner that consumes much less land, allowing the remainder of the land to be protected and added to a network of community green spaces.

The key to implementing conservation design is to develop conservation zoning and conservation subdivision design based upon the models provided by the Natural Lands Trust. Conservation design techniques can be either required or used as optional techniques in various zoning districts. In Bradford County, these techniques should target the limited development in the rural resource production areas but could also be applied in the growth areas.

This approach is not well-suited to agricultural preservation, as many modern agricultural operations are not compatible with residential development. However, as an open space protection method, it can be effective.

7. Develop public understanding of the benefits of zoning to the landowner, to municipal officials, and to the community.

It is important that the local officials, community leaders, and the general public have an understanding of the purpose, benefits, and costs of zoning, as well as the potential results of no zoning, in order for them to make an informed decision on whether or not to develop and adopt local zoning ordinances. News articles and reports, the County website, and presentations to community groups and service organizations, are just a few ways to implement greater public understanding and to spur community discussion on this topic.

8. When preparing or reviewing ordinances, consider their relevance to existing plans or ordinances. Consider consistency with County and/or municipal regulations for each of the following: floodplain ordinance; steep slope zoning; zoning

overlay; scenic view overlay; open space zoning; traditional neighborhood development zoning; greenways; agriculture protection zoning; cluster zoning; planned residential development; riparian buffer; watershed; historic district overlay; and other appropriate categories.

9. Support the planning and implementation of projects by watershed organizations.

Watershed groups should be involved in sound land use planning efforts. In the future they will be key environmental and political promoters of appropriate ordinances, guidance manuals and education efforts. They will also help in the establishment of regional environmental, developmental, recreational and economic priorities.

Watershed organizations are grassroots organizations that cross municipal and county boundaries, and they are evolving into an effective means for implementing environmental education and reform.

**Policy: Coordinate regulations, incentives and service areas to make specific areas attractive for development.**

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1. Coordinate zoning with designated growth areas.

Where zoning is used, this action item results in consistency between the County comprehensive plan and local zoning, and land use policy support for natural resource based industries. Developed uses should be permitted primarily within zoning districts within the growth area, while natural resource based uses should be permitted primarily in districts in the rural resource areas.

2. Encourage higher density development potential through mixed-use, clustered, and Traditional Neighborhood Development and transit-oriented development techniques.
3. Utilize existing incentives to encourage brownfield development.

Brownfields are “properties that have been developed, used, and then abandoned to become vacant lots and empty buildings.”<sup>1</sup> In many cases, brownfields are located within or in proximity to communities, served by utilities and in proximity to potential employees and transportation services. In some cases, brownfields contain disincentives to redevelopment. Nonetheless, these lands have potential for redevelopment that would reduce the need to develop new sites with structures and services. Incentives for brownfield redevelopment could include the County KOZ program that coordinates County, municipal and school district tax incentives. Another incentive is a procedural incentive, a Fast-Track Review Procedure, by county and municipal planning commissions to expedite the plan review process. This could entail additional meetings and would require commitment to timely review and constructive comments.

<sup>1</sup> The Trust for Public Land.  
<http://www.tpl.org>

While most modern residential development in Bradford County occurs through the subdivision of large tracts into smaller multi-acre parcels, this is not the only model for community growth. Smart Growth techniques strive to reduce development of raw land, improve the efficiency of public services and utilities, reduce vehicular transportation demand, and provide transportation alternatives, among other goals. These techniques are most likely to be used in town and village growth areas to expand existing communities. However, even in rural resource areas, Smart Growth techniques could be used to establish new towns or villages, if so desired.



This residential community in Chapel Hill, North Carolina uses small lots, narrow setbacks, and other provisions to create a small town neighborhood setting.

**Policy: Advance the application and capability of providing countywide GIS data, and expand linkage and coordination with public and private sector entities.**

---

1. Establish internal funding to cover GIS operational expenses including staffing.
2. Develop a Strategic Plan for GIS.
3. Establish web-based GIS for citizen and agency access.
4. Seek GIS supportive grants to offset operational expenses.
5. Establish Countywide GIS User Group to prioritize projects and transfer of information.
6. Coordinate a new fly-over of Bradford County and digital format for analysis and distribution.

## DEFINING CLEAR COMMUNITY VALUES

### Goal: Foster community values

#### Desired Outcomes

- Promote community vision concepts and values statements, as defined in the County comprehensive plan or in municipal and multi-municipal planning efforts.
- Promote community values among residents, business owners, developers and visitors.
- Support efforts to enhance a sense of local identity.

#### Policy: Promote and acknowledge community values.

1. Promote the County Comprehensive Plan's vision for desirable growth and community development.
2. Review the Future Land Use and Transportation Map and development strategies with municipal officials, planners, large landowners and developers in a workshop session.
3. Publish the County Comprehensive Plan on the County's website.
4. Support posting of municipal and multi-municipal comprehensive plans on community websites, as well as links to these websites from the County homepage. Alternatively, offer to post these defining policy documents on the County's website.
5. Promote community values through the use of logos and slogans on the County website, lamppost banners, bulletin boards, etc. Market these images and values to new business prospects, land developers, and realtors as a desired continued outcome of community development.
6. Support the preparation of studies and master plans that focus on the physical, functional and aesthetic features of community center and downtowns.
7. Acknowledge milestone achievements of municipal planning efforts, implementation actions and local Main Street programs.
8. Develop a handbook of defining site and architectural features of Bradford County communities. Encourage developers to integrate these features into projects in their respective communities.

## PROTECTING NATURAL RESOURCES

**Goal: Assure that land uses do not harm sensitive environmental resources desirable and serviceable**

### Desired Outcomes

- Identify priority resources.
- Implement land use controls to guide uses toward suitable sites and away from sensitive resources.
- Encourage stewardship of forest land for recreation, timber production, wildlife habitat, and water quality protection.

**Policy: Coordinate land use planning with resource knowledge and management.**

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1. Develop a county-wide water resources plan to protect surface and groundwater resources.

Example Project: Lower Susquehanna Water Resources Study in progress under the US Army Corps of Engineers (<http://www.srbc.net/lscwr.htm>)  
Project Partners: PA Rural Water Association

2. Expand data collection and analysis of farm productivity in order to identify the most productive regions for better land use and resource protection decision-making.
3. Provide protection of priority scenic areas through zoning regulations and easement incentives.

Begin this action item with general education on property easements. Provide educational links to environmental agencies and organizations that work to protect scenic resources from the County website. Provide information and links to resources for forest stewardship programs.

Relate scenic quality to forest cover and the need to manage and conserve forest lands. Provide information or links to resources for forest conservation programs, such as the Forest Legacy Program, and the PA Clean and Green's Forest Reserve Program.

4. Look to other Counties for model ordinances and incentive programs:
  - Chester County Agricultural Preservation Council
  - Manheim Township, Lancaster County



5. Provide model ordinances, model overlay districts, or ordinance topics for municipal and multi-municipal consideration, regarding sensitive natural and scenic resources. Provide assistance in tailoring model policy and text to meet local needs and achieve local support.
6. Provide additional information on land trusts.

With this comprehensive plan's emphasis on land conservation and natural resource productivity, private investment will need to be one of several components. The County should provide links to environmental conservation organizations on its website and facilitate the meeting of interested landowners and land trust representatives to achieve the land use and resource management goals of this plan.

7. Lay the foundation for a future countywide Transfer of Development Rights program.

Such a program may be quite appropriate in the immediate future, in tandem with the recent establishment of the Agricultural Land Preservation Program.

Public education will indeed be necessary to implement a TDR program in Bradford County. Begin this action item with public education on property rights. Build understanding toward the sale and purchase of rights as a component of the real estate



market. Incorporate the application of a TDR program to both agricultural preservation and broader community resource interests, e.g., open space, woodlands, historic resources, etc. as one method for conservation.

Engage conservation-minded public and private partners who are eligible to receive or purchase development rights.

8. Utilize innovative land use practices, individually and in concert, such as riparian buffers, open space and cluster development patterns, infrastructure service limits, conservation easements, land acquisition, tax incentives and designated growth areas that help sustain natural resources.
9. Continue to promote integrated solid waste management techniques including "Pay as You-Throw" refuse collection programs. Programs should encourage waste reuse, recycling and reduction, which in turn conserve regional natural resources, energy, landfill space and pollution from wastes (i.e. illegal dumping and littering). The County should continue to seek and implement innovative waste recovery and recycling operations through the solid waste authority, which will better protect the County's land, air and water resources.

Example project: Schuylkill River Greenway  
[www.schuylkillrivergreenway.org](http://www.schuylkillrivergreenway.org)

## Housing Plan

The Housing Plan for Bradford County emphasizes the construction and maintenance of sound, affordable housing, the rehabilitation of aging structures, and the development of new housing patterns that are compatible with the County's "town and country" character. Recommendations address the collection and analysis of housing data to identify trends and regulations and incentives for housing maintenance and revitalization.

**Goal: Provide sound, affordable housing that is consistent with town, village, and countryside settings**

### Desired Outcomes

- Assess the trends of housing quality.
- Encourage sound housing maintenance through the adoption of code enforcement.
- Encourage enforcement of quality construction standards.
- Identify and work to remove barriers to housing revitalization.
- Provide desired design guidelines for new development in town and village settings
- Develop/revise cluster housing provision in ordinances
- Encourage proper disposal of construction and demolition wastes including special handling waste such as asbestos.
- Encourage the use of "green" building materials that are energy efficient and/or made from recycled materials.

**Policy: Expand and analyze housing data to identify county, municipal and regional trends of housing type, condition, and improvements.**

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1. Conduct an inventory of housing stock in the County utilizing County Assessment information.

Collect or verify data on housing class/type, age, condition, utilities (public or on-lot), improvements (type, date), and value.

Analyze data for trends in general or neighborhood decline or reinvestment. Where housing stock decline is identified, special investment should be directed to address the trends. Continue ongoing or periodic data collection and analysis to assure that housing stock is meeting demand.

2. Develop a strategy to update and track changes in the local housing market and housing stock.

Improve tracking of building permits - both residential and non-residential. - as indicators of regional and local economic growth. Coordinate tracking with housing inventory, if available.

Expand tracking of housing rehabilitation to include the cost of the improvement, and the value added to the home to determine if housing rehabilitation is significantly adding value to the housing stock.

3. Continue to promote Housing Rehabilitation Assistance to low to moderate income homeowners through such state and federal programs as HOME, the Brownfield Housing Initiative, TANF and CDBG funds. Financial assistance is capped at a maximum of \$12,000.00 for homeowners and is used to bring these homes up to HUD standards. The waiting list for receiving these grant funds exceeds 200 homeowners.

Locally, the County Commissioners have promoted an emergency home repair initiative for low to moderate income homeowners under the Housing Trust Fund, otherwise known as Act 137. Since March of 2002, funds for this program have been derived from a \$13.00 surcharge on recorded deeds and mortgages.

4. Encourage municipalities to enforce the Uniform Construction Code and document their enforcement efforts. Encourage cooperative enforcement, where possible.

The County should work with municipalities and the Eastern and Western Councils of Government to develop a standard system of regional code enforcement through COG and monitor collection of enforcement data.

5. Promote technical education programs that focus on local housing revitalization.
6. Continue to explore the feasibility of the Pennsylvania House concept.



The Pennsylvania House would be a house constructed of materials grown and processed or manufactured in Pennsylvania. The concept supports state construction-related businesses and could reduce transportation costs in materials. Furthermore, the idea could be marketed as a brand-name product.

## Economic Plan

The Economic Plan for Bradford County focuses on the promotion, expansion and diversification of existing business and industry - including cottage industries and the natural resource sectors of agriculture and forestry - in order to provide livable wages, to retain young people, and to maintain viable downtown business districts and the rural landscape. The Plan also includes recommendations for tourism development.

### ADDRESSING BUSINESS CHALLENGES

**Goal: Enable employment that provides livable wages and a modern standard of living**

#### Desired Outcomes

- Promote the value of existing County businesses.
- Work with existing businesses to identify their needs for sustained or expanded business in the County.
- Identify gaps in local business services (Where are County residents/businesses purchasing goods and services outside of the County?). Assist local businesses in diversifying services to fill gaps.
- Match career interests of Bradford County's young people with business expansion and new business development.
- Support employment training opportunities, i.e. internships, technical certificate programs, associates degree programs, for existing county employment opportunities.
- Promote and expand small business products and services, particularly in-house businesses.
- Coordinate more effective county-wide economic development with relation to planning.

**Policy: Promote business community discussion and networking to address business challenges.**

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1. Interconnect the County's chambers of commerce (newsletters, websites, etc.)
2. Continue working with the Central Bradford Progress Authority as the voice for economic development matters countywide.

The Central Bradford Progress Authority should focus on manufacturing expansion and investment, tax base expansion and job development. The CBPA should work directly with existing industry to assure a healthy future for the county's major employers.

The priorities for industrial development in the county should be the retention of existing industrial employment and the encouragement of value-added industries based around natural resources such as hardwoods and agriculture. Additionally, the county and specific sites should be marketed for development.

The CBPA should promote smart, sustainable growth through the utilization of planning and zoning in Bradford County and its municipalities. Job creation efforts should be centered on the goal of creating positions that will provide family-sustaining wages. To support current and future business development, the CBPA should facilitate all forms of infrastructure: sewer, water, gas, electric, transportation and communication.

The CBPA should strive to expand on business development initiatives and financing in direct coordination with the Northern Tier Regional Planning & Development Commission, state and federal agencies and programs. Specifically, the expansion of successful programs such as the Enterprise Zone and Keystone Opportunity Zone Programs should be explored in Bradford County.

In an effort to retain the county's young people, the CBPA should continue to coordinate its Youth Leadership Program for local high school students.

The CBPA should work closely with the Countywide Economic Development Advisory Board. The CBPA should also seek to expand countywide outreach technical assistance by working with existing local grassroots economic development groups such as Western Bradford Development Corporation, Valley Economic Development Association and Wyalusing Industrial Development Corporation.

3. Host an annual conference on growing Bradford County business and industry. Program opportunities/activities for local businesspersons to speak to each other and to the County about challenges and needs for sustaining or expanding their businesses.
4. Identify employment opportunities for which training is not currently available or does not completely prepare the trainee. Work with businesses and educational institutions to develop appropriate training programs.
5. Encourage guidance offices to track career and geographical interests of young people. Market these skills to potential new business.

## MARKETING BRADFORD COUNTY'S NATURAL RESOURCE INDUSTRIES

**Goal: Promote viable agriculture, forestry and natural resource industries while retaining the County's scenic landscape**

### Desired Outcomes

- Explore the possibility of a Bradford County or Northern Tier Office of Rural Economic Development that would focus on promoting and sustaining industries related to rural resources and landscape patterns.
- Promote Bradford County as an area supportive of agriculture and forestry.
- Promote forestry and agriculture as complementary uses and revenue sources.
- Support flexibility - adjusting product to serve market demand (e.g., produce, organic produce, specialty livestock, floriculture, silviculture, viticulture).
- Promote innovation in farm ownership and management.
- Cultivate future farmers and foresters.
- Promote effective agricultural and forest land preservation.

**Policy: Support and market Bradford County as a County focused on natural resource-based industries to meet the needs of mid-Atlantic residents, as well as national and international markets.**

1. Explore the success and techniques of Offices (or positions) of Rural Economic Development.
2. Market the County's natural resource production to broader product industries:
  - Dairy production to dairy products industries
  - Assist forest product industries.

Use the knowledge and resources of partners (such as the Northern Tier Hardwood Association) to aid in marketing. Provide a tour of the County's natural resource production areas, and its policies that support their viability to potential farmers and forest landowners.

The production of agricultural and forest products begins on the land. The processing and refining of materials into finished products provides opportunities for economic diversification. A recent article in Time Magazine described "the first major



establishment...devoted to the art of affinage or aging of fine cheeses. In addition to the LeRaysville cheese factory, there may be further opportunities to target a portion of the County's dairy production to the development of fine cheeses (to accompany Bradford County wines perhaps). Cheeses represent only one of many dairy-based industries that could utilize a readily available milk supply to develop specialty cream, ice cream, butter, etc. production operations.

3. Facilitate cooperative farming efforts among individual farmers and between farmers and partners to maintain safe, efficient operations.

Pest management is essential to efficient, high-quality crop and livestock production. While many techniques are utilized by individual farmers, broader, regional management is needed to prevent product damage and loss. The County should continue to support its partners in county-wide pest management efforts.

The growth of the animal production industry (poultry, hogs, etc.) has resulted in the substantial increase in animal manure and resident concern for environmental quality. In order to address both of these concerns, the County and its partners should develop a comprehensive strategy to foster effective nutrient management throughout the County. Grants from the various state and federal agencies could be used to perform this study.



4. Assist in identification and marketing of specialty/niche markets for agricultural and forest products.

Develop farmer's markets in the community centers of Bradford County.

The Loudoun County 200,000 Acre Solution explored the development potential for expanding and diversifying the rural economy. The report analyzed the sales, local availability, and potential for missed sales (without local rural development) for Christmas trees, grape production for the wine industry, nursery stock for residential and commercial development, and locally-grown fruit and vegetable production for direct sales and large retailers. The report also noted the growing biotechnology industry, specifically the natural medicine market. This report, specifically, its analysis, could serve as a model for developing a rural economy assessment and strategy for Bradford County.

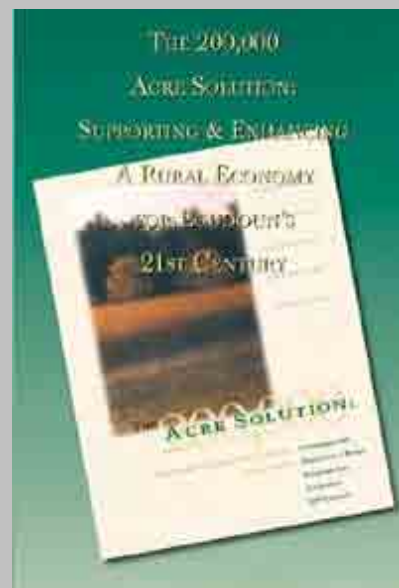
5. Identify key persons/organizations who can assist in business start-up (research, business planning, marketing, etc.) in the

areas of natural resource production, for both large scale and niche markets, and can assist in finding capital for start-up of such businesses.

Information on resource production still travels by paper and word of mouth, but increasingly farmers and forest land owners are surfing the internet for information on sustaining and growing their operations. The County, along with its partners, should develop marketing information for resource-based economic development on the County's website. Lewis County, NY has developed such a site to invite relocating and future farmers to "come farm" in Lewis County. The website provides supporting information on the County's policies and efforts to sustain the agricultural industry as a major component of the County's economy. Website: [www.lcida.org/ComeFarm.html](http://www.lcida.org/ComeFarm.html)

"Loudoun County's Comprehensive Plans long have encouraged the maintenance of a rural economy, concentrating on traditional agricultural pursuits, and consistently have stated as a goal the maintenance of Western Loudoun as a largely rural area.... As a first order of business, the Task Force adopted as its goal the development of a plan to, at a minimum, double the value of Loudoun's rural economy in a decade. [The intent is to secure] the rural economy as an important component of Loudoun's overall economic profile and assured its continuation."

[http://www.rural-loudoun.state.va.us/rural\\_development.htm](http://www.rural-loudoun.state.va.us/rural_development.htm)



6. Help to expand and diversify the agricultural (dairy) and forest industries by supporting the marketing of preserved agricultural/forest land for agricultural/forest expansion, locating funding for agricultural expansion, and aiding in grant writing and submission. Matters related to agriculture and forestry will be included in a forthcoming countywide economic development plan.

In our current economy, many aging farmers see the investment of their land as funding retirement, rather than investment in the agricultural industry. Assist retiring farmers in selling farmland to future farmers, rather than selling land for development purposes.

7. Preserve productive farmland for continued agricultural production and manage forestland for continued production of multiple benefits, including timber.

Encourage participation in farmland and forest management programs available from the County, state and private sources.



- Bradford County Agricultural Land Preservation Program
- PA Agricultural Security Program
- PA Clean and Green - Forest Reserve program
- USDA Conservation Reserve Program and Conservation Enhancement Reserve Program (CREP)
- Forest Legacy Program

The commitment to agricultural land preservation in Bradford County is evidenced by a \$600,000 investment in the County's Agricultural Land Preservation Program over the past two years. This financial commitment has resulted in the permanent protection of hundreds of acres of farmland. This effort is directly connected to Agricultural Security areas and other initiatives.



Several of the state's land conservation programs have not been effective in preserving large tracts of land for natural resource production due, in part, to the minimum parcel size of ten acres, which emphasizes small tracts. In support of effective land preservation for resource-based industries, the County and its partners should encourage the Pennsylvania Legislature to increase the minimum parcel size for Agricultural Security Areas/Clean and Green Programs and the productivity standards.

8. Educate local farmers, future farmers, farmland neighbors about the value of the agricultural and forest industries sector.

Use available resources from partners to provide educational dialogue and materials.

Encourage Forest Stewardship and Management Planning through the Pennsylvania Bureau of Forestry, the Penn State Cooperative Extension, local forest land owner associations and independent consulting foresters.

Develop and distribute a primer on living in a rural agricultural community that outlines common agricultural activities and their impacts on adjacent lands.

Encourage the incorporation of the economic component of natural resource industries into high school economics courses.

Educate young people on the value and opportunities of farming and forestry. Promote agricultural and forest education programs such as Ag In The Classroom, Project Learning Tree, 4-H Resources Material, and Sustaining Penn's Woods.

Encourage the rural agricultural community to develop a statement/ clause for inclusion in real estate sales agreements and/ or annual resident mailings.

9. Increase public knowledge of the natural resource production in Bradford County, as well as its associated benefits (revenues, open space) and regulations.
10. Protect productive farmland from incompatible, adjacent land uses or activities that will adversely affect the long-term viability and investment in land and improvements.

Explore the economic costs and benefits of agriculture versus residential development. Educate municipal officials on whether residential development results in a net cost or benefit for each municipality.

Local land use controls should restrict residential and commercial development to areas least suitable for agricultural uses and away from parcels in resource production areas, in order to preserve productive soils for agricultural uses, namely crop production.

Discourage isolated commercial and industrial parcel development in resource production areas that fragments large tracts of productive farmland and forest.

11. Promote "waste exchanges" that consider the waste from one source as a raw material for another end-user.

The Penn State Department of Agricultural Economics and Rural Sociology has developed a workbook for local officials to help evaluate the estimated costs and revenues of a proposed residential development. The workbook is available in PDF and on-line formats at <http://cax.aers.psu.edu/residentialimpact/default.htm>.

## MAINTAINING VIABLE DOWNTOWN BUSINESS DISTRICTS

**Goal: Support small business merchants, especially in downtown business districts**

### Desired Outcomes

- Assist merchants in identifying and pursuing niche markets
- Assist merchants in exploring the feasibility of cooperative buying.
- Promote the downtown business districts.

**Policy: Assist the merchant community in developing, maintaining and marketing viable sales and service operations.**

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1. Task economic developers or chambers of commerce with researching the retail and service purchase patterns of Bradford County residents and businesses. Promote the gaps in local retail sales and services to existing business owners and business entrepreneurs.
2. Connect merchants with business advisory services. (See economic development.)
3. Facilitate discussion of regional cooperative purchasing of products and services (advertising) by small business merchants.

Many small business merchants find it difficult to compete with big box retailers, who have a significant advantage in quantity purchase power. It may be possible to organize a cooperative of smaller merchants to achieve similar purchase power.

For example, many downtown shoe stores cannot afford the minimum purchase order for brand name footwear, such as Birkenstocks, so they opt not to carry this line. Under a cooperative agreement, three to five regional shoe stores would agree to split to the minimum order, so that each is able to carry the Birkenstock line locally.

The same idea can be applied to the purchase of regional advertising and other merchant services.

This idea is a concept. No proven examples for collective purchase of national brands are cited here. However, for

communities interested in retaining local retail services, this may be an option.

4. Work with the County's economic development manager in creating and maintaining a database of available storefronts for small businesses. Include the location, size, and zoning of the site, at a minimum. Publish the database on the County internet site.

Keystone Enterprise and Opportunity Zones are marketed on the internet. Similarly, small business opportunity sites can be marketed to local and regional web-surfers.

## PLANNING AND PROMOTING TOURISM

**Goal: Develop the Susquehanna River corridor and the Route 6 corridor as tourism corridors**

### Desired Outcomes

- Provide land use controls that protect the scenic qualities of these corridors.
- Promote the River corridor for tourism.

**Policy: Promote managed development of recreation and tourism amenities along the Route 6 and Susquehanna River corridors.**

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1. Review existing corridor assessments. Evaluate recommendations and implement, as appropriate and consistent with the comprehensive plan's goals and objectives.
2. Develop and pursue specific tourism themes for the River corridor. Promote through the Endless Mountains Visitors Bureau, County website and other means to specific target audiences.
3. Utilize local zoning, potentially with overlay districts, to manage land use development along the Route 6 and River corridors.

## Transportation Plan

The Transportation Plan for Bradford County reflects the County's reliance on the roadway network for both personal and business travel. It also supports the expansion of pedestrian and bicycle routes within and between communities. In support of the Economic Plan, the Transportation Plan includes recommendations for enhancing rail and air facilities proactively and as future opportunities arise.

### MAINTAINING AND ENHANCING THE ROADWAY AND BRIDGE NETWORK

**Goal: Develop, maintain and improve travel routes that interconnect communities and provide access to regional highways and interstates**

#### Desired Outcomes:

- Work cooperatively with Northern Tier Regional Planning & Development Commission (NTRPDC) and PENNDOT to evaluate and program state and local roadway improvements, prioritizing critical road and bridge projects on the Twelve Year Program.
- Coordinate transportation and land use planning to fully analyze impacts and opportunities of transportation improvements.
- Advocate for state transportation funding in Bradford County.
- Promote inter-municipal cooperation for road and bridge maintenance and related equipment.

**Policy: Coordinate state, regional, County and local efforts and funding streams for efficient transportation system improvements.**

1. Provide testimony to present before the State Transportation Commission hearings on a biennial basis on needed capital projects within the county.

NTRPDC serves as PENNDOT's planning partner for Bradford County and the Northern Tier region. Copies of the most up to date testimony guidance are available there, as well as on PENNDOT's website and in the PENNDOT Public Involvement Program & Procedures Manual (July 1997).

2. NTRPDC recently adopted a Long Range Transportation Plan which includes 7 priority corridors in Bradford County. The County should work toward the goals established by NTRPDC for the region's major highway corridors: US Routes 6 and 220, PA Routes 14, 187, 328, 414, and 706.



3. Identify rural state roads that could be turned-back to the local municipalities for on-going maintenance.

Educate local officials on the benefits of the turn back program.

PENNDOT's Local Technical Assistance Program (LTAP) is the mechanism for seeking a turn-back arrangement.

4. Use of fuel tax revenues to jointly purchase road maintenance equipment and materials.

PENNDOT's Agility Program can supplement this process. Springfield Township in Bradford County as a model should be considered, and Councils of Government may assist in coordinating purchases.

5. Explore the creation of a County program to provide local matching monies for road and bridge improvements. Federal Critical Bridge funds are not eligible to be used on local bridges less than 20 feet in length. This has been a significant burden for local municipalities to handle in addressing their bridge needs. Municipalities also commonly need assistance in working through the local bridge delivery process with PENNDOT, including issues related to environmental and right-of-way clearance, consultant agreement and others.



6. Encourage the establishment of a regional position for contract administration of local bridge projects. This strategy is also a policy of NTRPDC and is something the region is striving for.
7. Encourage municipalities to include access management practices in their subdivision and land development policies.

## PROVIDING PEDESTRIAN, BICYCLE AND TRANSIT ROUTES

**Goal: Provide transportation alternatives between communities as well as to natural and cultural assets**

### Desired Outcomes:

- Promote safe pedestrian and bicycle travel that interconnects neighborhoods, community facilities and services. Encourage construction and maintenance of bicycle trails and routes, sidewalks, hiking trails and street-crossing facilities that connect downtowns
- Investigate opportunities to interconnect modes of transportation.
- Support public transportation services, particularly shared ride service to meet the needs of a growing elderly population.
- Facilitate development of multi-modal routes and trails along scenic corridors.

Policy: Assist in implementation of strategic plans to achieve regional goals for multi-modal transportation.

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1. The Endless Mountains Transportation Authority (EMTA) is the fastest-growing provider of its class in the Commonwealth of Pennsylvania. Continue financial assistance to EMTA as it maintains its fixed assets and acquires new equipment as it seeks to increase its overall ridership by 10% over the next 5 years. The County's aging population also dictates that an emphasis be placed on alternative forms of transportation for the County's elderly who live in rural areas away from needed medical care and services.

#### References:

- EMTA Master Plan

2. Implement the strategies outlined in the Northern Tier's Bicycle/Pedestrian Plan for Bradford County. Its three main goals are 1) development of off-road trail mapping, 2) development of off-road trail systems, 3) shoulder improvements along Route 414 from Canton to Monroeton.

#### References:

- Improving Conditions for Bicycling & Walking: A Best Practices Report (FHA) January 1998
- NTRPDC Bicycle/Pedestrian Plan
- PENNDOT's Bicycle and Pedestrian Master Plan (1996)



- Pennsylvania Bicycle Driver's Manual, A Citizen's Guide to Transportation Decision-making (FHA)
- Watershed organizations

Existing bicycle and pedestrian facilities need to be interconnected with one another as well as with other modes in order to provide for a "seamless" transportation system.

References:

- NTRPDC Long Range Transportation Plan
3. Explore the possibility of bus, mini-bus, and trolley or taxi service between community centers or events. Coordinate transit schedule with event schedules.

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ENHANCING FREIGHT TRANSPORTATION AND BUSINESS  
TRAVEL

**Goal: Continue to support the presence and expansion of a multi-modal transportation network**

Desired Outcomes:

- Promote policies that benefit rail freight carriers and the local businesses that are dependent on rail freight modes.
- Monitor rail use for conditions that would permit occasional passenger rail service.
- Work with federal, state and regional agencies in securing funding and developing capital improvement strategies to promote business, passenger and freight use of the Bradford County Airport. Investigate interconnections to other modes of transportation.

Policy: Pursue policies, acquisition, and funding in support of multi-modal and inter-modal transportation.

1. Maintain (or prioritize the re-establishment of) existing rail lines for freight and passenger movement. The County should coordinate with NTRPDC in monitoring the status of Norfolk Southern's (NS) line between Athens and Mehoopany. Current trends on the line have not been encouraging and policy should be in place as to what should happen to the line (land bank for a rail trail, passenger excursion use, etc.) should NS decide to abandon or downgrade it.

Partners:

- Regional counties, rail-use industries

2. Continue to monitor the status of Norfolk Southern's line between Athens and Mehoopany for potential downgrading or abandonment, which could open the rail to some passenger use.

Continue discussions with the Northern Tier Rural Transportation Advisory Committee about opportunities for light rail passenger use of the Norfolk Southern Rail Line.

3. Promote policies that benefit rail freight carriers and the local businesses that are dependent on rail freight modes. Several County businesses rely exclusively on rail freight modes of shipping and would not be competitive without the rail option.

NTRPDC staff has leadership on the Commonwealth's Rail Freight Advisory Committee. The County should work with NTRPDC and PENNDOT's Bureau of Rail Freight, Ports and

Waterways in securing funds through the Rail Freight Assistance Program (RFAP) as well as the Capital Budget Rail Freight Assistance Program. These programs are vital to providing for the maintenance needs of the state's shortlines, including the Towanda-Monroeton Shippers Lifeline.

Partners:

- Regional counties, rail-use industries

4. Continue to support on-going improvements to the Bradford County Airport. Assist with local matching dollars, where possible. PENNDOT's Bureau of Aviation administers three grant programs for airport development: the Block Grant Program (BGP, federal), the Aviation Development Program (ADP, state) and the Capital Budget/Transportation Assistance Program (TAP, state), amounting to approximately \$20 million annually.

The Block Grant Program is available only to general aviation airports, airports designated as reliever airports, and non-primary commercial airline airports (those with fewer than 10,000 annual enplaned passengers) that are part of the National Plan of Integrated Airport System (NPIAS), as approved by the FAA. Airports receive up to 90 percent of eligible project costs for projects included in the State's 12-Year Transportation Program.

Partners:

- BC Airport Authority, PENNDOT- Aviation, FAA, air-use industries



## Community Facilities and Services Plan

The Community Facilities and Services Plan focuses on meeting community service needs at appropriate levels. The Plan emphasizes the need for health care and continuing educational services at the local level, and the opportunities for coordination of public safety and codes enforcement at a regional level.

### MEETING HEALTH CARE AND EDUCATION NEEDS AT THE LOCAL LEVEL

**Goal: To provide modern, affordable, and accessible health care and educational opportunities for all residents**

#### Desired Outcomes

- Continue to support medical clinics and libraries in local communities.
- Encourage development of satellite schools for higher and continuing educational opportunities.
- Continue to encourage public/private partnerships for the provision of community services.
- All eligible citizens (particularly children) take advantage of health care opportunities that are available.

**Policy: Enable and encourage health care and continuing educational services at the local level rather than at the County or multi-county level.**

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1. Provide a forum for discussion among health care and continuing education representatives on the success and challenges of local level services.

These discussions could be held as a formal conference, and informal workshop, individual interviews, or other method.

2. Work with institutions of higher education to explore the feasibility of satellite schools/ programs. Identify potential programs. Explore program demand, particularly with students in junior and senior high schools, and the potential use of public school facilities for such programs.

Partners could include school districts, Lackawanna College, Lycoming College, Keystone College and Mansfield University.

**Policy: Maintain and enhance the County's library system.**

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1. Encourage County agencies in utilizing the library for their public service role.
2. Work with the Chamber of Commerce to make the library a tourist stop for distribution of literature, maps, directions, etc.
3. Maintain and enhance the library system's ability towards providing a retinue of services:
  - Serving as the primary library for students of Lackawanna and Keystone colleges.
  - Partnering with the Family Literacy Program and Migrant Education Program.
  - Providing regular service to SERVE, Martha Lloyd Community Services, public and private schools, daycare centers and senior citizens.
  - Partnering with information agencies such as the Penn State Cooperative Extension office, Career Link, Area Agency on Aging, Conservation District, Head Start, PA Humanities Council, and many others.



**Goal: Support councils of government, watershed organizations and other inter-municipal initiatives that coordinate community development, protection, and facilities and services**

**Desired Outcomes**

- Encourage consideration of regional public safety services.
- Provide consistent enforcement of County and local codes.
- Explore the potential use of the County Vo-Tech facility for adult, evening educational services.
- Continue to support existing regional integrated solid waste management infrastructure.

**Policy: Promote effective emergency services that are fiscally responsible and efficient.**

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1. Promote public safety and public services volunteerism through a Volunteer Fair. Work with local officials in promoting public safety.
2. Revive the Junior Fireman and Junior EMS programs to involve young people in the safety of their communities.
3. Facilitate discussions regarding common issues among police departments and fire companies. Follow discussion with common or coordinated solutions and encourage consolidation where appropriate.
4. Investigate fiscal and service quality benefits of joint public safety efforts for facilities, equipment, personal and service areas. Share findings with municipal officials, public safety administrators, and the public.
5. Assure provision of EMS training.
6. Develop circuit rider programs for specialized municipal staff, e.g., codes enforcement officers, wastewater treatment plant operators, etc.

### Recreation

Recreation planning is an important and specialized part of community planning as the mechanism for providing parks and open spaces, as well as athletic and leisure programs. In rural areas like Bradford County, recreation planning is integrated into the social, built and natural environments, including the scenic views captured while leisurely traveling the County. Recreation recommendations focus on increased utilization of existing facilities, development of a recreational network, including pedestrian and bicycle connections between sites, and development of new facilities, particularly within the network service area.

## ENHANCING, DEVELOPING, AND NETWORKING TRADITIONAL RECREATION OPPORTUNITIES

**Goal: Provide for recreational and cultural programming opportunities that encourage social interaction among all age groups and income levels**

### Desired Outcomes

- Coordinate recreational and leisure programs throughout the broader region.
- Establish more recreational, educational and cultural programming opportunities for seniors, children and persons with special needs.
- Provide downtown recreation opportunities (pocket parks, walking/biking routes, community pools).
- Provide athletic facilities
- Provide indoor recreation facilities, including athletic recreation and social leisure facilities.
- Provide rural recreation facilities (hiking, biking, canoeing, camping, fishing)
- Promote Bradford County as a winter destination for outdoor recreation (cross-country skiing, snowshoeing, snowmobiling, sledding, ice fishing and ice skating).

**Policy: Expand and integrate recreational and cultural facilities and services.**

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1. Support the establishment of a Northern Tier Regional Recreation Coordinator position to assist in identifying programs, funding sources, and marketing strategies for the region.

The Area Agency on Aging would be a primary partner for this action item. Economic development organizations would be secondary partner, potentially interested in sponsoring regional efforts to improve overall quality of life.

2. Develop a Countywide greenways and recreation plan to integrate recreational opportunities as a network.

Bradford County has already applied for and received funding for this task, and is proceeding with the preparation of a County greenways, open space and recreation plan.

3. Review and revise downtown ordinances to require development to provide pocket parks or donate fees-in-lieu.
4. Improve transportation services and alternatives (pedestrian/bicycle routes) between communities, community facilities, and special events.

Coordinate with transportation recommendations.

5. Designate biking routes in downtown areas. Provide maps of routes in the communities that have them. Promote biking as a transportation option or activity with special events.
6. Expand existing recreational and leisure opportunities to include multi-generational programs, e.g., mentoring programs, gardening programs.
7. Develop athletic and non-athletic recreation programs for children and youth (e.g., summer camps).

YMCA, Children and Youth Services, School districts

8. Coordinate day and overnight access, facilities, and services between the County Park and Mount Pisgah State Park.
9. Facilitate regional cost-sharing for recreational facilities requiring significant capital investment and operational costs, e.g., community pools.
10. Coordinate public access to school athletic facilities, e.g., for adult sports programs.
11. Assist communities in the development of specialty parks and facilities for public use, e.g., skate parks, ice rinks/ponds, mini-golf/par 3 golf, etc.

Towanda Skate park as a model

12. Promote public-private partnership to fund construction, operation and maintenance of such facilities.



13. Consider opportunities for the development of downhill skiing.
14. Utilize Endless Mountains Visitors Bureau and Bradford County Tourism Committee marketing to support winter recreation and tourism services.
15. Involve watershed organizations in recreational planning and implementation.



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## DEVELOPING RIVER-BASED RECREATION

**Goal: Develop the Susquehanna River as a recreation corridor**

### Desired Outcomes

- Plan enhancements and improvements for increased use of the River corridor.
- Promote the River corridor as a recreation destination and as a recreation route.

Policy: Develop a network of recreational amenities along the Susquehanna River.

1. Review existing inventories of river features and amenities. Evaluate recommendations, and implement as appropriate.
2. Prioritize replacement of boat access to the river and stream network.
3. Create a riverfront park(s) to supplement municipal parks and to provide regular river access points.
4. Develop riverfront trails (short loops) and water trails to interconnect riverfront parks and communities.
5. Promote the recreational network as a tourist destination through the websites of the Endless Mountains Visitors Bureau, Endless Mountains Heritage Region and Bradford County.
6. Design a "How to develop a trail" brochure for communities and private property owners.



**Goal: Manage trails throughout the scenic, natural landscape that defines the County's quality of life**

Desired Outcomes

- Develop and interconnect trails
- Educate the public on value of and access to public and private lands for trail-based recreation
- Provide regulations that protect the scenic, natural landscape but do not hinder a landowner's right to practice forestry

**Policy: Interconnect and promote recreational trails across the County.**

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1. Inventory existing trails of all types (hiking, biking, ATV, snowmobile, cross-county skiing, and BMX). Identify key trail junctions.

The Pennsylvania Environmental Council and Susquehanna River Basin Commission's work on the Northern Tier River Corridor Plan is a reference, as is the Northern Tier Bicycle/Pedestrian Transportation Plan. Private sports/sportsmen's leagues, local outfitters/businesses are also references.

2. Develop a county-wide trail guide/map. Publish guide on the County internet as well as the Endless Mountains Visitors Bureau and Endless Mountains Heritage Region websites.
3. Follow DCNR programs for consistent signage of public trails and trail types (e.g., motorized vs. non-motorized).
4. Develop trailheads, parking facilities and trail user services (or linkages to such services) on public lands. Encourage the development of such services on private lands.
5. Provide residents with information on trail liability.
6. Explore a trail users' licensing program for limited access to private trails.
7. Coordinate trail planning efforts with local watershed organizations and trail organizations that exist as subcommittees to those recommending groups.

## Public Utilities Plan

The Public Utilities Plan emphasizes the need for improved public utility service, namely, water and sewer services, particularly in town and village communities. The need for private utility improvements, such as wireless and telecommunications services, are also noted and encouraged.

### ACHIEVING SUPERIOR PUBLIC UTILITY SERVICES

**Goal: Upgrade utilities to provide superior service within desired service areas**

#### Desired Outcomes

- Plan utility improvements with prioritization in town and village growth areas
- Work with local communities and authorities in planning and extending utilities, such as sewer and water lines, within designated growth areas.

Policy: Encourage expansion of public utility infrastructure that is consistent with County and local comprehensive planning.

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1. Improve water and sewer service coverage, particularly in desirable growth areas. Limit utility extension into undesirable growth areas.

PENNVEST could provide funding for such infrastructure improvements.

2. Encourage proactive, coordinated planning and budgeting for the replacement of aging infrastructure.

Case studies of successful cooperative utilities services

3. Encourage local banks to invest in community infrastructure improvements.

Case studies/Estimates of infrastructure upgrade and replacement.

4. Update the solid waste management plan for the County through the Solid Waste Authority, as needed, to maintain consistency with Act 101 requirements. Work with the Northern Tier Solid Waste Authority in promoting recycling and refuse collection for all County citizens and in achieving 100 percent participation in recycling.

## ENCOURAGING SOLID PRIVATE UTILITY SERVICES

**Goal: To coordinate efforts between local municipalities and service providers to address present gaps in access to utilities and communication systems**

### Desired Outcomes

- Identify gaps in coverage for Internet access/T-1, cable TV access, etc. with local providers.
- Explore sustainable energy and utility alternatives.
- Identify gaps in cellular service coverage and expand service county-wide.

Policy: Encourage the provision of private utilities, particularly within designated growth areas.

1. Perform a utility service coverage study to identify service gaps. Work with utility service providers to improve coverage, particularly in designated growth areas.

PENNVEST, PENELEC/Valley Cities/Tennessee  
cable/T-1 services providers  
Wireless services providers  
Claverack Rural Electric Cooperative

2. Explore the potential for wind and solar energy production. Evaluate land use and resource impacts concurrently.
3. Update the solid waste management plan for the County, as needed, to maintain consistency with Act 101 requirements.

DEP Solid Waste Planning Funds area available to assist in this effort.

4. Establish design guidelines for cell towers (as a zoning ordinance overlay) to be as unobtrusive as possible.

## Natural and Cultural Resources Plan

The Natural and Cultural Resources Plan for Bradford County reflects the County's value and respect for an environment that continues to support natural resource-based industries, recreation and rural living. In addition, the Plan acknowledges and strives to enhance local and regional identities through leadership, volunteerism, and cultural events and interaction.

### PROMOTING AGRICULTURAL PRODUCTION AND NATURAL RESOURCE MANAGEMENT

**Goal: Promote agriculture, forestry and natural resource management practices and use while retaining the scenic landscape and land use heritage**

#### Desired Outcomes

- Educate the public on the meaning and value of agriculture and forestry
- Expand and promote Agricultural Security Areas. Promote leasing viable lands for local farming.
- Promote the accessibility and marketability of local forest and agricultural products through farmers' markets, trade shows, etc.
- Utilize existing organizations such as Bradford County Cooperative Extension, the Pennsylvania Bureau of Forestry, Bradford County Conservation District, Bradford-Sullivan Forest Landowners Association, Northern Tier Hardwood Association, and the Sustainable Forestry Initiative, to promote the use of sustainable forestry practices to woodland owners.

Policy: Develop and maintain resource inventories and public education to promote resource stewardship.

1. Perform detailed natural resource inventories to identify sensitive resource locations to assist in future land use and growth management decisions.\*

Bradford County is currently making great strides in community and resource planning. In addition to the comprehensive plan and the forthcoming greenways, open space and recreation plan, a natural areas inventory is being prepared.



2. Perform scenic resource inventories to identify scenic viewsheds to assist in future land use and growth management decisions.

\* Detailed forest resource inventories are currently done on a regular basis through the USDA Forest Service.

3. Promote woodlands as a renewable, manageable resource for rural county character.

Utilize existing organizations such as the Bradford County Cooperative Extension, the Pennsylvania Bureau of Forestry, Bradford County Conservation District, Bradford-Sullivan Forest Landowners' Association, Northern Tier Hardwood Association, and the Sustainable Forestry Initiative, to promote the use of sustainable forestry practices to forest landowners and to encourage the development of forest stewardship/management plans.

4. Encourage municipalities to develop and implement forest management plans that address assessment and goals for recreation, water quality, timber, wildlife, etc., for municipally-owned forest land.
5. Promote public education of the importance of biological diversity.
6. Encourage the utilization of incentives that encourage maintaining forestland in working forest conditions and decreases the pressure to fragment/parcelize forest land. This is very important to sustainable forestry and cannot be overemphasized.



**Goal: Establish local regulations to protect environmentally sensitive areas, particularly water resources, from undesirable development practices**

### Desired Outcomes

- Encourage the use of best management practices to conserve natural diversity through education and promotion of using native species in public and private landscapes.
- Coordinate planning efforts with local municipalities and the solid waste authority to maintain, update and implement water, wastewater and solid waste infrastructure plans and projects.
- Coordinate with state agencies and local mining industries to establish incentives and legislation to restore mined areas to pre-mining natural conditions that can be effectively used as suitable natural habitat or other man-made uses.
- Coordinate with watershed organizations in establishing local regulations that protect environmentally sensitive areas.
- Protect stream corridors.
- Assemble essential data to support local regulations.

**Policy: Utilize land use and disturbance controls to minimize inappropriate direct and indirect impacts to sensitive environmental resources.**

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1. Review local ordinances to assure that zoning protects sensitive resource areas.
2. Review Erosion and Sediment Control standards.
3. Explore alternative ways to utilize by-products as a resource.
4. Work with local municipalities to ensure that mining (including quarrying) is discouraged or restricted from unsuitable areas. Designate suitable areas outside of the identified scenic resource areas.
5. Review/increase required bond values to encourage reclamation and discourage forfeiture.





**Goal: To identify and promote local community values and identity**

Desired Outcomes

- Promote community vision and values statements, as defined in the County comprehensive plan or in municipal and multi-municipal planning efforts.
- Promote community gathering.
- Promote strong community leadership.
- Promote community volunteerism.
- Promote environmental stewardship.

Policy: Encourage policy and practices that protect surface water and groundwater - both quantity (supply) and quality.

1. Coordinate planning efforts with local municipalities to develop wellhead protection areas for existing wells and for future potential wells.
2. Coordinate planning efforts with local municipalities to enforce on-lot septic system maintenance. The importance of effective enforcement cannot be overstated.
3. Encourage the use of stormwater best management practices (BMPs) by all land owners and managers.

Stormwater management should be considered when addressing any development that increases impervious surfaces, or impacts water sources, urban sprawl and watersheds.

A number of communities have developed riparian buffer regulations.



Seek grants for the provision of staffing for stormwater management coordination to protect financial interests that have already been made.

4. Develop additional Act 167 Stormwater Management Plans for the watersheds in Bradford County.
5. Encourage the use of Best Management Practices for timber harvesting.
6. Develop model language for riparian buffer ordinances.

**Forest & Riparian Buffer Conservation**  
*Local Case Studies from the Chesapeake Bay Program*  
<http://www.chesapeakebay.net/pubs/158.pdf>

Work with property owners to establish buffers along waterways.

Specifically work with farmers to limit uncontrolled livestock access to streams.

7. Perform a county water resources study and develop a plan for county water resources protection.
8. Encourage the development of watershed management strategies that promote best management practices for agricultural, mining and other land uses.

The County can provide valuable support to area watershed groups by assisting with mapping, analyzing land use data, developing riparian corridor protection ordinances and keeping COG's informed and educated.

"Watershed management approaches are evolving throughout the country and are being used to solve tough problems."  
- U.S. EPA

**Goal: Cultivate a County environment that fosters regional interaction**

Desired Outcomes

- Promote events that interconnect County regions and communities.
- Develop new cultural events, educational opportunities and recreational programs that are available to interconnect County regions.

Policy: Enhance cultural community identity.

1. Assist in defining local community values and developing logos and slogans for community promotion, both within the community for newsletters, signage, etc. and for use in marketing the community.
2. Assist in promoting local heritage. Encourage communities to expand existing fairs or festivals or develop new events that highlight community heritage, tradition, and values, e.g., a Founder's Day. Historians and historical societies could contribute a display or an exhibit.
3. Assist municipalities in developing local newsletters. Connect municipalities with local marketing groups.
4. Assist local municipalities in developing places for community gathering, e.g., social halls, parks, community centers, libraries, etc.



Policy: Promote and develop strong community leadership.

1. Develop youth and adult leadership programs.

Leadership Lycoming and Leadership Clinton County are examples of other County programs aimed at cultivating solid grassroots community leadership.

<http://www.williamsport.org/leadership/index.htm>

Chambers of Commerce and the economic development community would be potential partners for this action item.

**Goal: Support the preservation of historic architecture and architectural styles through both public and private funding.**

### Desired Outcomes

- Pursue historic district designations for downtown areas.
- Assist municipalities in ordinance updates that incorporate historic preservation.
- Provide clear architectural guidance to new development in historic contexts.
- Assist public entities in finding funding for historic preservation efforts.
- Seek private investments in rehabilitation/restoration and re-use of historic structure and properties.

**Policy: Promote interaction between County communities to foster broader County identity.**

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1. Market events, programs, and organizational activities between County regions or communities through a county-wide community calendar (web-based or cable TV-based). Events may include social club events, theater groups, sporting events (school/youth and adult), fairs/festivals, trips/outings, etc. Explore the feasibility and use of shuttle transit between communities, particularly for events where parking is limited.
2. Establish an annual County Heritage Day/Festival (or expand the Troy Fair to a County fair). Program events and activities that highlight the County's heritage and the unique heritage aspects of regional communities.

Hold events such as Heritage Days or community festivals in historic districts to promote their location and attributes.

**Policy: Promote historic resource preservation and conservation, as appropriate.**

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1. Identify and prioritize potential historic districts. Nominate eligible districts to the National Register.
2. Promote historic districts as a landmark in each community through signage, advertising (tourism), and advertising (e.g., "Located in the Towanda Historic District").
3. Provide a model ordinance or ordinance language that address preservation or conservation of historic building features, facades, patterns, etc. in historic downtown areas.





4. Assist municipalities in developing detailed ordinances and development guidance/standards for site and architectural features, including signage, and streetscape.
5. Produce a booklet of local building patterns to document and encourage continued use of such patterns, and to acknowledge renovation efforts.
6. Provide letters of support for historic preservation efforts.

PHMC, Preservation PA, (conservancy/land trust/easement receivers)

7. Assist public entities in finding sole source or coordinating matching funds. Assemble a list of private funding sources, e.g., foundations, local industries, etc.

Private foundations

8. Assist private owners in finding supplemental funding for historic preservation efforts.

PHMC, Preservation PA

9. Offer incentives (or assist local municipalities in offering incentives) for historic preservation/rehabilitation efforts.



10. Interconnect historic sites with local and county greenways and bicycle and pedestrian routes.



## Chapter 5 Implementation

### Priority Initiatives for Bradford County

With the Policy and Action Plans in place, how should the County and its partners begin to implement the overall plan and vision for Bradford County? By prioritizing broad initiatives that will address County-wide issues to structure a framework for desirable future growth, development and resource conservation.

Six priority initiatives have been identified for Bradford County. These initiatives tie various policy and action items together to provide coherent concepts for enabling and catalyzing community enhancement. The initiatives are:

- Agriculture
- General Education
- Planning and Ordinance Assistance
- Business Development
- Protection of Rural Character
- Tourism

### Agriculture

There is significant interest in sustaining and expanding the County's production agriculture industry. This involves land use regulations that enable large-scale animal production farms to locate in the County, as well as appropriate planning for their impacts: water supply, waste disposal, and trucking needs, among others. This may also require general education on the regulations and permits required of animal operations by the state to protect water quality (generally residents' primary concern) as well as the abilities and limits of the municipal authority to regulate animal operations.

There may also be a place in Bradford County for small, niche farmers, as well as production-related businesses. Locally-grown produce and organic produce are increasingly popular, as consumers grow more concerned with the use of pesticides and preservatives. Small-scale dairy-related businesses, such as specialty cheese producers, may be interested in the County's abundant dairy supply. In both cases, marketing Bradford County as the source identifies the County as a location and people committed to agriculture.

It is critical that the County consult and coordinate land use planning efforts at the local municipal level that discourage the continuing break-up of large tracts of high quality, productive farmland for non-farming uses. At the same time, local regulations should not inhibit a farmer's ability to market appropriate aspects of a farming operation to the tourism industry and local farm product markets as a means of supplementing farming income.



### General Education Program

The various action plans make numerous references to general education needs. These needs could be assembled and addressed through a multi-year, multi-media program focusing on specific comprehensive land use planning issues.

Community development truly results from the choices that everyone makes, from residents to business and community leaders. The more information these decision makers have, the better decisions can be made. A lack of information, or even misinformation, limits good decision-making.

Such information ranges from rights and regulations to responsibilities and incentives. Since many strategies involve the use of incentives to achieve desired outcomes for the County and its residents, decision-makers need to know what benefits they would receive from taking the incentivized actions.



This general education program should focus on the topics listed in action plans, including but not limited to:

- zoning (including its benefits, its economic implications and financial costs, and its community costs, i.e. quality of life),
- subdivision and land development policy – what it is, who applies or administers it, why is it needed, how do I know when it applies to my situation, where do I get more information,
- property rights,
- development rights,
- volunteerism - savings on public costs,
- net cost of residential development vs. other uses,
- costs (infrastructure and services) associated with sprawl and unmanaged growth and development,



- CAFOs (zoning, environmental regulations, enforcement), and
- comprehensive planning.



The Office of Planning and Grants has already begun to develop some educational materials that address these topics, however, broad, repeated distribution is often needed to seed the understanding throughout the community. Therefore a multi-media approach is suggested, whereby any one educational message is delivered through multiple media sources.

Suggested media to be used: newspaper articles, newspaper column (year-round, monthly or seasonal), radio talk show, brochures/pamphlets, articles for County website (with email notification of site update), newsletter column (submitted to municipal, watershed, or school district newsletters), and presentations to local schools and social and civic clubs.

#### Planning and Ordinance Assistance

The action plans also make repeated recommendation for model ordinances, ordinance outlines, ordinance language, and design guidance. The ability of local municipalities in Bradford County to develop ordinances and design guidance on their own is limited by staff and financial resources in many cases. However, many municipalities share common community design and development issues that could be addressed through adopted ordinance regulations and documented design preferences, as identified in the action plans.

The County could assist local municipalities in taking the first steps of ordinance preparation by pursuing one or more of the following options.

- A model ordinance is one that addresses very common issues, and can be tailored to individual municipal needs at a much reduced cost. A model ordinance for incremental zoning would greatly benefit local municipalities.
- Ordinance/plan outlines would identify the process for developing a specific ordinance or resource plan.
- Model ordinance language might address specific definitions, for insertion into existing or tailored municipal regulations.
- Design guidance manuals define and illustrate preferred community development ideas. They can be pattern books of local architectural styles, streetscapes, and/or subdivision layouts.

In addition to County planning staff, the Pennsylvania State Association of Township Supervisors (PSATS) can be used as a resource for model ordinances.\*

Development of such model documents is indeed time-intensive. Research of innovative ordinances, conservation principles, and progressive incentives is needed to break out of traditional regulations and guidelines, particularly those that encourage sprawl or that result in Anytown-type development. While some techniques used in more urban areas of Pennsylvania may not appear to be relevant for rural Bradford County, research efforts should focus on extracting key principles and applying them in ways that are useful for Bradford County.



Where County resources are limited, the County should consider the use of university and college departments for time-intensive inventory tasks. College professors are increasingly looking for real-world situations as study models or applications for student learning, as well as their own research. Graduate students and undergraduate seniors are seeking comprehensive projects for capstone studies. Furthermore, university environments can assemble interdisciplinary teams for complex projects. These methods can draw extensive resources together at a fraction of the cost of professional consulting firms, and may even be eligible for alternative funding. This partner and funding resource can be applied to many recommended strategies, including community design (planning, architecture, landscape architecture departments), economic development (business administration, marketing

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\* As with any ordinance, assistance should be sought from professionals of affected interest groups prior to adoption.

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departments), agribusiness (agricultural economics departments), natural resources and recreation.

Many university departments have already identified this market and developed outreach centers as an avenue for faculty and graduate research, as well as community investment. Many people are familiar with the resources of the cooperative extension offices, however the Penn State Natural Resources Extension and the Pennsylvania DCNR Bureau of Forestry are also available to assist in the planning and management of forestry at the local level. More specific research and application organizations also exist, e.g. at Penn State: Center for Watershed Stewardship, Hamer Center for Community Design Assistance, Institutes for the Environment (<http://www.environment.psu.edu>), and Children, Youth, and Families Consortium (<http://www.cyfc.psu.edu>), and can provide services to the County and its departments.

### **Business Development**

Sound economic development is based on a diversified approach. No single industry can carry the burden of employment for a community. Such dependence upon one industry results in community devastation when market forces shift and the industry declines or folds. Expectations that one major business will solve employment and wage problems are short-sighted.

While employment opportunities and livable wages are sensible community goals, a diversified economy that can flex with market forces is ultimately more stable. The County's existing economy reflects its natural resource environment, in terms of agricultural production, wood products manufacturing, and resource extraction sectors. Expansion of these industries, in conjunction with sound environmental management and "Bradford County Products" marketing, is consistent with community goals for community character, economic development and natural resources management.

### **Forestry**

With close to 60 percent of the County in forest cover, the forests play an important role in the economic and overall well-being of the County. The forests supply timber for the large wood-using industry in the County, wildlife habitat for game and non-game species, provide recreational opportunities, and play a major role in maintaining the quality of water in streams, rivers, ponds and lakes. The forests also provide income opportunities and other amenities for the forest owners (84 percent of the County's forests are privately-owned).

The productivity of the County's forest face numerous threats. These include lack of sound management, fragmentation and parcelization, lack of understanding of the role of forests in the County, and emerging tax and ordinance issues. Maintaining the ability of the forests to produce their many and varied benefits is an important goal. Forest health and productivity can be maintained by supporting educational efforts of woodland owners and all residents of the County, encouraging and promoting woodland owners to obtain and implement management plans prepared by qualified resource management professionals, support initiatives that allow woodland owners to harvest timber following proper silvicultural techniques, and promoting programs and initiatives to discourage the fragmentation and parcelization of the County's forests.



### Cottage Industry

Bradford County has a wealth of small businesses, not only in its downtown merchants, but also in its home-based businesses. These businesses represent the County's entrepreneurial and self-sufficient spirit, as well as its skill and craft. Expanding the markets of these small and home-based industries could result in substantial growth in the County's economy.

Business owners may be interested in expanding their operations within the County by marketing their products and services to other industries. Some may be interested in marketing more broadly to the region. And other may have the desire to pursue national or international markets, depending on the nature of their product or service. With some assistance and know-how from business advisors or facilitators, these small businesses may be able to significantly increase their production and revenue, resulting in more jobs and potentially higher wages. Such economic growth would be diversified among the various small business interests and contribute to a stable economy.

Expansion of small business and cottage industry begins with identifying the owners and discussing their goals for the future. The County, Northern Tier Regional Planning and Development Commission, and/or the chambers of commerce should organize interviews or workshops for small business owners to attend – to network their products and service and to discuss their goals and the barriers to their goals. Follow-up these workshops with informational mailings or meetings to connect business owners with business planners that can assist with development and marketing strategies. If common barriers arise, host an educational workshop with expert business planners from regional college or universities on how to break through or circumvent such barriers. Matching their

goals with sound business planning strategies will provide them with the tools needed to grow their operations.

Facilitate strategies for business growth and development. For example, identify opportunities for joint bulk purchasing of general office supplies, or collective purchasing of merchandise for multiple merchants, or joint advertising. Assist in negotiating joint purchasing contracts. Review joint contracts with all parties (buyers and seller(s)) to evaluate their effectiveness. Revise approach, as needed, to continue support for the small business owner.

### Protection of Rural Character: Open Space and Green Infrastructure

The most valuable resource Bradford County has to offer to its residents, its industries, and its visitors is its rural character. The County's broad agricultural valleys, its forested hilltops and mountains, its freshwater streams and its small town and compact village settings are distinct from an increasingly suburban state and national landscape. As an environment for raising a family, for having outdoor recreation readily available every day, and for pursuing ever-modernizing production of natural resources, as well as an escape destination from other places of life, the County's rural character is indeed its defining feature.

Like our personal character, community character is something that is always evolving. Each decision, behavior, and conversation builds and re-builds our values. These values are influenced by persons we interact with, information we learn, and places we visit—whether we seek these out or they come to us. Taking action is part of developing a particular character, as well as a part of conserving and protecting it.

For Bradford County to retain its rural character, it will need to actively conserve and protect it from the influences that could transform it into something less desirable and distinct. Land use and natural resource management will be the key areas that influence the County's character for the next generation. Decisions to develop, extract, cultivate, or preserve these resources not only affects the



individual site, but also the physical appearance, environmental function, and economic value of woodland, wildlife, agriculture, and waterway networks (natural systems or green infrastructure). While these resources are available to residents today, they are not only handed down from parents and grandparents, but also borrowed from children and grandchildren [who will use them as we leave them], as expressed by Thomas Jefferson and the Iroquois Confederacy.

These decisions and policies about the use of open space and natural resources are made by all community members, therefore responsibility for the protection of these is also community-wide. The efforts of the County, its municipalities, businesses and industries, and land owners are needed to manage land and other natural resources in ways that retain open space and natural systems and protect the County's quality of life.



Cooperation and coordination of both public land managers and private land owners will be needed to sustain and protect woodlands and forests.

In addition to forest landowners who own larger tracts, woodland owners include farmers who maintain hedgerows and woodlots, private hunting and fishing camps, and others who own property along the waterways, where forested riparian buffers grow. Decisions that all these landowners make regarding their properties impact other community resources, such as wildlife and water quality. While the decision of one landowner may not have a significant impact, the collective impact of several decisions may contribute to long term resource effects.

Protection of open space and natural systems is not to be construed as preservation. Rather, it should be considered and advocated as active management for the specific goals of the landowner.

Open space and green infrastructure is not just a countryside issue. In towns and villages, parks and streetscapes contribute to the greening and "breathing room" of otherwise constructed settings. They provide readily available bits of nature within the areas people live and work. The emphasis in towns and villages would be for the continued development and enhancement of these features in order to promote these settings as attractive places to live.



There are two approaches to this protection issue, which when coordinated will have the greatest benefit. One approach is directed at development patterns, while the other is directed toward resource stewardship. Both approaches should begin with education for landowners and municipal officials to provide them with information and informational resources for future decision-making.

It is imperative that the County provide guidance and support to local municipal planning efforts focused on protecting local heritage and a rural quality of life derived from the natural resources and landscape of Bradford County. Guidance and technical support should be directed at assisting local municipalities in developing land use ordinances for protecting steep slopes, wetlands, floodplains, riparian buffers and woodland habitat from unsuitable development.



Public policy that guides development in ways that are consistent with existing patterns of town, village and countryside settings will reduce the scattered development of residences and businesses that breaks up expanses of woodlands and agricultural fields into smaller lots resembling suburban development. Zoning, growth boundaries, and other land use control tools should be applied to provide this guidance. Whether implemented at the County, municipal, or multi-municipal level, these tools can effectively

protect landowner property values and rights, while protecting the community as well.

As is the case with highly productive farmland in the County, emphasis should be placed on preventing the fragmentation and parcelization of large tracts of open space and forest. Maintaining continuous greenways throughout the County provide opportunities to physically link local communities to each other and to major natural resources such as the Susquehanna River and public forest lands in the southern part of the County. Continuous greenways also provide uninterrupted mobility for wildlife and enhance native flora and fauna habitats. Additionally, continuous greenways provide a variety of recreational opportunities for future trail systems, hunting, hiking, nature education activities and wintertime sports. Local municipalities should be encouraged to conserve to the greatest extent practical, agricultural areas, woodlots and hedgerows as well as preventing disruption of forest cover on ridgelines and hilltops that also significantly contribute to local rural character.



Resource stewardship should be encouraged for all landowners and residents. Existing forest conservation programs such as the Forest Legacy Program and the Clean-and-Green Forest Reserve Program should be more widely referenced, as should the County's numerous environmental organizations (e.g., county conservation district, Penn State Extension, watershed organizations, et al.). All residents and businesses

should embrace integrated solid waste management including waste reduction and recycling as a way of life. The economic benefits of these programs should specifically be promoted.

### Tourism

One of the industries that Bradford County may be able to import is tourism. The County has a lot to offer in terms of a destination, experiential and leisure environment. Its natural, historical and scenic resources could be combined with educational and recreational opportunities to generate theme-based, guided or self-guided tours and multi-day vacation experiences. These themes will structure the County's resources into viable attractions and aid get-away seekers in determining why they should visit Bradford County. Consider this scenario:

John and Linda are a professional, suburban couple. They are looking for a vacation that is physically and mentally stimulating without the obligation, traffic, and hectic pace of life in southeastern Pennsylvania. Their fathers were railroad workers, so they have developed an interest in railroad history. They decide to spend a long weekend in Bradford County. They arrive in Wyalusing and spend the evening at the Wyalusing Hotel. The next morning, they board an excursion train bound for Sayre. Along the way, the conductor tells of the rail traffic that once traveled this route - its freight, its frequency, its origin, and its destination. Upon arrival in Sayre, the tourists visit the local railroad museum and browse the shops and delis in the downtown. By mid-afternoon, they gather at the boat access ramp where a local outfitter has supplied canoes and kayaks for a float downriver. They spend the evening on the riverbank near Ulster. Perhaps a local historian stops in to tell tales of when the river was used as the main mode of transport. In the morning, the float resumes, laced with river history, until the group reaches Towanda. Here, they take a walking tour of historic homes built during the railroad heyday. After a late lunch, they return to the river, for facts and folklore on Standing Stone, Homet's Ferry, and finally, French Azilum. Here, they take in some early colonial history before an evening around the campfire. The third and final day begins with a short bicycle ride through the broad, fertile river basin. By mid-morning, the group is back on the river for the final leg of the float, returning to Wyalusing by early afternoon. John and Linda return to their suburban home with enriched memories of their fathers, the landscapes they saw, and the industries they knew.

Similar experience-based tours could be developed for Route 6, in conjunction with the Route 6 Tourist Association, with half-day to one-day excursions into each community: Sylvania, Troy, Burlington, Towanda, and Wyalusing. Travel could be based on biking the





corridor with short hiking and boating segments, where feasible. Other County themes could be based on exceptional fishing holes, and summer/winter trail networks for hikers, mountain bikers, ATVs/snowmobiles and cross-county skiers.

### What Tourists Want

Tourism trends indicate several noteworthy points. First, tourism is increasingly about doing and less about seeing. Travel that enables a vacationer to participate in his or her hobbies or interests (that have otherwise been pushed out of an already busy weekly schedule), known as niche travel, is growing each year. Tourists want to take home more than a souvenir; they want an experience to remember and to share. Pennsylvania tourism planners recognized this in 1995 when they chose the slogan for the ExperiencePA.com website: "Pennsylvania Memories Last a Lifetime." Part of that experience is being somewhere other than their home environment. Showing them something truly rural in character can fulfill that visitor goal.



Second, the longer tourists stay, the more they spend. Providing and packaging numerous activities encourages longer visits, which results in more night lodging, more meals consumed, and more services purchased. The abovementioned ideas for theme-based tours begin to assemble the various views, stories, and experiences of Bradford County into multi-day tourism options that cater to niche travel.



Third, tourism isn't just about week-long summer vacations, though vacationing still comprises 25 percent of Pennsylvania tourism. Statistics from ExperiencePA.com show that the main reasons people travel range from visiting friends and family (38 percent) to attending a special event (16 percent) to getting away for a weekend (16 percent).



These trends begin to answer the question "what do tourists want" and provide some basis for developing a tourism plan. An article in the Township News, a publication of the Pennsylvania Association of Township Supervisors, identifies two other keys to successful tourism: understanding what's good and bad about tourism, and properly planning before you invite visitors in.

### Tourism: The Good and the Bad – and the Ugly

Some of the benefits of tourism include economic growth (employment and sales), growth that may have little impact on open space and natural resources, and more local service options (restaurants, lodging, and recreation) for residents.

Economic growth, especially niche travel, can mean more jobs and more sales, yielding more income for residents and tax revenue for

the community as a whole. Existing small business may grow as a result of shopping and service sales. For example, local artisans and craftspeople may experience increased demand for their products as visitors shop for locally made souvenirs, potentially resulting in the need for expansion. New businesses may also sprout from increased regional promotion, generating new jobs. The community benefits from increase tax revenue from both income and sales tax, which can translate into better funding for municipal service and programs.



For communities in need of an economic boost, tourism can help, but “[it] won’t solve all of your problems, and it can’t be your sole industry,” says Susan Ryan, tourism planner and professor of earth science, California University of Pennsylvania. The tourism industry is sensitive to economic conditions, travel costs, safety and security, and even weather. Tourism needs to be integrated into a broader, diverse economy that is insulated from some of these factors.

Communities must also recognize that some aspects of tourism are seasonal. That can be good for providing some relief from increased traffic, but also can have uncertain economic and employment impacts. However, seasonal peaks and valleys aren’t necessarily a limiting factor. A fruitful season of sales can sustain a business owner through the year, or be combined with alternate season businesses to produce stable, year-round income. Informed business planning can help in analyzing the right approach.

One of the ugly but necessary components of tourism is its advertising – in particular its roadside signage. From billboards to

directional signs to the visually recognizable building design of chain restaurants, visual communication with tourists can overwhelm the exact character that made a community attractive in the first place. Sign management coordinated through land use planning, transportation planning (e.g. scenic byways designation) and regulatory ordinances can be an effective tool to deal with signage in ways that complement local character.

#### Tourism Preparation: Planning

Some land use and economic policy changes will be needed to enable tourism, as described, to emerge. Others will be needed to assure the protection of resources from over-use and degradation. Municipal land use policy will need to permit the development of tourism (and recreation) based businesses, as well as various service businesses to provide dining and lodging services. Local ordinances will also need to protect the community character by managing appropriate parking, landscaping and signage.

Economic policy should promote development of various tourism attractions from within the County, tapping into existing local historians, recreation and outdoors enthusiasts, and cultural and civic sites. Emphasis should be placed on educating local tourism service providers on friendly, quality service. Furthermore, strategic business planning, particularly for seasonal businesses, should be included in tourism opportunity discussions.



## Capital Improvements Program

While the priority initiatives provide immediate direction, tasks listed in the Policy and Action Plans need further prioritization for timely and effective programming. This Capital Improvements Program suggests a schedule for initiation and completion of the most significant action items.

### Implementation Schedule for Bradford County Action Strategies

Action Item	2004/05	2006/07	2008/09	2010/11	2012/13
<b>Land Use/Development Plan</b>					
Provide an outline and assistance for preparing a local zoning ordinance	→				
Provide model ordinances, ordinance language or ordinance topics for municipal and multi-municipal consideration	→	→	→	→	→
Assist municipalities in the drafting of local municipal and/or multi-municipal comprehensive plans	→	→	→	→	→
Coordinate zoning with designated growth areas	→	→	→	→	→
Encourage higher density development potential through mixed-use, clustered and Traditional Neighborhood Development and transit-oriented development techniques	→	→	→	→	→
Develop tax, procedural review and other incentives to make brownfields more attractive to new development than rural greenfield areas		→			
<b>Defining Clear Community Values</b>					
Promote community values through the use of lamppost banners, slogans, etc. Market these images to new business prospects, land developers and realtors		→	→	→	→
Acknowledge good development, redevelopment and community initiatives through a County award program		→	→	→	→
<b>Natural &amp; Cultural Resources Plan</b>					
Develop a countywide water resources plan		→	→		
Expand data collection and analysis of farm productivity	→	→	→	→	→
Provide protection of priority scenic areas through zoning and easement incentives	→	→	→	→	→
Provide model ordinances, model overlay districts or ordinance topics for municipal and multi-municipal consideration		→	→	→	→
Lay foundation for a countywide Transfer of Development Rights (TDR) program		→	→		
Perform detailed natural and scenic resource inventories	→	→	→	→	→
Encourage municipalities to develop and implement forest management plans	→	→	→	→	→
Create a property tax structure that encourages the maintaining of forestland	→	→	→	→	→
Review local ordinances to ensure that zoning protects sensitive resource areas	→	→	→	→	→
Develop wellhead protection areas		→	→	→	→
Encourage the use of stormwater best management practices	→	→	→	→	→
Develop additional Act 167 Stormwater Management Plans for the County's watersheds		→	→	→	→
Perform a county water resources study and develop a plan for county water resources protection		→	→	→	→
Encourage the development of watershed management strategies that promote best management practices for mining, agriculture, and other land uses	→	→	→	→	→

**Implementation Schedule for Bradford County Action Strategies (cont'd.)**

Action Item	2004/05	2006/07	2008/09	2010/11	2012/13
<b>Housing Plan</b>					
Inventory existing housing stock using Assessment data	→				
Develop a strategy to update and track changes in local housing market and housing stock	→	→			
Promote Housing Trust Fund (Act 137)	→	→			
Encourage adoption of the Uniform Construction Code	→				
Provide incentives for housing revitalization	→	→			
Promote technical education programs that focus on local housing revitalization	→	→	→	→	→
Explore feasibility of the Pennsylvania House concept	→				
<b>Community Facilities and Services Plan</b>					
Provide a forum for discussion among health care and continuing education representatives on the success and challenges of local services	→				
Promote public safety and public services volunteerism through a Volunteer Fair		→	→		
Revive the Junior Fireman and Junior EMS programs		→	→		
Facilitate discussions regarding common issues among police departments and fire companies	→	→			
Develop circuit rider programs for specialized municipal staff		→	→		
Support the development of a Northern Tier Regional Recreation Coordinator	→	→			
Develop a Countywide greenways and recreation plan	→	→			
Assist communities in the development of specialty parks and facilities for public use	→	→	→	→	→
Involve watersheds in recreational planning & implementation	→	→	→	→	→
Maintain and enhance the County library system	→	→	→	→	→
Inventory existing riverfront public access	→	→			
Develop riverfront trails to connect riverfront parks and communities			→		
Develop trailheads, parking facilities and trail user services on public lands	→	→	→	→	→
<b>Public Utilities Plan</b>					
Improve water and sewer service coverage	→	→	→	→	→
Perform a utility service coverage study to identify service gaps		→	→		
Update the County's solid waste management plan			→	→	
Establish design guidelines for cell towers		→	→		
<b>Transportation Plan</b>					
Identify rural state roads that could be turned back to local municipalities for on-going maintenance	→				
Develop a County program to provide local matching monies for road and bridge improvements		→	→		
Work with NTRP&DC on establishing a regional position for contract administration of local bridge projects		→	→		
Continue providing financial assistance to EMTA	→	→	→	→	→
Maintain existing rail lines for freight and passenger movement	→	→	→	→	→
Continue to support on-going improvements at Bradford County airport	→				

**Implementation Schedule for Bradford County Action Strategies (cont'd.)**

Action Item	2004/05	2006/07	2008/09	2010/11	2012/13
<b>Economic Plan</b>					
Interconnect the County's chambers of commerce	→				
Host an annual conference on growing Bradford County business and industry		→	→	→	→
Identify employment opportunities for which training is not available	→				
Market the County's natural resource production to broader product industries		→	→	→	→
Facilitate cooperative farming efforts among individual farmers	→				
Assist in identification and marketing of specialty/niche markets for agricultural and forest products	→				
Market preserved ag/forest land for ag/forest expansion		→	→	→	→
Preserve productive farmland for continued agricultural use; preserve forestland for continued forest use		→	→	→	→
Task economic developers or chambers with researching the retail and service purchase patterns of Bradford County residents and businesses		→			
Facilitate discussion of regional cooperative purchasing of products and services by small business merchants	→				
Create and maintain a database of available storefronts for small business		→	→	→	→
Develop a County Dollar Campaign	→				
Develop and pursue specific tourism themes for the Susquehanna River Corridor		→	→	→	→
Utilize zoning (potentially with overlay districts) to manage land use development along the US 6 and Susquehanna River Corridors		→	→	→	→



# **Appendix A**

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### **INTRODUCTION**

The natural environment is an important part of the community. Its characteristics influence local development patterns, for example fertile soils are generally used for agriculture. Its features are scenic and seasonal, and its vegetation, water, and wildlife are dynamic, providing a stimulating and interactive environment.

The identification and characterization of Bradford County's natural resources is an important part of the planning process. Delineation of these resources serves as a guide for future planning decisions, as natural features are costly to disregard, both financially and ecologically. The following sections of the plan identify and describe these areas so they can be incorporated into the planning recommendations. This will help ensure that future development in Bradford County takes place in an environmentally sensitive manner.

### **TOPOGRAPHY**

The majority of Bradford County is located within the Low Plateau Section of the Appalachian Plateaus Province. The rock formations in this region are all of sedimentary origin, the rock strata are generally horizontal, but have been slightly upwarped which has given rise to some relief; however, most of the relief in the County is produced by streams cutting into the rock strata.

Glaciation greatly influenced the topography of the region by creating steep rolling hills, glacial lakes and stream valleys. Most of the County consists of uplands or mountainous terrain, the remaining land is composed of valley bottoms and rolling lowlands. The elevations across the County range from 660 feet ASL (above sea level) along the Susquehanna River to 2,380 feet ASL in the mountains. Dencutting from rivers and streams has created the narrow steep-sided stream valleys, which characterize the region. Figure 1-1 illustrates these topographic features.

### **GEOLOGY AND GROUNDWATER**

Bradford County's underlying geologic formations shape its topography and determine the characteristics of its aquifers. Numerous geologic factors, including rock type and solution channels affect groundwater movement and availability. Groundwater quality is dependent upon the interaction between the groundwater and the bedrock chemistry. For example, soluble bedrock, such as limestone, dissolves in the groundwater and results in increased hardness values.

The bedrock for this region consists of three types, Devonian, Mississippian, and Pennsylvanian. The bedrock in Bradford County formed during the Paleozoic Era (600 to 230 million years ago) when sediments consisting of clay, sand and silt were compacted and cemented into bedrock as the region rose above sea level.

Devonian bedrock, which consists of red sandstone, gray shale, black shale, limestone and chert is dominant in the County. It covers all of the northern part of the County and most of the south. Mississippian bedrock is found in the southwest region of the County and consists of red and grey sandstone, shale and limestone. Pennsylvanian bedrock consists of red and grey shale, conglomerate, clay, coal, limestone, and cyclic sequences of sandstone. This bedrock is found only in a few townships in the southwest part of the County.

Bedrock determines the extent of mineral industries in a region. In Bradford County the only mining that takes place is in the glacial outwash deposits for materials such as sand and gravel. Other mineral resources in this area consist of flagstone, bluestone, natural gas, and coal. Bluestone mining is common in the eastern part of the County. Mining operations utilize the least amount of land in the County compared to other types of land uses.

Aquifers and surface water depend on steady rainfall to replenish them. If rainfall is scarce in a region then aquifers are not able to meet water supply demand for its residents. Historically, average annual rainfall for Bradford County and the surrounding area has been 37.7 inches per year, which has been adequate for replenishing the areas aquifers. In drought seasons the PA DEP issues watches and warnings requesting and requiring water conservation practices in an effort to protect the aquifers.

One large aquifer underlies the Susquehanna River Valley and some of its tributaries in Bradford County. This sand and gravel aquifer, created by glacial outwash and alluvial deposits, stretches from the northwest part of the County to the southeast corner and into Wyoming County. Sand and gravel aquifers contain large quantities of water that can be easily withdrawn. They can commonly have well yields of 1000 gallons per minute (gal/min). The natural quality of the water is good to excellent; however, areas of concern for contamination include road salt storage facilities, historic chemical spills, industrial sites, pesticide applications, above and underground storage tanks, landfills, hazardous waste sites, mining and mine drainage, pipelines and sewer lines, and spills.

Maintaining groundwater recharge and wellhead protection areas are critical to protecting groundwater quality and supply because it is the predominant domestic water supply for both rural areas and communities in the County, as opposed to reservoirs or other surface waters.

**SOILS**

The *Soil Survey of Bradford County, Pennsylvania* (1986) describes the soils found across the County and utilizes soil associations to describe how soil depth, slope, and drainage affect potential land use. Soil associations are multiple soil types that are found repeatedly across a given land area. The associations are helpful in attaining a general idea of soil quality and delineating large areas suited to particular uses, e.g., agriculture. The soils associations found in Bradford County are detailed in Table 1-1.

**Table 1-1  
Soil Associations of Bradford County**

Association	Description	Topographic location	Bedrock Material	Limitations to Development
Volusia-Mardin-Lordstown	Deep and moderately deep, gently sloping to moderately steep, somewhat poorly drained to well drained soils	Broad hillsides and hilltops	Grey Sandstone and Shale	Moderate depth to bedrock, seasonal high water table, stony, slow and very slow permeability
Morris-Oquaga-Wellsboro	Deep and moderately deep, sloping to steep, somewhat poorly drained to somewhat excessively drained soils	Narrow hillsides and hilltops	Red Sandstone and Shale	Steep slope, seasonal high water table, moderate depth to bedrock, slow to very slow permeability, stony

**Table 1-1  
Soil Associations of Bradford County (cont'd.)**

Association	Description	Topographic location	Bedrock Material	Limitations to Development
Wellsboro-Oquagwa-Morris	Deep and moderately deep, gently sloping to moderately steep, somewhat excessively drained to somewhat poorly drained soils	Broad plateaus and mountaintops	Red and Grey Sandstone	Stony, seasonal high water table, moderate depth of bedrock, slow and very slow permeability
Dystrochrepts-Oquaga-Wellsboro	Deep and moderately deep, moderately steep to very steep, somewhat excessively drained to somewhat poorly drained soils	Mountainsides and in narrow stream valleys	NA	Steep slope, extremely stony surface, moderate depth to bedrock
Alton-Pope-Chenango	Deep, nearly level and gently sloping, somewhat excessively drained and well drained soils	Uplands, terraces and flood plains	Shale and Sandstone	Flooding, hazard of contaminating groundwater

Source: Soil Survey of Bradford County, 1986

Each soil type is unique in its origin, structure, texture, and composition. Its capacity to support a given land use, such as agriculture, is determined by these features. Historically, as urban and suburban communities have grown, development has often taken advantage of level topography and infrastructure over soil productivity. However, in the more recent years of soil conservation and agricultural preservation, soils have been more closely studied. Since agriculture has the most specific soil requirements, these soils are more thoroughly classified according to their productivity. Prime or highly productive soils are often reserved from developable areas.

The origin of Bradford County soils is primarily due to glacial action. As glaciers melted, the debris and rich soils that had been picked up along the way were dropped. Generally, the soils are deep in the lower valleys and shallow on the slopes. Approximately 68 percent of the soils have drainage problems and 27 percent are moderately well drained and deep. Soil properties such as drainage abilities may limit land use opportunities.

The flood plain areas along Sugar and Towanda Creeks, as well as the Susquehanna River, are of great value for agricultural purposes. These flat lands are rich in minerals and are usually well drained, which results in high crop yields. Generally, poorer soils and steeper slopes are utilized for pasturelands.

***Agricultural Soils***

Prime farmland, as defined by the U.S. Department of Agriculture (USDA), is the land that is best suited to producing food, feed, forage, fiber and oilseed crops. It has the soil quality, growing season, and water supply needed to economically produce a sustained high yield of crops when it is treated and managed using acceptable farming methods.

## Chapter 1 – Natural Resources Profile

According to the USDA, prime farmland soils are usually classified as capability Class I or II. Bradford County has approximately 14,800 acres of Class I soils and 59,200 acres of Class II soils. They have slight to moderate limitations to their use. Class I soils are found in the Susquehanna River Valley and Class II soils are dispersed across the County. The approximate acreage and percent slope of Bradford County's prime farmland soil are found in Table 1-2.

**Table 1-2  
Prime Farmland Soils – Bradford County**

Soil Name	Slope (%)	County Acres
Alton	0-8	7,000
Braceville	0-8	1,800
Chenango	0-8	8,300
Linden	0-3	4,100
Lordstown	3-8	11,700
Mardin	3-8	11,600
Pope	0-3	10,700
Wellsboro	3-8	9,900
<b>Total Prime Farmland Soils</b>		<b>65,100</b>

Source: Bradford/Sullivan County USGS Soil Survey

Farmland soils of statewide importance are soils that are predominantly used for agricultural purposes within a given state, but have some limitations that reduce their productivity or increase the amount of energy and economic resources necessary to obtain productivity levels similar to prime farmland soils. These soils are usually classified as capability Class II or III. Bradford County has approximately 348,300 acres of Class III soil. Class III soil is the most abundant in the County. Class II and III soils are found just about everywhere in the County. Table 1-3 describes the name, slope, and approximate acreage of these soils in Bradford County.

**Table 1-3  
Soils of Statewide Importance – Bradford County**

Soil Name	Slope (%)	County Acres
Lordstown	8-15	17,900
Mardin	8-15	29,800
Morris	3-8	25,600
Morris	8-15	30,500
Oquaga	3-8	7,300
Oquaga	8-15	11,200
Rexford	0-3	1,800
Rexford	3-8	2,400
Rexford	8-15	1,400
Volusia	3-8	78,000
Volusia	8-15	113,400
Wellsboro	8-15	16,600
Wyoming	3-8	1,200
Wyoming	8-15	1,800
<b>Total</b>		<b>338,900</b>

Source: Bradford/Sullivan County USGS Soil Survey

**Other Environmentally Sensitive Soils**

A number of soils are particularly sensitive to disturbance and development due to their characteristics, including highly erodible soils, which are typically found on steep slopes. These soils are unstable under conditions of disturbance and pressure and contribute sediment to surface waters. Maintaining vegetative cover can provide a first line of defense against soils sensitive to erosion. Many of these soils are already protected from development by steep slope regulations across Pennsylvania. However, with the exception of Athens Township’s Subdivision and Land Development Ordinances, there are no municipalities in Bradford County that enforce steep slope ordinances. Figure 1-1, Environmentally Sensitive Areas Map, illustrates slopes of 20 percent or greater across Bradford County.

Hydric soils are soils that retain water during a portion of the year. As a natural resource, hydric soils provide water storage and infiltration that naturally regulates water sources and flows. These soils are susceptible to compaction and uneven settling when developed. These factors impact land use decisions. Table 1-4 represents soils in Bradford County with major components that have hydric qualities.

**Table 1-4  
Soils with Major Components Hydric**

Soil Name	Characteristic/Slope (%)	Acres
Aquepts	Rubbly	100
Candice silty clay loam	0-3	600
Chippewa silt loam	0-3	6,700
Chippewa silt loam	3-8	9,000
Holly soils	NA	17,500
Medisaprists	Ponded	1,200
Norwich very stony silt loam	0-8	1,900
Rexford silt loam	0-3	1,800
Rexford silt loam	3-8	2,400
Rexford silt loam	8-12	1,400

Source: Bradford/Sullivan County USGS Soil Survey

**WATER RESOURCES**

**Surface Waters and Drainage**

Surface waters include rivers, streams and ponds, which provide aquatic habitat, carry or hold runoff from storms, and provide recreation and scenic opportunities. Surface water resources are a dynamic and important component of the natural environment, but ever-present threats such as construction, clear-cutting, mining, overuse, and pollution have required the regulated protection of these valuable resources. Surface waters of Bradford County are illustrated in Figure 1-2, Surface Waters Map.

There are approximately 6,000 acres of surface water in Bradford County, primarily the Susquehanna River and its tributaries. Ponds and lakes are scattered throughout the County. The Susquehanna River traverses the County from north to south, and with its tributaries, covers practically all of Bradford County. The Pennsylvania Department of Environmental Protection (PADEP) divides the state into Water Basins, which are further subdivided into Sub-Basins and then into Watersheds. All of Bradford County is in the Susquehanna River Basin, Sub- Basin #4, also known as the Upper Susquehanna Sub-Basin. There are three major watersheds in the County: Sugar–Towanda Creek Watershed in the southwest, Wappasening Creek–Chemung Rivers Watershed in the north, and the Wysox–Wyalusing Creeks Watershed in the east. While most of the drainage area of these basins fall within the county borders, they also include parts of Tioga, Susquehanna, Sullivan, and Wyoming Counties.

**Water Quality**

The Pennsylvania Chapter 93 Water Quality Standards classify surface waters according to their water quality and protected water uses. Selected bodies of water that exhibit exceptional water quality and other environmental features are referred to as “Special Protection Waters” and development along these waters is more stringently regulated to prevent degradation. Coal Run and a part of Schrader Creek are the only two waterways in Bradford County that receive special protection. Land development, sewage treatment and disposal, industrial and municipal waste, mining and quarrying, timber harvesting, stormwater management, and confined feeding operations must follow guidelines found in PA DEP’s Special Protection Waters Implementation Handbook, or other regulations relative to Special Protection Waters.

Waterways in Bradford County and their uses and water quality criteria are summarized in Table 1-5. Symbols are given for the type of protected use in each waterway. The symbols are divided into 5 groups including Aquatic Life, Water Supply, Recreation and Fish Consumption, Special Protection, and Other Protected Uses.

There are a total of 16 different classifications each with its own symbol. Bradford County utilizes only a few of these symbols in classifying its waterways. Waterway classifications in the County consist of CWF, WWF, TSF, HQ and EV. The following Table defines and summarizes each of these classifications. Symbols that are not summarized do not pertain to Bradford County waterways.

➤ **Aquatic Life**

CWF – Cold Water Fishes	Maintenance or propagation, or both, of fish species including the family Salmonidae. And additional flora and fauna which are indigenous to a cold water habitat
WWF – Warm Water Fishes	Maintenance and propagation of fish species and additional flora and fauna which are indigenous to a warm water habitat
MF – Migratory Fishes	
TSF – Trout Stocking	Maintenance of stocked trout from February 15 to July 31 and maintenance and propagation of fish species and additional flora and fauna which are indigenous to a warm water habitat

➤ **Water Supply**

- PWS – Potable Water Supply
- IWS – Industrial Water Supply
- LWS – Livestock Water Supply
- AWS – Wildlife Water Supply
- IRS – Irrigation

➤ **Recreation and Fish Consumption**

- B – Boating
- F – Fishing
- WC – Water Contact Sports
- E – Esthetics

➤ **Special Protection**

HQ – High Quality Waters	Special Regulations relative to Special Protection Waters to prevent degradation
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## Chapter 1 – Natural Resources Profile

EV – Exceptional Value Waters      Special Regulations relative to Special Protection Waters to prevent degradation

➤ **Other**

N – Navigation

**Table 1-5  
Waterway Classifications for Bradford County**

Stream	Zone	Water Uses Protected	Exceptions to Specific Criteria
Wappasening Creek	Basin (all sections in PA)	CWF	None
Sackett Creek	Basin (all sections in PA)	WWF	None
Parks Creek	Basin (all sections in PA)	WWF	None
Unnamed Tributaries to Susquehanna River	Basins; PA-NY state border to Wyalusing Creek	WWF	None
Cayuta Creek	Basin (all sections in PA)	WWF	None
Saterlee Creek	Basin	CWF	None
Chemung River	Main Stem (all sections in PA)	WWF	None
Unnamed Tributaries to Chemung River	Basin (all sections in PA)	WWF	None
Seeley Creek	Basin (all sections in PA)	CWF	None
Bentley Creek	Basin (all sections in PA)	WWF	None
Stone Lick Creek	Basin	WWF	None
Orcutt Creek	Basin	WWF	None
Dry Brook	Basin	WWF	None
Tutelow Creek	Basin	WWF	None
Murray Creek	Basin	WWF	None
Walcott Creek	Basin	WWF	None
Buck Creek	Basin	WWF	None
Mallory Creek	Basin	WWF	None
Spaulding Creek	Basin	WWF	None
Snyder Creek	Basin	WWF	None
Cash Creek	Basin	WWF	None
Toad Hollow	Basin	WWF	None
Horn Brook	Basin	WWF	None

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Hemlock Run	Basin	WWF	None
<b>Stream</b>	<b>Zone</b>	<b>Water Uses Protected</b>	<b>Exceptions to Specific Criteria</b>
Sugar Creek	Basin, Source to Tomjack Creek	TSF	None
Tomjack Creek	Basin	TSF	None
Sugar Creek	Basin, Tomjack Creek to Mouth	WWF	None
Towanda Creek	Basin, Source to Canton Borough	CWF	None
Towanda Creek	Main Stem, Canton Borough to South Branch	TSF	None
Unnamed Tributaries to Towanda Creek	Basins, Canton Borough to South Branch	CWF	None
Mill Creek	Basin	CWF	None
Alba Creek	Basin	CWF	None
North Branch Towanda Creek	Basin	CWF	None
Preacher Brook	Basin	CWF	None
Schrader Creek	Basin, Source to Coal Run	EV	None
Coal Run	Basin	HQ-CWF	None
Schrader Creek	Basin, Coal Run to Mouth	HQ-CWF	None
South Branch Towanda Creek	Basin	CWF	None
Towanda Creek	Main Stem, South Branch to Mouth	WWF	None
Unnamed Tributaries to Towanda Creek	Basins, South Branch to Mouth	CWF	None
Little Wysox Creek	Basin	WWF	None
Wysox Creek	Basin	CWF	None
Vought Creek	Basin	WWF	None
Bennetts Creek	Basin	WWF	None
Durell Creek	Basin	WWF	None
King Creek	Basin	WWF	None
Rummerfield Creek	Basin	WWF	None
Wyalusing Creek	Basin, Confluence of East and Middle Branches to North Branch	WWF	None



Wyalusing Creek	Basin, North Branch to Mouth	WWF	None
Stream	Zone	Water Uses Protected	Exceptions to Specific Criteria
Unnamed Tributaries to Susquehanna River	Basins, Wyalusing Creek to Lackawanna River	CWF	None

Source: The Pennsylvania Code (93.3 Protected Water Uses)

**Watersheds**

Various public agencies and organizations work for the protection and restoration of watersheds. The following sections provide a brief discussion of these entities.

**Susquehanna River Basin Commission (SRBC)** - The 1970 Susquehanna River Basin Compact, adopted by Congress and the Pennsylvania, Maryland, and New York legislatures, established the Susquehanna River Basin Commission (SRBC). The mission of the SRBC is to enhance public welfare through comprehensive planning, water supply allocation, and management of the water resources of the Susquehanna River Basin. Moreover, the compact established comprehensive planning as one of the primary duties of the SRBC. Sections 3.3 and 4.1 of the Compact require the formulation of a comprehensive plan for the immediate and long-range use, management, and development of the water and related land resources of the basin. SRBC’s Comprehensive Plan, originally adopted on December 13, 1973, provides a basin wide strategy to serve SRBC and others in regard to the management of the water resources of the basin, whereby the goals set forth in the compact, and such goals and objectives as may be determined by SRBC, may be effectively and efficiently achieved. The Commission also conducts specialized water resource planning projects as part of its responsibilities. An example of this is the development of a regional ground-water management plan.

**Alliance for Aquatic Resource Monitoring (ALLARM)** - The Alliance for Aquatic Resource Monitoring (ALLARM), a project of the Environmental Studies Department at Dickinson College, partners with Pennsylvania communities and individuals who are working to protect and restore watersheds. Founded in 1986, ALLARM’s original mission was to study the effect of acid deposition on Pennsylvania’s waterways. To that end, volunteer monitors have gathered data on a weekly basis at over 550 sites in 96 percent of Pennsylvania counties. This information, widely recognized as the most comprehensive database on pH and alkalinity of Pennsylvania streams, is used by conservation organizations as well as local and state government for policy development. In 1996, ALLARM expanded its focus and began to work with locally based groups to develop watershed-based water quality monitoring programs. The database is accessible from the ALLARM website (<http://omega.dickinson.edu/storg/allarm/>). ALLARM’s Technical Support Center works cooperatively with volunteer stream monitoring groups (see Citizens Volunteer Monitoring Program below) across Pennsylvania to identify the watershed issues specific to that community.

Currently there are no active sampling sites in Bradford County, however there were three active sites between 3/10/90 and 11/25/92. The sampling sites were located at Onadawa Lake, Sunfish Pond, and the Susquehanna River. The data from these three locations revealed mean pH levels of 6.4, 6.0 and 6.9, with mean alkalinity levels of 21.07, 1.82 and 55.38 respectively.

**Citizens Volunteer Monitoring Program (CVMP)** -Pennsylvania's watersheds are monitored by a variety of organizations, schools and agencies as participants in the state's Citizens' Volunteer Monitoring Program (CVMP). The goals of the CVMP are twofold: (1) to foster stewardship by giving communities the tools they need to meet their own goals related to water resources; and (2) to give PADEP a better understanding of water resources by receiving quality-assured data from volunteers.

Most CVMP groups use their data for education, problem identification, watershed planning, non-point assessment, restoration evaluation, research and waters classification standards. In addition to monitoring groups, there are a number of organizations that provide technical and organizational support services to the groups, such as ALLARM.

The CVMP has worked closely with the national Environmental Alliance for Senior Involvement (EASI) in establishing a statewide database for the volunteer monitoring groups to use. The PASEC program is the nation's first statewide-organized senior environment corps and is the result of a multi-agency and national non-profit group partnership. In May 1997, the PADEP, PA Department of Aging, and the EASI signed a letter of intent, starting the PASEC program. By November of 1997, the PASEC was fully operational, with ten pilot sites established.

### ***Watershed Associations***

Watershed organizations are formed by a group of people who intend to improve a watershed by creating a list of goals and following through with enhancement activities. The overall goal for these groups is to sustain and restore their designated watershed ecosystem by improving water quality and productivity within that watershed. Current and planned projects for these organizations include such things as restorations, agricultural best management practices, educational groups, fundraising, planning, mapping, land use decisions, water monitoring, and various others. The following is a list of watershed organizations in Bradford County.

- Bradford County Lakes & Ponds Organization
- Center for Watershed Stewardship
- Chesapeake Bay Foundation
- Laning Creek Watershed Association
- Mehoopany Creek Watershed Association
- PA Cleanways
- PA Organization for Watersheds and Rivers
- PA Rivers Resource Advisory Council
- Penn York Bentley Creek Watershed Association
- Rivers, Bays, and Oceans
- Satterlee Creek Watershed Association
- Schrader Creek Watershed Association
- Seeley Creek Watershed Association
- Stream Restoration, Inc.
- The Alliance for Aquatic Resource Monitoring (ALLARM)
- Tioga River Watershed Reclamation Projects Inc.
- Towanda Creek Watershed Association
- Upper Susquehanna Coalition
- Wyalusing Creek Watershed Association
- Wysox Creek Watershed Association

### ***Stormwater Management Planning***

The Pennsylvania Stormwater Management Act, Act 167 of 1978, requires counties to prepare stormwater management plans on a watershed basis. These plans must be prepared in consultation with

the affected municipalities. The Pennsylvania Department of Environmental Protection's (PADEP) stormwater management program administers a grant program under Act 167 for counties to prepare watershed plans that provide standards for controlling runoff from new development. A key objective of a stormwater management plan is to coordinate decisions of the watershed municipalities. Once the plans have been approved by the PADEP, they may then be implemented through mandatory municipal adoption of ordinance provisions consistent with the plan.

The Wysox Creek watershed in Bradford County has developed a storm water management plan. According to the Watershed Storm Water Management Plan for the Wysox Creek Watershed the goal is to enable the Wysox Creek watershed to develop in a controlled, systematic fashion utilizing both structural and non-structural measures to properly manage storm water runoff in the watershed. Erosion is evident along the lower reaches of Wysox Creek caused by accelerated stream velocities due to increased runoff. The plan will make municipalities and developers more aware of comprehensive planning in storm water control and guide them in utilizing the best possible solutions to their drainage problems. Over time this will help maintain the quality of Wysox Creek and its tributaries, prevent the creation of new problem drainage areas, and sustain their high water quality reputation.

### ***Rivers Conservation***

The Pennsylvania Rivers Conservation Program (RCP) has been developed by PA DCNR to conserve and enhance river resources (including creeks and streams) through preparation and accomplishment of locally initiated plans. The program provides technical and financial assistance to municipalities and river support groups to carry out planning, implementation, acquisition and development activities. Rivers conservation planning has additional benefits in that completed rivers conservation plans help qualify conservation organizations and local governments for future funding. At the present time, the Pennsylvania Environmental Council is drafting a conservation plan for the North Branch of the Susquehanna River.

### ***Waterways and Recreation***

Clean, abundant water supply is indeed essential for life. But in addition to its uses related to its consumption, water plays a significant role in our recreational activities. From fishing and boating to swimming and appreciation of scenic and wildlife features, waterways are an integral part of rural and even not so rural life. While recreation itself is not typically considered an environmental resource, recognition that a clean, abundant water supply is needed to support the role water plays throughout community life is significant. (Recreational opportunities, both land- and water-based, are inventoried in Chapter 4, Community Facilities and Services.)

Many streams in the Susquehanna River drainage basin offer excellent fishing opportunities for species such as trout, muskellunge, catfish, bass, walleye, pickerel, and various panfish. The Pennsylvania Fish Commission maintains three access areas along the Susquehanna River in the County – in Sayre, Wysox, and Terrytown. There are also locally owned access points in riverfront, Ulster, and Wysox. Endless Mountain Outfitters and others provide guided river tours. They also rent kayaks and canoes to allow one to plan their own tour.

## **FLOODPLAINS**

Floodplain areas perform a number of critical ecologic functions. They absorb, store, and release large amounts of water to the surrounding soils and groundwater systems. Natural vegetation supported by floodplains helps to trap sediment and absorb excess nutrients from upland surface runoff, stabilize stream banks, and reduce soil erosion. Floodplains also provide habitat for terrestrial wildlife and influence stream conditions for aquatic life. Beyond their ecologic value, many people value the scenic qualities of floodplains areas, particularly for their wildlife and waters.

Regulation of floodplains helps to reduce the threat to human life and property caused by periodic flooding. For regulatory purposes, a floodplain is defined by the 100-year or base flood, which has a predicted one percent chance of being equaled or exceeded in a given year. The 100-year and 500-year floodplain boundaries for Bradford County are shown in Figure 1-4.

The Pennsylvania Floodplain Management Act (Act 166 of 1978) requires municipalities that have been identified as flood-prone to enact floodplain regulations that, at a minimum, meet the requirements of the National Flood Insurance Program (NFIP). The NFIP is a federal program that allows property owners in participating communities to purchase insurance protection against losses from flooding. Currently all townships and boroughs in Bradford County have adopted floodplain ordinances with the exception of Herrick Township.

The NFIP Community Rating System (CRS) was implemented in 1990 to recognize and encourage community floodplain management activities that exceed the minimum NFIP standards. The National Flood Insurance Reform Act of 1994 codified the CRS in the NFIP. Under the CRS, flood insurance premium rates are adjusted to reflect the reduced flood risk resulting from community activities that meet the three goals of the CRS: (1) reduce flood losses, (2) facilitate accurate insurance rating, and (3) promote the awareness of flood insurance.

Participation in the CRS is voluntary. No fee is charged for a community to apply for participation in the CRS. The only costs the community incurs are those of implementing creditable floodplain management activities and the staff time needed to prepare the CRS Application. The benefits to participating in the CRS program, beyond insurance premium reduction, include the following:

- 1) The CRS floodplain management activities provide enhanced public safety, a reduction in damage to property and public infrastructure, avoidance of economic disruption and losses, reduction of human suffering, and protection of the environment.
- 2) A community can evaluate the effectiveness of its flood program against a nationally recognized benchmark.
- 3) Technical assistance in designing and implementing some activities is available at no charge.
- 4) A CRS community's flood program benefits from having an added incentive to maintain its flood programs over the years. The fact that the community's CRS status could be affected by the elimination of a flood-related activity or a weakening of the regulatory requirements for new development, should be taken into account by the governing board when considering such actions.
- 5) Implementing some CRS activities, such as floodplain management planning, can help projects covered under this plan qualify for certain other federal assistance programs such as the Flood Mitigation Assistance Program (FMA), the Hazard Mitigation Grant Program (HMGP), and the U.S. Army Corps of Engineers.

According to the Federal Emergency Management Agency there are currently no towns or boroughs within Bradford County that participate in the CRS program. There is currently no documentation completed to establish the CRS in Bradford County townships and boroughs. However, part of the program is to physically delineate the floodplain areas and this is currently taking place as a part of some watershed organization tasks. This process could be the first step towards establishing a CRS in Bradford County communities.

The concept of flood hazard mitigation planning is rather new. The Federal Emergency Management Agency (FEMA) is requiring that municipalities perform hazard mitigation planning prior to receiving disaster relief or assistance. At the present time, the Bradford County Emergency Management Agency has completed their first flood hazard mitigation plan for the Valley Area, which includes four municipalities in the county - South Waverly Borough, Sayre Borough, Athens Borough and Athens

Township – and two in New York. Approximately 25 percent of the County’s population falls within this plan area. As soon as funding becomes available, work will begin on completing plans for the rest of the County.

### WETLANDS

Wetlands are unique environments that are transitional areas between terrestrial and hydrologic systems. As a component of both systems, they perform a variety of important functions and are in a state of constant change. Wetlands help to maintain surface stream flow and groundwater recharge. They moderate stormwater runoff and downstream flood crests because they are natural water storage areas. Wetlands provide important habitat for many species of plant and animal life.

There are multiple problems associated with developing on wetland soils. Wetlands located in floodplains are often flooded. Draining or filling in of upland wetlands removes natural water storage, which yields increased waterflows downstream. Wetland soils are sensitive in two ways. First, they are easily compacted, resulting in uneven settling of structures. Second, wetland soils with low permeability and high groundwater tables are not suitable for the installation of on-lot septic systems due to the risk of surface and groundwater contamination.

Laws, such as the Federal Clean Water Act and similar state and local laws have led to the enforcement of wetland protection. In Pennsylvania, the U.S. Army Corps of Engineers and the Pennsylvania Department of Environmental Protection strictly regulate development in wetland areas. Therefore, any development of these areas is subject to both federal and state permitting processes. Currently, there are not any municipalities in Bradford County that have adopted wetland ordinances. The wetlands of Bradford County are illustrated in Figure 1-5.

### STEEP SLOPES

William M. Marsh states in his 1991 publication entitled *Landscape Planning: Environmental Applications*, “The need to consider topography in planning is an outgrowth of the widespread realization not only that land uses have slope limitations but also that slopes have been misused in modern land development. The misuse of slopes arises from two types of practices: (1) the placement of structures and facilities on slopes that are already unstable or potentially unstable; and (2) the disturbance of stable slopes resulting in failure, accelerated erosion, and/or ecological deterioration of the slope environment (p.52).”

Slopes with grades of 15 percent or greater are considered steep by municipal planning standards and are prone to higher erosion rates than lesser grades. If disturbed, these areas can yield greater sediment loads on streams. Very steep slopes, with grades over 25 percent, produce heavy soil erosion and sediment loading. Steep slopes in Bradford County, greater than 20 percent, are illustrated in Figure 1-1. Many of the County’s steep slopes occur along the Susquehanna River, its steep banks are created by the continuous erosive downcutting. Currently, there are not any steep slopes ordinances in effect throughout Bradford County. Ordinances would help to protect slopes that are unsuitable for certain land uses such as agriculture and structural development.

Though erosion and runoff in steep slope areas are natural processes, development activities located in these areas can alter the gradients and upset the natural balance. However, by redirecting water runoff from buildings and impervious surfaces away from the face of steeper slopes, severe soil erosion and drainage problems that exist in Bradford County can be avoided. Soil erosion is a major problem for cropland and pastureland in the County, loss of topsoil to erosion causes reduction in production. Soil erosion also results in deposition of sediment in streams, pollution of streams, and reduced water quality

for all uses. Creeks across the county are filled with sediment and have little or no flow until storm events occur.

The four factors influencing soil erosion are vegetation, soil type, slope size and inclination, and the frequency and intensity of rainfall. On most surfaces, vegetative cover is the single most important erosion control factor. The higher cover densities yield lower soil loss to runoff as vegetation absorbs the impact of rainfall to the soil surface.

Septic systems for on-lot sewage disposal are impractical to construct and maintain on very steep slopes because the downhill flow of the effluent is too rapid. Improperly treated effluent is likely to surface at the base of the slope, causing wet, contaminated seepage spots. If there is a layer of impervious material such as dense clay or rock under shallow soils, the effluent may surface on the slope and run downhill unfiltered, potentially contaminating surface waters.

### **VEGETATION AND WILDLIFE**

As Pennsylvania was once a forested landscape, its vegetative and wildlife resources are a vital part of its history, its character, and its ecological health. Vegetation, particularly forests, performs several vital functions for the local ecology. It provides habitat, both food and shelter, for local wildlife. It circulates nutrients between the soil and the atmosphere. It stabilizes soils prone to erosion and filters nutrients, pollutants, and sediment from runoff, particularly along streambanks. Furthermore, forests are productive sources of timber.

The abundance and diversity of wildlife in Bradford County is dependent on the soil types found throughout the County. Distribution of vegetation depends on soil patterns. An area will support wildlife that can coexist with the types of vegetation present. If hydrologic conditions are altered in an area, the vegetation patterns will change as well. If the vegetation changes, the species and numbers of wildlife are altered. One physical alteration in an ecosystem can change the wildlife occurrence and abundance.

According to the Soil Survey of Bradford and Sullivan Counties (1986) approximately 52 percent of Bradford County is forested land (382,100 acres). The woodland in Bradford County is 83 percent private, 5 percent industry, and 12 percent public owned. The woodland consists of second and third growth trees. Predominant hardwood trees in the County are oak, maple and ash; predominant softwoods include hemlock, fir and pine.

There are three basic types of habitat for wildlife in Bradford County, openland, woodland, and wetland. Habitat for openland wildlife consists of cropland, pasture, meadows, and areas that are overgrown with grasses, herbs, shrubs, and vines. These areas produce grain and seed crops, grasses and legumes, and herbaceous plants. These types of openland habitats attract wildlife such as meadowlark, field sparrow, cottontail, and red fox.

Habitat for woodland wildlife in Bradford County consists of areas of deciduous plants or coniferous plants or both and associated grasses, legumes, and herbaceous plants. Wild turkey, ruffed grouse, woodcock, thrushes, woodpeckers, squirrels, gray fox, raccoon, deer, and bear are present in woodland habitats. Habitat for wetland wildlife consists of open, marshy or swampy shallow areas. Wildlife attracted to this type of habitat are ducks, geese, shore birds, muskrat, and beaver.

Both game and non-game wildlife species are important in maintaining a diverse and stable ecosystem, Bradford County has a large variety of each. Principal game species in the County are white-tailed deer, black bear, snowshoe hare, gray squirrel, cottontail rabbit, ruffed grouse, turkey, and waterfowl. Furbearers of importance include beaver, muskrat, mink, and red fox. Songbirds, reptiles, amphibians, and small mammals comprise the list of non-game species within the County.

The quantity of these various vegetative conditions, as well as their distribution and connectivity, has a significant impact on the rural character of Bradford County. If the vegetation, and the wildlife species that it supports, are considered valuable to the landscape and community character of the County, then land use decision-making should consider the vegetative patterns when allocating new uses to these areas.

### **SCENIC FEATURES AND VISTAS**

Famous as one of the most scenic highways in the country, Route 6 traverses Bradford County from east to west following parts of the meandering Susquehanna River through high rock cuts and fertile farmland. Route 6 is considered a destination as well as a travel way because of all its natural wonders. There are many scenic places throughout Bradford County, including Mt. Pisgah, Wyalusing Rocks, Quicks Bend, French Azilum, Lambs Lookout, Mountain Lake, Alpine Meadows Lakes Farm/Camp, Spanish Hill, Tioga Point and the Marie Antoinette Overlook.

Located two miles west of Wyalusing on Route 6 is Wyalusing Rocks. Wyalusing Rocks has a spectacular view of the Susquehanna River, rolling farmlands and the Endless Mountains. Rising 500 feet above the Susquehanna River the Iroquois once used this site as a signaling point. Easily accessible from this area are the “Warrior Path” and Prayer Rocks. In 2000, the ‘Rocks’ were purchased by the Eastern Delaware Indian Nation to preserve its scenic and spiritual magnificence. Just to the west on Route 6, the Marie Antoinette Overlook has a breathtaking view of the river and the French Azilum historic site. This is the site where French refugees built a colony in the late 1700s, and where the Endless Mountains Association plans to develop a regional visitor center.

Mt. Pisgah County Park has several view points to watch sunrises and sunsets. A spectacular view of fall foliage is another reason to visit the Park. Spanish Hill, in the northern part of the County near Sayre also affords some spectacular vistas. Bradford County has non-stop scenic vistas along the Susquehanna River and an endless number of trails for miles of biking and hiking.

### **TRENDS AND ISSUES**

- ❖ Recent droughts across Pennsylvania have reduced annual rainfall and impacted surface and groundwater resources. Future growth in Bradford County will require additional water supply from sources that are dependent upon precipitation to infiltrate and recharge the aquifers. Maintaining groundwater recharge and wellhead protection areas will be critical to protecting groundwater supply and quality for the future of the County.
- ❖ In addition to concerned local citizens, a number of public and private agencies and organizations are working in Pennsylvania to protect water resources. These agencies and organizations can be a significant source of technical and financial assistance to those involved in water and other resource protection activities.
- ❖ Bradford County has an abundance of natural resources but is not taking advantage of the commercial and recreational values that it possesses. Tourism opportunities are high in this region.
- ❖ Status of Act 167 Stormwater Management Plans. Completed for Wysox Creek Watershed.
- ❖ Flood hazard mitigation plans have been completed for the Susquehanna River Valley Communities of Sayre Borough, South Waverly Borough, Athens Borough, and Athens Township in Bradford County.

## ***Chapter 1 – Natural Resources Profile***

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- ❖ The municipalities of Bradford County participate in the National Flood Insurance Program, however they do not participate in NFIP's Community Rating System, which promotes floodplain conservation and flood protection.
- ❖ Wetland ordinances and regulations have not been adopted in the municipalities of Bradford County. These ordinances would help in protecting wetlands.
- ❖ Only Athens Township has ordinances relating to steep slope development. These types of regulations are needed to protect these fragile areas from future development and further erosion.
- ❖ Water Quality is currently being assessed. Pennsylvania's Surface Waters Assessment Program is looking at water quality throughout the state. Each waterway has been scheduled for assessment.



### INTRODUCTION

An understanding of the demographics and economic structure of an area is necessary in order to make sound planning decisions, as well as to develop appropriate policies involving the physical, social, and economic development of the county, particularly in terms of the allocation of municipal resources. The following sections identify and characterize these elements in Bradford County.

### DEMOGRAPHICS

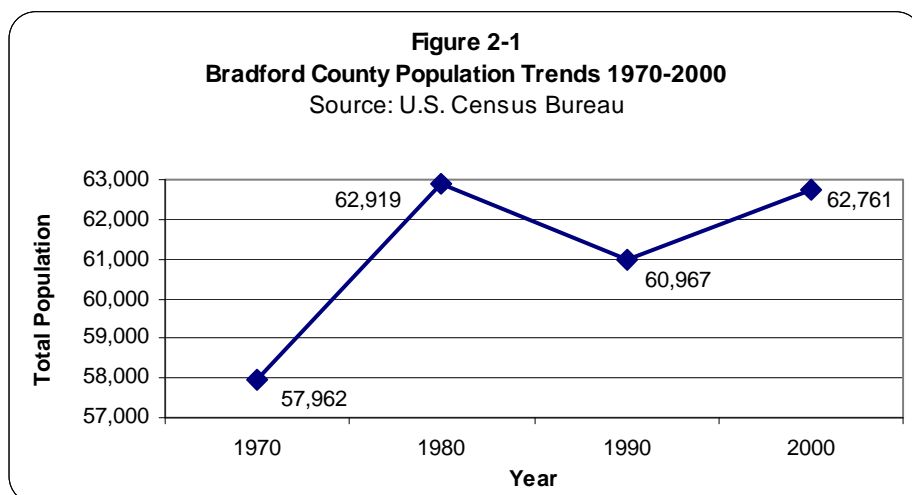
A quantitative analysis of population trends and a qualitative analysis of population characteristics are needed to make reasonable projections for future population growth and needs. Land area requirements for future residential, recreation, commercial, industrial, and other needs are directly related to the requirements of the population to be served. Projected population demands for services will also determine the number and scope of future schools, transportation facilities and other public infrastructure.

### HISTORIC AND EXISTING POPULATION

As illustrated in Figure 2-1, Bradford County has experienced a cycle of population growth and decline over the last thirty years. Despite periodic decreases, the population of the county increased 8.3 percent between 1970 and 2000. During this period, the population peaked at 62,919 persons in 1980, but has since experienced a negligible decrease of 158 persons (0.25 percent). This population growth cycle mirrors the conservative growth that Pennsylvania has experienced.

A review of population trends between 1970 and 2000 in Bradford County and its municipalities is presented in Table 2-1. As shown, 80 percent of the municipalities in Bradford County increased in population during this time period. The largest percentage increase of 167.7% occurred in Armenia Township. Rome and Franklin Townships also experienced significant increases in population, with 98.9 percent growth and 80.4 percent growth respectively. A total of six municipalities saw population increases of at least 50 percent between 1970 and 2000. The largest decrease in population over the last thirty years occurred in Towanda Borough (28.4 percent) followed by South Waverly Borough (24.5 percent). All ten municipalities within Bradford County that experienced a decrease in population since 1970 are boroughs.

Although the County's 2.9 percent population growth between 1990 and 2000 lagged behind the Pennsylvania average (3.4 percent), it still represented a fairly high growth percentage in the immediate vicinity. As shown in Table 2-2, Bradford County ranked third in population growth rate, behind Sullivan (7.4 percent) and Susquehanna (4.6 percent) Counties.



## Chapter 2 – Socioeconomic Profile

**Table 2-1  
Population Change for Bradford County, 1970-2000**

Municipality	Total Population				Population Change			
	1970	1980	1990	2000	1990-2000		1970-2000	
					#	%	#	%
USA	203,302,031	226,542,199	248,709,873	281,421,906	32,712,033	13.2	78,119,875	38.4
Pennsylvania	11,800,766	11,864,720	11,882,842	12,281,054	398,212	3.4	480,288	4.1
<b>BRADFORD COUNTY</b>	<b>57,962</b>	<b>62,919</b>	<b>60,967</b>	<b>62,761</b>	<b>1,794</b>	<b>2.9</b>	<b>4,799</b>	<b>8.3</b>
Alba Borough	184	222	170	186	16	9.4	2	1.1
Albany Township	705	853	927	927	0	0.0	222	31.5
Armenia Township	62	191	134	166	32	23.9	104	167.7
Asylum Township	843	1,027	981	1,097	116	11.8	254	30.1
Athens Borough	4173	3,622	3,468	3,415	-53	-1.5	-758	-18.2
Athens Township	4007	4,994	4,755	5,058	303	6.4	1,051	26.2
Burlington Borough	148	162	479	182	-297	-62.0	34	23.0
Burlington Township	585	765	705	799	94	13.3	214	36.6
Canton Borough	2037	1,959	1,966	1,807	-159	-8.1	-230	-11.3
Canton Township	1645	1,898	2,099	2,084	-15	-0.7	439	26.7
Columbia Township	1042	1,119	1,077	1,162	85	7.9	120	11.5
Franklin Township	387	559	557	698	141	25.3	311	80.4
Granville Township	761	903	837	873	36	4.3	112	14.7
Herrick Township	516	601	647	676	29	4.5	160	31.0
Le Raysville Borough	346	356	336	318	-18	-5.4	-28	-8.1
Leroy Township	587	639	610	627	17	2.8	40	6.8
Litchfield Township	1002	1,203	1,296	1,307	11	0.8	305	30.4
Monroe Borough	627	627	540	514	-26	-4.8	-113	-18.0
Monroe Township	1004	1,214	1,235	1,271	36	2.9	267	26.6
New Albany Borough	382	336	306	306	0	0.0	-76	-19.9
North Towanda Township	801	1,003	909	927	18	2.0	126	15.7
Orwell Township	783	1,020	1,107	1,097	-10	-0.9	314	40.1
Overton Township	155	239	157	187	30	19.1	32	20.6
Pike Township	503	598	684	657	-27	-3.9	154	30.6
Ridgebury Township	1669	2,102	2,026	1,982	-44	-2.2	313	18.8
Rome Borough	338	426	475	382	-93	-19.6	44	13.0
Rome Township	614	938	1,043	1,221	178	17.1	607	98.9
Sayre Borough	7473	6,951	5,791	5,813	22	0.4	-1,660	-22.2
Sheshequin Township	928	1,141	1,211	1,300	89	7.3	372	40.1
Smithfield Township	1397	1,536	1,520	1,538	18	1.2	141	10.1
South Creek Township	1114	1,345	1,229	1,261	32	2.6	147	13.2
South Waverly Borough	1307	1,176	1,049	987	-62	-5.9	-320	-24.5
Springfield Township	1061	1,121	1,118	1,167	49	4.4	106	10.0
Standing Stone Township	383	419	436	596	160	36.7	213	55.6
Stevens Township	347	412	401	414	13	3.2	67	19.3
Sylvania Borough	241	236	203	200	-3	-1.5	-41	-17.0
Terry Township	645	823	871	942	71	8.2	297	46.0
Towanda Borough	4224	3,526	3,242	3,024	-218	-6.7	-1,200	-28.4
Towanda Township	1075	1,269	1,133	1,131	-2	-0.2	56	5.2
Troy Borough	1315	1,381	1,262	1,508	246	19.5	193	14.7
Troy Township	1545	1,666	1,797	1,645	-152	-8.5	100	6.5
Tuscarora Township	779	930	996	1,072	76	7.6	293	37.6
Ulster Township	1201	1,321	1,295	1,340	45	3.5	139	11.6
Warren Township	748	874	927	1,025	98	10.6	277	37.0
Wells Township	1004	1,080	1,018	1,278	260	25.5	274	27.3
West Burlington Township	588	637	417	782	365	87.5	194	33.0
Wilmot Township	763	995	1,057	1,177	120	11.4	414	54.3
Windham Township	618	800	862	967	105	12.2	349	56.5
Wyalusing Borough	723	716	686	564	-122	-17.8	-159	-22.0
Wyalusing Township	911	1,192	1,235	1,341	106	8.6	430	47.2
Wysox Township	1666	1,796	1,685	1,763	78	4.6	97	5.8

Source: U.S. Census Bureau

**Table 2-2  
Comparative Population Growth Trends for Bradford County, Surrounding Counties, Pennsylvania, and the Nation  
1970-2000**

Municipality	Total Population				Population Change			
	1970	1980	1990	2000	1990-2000		1970-2000	
					#	%	#	%
USA	203,302,031	226,542,199	248,709,873	281,421,906	32,712,033	13.2	78,119,875	38.4
Pennsylvania	11,800,766	11,864,720	11,882,842	12,281,054	398,212	3.4	480,288	4.1
BRADFORD COUNTY	57,962	62,919	60,967	62,761	1,794	2.9	4,799	8.3
Chemung County, NY	101,537	97,656	95,195	91,070	-4,125	-4.3	-10,467	-10.3
Lycoming County	113,296	118,416	118,710	120,044	1,334	1.1	6,748	6.0
Sullivan County	5,961	6,349	6,104	6,556	452	7.4	595	10.0
Susquehanna County	34,344	37,876	40,380	42,238	1,858	4.6	7,894	23.0
Tioga County	39,691	40,973	41,126	41,373	247	0.6	1,682	4.2
Tioga County, NY	46,513	49,812	52,337	51,784	-553	-1.1	5,271	11.3
Wyoming County	19,082	26,433	28,076	28,080	4	-	8,998	47.2

Source: U.S. Census Bureau

## POPULATION DENSITY AND DISTRIBUTION

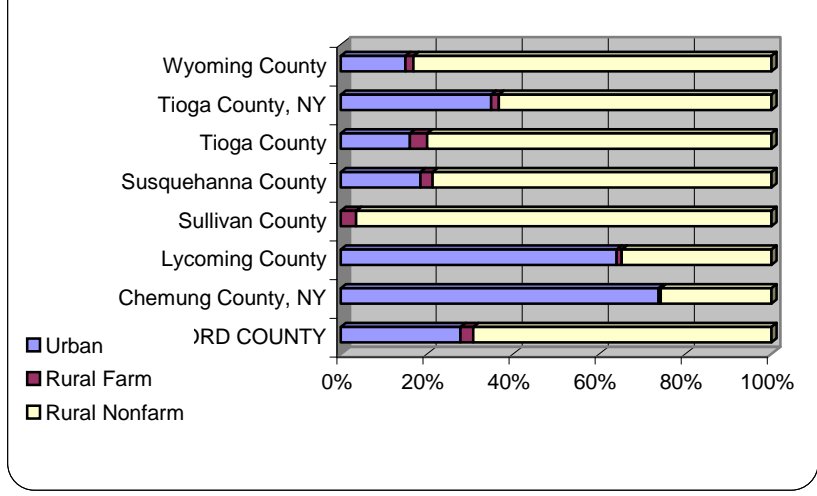
### Population Density

Population density may be defined as the total population of a jurisdiction in relation to its total land area and is a rough indication of a population's disbursement across the land. With a population density of only 54.5 persons per square mile, Bradford County's overall population density is low compared to the 273.6 persons per square mile density for the state.

### Population Distribution by Land Area

The U.S. Census Bureau defines "urban" areas as consisting of all territory, population, and housing units located in urbanized areas and in places of 2,500 or more persons outside urbanized areas. Territory, population, and housing units not classified as urban are defined as "rural". Figure 2-2 illustrates the urban and rural population percentages for Bradford County and neighboring counties. The majority of Bradford County's 1990 population is classified as rural - 79.5 percent. The seven surrounding counties represent a variety of population distributions. Only three neighboring jurisdictions maintained a lower percentage of their population in rural areas, which is due to the presence of fairly large urban areas in each of those counties.

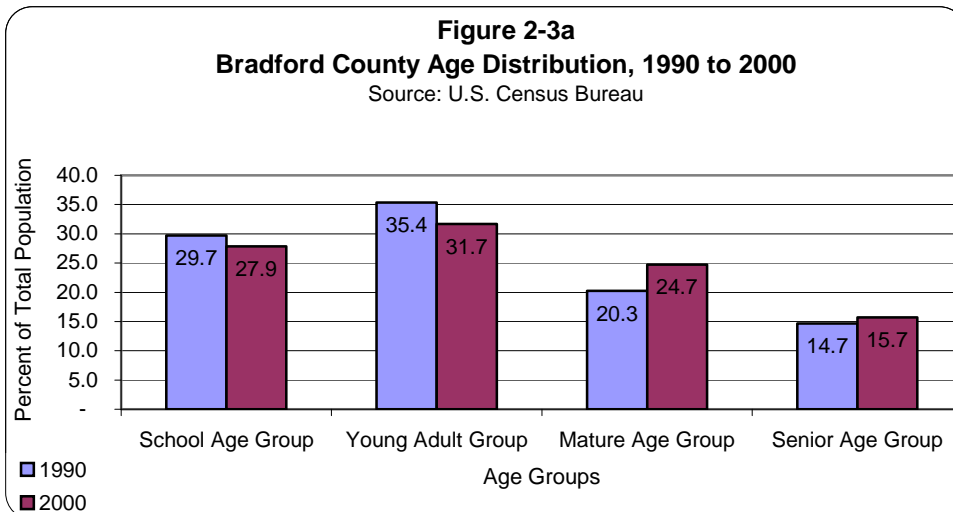
**Figure 2-2**  
**Population Distribution by Urban/Rural land Areas**  
 Source: U.S. Census Bureau

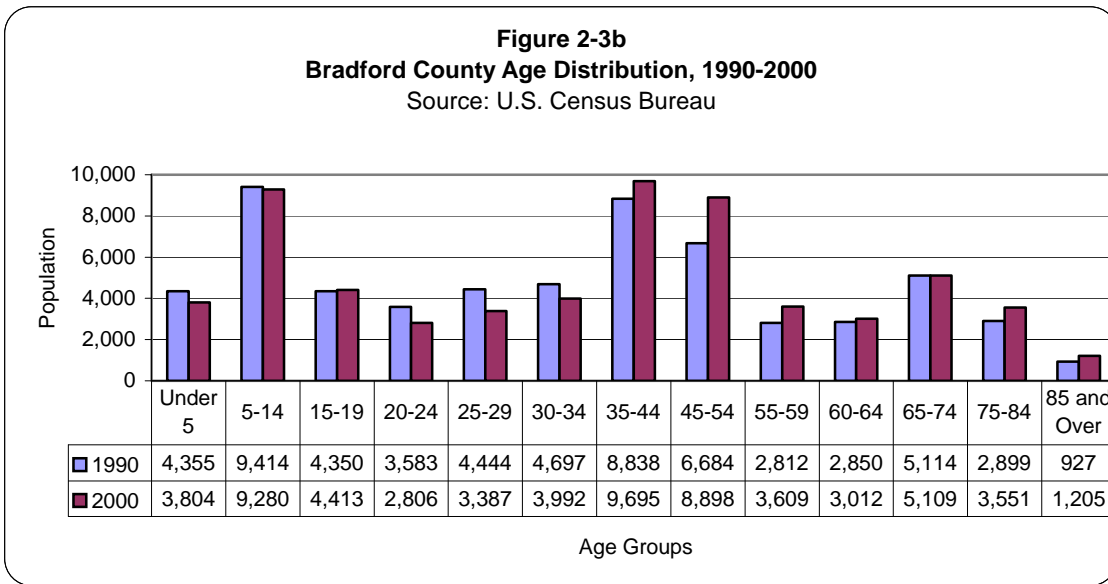


**AGE DISTRIBUTION**

A key factor that can affect population growth, and in turn, determine the type of services required, is the distribution of the total population according to the age of the residents. Persons aged 0-19 years (School Age) influence the demand for educational facilities and services. Those 18 to 44 (Young Adult) years of age are most frequently engaged in new household formation and comprise the prime childbearing age group. In addition, persons aged 25 to 44 years comprise the main component of the local labor force and are most frequently engaged in home buying or building; this group is also highly mobile and active in community functions. The Mature Age group, 45 to 64, tends to be more settled and at the height of their earning power. People 65 years and older (Senior Group) are generally characterized by limited purchasing power, an increased demand for health and public transit services, and special recreation requirements. Figure 2-3a provides a summary for these groups, while Figure 2-3b provides more detail within each group.

**Figure 2-3a**  
**Bradford County Age Distribution, 1990 to 2000**  
 Source: U.S. Census Bureau





Nearly all of the age group categories experienced growth during the 1990 to 2000 period, as shown in Figure 2-3b. It shows that the 45 to 54 year old age group experienced the largest growth for the period of 1990 to 2000. Though the increase of 33.1 percent is lower than the Pennsylvania average of 38.5 percent, it is still notable. Maturation of the baby boom generation may mean a smaller housing market for the immediate future.

Additionally, the number of people in the age 55 to 59 group increased by 28.3 percent, while the number of individuals over 85 increased 30 percent. With an ever-growing elderly population, it will be more and more important to provide recreation activities, health services, and public transportation customized for their needs. At the same time, the age 25 to 44 group, those most heavily engaged in the labor force and home buying, experienced a decrease of 29.1 percent.

Bradford County and the surrounding counties experienced an increase in their populations' median ages, which is consistent with national and state trends. The median age for Bradford County rose 4.3 years from 1990 to 2000 to 38.9 years. This is also comparable to neighboring municipalities.

**GENDER DISTRIBUTION**

According to the U.S. Department of Health, Pennsylvania's life expectancy rate for females is 79.6 years, and is greater than that of males, which is 73.4 years (USDOH 1995). As a result, there tends to be a greater number of females than males in Pennsylvania. These numbers are beginning to even out in Bradford County where the population consists of 24,631 males and 25,353 females. In 1990 the County had a male to female ratio of 0.95, but this figure has grown in 2000 to 0.97. This constant gender distribution gives the county a positive outlook for an increase in family formation and the growth of the school age population in the immediate future.

**ETHNIC COMPOSITION**

In 2000, 97.9 percent of Bradford County's population was Caucasian; however, the percentage of non-white residents is rising in Bradford County, which is the trend across the country and even at the local

level. While the non-white percentage of the County's population is still a small 2.1 percent, the percentage more than doubled between 1990 and 2000.

**EDUCATIONAL ATTAINMENT AND ENROLLMENTS**

Table 2-3 compares the educational attainment level of Bradford County residents, ages 25 and over, with neighboring counties, the state of Pennsylvania, and the nation. The information reflects upon the skills and abilities of the local labor force to compete in the labor market.

Of the jurisdictions studied, the high school completion rate for Bradford County was one of the highest in the area, topped only by Susquehanna County (47.2 percent). 47.1 percent of residents attained high school graduation or equivalency, which is comparable to neighboring municipalities; yet well ahead of the 38.1 percent state average. However, between 1990 and 2000 the County saw its high school attainment rate drop from 47.6 percent in 1990 to 47.1 percent in 2000. This slight downward trend is repeated in several neighboring counties as well. With a school age population comprising over one quarter of the Bradford County population, it is increasingly important to encourage and facilitate higher levels of educational attainment.

In contrast, the county's college attainment level of 34.5 percent lags behind the levels of most surrounding counties and the state; however, this was an increase of 6.3 percent between 1990 and 2000.

**Enrollments**

Between 1990 and 2000 six of the seven school districts located throughout Bradford County experienced a decline in enrollments. Sayre School District represented the only overall increase - 4.2 percent - in enrollment between 1990 and 2000, though recent enrollments have declined. The average decline among school districts was 6 percent, with the largest decreases in Wyalusing SD (13.9 percent) and Northeast Bradford SD (13.6 percent). In most cases, enrollments began a steady decline between the 1997 and 1999 school years that has continued. The recent decrease in school enrollments coincides with a decline in residents in the young adult age group, which is the primary childbearing age group. though the county's school age population has shown a less noticeable decline.

**Table 2-3  
Educational Attainment, 1990-2000**

Municipality	Percent of Persons 25 Years Old and Over by Educational Attainment Level (1)			
	1990		2000	
	High School	College	High School	College
USA	30.1	45.4	44.6	78.6
Pennsylvania	38.6	36.2	38.1	43.8
<b>BRADFORD COUNTY</b>	<b>47.6</b>	<b>28.2</b>	<b>47.1</b>	<b>34.5</b>
Chemung County, NY	36.7	40.6	36.1	45.9
Lycoming County	41.2	33.4	41.9	38.8
Sullivan County	46.5	24.0	45.6	32.4
Susquehanna County	46.8	29.3	47.2	35.2
Tioga County	43.1	29.7	44.6	35.8
Tioga County, NY	39.4	41.2	37.4	37.3
Wyoming County	46.2	31.4	45.3	38.4

Source: U.S. Census Bureau, 1990 and 2000 STF3A

(1) High school is equivalent to completing 12 years of school and includes obtaining a high school diploma or equivalency. College includes completing 13 years or more of post high school level education and includes two and four year college programs, and graduate programs.

**INCOME AND POVERTY LEVELS**

Bradford County's income levels are closely related to its educational achievement, as income levels usually reflect educational levels. Income also reflects the relative influence of an area and its ability to support needed public facilities and utilities. Income statistics for Bradford County, neighboring counties, Pennsylvania, and the nation are presented in Table 2-4 and 2-5. Income statistics are grouped into two main categories by the U.S. Census Bureau and are defined as follows:

Household Income – The median income value representing all households and unrelated individuals.

Per Capita Income – Calculated by dividing the aggregate income for persons 15 years and over by the total number of persons in the group.

The U.S. Bureau of Labor Statistics' Consumer Price Index (CPI) was used to adjust Bradford County's 1990 income levels for inflation to 2000 dollars. The CPI represents changes in prices of all goods and services purchased for consumption by urban households. User fees (such as water and sewer service) and sales and excise taxes paid by the consumer are also included. Income taxes and investment items (i.e., stocks, bonds, and life insurance) are not included.

As shown in Table 2-4, Bradford County's 1999 median household income narrowly exceeded inflation by \$569.00. In comparison, the county's 2000 median household income of \$35,058 exceeded the 1990 adjusted amount; thus exhibiting a real growth of income. Between 1990 and 2000, the county experienced a real growth in median household income of 1.7 percent. Sullivan County was the only other county in the area to exhibit real growth in income (4.7 percent). Though the current Bradford

County median household income of \$35,038 is below the state average of \$40,106, it is comparable to other counties in the area.

**Table 2-4  
Median Household Income Analysis, 1990-2000**

Municipality	Census Reported 1989 Median Household Income	Inflated 1989 Median Household Income to 1999 Dollars (1)	Census Reported 1999 Median Household Income	Real Growth in Median Household Income (Percent Change)
USA	\$30,056	\$43,221	\$41,433	-4.1
Pennsylvania	\$29,069	\$41,801	\$40,106	-4.1
<b>BRADFORD COUNTY</b>	<b>\$23,970</b>	<b>\$34,469</b>	<b>\$35,038</b>	<b>1.7</b>
Chemung County, NY	\$32,014	\$46,036	\$36,415	-20.9
Lycoming County	\$25,552	\$36,744	\$34,016	-7.4
Sullivan County	\$20,107	\$28,914	\$30,279	4.7
Susquehanna County	\$24,736	\$35,570	\$33,622	-5.5
Tioga County	\$22,571	\$32,457	\$32,020	-1.3
Tioga County, NY	\$31,497	\$45,293	\$40,266	-11.1
Wyoming County	\$27,207	\$39,124	\$36,365	-7.1

Sources: U.S. Census Bureau

(1) U.S. Northeast urban average inflation index from 1989 to 1999 equals 1.438

The CPI was also used to adjust the 1990 per capita income levels to 2000 dollars. The results are shown in Table 2-5. Bradford County experienced real growth of 10.3 percent in per capita income. Growth in surrounding counties varied from 2.3 percent in Lycoming County to 35.8 percent in Chemung County (NY); New York values are noticeably higher than those in Pennsylvania. Bradford County's growth level was above Pennsylvania and national averages (3.2 percent and 4.6 percent, respectively). However, at \$17,148, the per capita income for the county was regionally competitive, but below that of the state by \$3,732. This conservative income level may be a result of the high percentage of traditionally moderate income elderly in Bradford County as compared to the state as a whole.

**Table 2-5  
Unadjusted and Adjusted Per Capita Income Comparisons for Bradford County, Surrounding  
Counties, Pennsylvania, and USA 1990-2000**

Jurisdiction	1990 Per Capita Income (Unadjusted)	1990 Per Capita Income in 2000 Dollars	2000 Per Capita Income (Unadjusted)	Percent Change in Per Capita Income
USA	\$14,420	\$20,736	\$21,690	4.6
Pennsylvania	\$14,068	\$20,230	\$20,880	3.2
<b>BRADFORD COUNTY</b>	<b>\$10,810</b>	<b>\$15,545</b>	<b>\$17,148</b>	<b>10.3</b>
Chemung County, NY	\$12,069	\$17,355	\$23,563	35.8
Lycoming County	\$11,714	\$16,845	\$17,224	2.3
Sullivan County	\$9,839	\$14,148	\$16,438	16.2
Susquehanna County	\$10,907	\$15,684	\$16,435	4.8
Tioga County	\$10,290	\$14,797	\$15,549	5.1
Tioga County, NY	\$13,064	\$18,786	\$22,094	17.6
Wyoming County	\$11,628	\$16,721	\$17,452	4.4

Source: US Census Bureau

(1) U.S. Northeast urban average inflation index from 1989 to 1999 equals 1.438

**Poverty Levels**

Table 2-6 presents poverty level data for Bradford County, surrounding counties, Pennsylvania, and the nation. As shown, most counties experienced decreases in their poverty levels from 1990 to 2000. According to the 2000 census, 11.8 percent of Bradford County's total population was below the poverty level. This figure is equal to the national average and similar to other counties in the area, which range from 8.4 percent in Tioga County (NY) to 14.5 percent in Sullivan County. Though slightly higher than the 11 percent figure reported by the state, Bradford County's poverty level decreased 1.5 percent between 1990 and 2000.



**Table 2-6  
Poverty for Bradford County, 1990-2000**

Municipality	Percent of Persons for Whom Poverty Status is Determined	
	Income in 1989 Below Poverty Level	Income in 1999 Below Poverty Level
USA	13.1	11.8
Pennsylvania	11.1	11.0
<b>BRADFORD COUNTY</b>	<b>13.3</b>	<b>11.8</b>
Chemung County, NY	11.4	13.0
Lycoming County	11.5	11.5
Sullivan County	18.0	14.5
Susquehanna County	12.1	12.3
Tioga County	14.6	13.5
Tioga County, NY	9.3	8.4
Wyoming County	11.1	10.2

Sources: U.S. Census Bureau

**HOUSEHOLD CHARACTERISTICS**

Of key interest are the types of households in Bradford County. The Census Bureau defines three basic types of households: a married couple family, a family headed by either a male or female without a spouse, and non-family household, which is an individual living alone or with a non-relative.

Table 2-7 presents 1990 and 2000 household information for Bradford County as recorded by the U.S. Census Bureau. Between 1990 and 2000, household formation exceeded the county’s population growth by 5.8 percent. During this time period, the county experienced an increase of 1,961 households (8.7 percent increase over 1990 totals) accompanied by a decrease in average household size from 2.67 persons per household in 1990 to 2.52 persons per household in 2000. These results are similar to national and state trends and are the continuation of a long-term, gradual decrease in household size.

The fastest growing household type in Bradford County is the non-family household, followed closely by female-headed households with no spouse present. Between 1990 and 2000, the number of non-family households increased by 3.4 percent to constitute 29.2 percent of all households, while female-headed households (8.9 percent) experienced a 3.0 percent increase. At the same time, married couple families decreased by 4.6 percent, from 62 percent in 1990 to 57.4 percent in 2000, significantly influencing the decline in the number of family households. This trend was also repeated at the state and national level.

## Chapter 2 – Socioeconomic Profile

**Table 2-7  
Household Characteristics, 1990-2000**

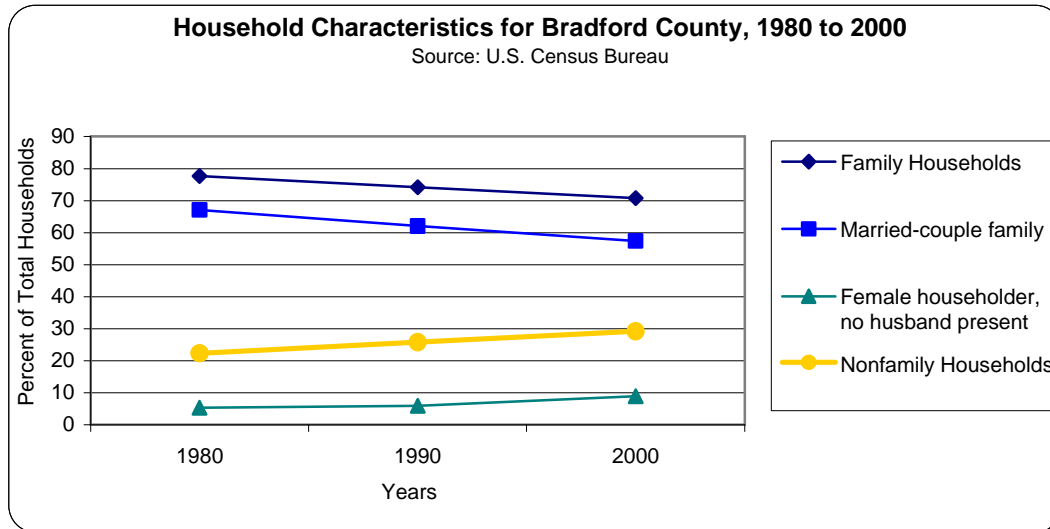
Municipality	1990 Households			2000 Households			Persons per Household	
	Family	Non-family	Total	Family	Non-family	Total	1990	2000
USA	64,517,947	27,429,463	91,947,410	71,787,347	33,692,754	105,480,101	2.63	2.59
Pennsylvania	3,155,989	1,339,977	4,495,966	3,456,062	1,320,941	4,777,003	2.57	2.48
BRADFORD COUNTY	16,691	5,801	22,492	17,308	7,145	24,453	2.67	2.52
Chemung County, NY	24,808	10,467	35,275	23,280	11,769	35,049	2.56	2.44
Lycoming County	32,165	12,784	44,949	31,703	15,300	47,003	2.56	2.44
Sullivan County	1,601	679	2,280	1,754	906	2,660	2.49	2.30
Susquehanna County	11,238	3,660	14,898	11,777	4,752	16,529	2.69	2.53
Tioga County	11,103	3,871	14,974	11,191	4,734	15,925	2.61	2.48
Tioga County, NY	14,470	4,368	18,838	14,326	5,399	19,725	2.76	2.60
Wyoming County	7,464	2,538	10,002	7,704	3,058	10,762	2.72	2.55

Source: U.S. Census Bureau, STF1A, 1980 and 1990, and SF1A, 2000.

**Table 2-7 (continued)  
Household Characteristics, 1990-2000**

Bradford County						
Household Type	Decennial Census					
	1980		1990		2000	
	#	%	#	%	#	%
<b>Total Households (Family + Nonfamily)</b>	<b>21,449</b>	<b>100.0</b>	22,492	<b>100.0</b>	24,453	<b>100.0</b>
Family Households (2 or more persons)	16,652	77.6	16,691	74.2	17,308	70.8
Married-couple family	14,388	67.1	13,953	62.0	14,032	57.4
Female householder, no husband present	1,135	5.3	1,322	5.9	2,182	8.9
Nonfamily Households	4,797	22.4	5,801	25.8	7,145	29.2
<b>Median household size (persons per household)</b>	<b>2.89</b>		<b>2.67</b>		<b>2.52</b>	

Source: U.S. Census Bureau, STF1A, 1980 and 1990, and SF1A, 2000.



**LABOR FORCE AND EMPLOYMENT CHARACTERISTICS**

The inventory and analysis of Bradford County’s labor force and economic resources and activities is an important component of the comprehensive planning process. The growth and sustainability of the County and surrounding area is largely dependent on its existing economic structure and its relationship to regional and national markets. As employment opportunities increase, the population and general development activity of an area also increases, as well as the total wages and salaries paid. The resulting increase in disposable income places a greater demand on the provision of goods and services sold within the area, thus strengthening the local economy.

**REGIONAL SETTING AND BACKGROUND**

Bradford County is centrally located in Pennsylvania’s Northern Tier and is a neighbor of New York’s Southern Tier Region. The County is located along two of the Northern Tier’s most important highway corridors: US 6 and US 220. Interstate 81 is located to the east, and is fairly accessible; US 15, which has been designated as the new I-99 corridor is located to the west. NY Route 17 (future I-86) will further expand transportation access in this region.

New York’s Southern Tier Region includes nine counties, two metropolitan areas, several small cities, and extensive rural areas. The region has a collective population of 712,064. 51 percent of all US and

Canadian manufacturing plants and 78 million people are within a 350-mile radius. The region is a leader in high-technology manufacturing: IBM, Lockheed Martin, Raymond Corporation, and Universal Instruments have a strong presence in the region. Other manufacturers include Toshiba, Schweizer Aircraft, Artistic Greetings, and Unison Industries. Agriculture, including wine and dairy production, and tourism are also key industries in the region.

Bradford County's economy continues to evolve in to the 21<sup>st</sup> century. Since the County's settlement, natural resources have provided the basis of local industry, namely forestry and agriculture. In more recent years, these natural resources and their history have opened the region to tourism and its related service industries. Others have found the County's rural lifestyle suitable for home-based businesses.

### **LEADING EMPLOYERS**

Table 4-1 lists the County's top 50 employers by their six-digit, North American Industry Classification System (NAICS) code. [Note, on April 8, 1997, the Office of Management and Budget (OMB) announced the adoption of the NAICS to replace the outdated Standard Industrial Classifications (SIC). This revision better accounts for the changing structure of modern business.] It also lists the total number of employees and a description of the business. It should be noted that not all of a company's employees necessarily work in Bradford County. For example, Guthrie Healthcare System has facilities throughout the Twin Tiers Region. Most of these businesses are located in the Athens-Sayre, Troy-Canton, and Towanda areas.

Table 2-8  
Top 50 Employers in Bradford County (2000)

Employer	# Employees	SIC Code	NAICS Code	Description
ROBERT PACKER HOSPITAL INC.	1574	8062	62211	General Medical and Surgical Hospital
OSRAM SYLVANIA PRODUCTS INC	1000	364	3351	Electric Lighting Equipment Manufacturing
TAYLOR PACKING COMPANY INC	1100	201	3116	Beef-processing
GUTHRIE CLINIC LTD		806	6221	General Medical and Surgical Hospital
E I DUPONT DE NEMOURS AND COMPANY	600	28	325	Chemical Manufacturing
BRADFORD COUNTY	800	9199	92119	County Government-General Offices
MASONITE CORPORATION	0	3442/3449	332321	Metal Window and Door Manufacturing
MILL'S PRIDE PENNSYLVANIA LLC	510	2434/2541/5712	33711	Wood Kitchen Cabinet and Countertop Manufacturing
INGERSOLL-RAND COMPANY	350	3531	33312	Construction Machinery Manufacturing
ATHENS AREA SCHOOLS	390	8211	6111	School Districts-Public
SHOP VAC CORPORATION		3635/3639	335212	Household Vacuum Cleaner Manufacturing
MEMORIAL HOSPITAL INC & SKILLED NURSING UNIT	450	8062	62211	General Medical and Surgical Hospital
TOWANDA AREA SCHOOL DISTRICT	260	8211	6111	School Districts-Public
* PENNSYLVANIA STATE GOVERNMENT		9199	92119	State Government-General Offices
THE PAPER MAGIC GROUP INC	325	2675/2679	322299	All Other Converted Paper Product Manufacturing
WAL-MART ASSOCIATES INC	280	5399	45299	General Merchandise Stores
TROY AREA SCHOOL DISTRICT	325	8211	6111	School Districts-Public
PENN TRAFFIC COMPANY	45	5411	44511	Supermarkets and Other Grocery (except Convenience) Stores
PAXAR CORPORATION	198	3953	339943	Marking Device Manufacturing
GUTHRIE HEALTHCARE SYSTEM	6030	806	6221	General Medical and Surgical Hospital
DANDY MINI MARTS INC	224	5411	44511	Gasoline Stations with Convenience Stores
SAYRE AREA SCHOOL DISTRICT	155	8211	6111	School Districts-Public
KMART OF PENNSYLVANIA LP	75	5399	45299	General Merchandise Stores
KRISE'S BUS SERVICE INC		4119/4151	48541	School and Employee Bus Transportation
BAYADA NURSES INC		8049	6216	Home Health Care Services
UNITED STATES GOVERNMENT		9199	92119	Federal Government-General Offices
CANTON AREA SCHOOL DISTRICT	138	8211	6111	School Districts-Public
MARTHA LLOYD COMMUNITY RESIDENT FACILITY	275	805	6233	Community Care Facilities for the Elderly
SMOKIN' JOE'S TOBACCO SHOP INC		5993	453991	Tobacco Stores
STROEHMANN BAKERIES LC	130	204	31181	Bread and Bakery Product Manufacturing
WYALUSING AREA SCHOOL DISTRICT	180	8211	6111	School Districts-Public
MESTEK INC.		3585	333415	Air-Conditioning Heating ( Warm Air) Refrigeration Equipment
TROY COMMUNITY HOSPITAL		806	6221	General Medical and Surgical Hospitals
DELAWARE HOSPITALITY		7011	72111	Hotels (except casino hotels) & motels
HERITAGE NURSING HOME INC.	142	8051	62311	Nursing homes
PHYSICIAN CARE PC	108	80	621	Ambulatory Health Care Services
LEPRINO FOODS COMPANY	230	2022	311513	Cheese Manufacturing
NORTHERN TIER COUNSELING INC	120	8093	62142	Outpatient Mental Health and Substance Abuse Centers
ROHE ENTERPRISES				
PARKER-HANNIFIN CORPORATION	130	3492	332912	Fluid Power Valve and Hose Fitting Manufacturing
CUMMINGS LUMBER COMPANY INC	100	5031	444190	Other Building Material Dealers
SAYRE CORP				
GUTHRIE HOME CARE		8049	6216	Home Health Care Services
C/O GATE MCDONALD & CO				
AMES MERCHANDISING CORPORATION	42	5399	45299	General Merchandise Stores
GENERAL ELECTRIC RAILCAR	100	4789	4882	Support Activities for Rail Transportation
CITIZENS & NORTHERN BANK	128	6021	52211	Commercial Banking
TOWANDA PRINTING COMPANY		271	3231	Printing and Related Support Activities

**CIVILIAN LABOR FORCE CHARACTERISTICS**

The resident civilian labor force is defined as all persons 16 years of age and older within a specified geographic area that are either working or actively seeking work. This excludes those serving in the armed forces. Only 22 County residents reported employment in the armed forces according to 2000 Census data. Labor force data serves as a key indicator of a local economy's health. Patterns of growth and decline in the local labor force are largely driven by economic cycles, as well as activity in the local construction, government and agricultural sectors. Since gross domestic product and gross state product are not gathered at the municipal level, labor force changes, as well as other measures, serve as substitutes.

Table 4-2 quantifies the civilian labor force trends experienced at the nation, state, and County levels for the 1980, 1990 and 2000 periods. The total civilian labor force in Bradford County increased by 3 percent between 1980 and 2000 from 27,100 employees to 27,900 laborers, though it peaked in 1990 at 28,100. Since 1980, all neighboring jurisdictions except Sullivan County strengthened their total civilian labor force supplies.

According to the Pennsylvania Department of Labor and Industry, Bradford County's annually adjusted unemployment rate for 2000 was 3.8 percent. This figure, a steady improvement from the 1980's unemployment rate of 8.2 percent and the 1990's unemployment rate of 5.9 percent, is also slightly lower than the 2000 unemployment rate of the state (4.2 percent). Bradford County's unemployment rate was nearly the lowest in the region, second only to the 3.3 percent rate recorded in Tioga County (NY). The remaining counties in the region had unemployment rates between 4.5 percent and 5.5 percent.

Table 4-3 reports the gender distribution of the total labor force (armed and civilian) for Bradford County in 1990 and 2000. As shown, the total percentage of residents in the labor force increased slightly by 0.2 percent during this period. More significantly, the percentage of males in the County labor force declined by 17.8 percent, while the percentage of females increased by 3.1 percent. Both trends are also apparent at the state level, though only the decline in male labor force participation is seen at the national level. At the present time there is not enough information to attribute this trend to specific causes.

**Table 2-9  
Civilian Labor Force Characteristics  
(Civilian Employment = Persons 16 Years and Older)**

Jurisdiction	Total Civilian Labor Force			Civilian Labor Force Unemployment			Civilian Labor Force Unemployment Rate		
	1980	1990	2000**	1980	1990	2000**	1980	1990	2000
USA	106,940,000	125,840,000	140,863,000	7,637,000	7,047,000	5,655,000	7.1	5.6	4.0
Pennsylvania	5,435,000	5,791,000	5,971,900	425,000	315,000	249,900	7.8	5.4	4.2
<b>BRADFORD COUNTY</b>	<b>27,100</b>	<b>28,100</b>	<b>27,900</b>	<b>2,200</b>	<b>1,700</b>	<b>1,100</b>	<b>8.2</b>	<b>5.9</b>	<b>3.8</b>
Chemung County, NY	39,700	44,300	42,800	3,000	2,100	2,100	7.7	4.7	4.8
Lycoming County	55,500	57,600	56,700	6,400	4,600	2,600	11.5	8.0	4.6
Sullivan County	2,600	2,600	2,400	300	200	100	11.3	6.6	5.5
Susquehanna County	16,400	18,200	18,700	1,500	1,400	800	9.4	7.7	4.5
Tioga County	17,400	18,500	20,000	1,800	1,300	900	10.5	7.2	4.5
Tioga County, NY	23,000	26,500	25,900	1,500	1,100	900	6.6	4.2	3.3
Wyoming County	11,300	14,200	15,000	1,000	900	700	9.3	6.3	4.5

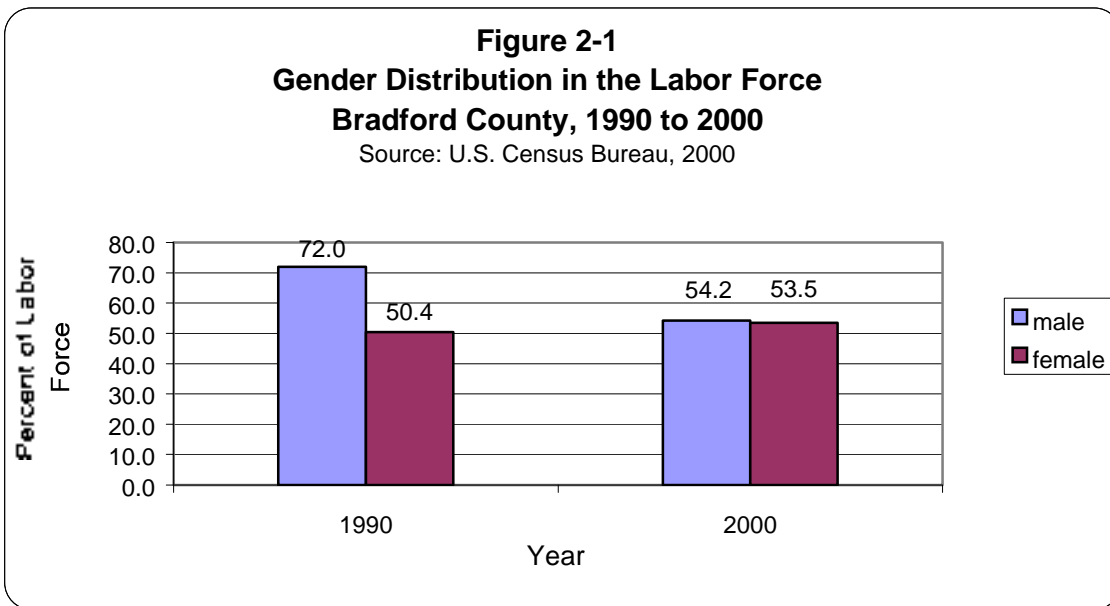
Sources: Pennsylvania Department of Labor and Industry, 2000

\*\* Annual Average

Table 2-10  
Labor Force , 1990-2000

Municipality	Individuals 16 Years and Older					
	1990			2000		
	% Males in LF	% Females in LF	Total % in LF	% Males in LF	% Females in LF	Total % in LF
USA	74.4	56.8	65.3	53.7	46.3	49.2
Pennsylvania	71.7	52.8	61.7	53.0	55.3	61.9
BRADFORD COUNTY	72.0	50.4	60.7	54.2	53.5	60.9
Chemung County, NY	66.2	54.9	60.3			
Lycoming County	71.4	52.1	61.2	53.6	55	61.4
Sullivan County	61.1	42.7	51.8	54.0	50.9	54.8
Susquehanna County	72.4	50.1	60.9	55.1	53.8	60.7
Tioga County	68.2	48.4	57.9	54.0	52.7	59.3
Tioga County, NY	78	56.8	67.1			
Wyoming County	75.9	51.9	63.6	55.0	53.9	61.6

Source: U.S. Census Bureau, 1990 and 2000 STF3



**BASIC INDUSTRIES**

One of the most important aspects of analyzing employment by industry information is the identification of the “basic” and “non-basic” industries in the local economy. Basic industries are those that draw money into the local economy from outside its borders, while non-basic or service producing industries serve the needs of the local populace and businesses within the locality’s borders. The basic and non-basic industries are determined by the location quotient (LQ), which is also known as the ratio of ratios.

The LQ indicates the degree to which the local area (e.g., Bradford County) specializes in a particular industry relative to a comparison region (e.g., Pennsylvania). The LQ’s for Bradford County were calculated using the formula illustrated above. Those industries that have LQ’s greater than 1.0 are considered part of the local area’s economic base. The assumption here is that the basic employment produces goods or services for export to areas outside the local economy area and the more the LQ exceeds 1.0 the greater is the share of total employment within that sector devoted to export production. Conversely, those industries that have LQ’s less than 1.0 exist to serve the needs of the local populace and the employment within such industries are said to be the “non-basic” employment

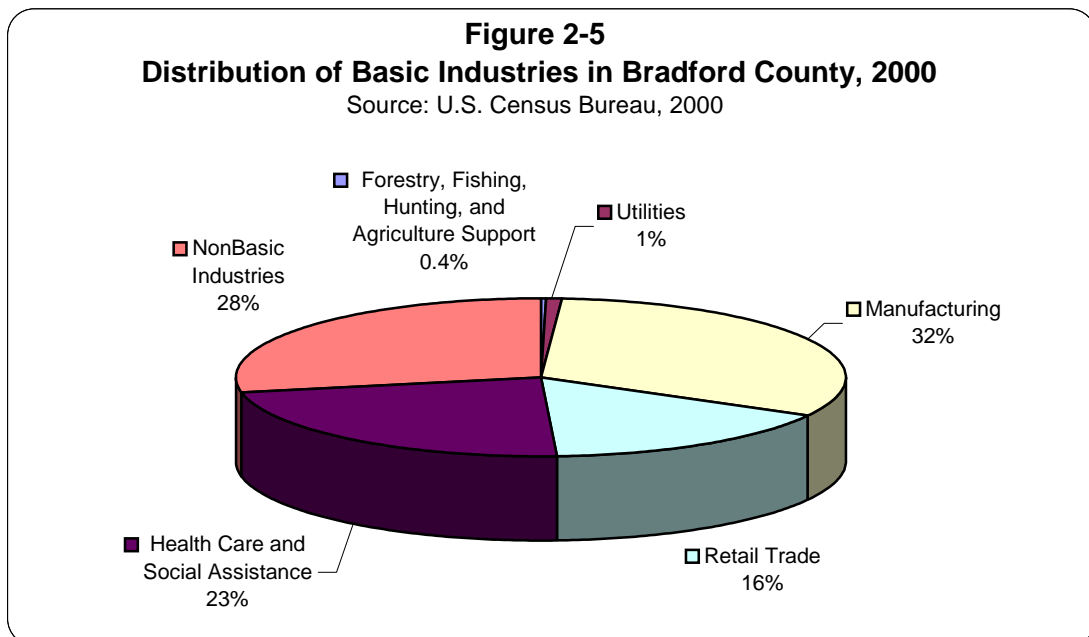
$$LQ_I = \frac{E_i}{E} / \frac{E_{Ni}}{E_N}$$

Where:

- E = Total local employment
- E<sub>i</sub> = Total local employment in industry i
- E<sub>N</sub> = Total regional employment
- E<sub>Ni</sub> = Total regional employment in industry I

**Location Quotient Formula**

The distribution of Bradford County’s industries is shown in Figure 4-3. Basic industries are shown with their respective employment percentages, while non-basic industries are grouped. As shown, Bradford County’s leading basic industries are manufacturing (32 percent) and Health Care and Social Assistance (23 percent).





**RESIDENT EMPLOYMENT BY INDUSTRY**

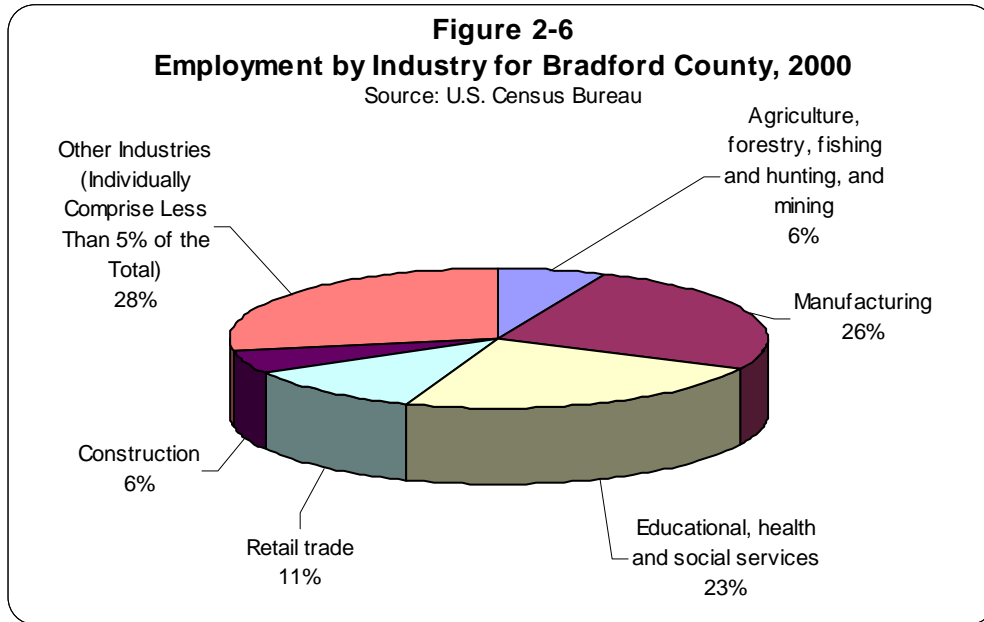
Resident employment is defined as all persons 16 years of age and older that are employed within a specific geographic area. This excludes those serving in the armed forces. Like the general population, the resident employment patterns identify the types and predominance of the major industry sectors in a given region.

Table 4-4 compares the resident employment by industry for Bradford County, Pennsylvania and the nation, as collected from the 2000 census. The greatest portion of the county's residents (26.0 percent) are engaged in manufacturing, followed closely by a 23.3 percent sector employed in educational, health, and social services. Figure 4-2 illustrates the distribution of Bradford County resident employment enumerations.

This data reveals that the resident employment of Bradford County differs from that of the state in several industry categories. A considerably larger portion of individuals is employed in the manufacturing industry in Bradford County (26.0 percent) than in Pennsylvania (16.0 percent) and across the nation (14.1 percent). The same is true for the agriculture, forestry, fishing and hunting, and mining industry (6.3 percent in Bradford County, 1.3 percent in Pennsylvania, and 1.9 percent across the nation). Several other industry sectors employ considerably fewer individuals in the County when compared with state and national rates. These include: information; finance, insurance, real estate and rental and leasing; professional, scientific, management, administrative and waste management services; arts, entertainment, recreation, accommodation, and food services; and public administration.

**Table 2-11  
Resident Employment by Industry for Persons 16 Years of Age and Over, 2000**

Industry	USA		Pennsylvania		BRADFORD COUNTY	
	#	%	#	%	#	%
Agriculture, forestry, fishing and hunting, and mining	2,426,053	1.9	73,459	1.3	1,777	6.3
Construction	8,801,507	6.8	339,363	6.0	1,565	5.6
Manufacturing	18,286,005	14.1	906,398	16.0	7,284	26.0
Wholesale trade	4,666,757	3.6	201,084	3.6	638	2.3
Retail trade	15,221,716	11.7	684,179	12.1	3,121	11.2
Transportation and warehousing, and utilities	6,740,102	5.2	304,335	5.4	1,334	4.8
Information	3,996,564	3.1	148,841	2.6	459	1.6
Finance, insurance, real estate and rental and leasing	8,934,972	6.9	372,148	6.6	845	3.0
Professional, scientific, management, administrative, and waste management services	12,061,865	9.3	478,937	8.5	1,117	4.0
Educational, health and social services	25,843,029	19.9	1,237,090	21.9	6,507	23.3
Arts, entertainment, recreation, accommodation, food services	10,210,295	7.9	397,871	7.0	1,304	4.7
Other services (except public administration)	6,320,632	4.9	274,028	4.8	1,278	4.6
Public administration	6,212,015	4.8	235,767	4.2	756	2.7
<b>Totals</b>	<b>129,721,512</b>	<b>100.0</b>	<b>5,653,500</b>	<b>100.0</b>	<b>27,985</b>	<b>100.0</b>



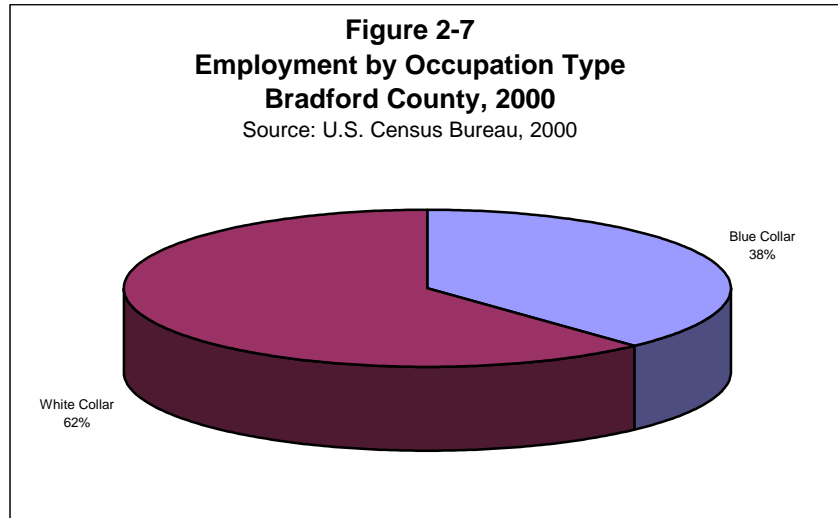
**RESIDENT EMPLOYMENT BY OCCUPATION**

Table 4-5 provides a comparative analysis of Bradford County's employment by occupation with that of Pennsylvania. As shown, the distribution of employment by occupation is similar for both the county and the state. However, the county has a considerably higher proportion of residents employed in the production, transportation, and material moving occupations (25.9 percent), and blue-collar occupations as a whole (38.2 percent). Specifically, the farming, fishing, and forestry occupations comprise a larger percent of the work force in Bradford County (2.3 percent) than the state (0.5 percent). Nearly 8,000 (27.6 percent) individuals in the county are employed in management and professional occupations, making this the most populated occupation sector. When grouped by white collar and blue collar designations, the majority of County residents are employed in white collar occupations.

**Table 2-12**  
**Employment by Occupation for Bradford County and Pennsylvania**  
**Employed Persons 16 Years and Over, 1990**

	Occupation	Bradford County		Pennsylvania	
		#	%	#	%
WHITE COLLAR	Management, Professional, and Related Occupations	7,712	27.6	1,841,175	32.6
	Service Occupations	3,848	13.8	838,137	14.8
	Sales and Office Occupations	5,745	20.5	1,525,131	27.0
BLUE COLLAR	Farming, Fishing, and Forestry Occupations	634	2.3	26,722	0.5
	Construction, Extraction, and Maintenance Occupations	2,793	10.0	500,898	8.9
	Production, Transportation, and Material Moving Occupations	7,253	25.9	921,437	16.3
	<b>Total</b>	<b>27,985</b>	<b>100.0</b>	<b>5,653,500</b>	<b>100.0</b>

Source: U.S. Census Bureau



### RESIDENT EMPLOYMENT BY LOCATION

The majority of employed County residents (79.0 percent) work in Bradford County. Another 6.6 percent work in another Pennsylvania county and the remaining 14.4 percent work outside the state.

### NATURAL RESOURCE INDUSTRIES

#### Agriculture

While the number of farms in the County has decreased, individual farm acreage has been increasing. (The County's average farm size is approximately 199 acres, according to the County's Agricultural Land Preservation Board.) When compared to Pennsylvania as a whole, the County has a high number of farms with annual gross sales over \$50,000 and a high percentage of farmers who farm as their principal occupation.

#### Forestry

Forestry is a particularly important and sustaining resource to Bradford County's land use pattern and economy. The timber and forest products industry are a large component of the manufacturing industry. Forests also support the state's tourism industry with forest-based recreation.

According to Penn State's Natural Resources Extension, 432,900 acres (58.7 percent) of Bradford County are forested. The majority of these lands (84 percent) are held in private ownership by approximately 15,500 landowners. Another 13 percent are public lands and the remaining 3 percent is owned by forest industries. There are 36 forestry and wood products establishments in the County employing just over 1,000 people.

Citing several sources, the Natural Resources Extension reports the value of standing timber in Bradford County at \$287.5 million. Annual timber harvests average \$5.74 million. The annual economic contribution of Bradford County's forestry sector is \$15.3 million. The annual economic contribution of wood products and paper is \$58.4 million.

### UNEMPLOYMENT

The unemployment rate in Bradford County was lower than that of rural Pennsylvania between 1998 and 2000. Rural Pennsylvania averaged an unemployment rate of 5.4 percent, while Bradford County reported a 3.2 percent rate.

### TAXES

The 2000 Census reported the distribution of local taxes in 1999. The majority of local taxes collected in Bradford County (66.5 percent) were collected by the school districts. Municipal governments collected 19.7 percent, while the County received the remaining 13.8 percent.

### Trends and Issues

- ❖ Bradford County has experienced a cycle of population expansion and contraction over the last thirty years that has resulted in an overall increase of 8.3 percent. The population peaked at 62,919 persons in 1980, but has since experienced a negligible decrease of 158 persons (0.25 percent).
- ❖ The vast majority of Bradford County municipalities (80.0 percent) increased in population between 1970 and 2000. The ten municipalities within Bradford County that experienced a decrease in residents are all boroughs.
- ❖ Bradford County experienced a 33.1 percent increase in its population aged 45-54 between 1990 and 2000. This segment of the population will soon enter into their 60s. As a result, the county may experience an increased demand for elderly housing, health services, public transportation, recreational activities, and other assistance that is customized for this aging population.
- ❖ Other significant population increases were experienced in 55 to 59 age group (28.3 percent) and the over 85 age group (30 percent). With a rapidly expanding elderly population, it is increasingly important to provide recreation activities, health services, and public transportation customized for this aging population.
- ❖ Between 1990 and 2000, the county also experienced a decrease (29.1 percent) in the 25 to 44 age group, which is most heavily engaged in the labor force and home buying. Due to this decrease in the primary labor force and the expectation of young adults entering this age group in the immediate future, the county must take measures to maintain and attract a youthful population of employees and homebuyers to sustain their economy and level of public service.
- ❖ While the non-white percentage of the County's population is still a small 2.1 percent, the percentage more than doubled between 1990 and 2000.
- ❖ Bradford County's high school completion rate (47.1 percent) was topped only by Susquehanna County (47.2 percent) in the surrounding area. In contrast, the county's college attainment level of 34.5 percent lags behind the levels of most surrounding counties and the state; however, the county did increase its college attainment level by 6.3 percent between 1990 and 2000.
- ❖ Six of the seven school districts throughout Bradford County decreased enrollment between 1990 and 2000. The recent decrease in school enrollments coincides with the decline of the county's the young adult age group, which is the primary childbearing age group.
- ❖ Bradford County's 1999 median household income narrowly exceeded inflation by 569 dollars; real growth value in median household income of 1.7 percent.
- ❖ Bradford County experienced real growth of 10.3 percent in per capita income. While the rate of increase was higher than that of many surrounding counties, Bradford County's per capita income remains below state and national levels.
- ❖ Poverty in Bradford County is declining; 11.8 percent of the total population was considered to be below the poverty level in 2000, which represents a 1.5 percent improvement since 1990.

## ***Chapter 2 – Socioeconomic Profile***

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- ❖ The fastest growing living arrangements in Bradford County between 1990 and 2000 were non-family households ( 3.4 percent), followed closely by female-headed households with no spouse present (3.0 percent).
- ❖ Currently, the number of manufacturing jobs in the County is quite significant.

**INTRODUCTION**

The existing and future quality of housing is extremely important to the prosperity of Bradford County. Attractive housing and well maintained residential neighborhoods are one of the most important assets of any community. Good housing creates a sound tax base that will continue to appreciate in value and will assure that residents are living in an environment conducive to healthy and safe living.

An analysis of existing housing conditions and projected population levels and characteristics is necessary when identifying housing needs for the future. Another important feature of the local housing market is the variety of housing types and prices. A variety of styles and prices provide housing opportunities for people interested in entering the housing market.

This chapter describes the existing housing types, conditions, vacancies and other factors that characterize the supply of housing in Bradford County. Data from the U.S. Census Bureau served as the primary source of housing statistics; exceptions to this source are noted herein.

**HOUSING UNIT SUPPLY AND DENSITY TRENDS**

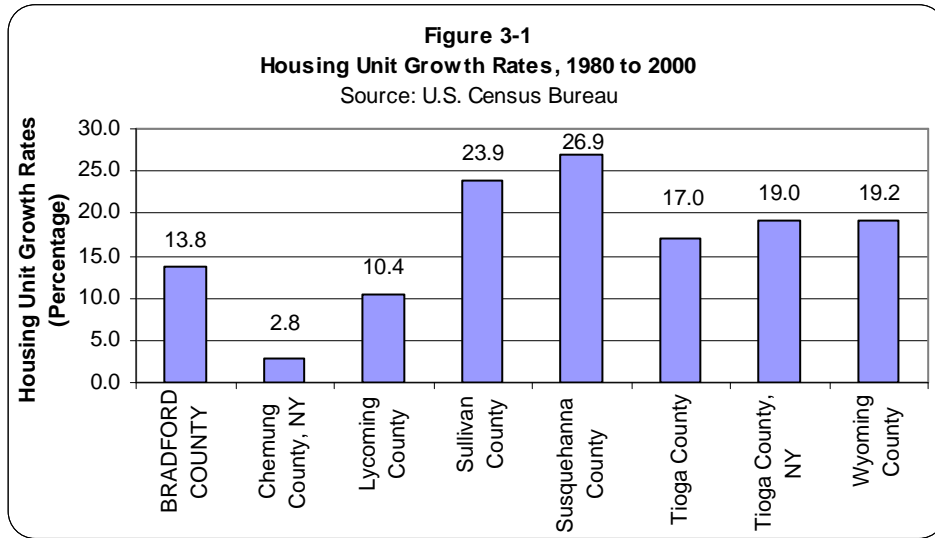
Table 3-1 presents a housing unit growth trend for Bradford County, neighboring counties, Pennsylvania, and the nation. As shown, all jurisdictions experienced significant housing unit growth rates over the 1980 to 2000 survey period. With a 5.9 percent increase in housing units, Bradford County experienced one of the lowest growth rates in the region between 1990 and 2000, following similar trends in the 1980s. Tioga County, NY (5.7 percent) and Lycoming County (5.8 percent) had a lower housing unit growth rate. Though housing units in Bradford County increased from 27,058 in 1990 to 28,664 in 2000, the rate of growth was still below that of the state (6.3 percent) and the nation (13.3 percent). Interestingly, Bradford County gained more housing units than people since 1990. This is a continuing trend across rural Pennsylvania since 1980. Figure 3-1 illustrates the housing unit growth rates experienced by Bradford County and the remaining surveyed areas over the 1980 to 2000 period.

Historic comparisons of housing density values are presented in Table 3-2. Housing density measures the number of housing units per square mile of land area. According to the 2000 Census, Bradford County recorded a housing density value of 24.9 housing units per square mile. This density is much lower than the state average of 117.13 housing units per square mile, and also the national average of 32.78 persons per square mile. The housing density in Bradford County increased between 1990 and 2000 by 1.4 percent.

**Table 3-1  
Total Housing Unit Growth, 1980-2000**

Municipality	Total Housing Units by Decennial			Change					
	1980	1990	2000	1980-1990		1990-2000		1980-2000	
				#	%	#	%	#	%
USA	88,410,627	102,263,678	115,904,641	13,853,051	15.7	13,640,963	13.3	27,494,014	31.1
Pennsylvania	4,596,431	4,938,140	5,249,750	341,709	7.4	311,610	6.3	653,319	14.2
<b>BRADFORD COUNTY</b>	25,186	27,058	28,664	1,872	7.4	1,606	5.9	3,478	13.8
Chemung County, NY	36,706	37,290	37,745	584	1.6	455	1.2	1,039	2.8
Lycoming County	47,534	49,580	52,464	2,046	4.3	2,884	5.8	4,930	10.4
Sullivan County	4,857	5,458	6,017	601	12.4	559	10.2	1,160	23.9
Susquehanna County	17,202	20,308	21,829	3,106	18.1	1,521	7.5	4,627	26.9
Tioga County	16,997	18,202	19,893	1,205	7.1	1,691	9.3	2,896	17.0
Tioga County, NY	17,987	20,254	21,410	2,267	12.6	1,156	5.7	3,423	19.0
Wyoming County	10,666	11,857	12,713	1,191	11.2	856	7.2	2,047	19.2

Source: U.S. Census Bureau, 2000



**Table 3-2**  
**Housing Unit Density, 1980-2000**

Municipality	Land Area (Sq. Mi.)	Housing Units Per Square Mile			Numeric Change	
		1980	1990	2000	1980-1990	1990-2000
USA	3,536,278	25.00	28.92	32.78	3.92	3.86
Pennsylvania	44,820	102.6	110.18	117.13	7.62	6.95
BRADFORD COUNTY	1,151	21.9	23.51	24.90	1.63	1.40
Chemung County, NY	408	90.0	91.40	92.51	1.43	1.12
Lycoming County	1,235	38.5	40.15	42.48	1.66	2.34
Sullivan County	450	10.8	12.13	13.37	1.34	1.24
Susquehanna County	823	20.9	24.68	26.52	3.77	1.85
Tioga County	1,134	15.0	16.05	17.54	1.06	1.49
Tioga County, NY	519	34.7	39.03	41.25	4.37	2.23
Wyoming County	397	26.9	29.87	32.02	3.00	2.16

Source: U.S. Census Bureau

### HOUSING OCCUPANCY AND VACANCY STATUS

Tables 3-3 and 3-4 provide a decennial housing occupancy and vacancy rate comparison for Bradford County. The 2000 Census reported that a majority (90.5 percent) of the County's housing units are occupied, which is consistent with the tenure data enumerated by the 1990 Census.

#### *Occupied Units*

The number of occupied housing units, during the 1990 to 2000 period, decreased by 659 units, or 2.3 percent. The greatest share (75.5 percent) of occupied housing units in Bradford County is comprised of owner-occupied units. This statistic represents a minimal 0.2 increase from 1990's recorded figure of 75.3 percent. The share of renter-occupied units increased more significantly from 5,574 units in 1990 to 7,023 units in 2000 (3.9 percent).

Table 3-4 provides information regarding the average household size trends in Bradford County. From 1990 to 2000, the average household size of owner occupied units decreased by 0.16 persons per household while the average size of renter-occupied units also decreased by 0.13 percent. These statistics reflect the decreasing household size trends experienced at the state and national levels. These trends are attributed, in part, to an aging population, an increase in the number of young persons leaving the confines of their parents' home to enter college or establish their own household, and more single-parent households.

*Vacant Units*

The 2000 Census reported that 9.5 percent of Bradford County's total housing units are classified as vacant, which represents a 2.3 percent increase over the 1990 Census vacant housing enumerations. Of the 2,723 vacant units reported in the 2000 Census, 248 units (9.1 percent) were classified as being used for seasonal, recreational, or occasional use purposes. From 1990 to 2000, the number of seasonal units decreased 1 percent.

The vacancy rate serves as a measure of the housing market. Frank S. So states in his 1988 edited publication entitled, *The Practice of Local Government Planning*, "vacancy is an important housing indicator because it indicated the degree of choice available. Too high a vacancy rate can be disastrous for owners trying to sell or rent. Too low a vacancy rate can force up prices. Vacancies between four and five percent are usually considered healthy (p. 377)." As shown in Table 3-4, Bradford County's homeowner vacancy rate increased from 1.2 percent in 1990 to 1.8 percent in 2000, while the rental vacancy rate also increased from 6.0 in 1990 to 7.7 in 2000. Using the standards contained in So's publication, Bradford County's homeowner vacancy rates are too low and may contribute to a high priced (i.e., unaffordable) housing market. In addition, rental vacancy rates are too high, which may cause a decrease in the rental rates to fill the vacancies.

**Table 3-3  
Housing Occupancy and Tenure Analysis, 1990-2000**

Municipality	Total Housing Units			Percent of Total Housing Units					
				Occupied					
				Owner-occupied			Renter-occupied		
	1990	2000	% change	1990	2000	% change	1990	2000	% change
USA	102,263,678	115,904,641	13.3	64.2	66.2	2.0	32.2	33.8	1.6
Pennsylvania	4,938,140	5,249,750	6.3	64.3	64.9	0.6	26.7	26.1	-0.6
<b>BRADFORD COUNTY</b>	<b>27,058</b>	<b>28,664</b>	<b>5.9</b>	<b>75.3</b>	<b>75.5</b>	<b>0.2</b>	<b>20.6</b>	<b>24.5</b>	<b>3.9</b>
Chemung County, NY	37,290	37,745	1.2	68.3	68.9	0.6	30.0	31.1	1.1
Lycoming County	49,580	52,464	5.8	69.7	69.4	-0.3	27.5	30.6	3.1
Sullivan County	5,458	6,017	10.2	78.6	80.8	2.2	9.0	19.2	10.2
Susquehanna County	20,308	21,829	7.5	79.2	79.5	0.3	15.3	20.5	5.2
Tioga County	18,202	19,893	9.3	75.5	76.2	0.7	20.2	23.8	3.6
Tioga County, NY	20,254	21,410	5.7	78.8	77.8	-1.0	19.7	22.2	2.5
Wyoming County	11,857	12,713	7.2	76.9	78.9	2.0	19.5	21.1	1.6

Source: U.S. Census Bureau



**Table 3-3 (con't)**  
**Housing Occupancy and Tenure Analysis, 1990-2000**

Municipality	Total Housing Units			Percent of Total Housing Units					
				Vacant					
				Seasonal**			Other		
	1990	2000	% change	1990	2000	% change	1990	2000	% change
USA	102,263,678	115,904,641	13.3	3.0	3.1	0.1	7.1	5.9	-1.2
Pennsylvania	4,938,140	5,249,750	6.3	2.9	2.8	-0.1	6.0	6.2	0.2
BRADFORD COUNTY	27,058	28,664	5.9	10.1	9.1	-1.0	6.8	5.6	-1.2
Chemung County, NY	37,290	37,745	1.2	0.7	0.7	0.0	4.7	6.4	1.7
Lycoming County	49,580	52,464	5.8	5.6	4.8	-0.8	3.8	5.6	1.8
Sullivan County	5,458	6,017	10.2	54.7	51.8	-2.9	3.6	4.0	0.4
Susquehanna County	20,308	21,829	7.5	19.4	18.0	-1.4	7.2	6.3	-0.9
Tioga County	18,202	19,893	9.3	12.4	14.9	2.5	5.4	5.0	-0.4
Tioga County, NY	20,254	21,410	5.7	1.4	1.7	0.3	5.6	6.2	0.6
Wyoming County	11,857	12,713	7.2	11.2	10.4	-0.8	4.4	4.9	0.5

Source: U.S. Census Bureau

\*\*For seasonal, recreational or occasional use

**Table 3-4**  
**Vacancy Rate and Household Size, 1990-2000**

Municipality	Percent Vacancy Rate				Avg. household size of owner-occupied units		Avg. household size of renter-occupied units	
	Homeowner		Rental		1990	2000	1990	2000
	1990	2000	1990	2000				
USA	2.1	1.7	8.5	6.8	2.75	2.69	2.42	2.40
Pennsylvania	1.5	1.6	7.2	7.2	2.72	2.62	2.19	2.12
BRADFORD COUNTY	1.2	1.8	6.0	7.7	2.78	2.62	2.36	2.23
Chemung County, NY	1.3	1.8	5.6	9.2	2.69	2.54	2.30	2.22
Lycoming County	0.8	1.6	4.5	7.6	2.69	2.57	2.27	2.14
Sullivan County	1.0	3.0	7.0	10.2	2.59	2.38	2.10	1.94
Susquehanna County	1.4	2.5	6.7	7.0	2.76	2.59	2.42	2.28
Tioga County	1.4	1.6	5.3	6.6	2.68	2.55	2.43	2.26
Tioga County, NY	1.8	1.8	8.5	8.6	2.87	2.68	2.36	2.31
Wyoming County	1.1	1.6	5.7	5.4	2.83	2.62	2.37	2.26

Source: U.S. Census Bureau

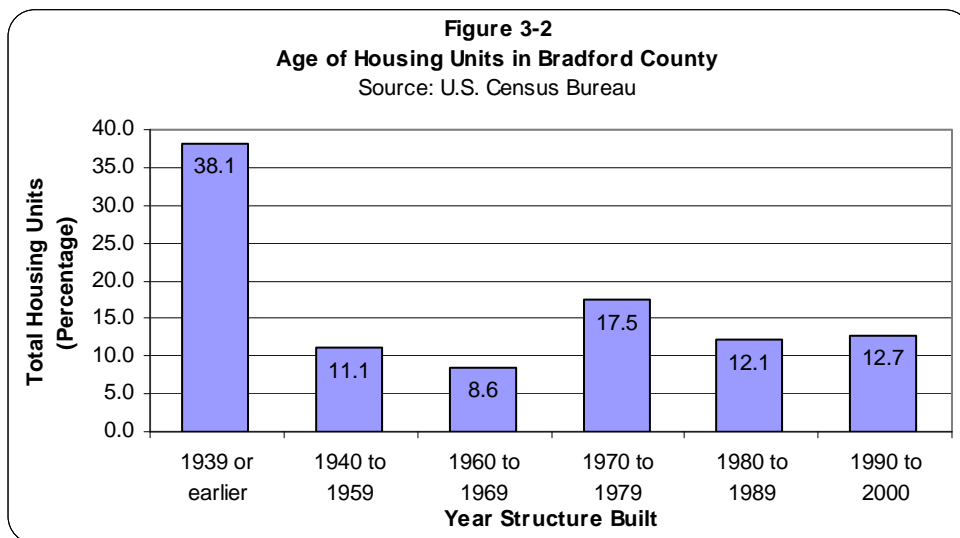
**HOUSING UNIT CHARACTERISTICS (SIZE OF DWELLING UNIT)**

The majority (77.6 percent) of housing units in Bradford County contain five or more rooms, which typically includes traditional two-story single-family residential dwellings. This segment is followed by housing units consisting of four rooms (12.9 percent), three rooms (6.4 percent), two rooms (2.4 percent), and one room (0.7 percent). These statistics are consistent with the dwelling unit sizes enumerated for surrounding jurisdictions, the state, and the nation.

**AGE OF HOUSING UNITS AND INFRASTRUCTURE**

Analyzing the age of Bradford County's residential structures is useful in evaluating their overall condition; specifically, in terms of identifying possible electrical, heating, or plumbing system deficiencies (e.g., upgrades), and potential lead-based paint hazards. As illustrated in Figure 3-2, the majority (75.3 percent or 21,584 units) of housing units were constructed prior to 1980. Additionally, 38.1 percent (10,920 units) of all housing units were built before 1939.

Considering that over three fourths of Bradford County's housing units were built before 1980, many of these structures may require electrical, heating and plumbing system upgrades. More importantly, it is possible that many of these homes contain lead-based paint, which represents both a substantial health risk for children and a liability concern for property owners. The cost of removing these lead-based paints, however, is often beyond the budget of small landlords and lower income homeowners who face problems of limited equity in their properties and a lack of access to financing.



*Infrastructure*

Table 3-5 shows the majority (69.5 percent) of the County's housing stock is serviced by private sewage systems, while 62.3 percent is serviced by private water sources. This number is the near reverse of the state figures, which indicate that 25.7 percent of housing units use private sewage systems and 21.9 percent is serviced by private water. However, except for Chemung County (NY), with 63.3 percent public sewers and 72.4 percent public water systems, the surrounding jurisdictions also represent areas of low public utility service.

**Table 3-5  
Housing Utility Characteristics, 1990\***

Municipality	Percent of Total Housing Units			
	Sewage Disposal		Water Supply	
	Public	Non-public	Public	Non-public
USA	74.8	25.2	84.2	15.8
Pennsylvania	74.3	25.7	78.1	21.9
BRADFORD COUNTY	30.5	69.5	37.7	62.3
Chemung County, NY	63.3	36.7	72.4	27.6
Lycoming County	53.8	46.2	61.3	38.7
Sullivan County	14.5	85.5	13.4	86.6
Susquehanna County	23.6	76.4	25.1	74.9
Tioga County	28.3	71.7	34.7	65.3
Tioga County, NY	35.5	64.5	39.7	60.3
Wyoming County	19.2	80.8	27.0	73.0

Source: U.S. Census Bureau

\*2000 Census data does not provide this information

### HOUSING UNIT DESIGN

The predominant residential unit design in Bradford County is the single-family detached dwelling, which, according to the 2000 Census, comprised 67.7 percent (19,406 units) of the entire housing stock (Table 3-6). Single-family attached dwellings constituted 1 percent of the total housing units, bringing the total for all single-family units to 68.7 percent.

Over eight percent of the remaining housing units were classified as multi-family homes consisting of two to four units. Bradford County also recorded the largest percentage (19.1 percent) of mobile homes and trailers in the region. Though most surrounding counties exhibit a mobile home percentage only slightly lower than Bradford County's, this statistic is much higher than that at the state (5.0 percent) and national (7.8 percent) level.

**Table 3-6  
Housing Unit Types by Percentage of Total Units, 2000**

Municipality	Percent total housing units								Total Units
	Single Family		Multi Family					Mobile homes, trailer and other	
	1 unit, detached	1 unit, attached	2 units	3 to 4 units	5 to 9 units	10 to 19 units	20 or more		
USA	60.3	5.6	4.3	4.7	4.7	4.0	8.6	7.8	115,904,641
Pennsylvania	55.9	17.9	5.2	4.6	3.4	2.5	5.4	5.0	5,249,750
BRADFORD COUNTY	67.7	1.0	4.8	3.3	1.3	0.6	2.3	19.1	28,664
Chemung County, NY	65.9	1.1	11.6	6.6	4.1	1.7	3.0	6.1	37,745
Lycoming County	66.1	6.2	6.5	4.4	4.1	2.2	2.4	8.0	52,464
Sullivan County	80.4	0.7	1.7	1.0	1.4	0.1	0.7	13.9	6,017
Susquehanna County	73.6	1.2	4.2	2.8	1.0	-	1.6	15.7	21,829
Tioga County	69.9	0.9	4.2	2.5	0.7	0.5	2.3	19.0	19,893
Tioga County, NY	67.4	0.5	6.9	4.6	1.5	0.7	1.1	17.3	21,410
Wyoming County	71.8	1.4	3.6	3.0	2.0	0.7	0.2	17.3	12,713

Source: U.S. Census Bureau, 2000

**AVERAGE HOUSEHOLD SIZE**

The distribution of persons among all occupied housing units is an important index of general household sizes. Nationally, the average household size, i.e., persons per household, has steadily declined from 2.63 in 1990 to 2.59 in 2000. This declining trend is also evident at the state and local levels. As shown in Table 3-7, Bradford County's average household size has decreased from 2.67 in 1990 to 2.52 in 2000. According to the 2000 Census, Sullivan County had the lowest average household size (2.30 persons per household) in the region, followed by Lycoming County and Chemung County (NY) (2.44 persons per household). Lower average household sizes typify urban jurisdictions, such as Williamsport in Lycoming County and Elmira in Chemung County (NY), while rural municipalities typically have higher average household sizes.

**Table 3-7  
Average Household Size, 1990-2000**

<b>Municipality</b>	<b>1990</b>	<b>2000</b>
USA	2.63	2.59
Pennsylvania	2.57	2.48
<b>BRADFORD COUNTY</b>	<b>2.67</b>	<b>2.52</b>
Chemung County, NY	2.56	2.44
Lycoming County	2.56	2.44
Sullivan County	2.49	2.30
Susquehanna County	2.69	2.53
Tioga County	2.61	2.48
Tioga County, NY	2.76	2.60
Wyoming County	2.72	2.55

Source: U.S. Census Bureau

**HOUSING VALUES**

Housing serves as a store of wealth for both owners and landlords. The price of housing in an area at a particular time, relative to regional and state values, is a relatively good measure of local economic health and income. Bradford County's 2000 value ranges for specific owner-occupied housing units, the number of units and the percentage of total units within each range interval are presented in Table 3-8. For comparison, the same enumerations for Pennsylvania and the nation are also presented.

*Owner-Occupied Housing Unit Values*

The majority (60.1 percent) of the County's specified owner-occupied housing units, according to the 2000 Census, fall within the \$50,000 to \$99,999 value range. An additional 18.7 percent of units retained values less than \$50,000. The Census also reported that the County's lower and upper value quartiles were equal to \$36,700 and \$70,800 respectively. The median value for the specified owner-occupied units in Bradford County was \$73,900. These values are lower than the state and national figures, but are very similar to most other local jurisdictions. The County's lower values may be based on the rural nature of the local housing market.

*Renter-occupied Housing Unit Values*

The 2000 Census also reported that Bradford County's median contract rent value of \$231 was well below the state average of \$322 and the national average of \$374. This lower value may be due to the rural nature of the County, as well as the higher rental vacancy rates previously discussed, which may produce a decrease in the contract rent values in order to fill the vacancies.

**Table 3-8  
Values of Specified Owner-Occupied and Specified Renter-Occupied Units, 2000**

Value*	USA		Pennsylvania		BRADFORD COUNTY	
	Specified Owner-Occupied Units	Percent of Total	Specified Owner-Occupied Units	Percent of Total	Specified Owner-Occupied Units	Percent of Total
Less than \$50,000	5,313,804	9.6	435,193	15.1	1,972	18.7
\$50,000 to \$99,999	16,715,393	30.1	1,079,698	37.4	6,318	60.1
\$100,000 to \$149,999	13,224,565	23.8	703,093	24.3	1,538	14.6
\$150,000 to \$199,999	8,143,929	14.7	344,172	11.9	315	3.0
\$200,000 to \$299,999	6,461,012	11.6	214,812	7.4	274	2.6
\$300,000 to \$499,999	3,996,600	7.2	84,425	2.9	87	0.8
\$500,000 to \$999,999	1,394,729	2.5	32,654	1.1	12	0.1
\$1,00,000 or more	297,878	0.5	4,437	0.2	4	-
Median Value (dollars)	120,496	-	97,000	-	73,900	-
Total Specified Owner-Occupied Units	55,547,910	100.0	2,889,484	100.0	10,520	100.0
Specified Owner-Occupied Values*						
Lower Value Quartile	\$49,500		\$42,500		\$36,700	
Median Value	\$79,100		\$69,700		\$50,900	
Upper Value Quartile	\$137,800		\$109,500		\$70,800	
Specified Renter-Occupied Values*						
Lower Contract Rent Quartile	\$252		\$217		\$170	
Median Contract Rent	\$374		\$322		\$231	
Upper Contract Rent Quartile	\$527		\$447		\$291	

Source: U.S. Census Bureau, 1990 STF1A, 2000 STF1A

\*2000 Census data used for Value, 1990 Census data used for Quartiles, Information will be provided as Census data becomes available

**HOUSING AFFORDABILITY**

“Affordable Housing” is commonly defined both publicly and by the banking industry as housing that costs no more than 30 percent of a household's gross annual income. According to the 2000 Census, Bradford County's median household income for 2000 equals \$35,038. Such a household, therefore, could afford a monthly mortgage payment of approximately \$876, enough to purchase a home under \$125,000. As shown in Table 3-8, a majority (78.8 percent) of Bradford County's housing stock falls under this affordable price range (under \$100,000). An additional 14.6 percent of the housing stock falls within the price range of \$100,000 to \$149,000, making most homes affordable for a large portion of county residents. As a result, Bradford County provides an ample supply of affordable housing units.

### HOUSING ASSISTANCE

Bradford County Housing Authority has been working together with The Tioga County Housing Authority for close to forty years. Together they manage 980 assisted housing units at twenty-four separate locations. In addition, they administer 485 Section 8 rental assistance contracts with private landlords. These organizations also work on a variety of other housing rehabilitation and community development programs.

The following facilities are located within Bradford County:

- Keystone Manor, Sayre
- McCallum Manor, Canton
- Colonial Towers, N. Towanda
- Page Manor, Athens
- Park Place, Wyalusing

### TRENDS AND ISSUES

- ❖ Bradford County experienced one of the lowest housing unit growth rates (5.9 percent) in the region between 1990 and 2000.
- ❖ The greatest share (75.5 percent) of occupied housing units in Bradford County is comprised of owner-occupied units. Between 1990 and 2000, Bradford County experienced a minimal increase (0.2 percent) in owner-occupancy rates, coupled with a significant (3.9 percent) increase in renter-occupancy rates.
- ❖ The 2000 Census reported that 9.5 percent of Bradford County's total housing units are classified as vacant, which represents a 2.3 percent increase over the 1990 Census vacant housing enumerations. While seasonal housing units previously comprised over 10 percent of the housing stock, this figure is declining.
- ❖ The majority (75.3 percent or 21,584 units) of housing units were constructed prior to 1980. Additionally, more than one third of all housing units (10,920 units) were built before 1939.
- ❖ The majority (69.5 percent) of the County's housing stock is serviced by private sewage systems; private water supply sources are also more common (62.3 percent).
- ❖ The predominant residential unit design in Bradford County is the single-family detached dwelling, which, according to the 2000 Census, comprised 67.7 percent (19,406 units) of the entire housing stock. Over eight percent of the remaining housing units were classified as multi-family homes consisting of two to four units. Bradford County also recorded the largest percentage (19.1 percent) of mobile homes and trailers in the region.
- ❖ The majority (77.6 percent) of housing units in Bradford County contain five or more rooms, which typically includes traditional two-story single-family residential dwellings.
- ❖ Bradford County's average household size has decreased from 2.67 in 1990 to 2.52 in 2000. From 1990 to 2000, the average household size of owner-occupied units decreased by 0.16

persons per household, while the average household of renter-occupied units also decreased by 0.13 percent.

- ❖ The majority (60.1 percent) of the County's specified owner-occupied housing units fall within the \$50,000 to \$99,999 value range; an additional 18.7 percent of units retained values less than \$50,000. The county's housing values typically fall below state and national figures but are consistent with surrounding counties.
- ❖ The majority (78.8 percent) of Bradford County's housing stock falls under this affordable price range (under \$100,000), making most homes affordable for a large portion of county residents.
- ❖ Bradford County's median contract rent value of \$231 was well below the state average of \$322 and the national average of \$374.
- ❖ The aging of the County's population will create additional demands for non-traditional housing types, e.g., Assisted Living Communities.

### **INTRODUCTION**

The inventory and analysis of Bradford County's labor force and economic resources and activities is an important component of the comprehensive planning process. The growth and sustainability of the County and surrounding area is largely dependent on its existing economic structure and its relationship to regional and national markets. As employment opportunities increase, the population and general development activity of an area also increases, as well as the total wages and salaries paid. The resulting increase in disposable income places a greater demand on the provision of goods and services sold within the area, thus strengthening the local economy.

### **REGIONAL SETTING AND BACKGROUND**

Bradford County is centrally located in Pennsylvania's Northern Tier and is a neighbor of New York's Southern Tier Region. The County is located along two of the Northern Tier's most important highway corridors: US 6 and US 220. Interstate 81 is located to the east, and is fairly accessible; US 15, which has been designated as the new I-99 corridor is located to the west. NY Route 17 (future I-86) will further expand transportation access in this region.

New York's Southern Tier Region includes nine counties, two metropolitan areas, several small cities, and extensive rural areas. The region has a collective population of 712,064. 51 percent of all US and Canadian manufacturing plants and 78 million people are within a 350-mile radius. The region is a leader in high-technology manufacturing: IBM, Lockheed Martin, Raymond Corporation, and Universal Instruments have a strong presence in the region. Other manufacturers include Toshiba, Schweizer Aircraft, Artistic Greetings, and Unison Industries. Agriculture, including wine and dairy production, and tourism are also key industries in the region.

Bradford County's economy continues to evolve in to the 21<sup>st</sup> century. Since the County's settlement, natural resources have provided the basis of local industry, namely forestry and agriculture. In more recent years, these natural resources and their history have opened the region to tourism and its related service industries. Others have found the County's rural lifestyle suitable for home-based businesses.

### **LEADING EMPLOYERS**

Table 4-1 lists the County's top 50 employers by their six-digit, North American Industry Classification System (NAICS) code. [Note, on April 8, 1997, the Office of Management and Budget (OMB) announced the adoption of the NAICS to replace the outdated Standard Industrial Classifications (SIC). This revision better accounts for the changing structure of modern business.] It also lists the number of employees and a description of the business. Most of these businesses are located in the Athens-Sayre, Troy-Canton, and greater Towanda areas.



**Table 4-1  
Top 50 Employers in Bradford County (2000)**

Employer	# Employees	SIC Code	NAICS Code	Description
ROBERT PACKER HOSPITAL INC.	1574	8062	62211	General Medical and Surgical Hospital
OSRAM SYLVANIA PRODUCTS INC	1000	364	3351	Electric Lighting Equipment Manufacturing
TAYLOR PACKING COMPANY INC	1100	201	3116	Beef-processing
GUTHRIE CLINIC LTD		806	6221	General Medical and Surgical Hospital
E I DUPONT DE NEMOURS AND COMPANY	600	28	325	Chemical Manufacturing
BRADFORD COUNTY	800	9199	92119	County Government-General Offices
MASONITE CORPORATION	0	3442/3449	332321	Metal Window and Door Manufacturing
MILL'S PRIDE PENNSYLVANIA LLC	510	2434/2541/5712	33711	Wood Kitchen Cabinet and Countertop Manufacturing
INGERSOLL-RAND COMPANY	350	3531	33312	Construction Machinery Manufacturing
ATHENS AREA SCHOOLS	390	8211	6111	School Districts-Public
SHOP VAC CORPORATION		3635/3639	335212	Household Vacuum Cleaner Manufacturing
MEMORIAL HOSPITAL INC & SKILLED NURSING UNIT	450	8062	62211	General Medical and Surgical Hospital
TOWANDA AREA SCHOOL DISTRICT	260	8211	6111	School Districts-Public
* PENNSYLVANIA STATE GOVERNMENT		9199	92119	State Government-General Offices
THE PAPER MAGIC GROUP INC	325	2675/2679	322299	All Other Converted Paper Product Manufacturing
WAL-MART ASSOCIATES INC	280	5399	45299	General Merchandise Stores
TROY AREA SCHOOL DISTRICT	325	8211	6111	School Districts-Public
PENN TRAFFIC COMPANY	45	5411	44511	Supermarkets and Other Grocery (except Convenience) Stores
PAXAR CORPORATION	198	3953	339943	Marking Device Manufacturing
GUTHRIE HEALTHCARE SYSTEM	6030	806	6221	General Medical and Surgical Hospital
DANDY MINI MARTS INC	224	5411	44511	Gasoline Stations with Convenience Stores
SAYRE AREA SCHOOL DISTRICT	155	8211	6111	School Districts-Public
KMART OF PENNSYLVANIA LP	75	5399	45299	General Merchandise Stores
KRISE'S BUS SERVICE INC		4119/4151	48541	School and Employee Bus Transportation
BAYADA NURSES INC		8049	6216	Home Health Care Services
UNITED STATES GOVERNMENT		9199	92119	Federal Government-General Offices
CANTON AREA SCHOOL DISTRICT	138	8211	6111	School Districts-Public
MARTHA LLOYD COMMUNITY RESIDENT FACILITY	275	805	6233	Community Care Facilities for the Elderly
SMOKIN' JOE'S TOBACCO SHOP INC		5993	453991	Tobacco Stores
STROEHMANN BAKERIES LC	130	204	31181	Bread and Bakery Product Manufacturing
WYALUSING AREA SCHOOL DISTRICT	180	8211	6111	School Districts-Public
MESTEK INC.		3585	333415	Air-Conditioning Heating ( Warm Air) Refrigeration Equipment
TROY COMMUNITY HOSPITAL		806	6221	General Medical and Surgical Hospitals
DELAWARE HOSPITALITY		7011	72111	Hotels (except casino hotels) & motels
HERITAGE NURSING HOME INC.	142	8051	62311	Nursing homes
PHYSICIAN CARE PC	108	80	621	Ambulatory Health Care Services
LEPRINO FOODS COMPANY	230	2022	311513	Cheese Manufacturing
NORTHERN TIER COUNSELING INC	120	8093	62142	Outpatient Mental Health and Substance Abuse Centers
ROHE ENTERPRISES				
PARKER-HANNIFIN CORPORATION	130	3492	332912	Fluid Power Valve and Hose Fitting Manufacturing
CUMMINGS LUMBER COMPANY INC	100	5031	444190	Other Building Material Dealers
SAYRE CORP				
GUTHRIE HOME CARE		8049	6216	Home Health Care Services
C/O GATE MCDONALD & CO				
AMES MERCHANDISING CORPORATION	42	5399	45299	General Merchandise Stores
GENERAL ELECTRIC RAILCAR	100	4789	4882	Support Activities for Rail Transportation
CITIZENS & NORTHERN BANK	128	6021	52211	Commercial Banking
TOWANDA PRINTING COMPANY		271	3231	Printing and Related Support Activities
NORTHEAST BRADFORD SCHOOL	126	8211	6111	School Districts-Public
FUTURES COMMUNITY SUPPORT				

Source: Pennsylvania Department of Labor and Industry

\*Pennsylvania State Government includes all state employees except Pennsylvania State University, SEPTA, and the System of Higher Education

**CIVILIAN LABOR FORCE CHARACTERISTICS**

The resident civilian labor force is defined as all persons 16 years of age and older within a specified geographic area that are either working or actively seeking work. This excludes those serving in the armed forces. Only 22 County residents reported employment in the armed forces according to 2000 Census data. Labor force data serves as a key indicator of a local economy's health. Patterns of growth and decline in the local labor force are largely driven by economic cycles, as well as activity in the local construction, government and agricultural sectors. Since gross domestic product and gross state product are not gathered at the municipal level, labor force changes, as well as other measures, serve as substitutes.

Table 4-2 quantifies the civilian labor force trends experienced at the nation, state, and County levels for the 1980, 1990 and 2000 periods. The total civilian labor force in Bradford County increased by 3 percent between 1980 and 2000 from 27,100 employees to 27,900 laborers, though it peaked in 1990 at 28,100. Since 1980, all neighboring jurisdictions except Sullivan County strengthened their total civilian labor force supplies.

According to the Pennsylvania Department of Labor and Industry, Bradford County's annually adjusted unemployment rate for 2000 was 3.8 percent. This figure, a steady improvement from the 1980's unemployment rate of 8.2 percent and the 1990's unemployment rate of 5.9 percent, is also slightly lower than the 2000 unemployment rate of the state (4.2 percent). Bradford County's unemployment rate was nearly the lowest in the region, second only to the 3.3 percent rate recorded in Tioga County (NY). The remaining counties in the region had unemployment rates between 4.5 percent and 5.5 percent.

Table 4-3 reports the gender distribution of the total labor force (armed and civilian) for Bradford County in 1990 and 2000. As shown, the total percentage of residents in the labor force increased slightly by 0.2 percent during this period. More significantly, the percentage of males in the County labor force declined by 17.8 percent, while the percentage of females increased by 3.1 percent. Both trends are also apparent at the state level, though only the decline in male labor force participation is seen at the national level.

**Table 4-2  
Civilian Labor Force Characteristics  
(Civilian Employment = Persons 16 Years and Older)**

Jurisdiction	Total Civilian Labor Force			Civilian Labor Force Unemployment			Civilian Labor Force Unemployment Rate		
	1980	1990	2000**	1980	1990	2000**	1980	1990	2000
USA	106,940,000	125,840,000	140,863,000	7,637,000	7,047,000	5,655,000	7.1	5.6	4.0
Pennsylvania	5,435,000	5,791,000	5,971,900	425,000	315,000	249,900	7.8	5.4	4.2
<b>BRADFORD COUNTY</b>	<b>27,100</b>	<b>28,100</b>	<b>27,900</b>	<b>2,200</b>	<b>1,700</b>	<b>1,100</b>	<b>8.2</b>	<b>5.9</b>	<b>3.8</b>
Chemung County, NY	39,700	44,300	42,800	3,000	2,100	2,100	7.7	4.7	4.8
Lycoming County	55,500	57,600	56,700	6,400	4,600	2,600	11.5	8.0	4.6
Sullivan County	2,600	2,600	2,400	300	200	100	11.3	6.6	5.5
Susquehanna County	16,400	18,200	18,700	1,500	1,400	800	9.4	7.7	4.5
Tioga County	17,400	18,500	20,000	1,800	1,300	900	10.5	7.2	4.5
Tioga County, NY	23,000	26,500	25,900	1,500	1,100	900	6.6	4.2	3.3
Wyoming County	11,300	14,200	15,000	1,000	900	700	9.3	6.3	4.5

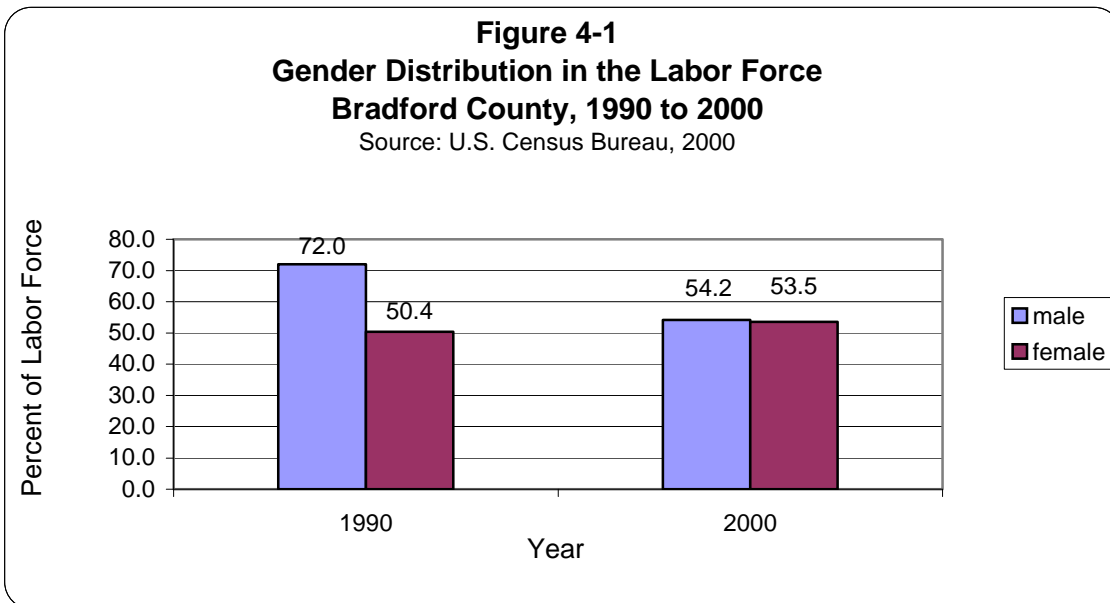
Sources: Pennsylvania Department of Labor and Industry, 2000

\*\* Annual Average

**Table 4-3  
Labor Force , 1990-2000**

Municipality	Individuals 16 Years and Older					
	1990			2000		
	% Males in LF	% Females in LF	Total % in LF	% Males in LF	% Females in LF	Total % in LF
USA	74.4	56.8	65.3	53.7	46.3	49.2
Pennsylvania	71.7	52.8	61.7	53.0	55.3	61.9
<b>BRADFORD COUNTY</b>	<b>72.0</b>	<b>50.4</b>	<b>60.7</b>	<b>54.2</b>	<b>53.5</b>	<b>60.9</b>
Chemung County, NY	66.2	54.9	60.3			
Lycoming County	71.4	52.1	61.2	53.6	55	61.4
Sullivan County	61.1	42.7	51.8	54.0	50.9	54.8
Susquehanna County	72.4	50.1	60.9	55.1	53.8	60.7
Tioga County	68.2	48.4	57.9	54.0	52.7	59.3
Tioga County, NY	78	56.8	67.1			
Wyoming County	75.9	51.9	63.6	55.0	53.9	61.6

Source: U.S. Census Bureau, 1990 and 2000 STF3



**BASIC INDUSTRIES**

One of the most important aspects of analyzing employment by industry information is the identification of the “basic” and “non-basic” industries in the local economy. Basic industries are those that draw money into the local economy from outside its borders, while non-basic or service producing industries serve the needs of the local populace and businesses within the locality’s borders. The basic and non-basic industries are determined by the location quotient (LQ), which is also known as the ratio of ratios.

The LQ indicates the degree to which the local area (e.g., Bradford County) specializes in a particular industry relative to a comparison region (e.g., Pennsylvania). The LQ’s for Bradford County were calculated using the formula illustrated above. Those industries that have LQ’s greater than 1.0 are considered part of the local area’s economic base. The assumption here is that the basic employment produces goods or services for export to areas outside the local economy area and the more the LQ exceeds 1.0 the greater is the share of total employment within that sector devoted to export production. Conversely, those industries that have LQ’s less than 1.0 exist to serve the needs of the local populace and the employment within such industries are said to be the “non-basic” employment

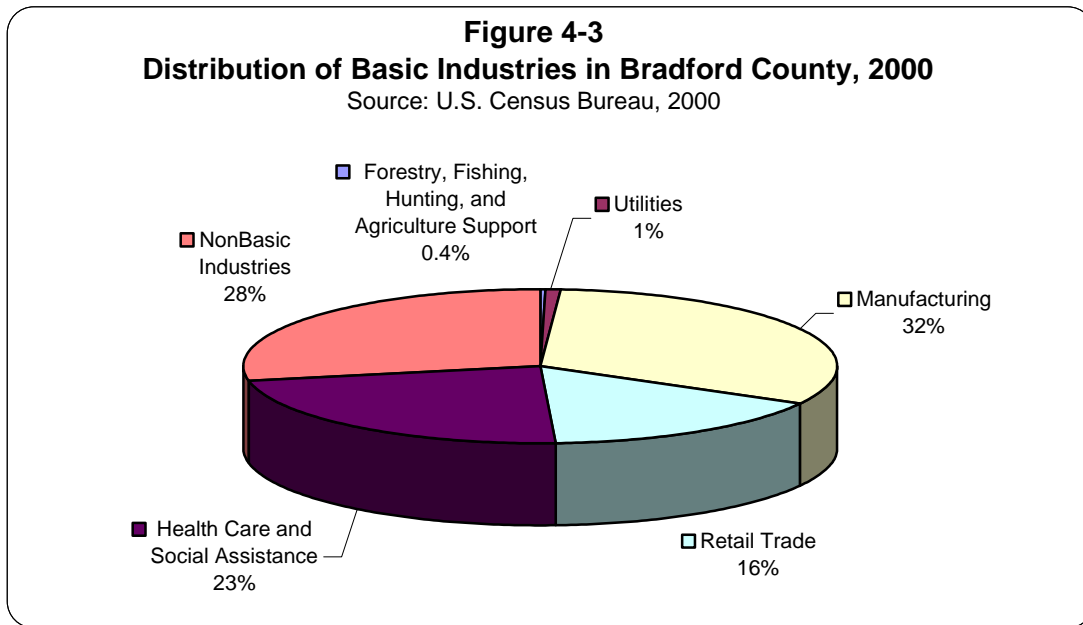
$$LQ_I = \frac{E_i}{E} / \frac{E_{Ni}}{E_N}$$

Where:

- E = Total local employment
- E<sub>i</sub> = Total local employment in industry i
- E<sub>N</sub> = Total regional employment
- E<sub>Ni</sub> = Total regional employment in industry I

**Location Quotient Formula**

The distribution of Bradford County’s industries is shown in Figure 4-3. Basic industries are shown with their respective employment percentages, while non-basic industries are grouped. As shown, Bradford County’s leading basic industries are manufacturing (32 percent) and Health Care and Social Assistance (23 percent).



**RESIDENT EMPLOYMENT BY INDUSTRY**

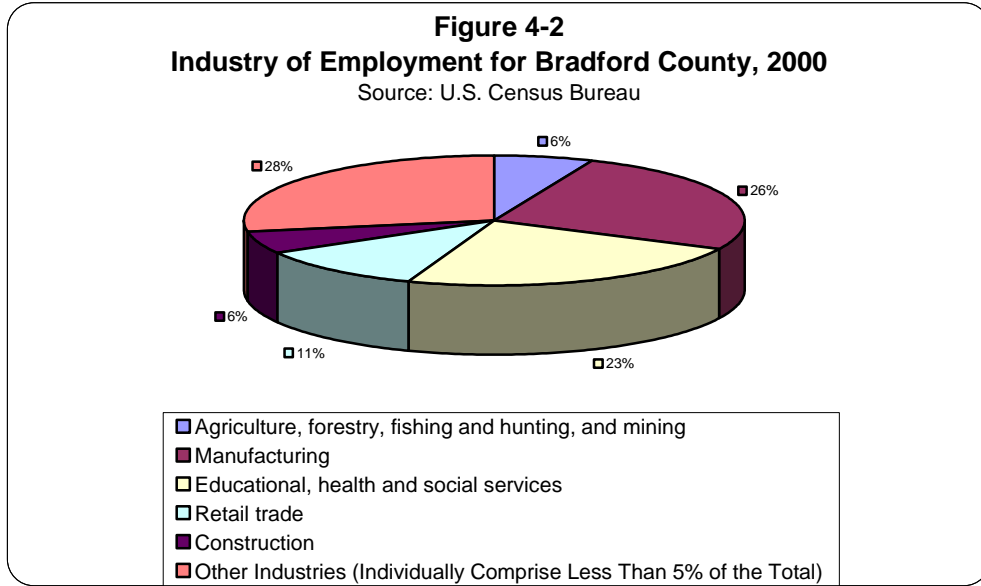
Resident employment is defined as all persons 16 years of age and older that are employed within a specific geographic area. This excludes those serving in the armed forces. Like the general population, the resident employment patterns identify the types and predominance of the major industry sectors in a given region.

Table 4-4 compares the resident employment by industry for Bradford County, Pennsylvania and the nation, as collected from the 2000 census. The greatest portion of the county's residents (26.0 percent) are engaged in manufacturing, followed closely by a 23.3 percent sector employed in educational, health, and social services. Figure 4-2 illustrates the distribution of Bradford County resident employment enumerations.

This data reveals that the resident employment of Bradford County differs from that of the state in several industry categories. A considerably larger portion of individuals is employed in the manufacturing industry in Bradford County (26.0 percent) than in Pennsylvania (16.0 percent) and across the nation (14.1 percent). The same is true for the agriculture, forestry, fishing and hunting, and mining industry (6.3 percent in Bradford County, 1.3 percent in Pennsylvania, and 1.9 percent across the nation). Several other industry sectors employ considerably fewer individuals in the County when compared with state and national rates. These include: information; finance, insurance, real estate and rental and leasing; professional, scientific, management, administrative and waste management services; arts, entertainment, recreation, accommodation, and food services; and public administration.

**Table 4-4  
Resident Employment by Industry for Persons 16 Years of Age and Over, 2000**

Industry	USA		Pennsylvania		BRADFORD COUNTY	
	#	%	#	%	#	%
Agriculture, forestry, fishing and hunting, and mining	2,426,053	1.9	73,459	1.3	1,777	6.3
Construction	8,801,507	6.8	339,363	6.0	1,565	5.6
Manufacturing	18,286,005	14.1	906,398	16.0	7,284	26.0
Wholesale trade	4,666,757	3.6	201,084	3.6	638	2.3
Retail trade	15,221,716	11.7	684,179	12.1	3,121	11.2
Transportation and warehousing, and utilities	6,740,102	5.2	304,335	5.4	1,334	4.8
Information	3,996,564	3.1	148,841	2.6	459	1.6
Finance, insurance, real estate and rental and leasing	8,934,972	6.9	372,148	6.6	845	3.0
Professional, scientific, management, administrative, and waste management services	12,061,865	9.3	478,937	8.5	1,117	4.0
Educational, health and social services	25,843,029	19.9	1,237,090	21.9	6,507	23.3
Arts, entertainment, recreation, accommodation, food services	10,210,295	7.9	397,871	7.0	1,304	4.7
Other services (except public administration)	6,320,632	4.9	274,028	4.8	1,278	4.6
Public administration	6,212,015	4.8	235,767	4.2	756	2.7
<b>Totals</b>	<b>129,721,512</b>	<b>100.0</b>	<b>5,653,500</b>	<b>100.0</b>	<b>27,985</b>	<b>100.0</b>



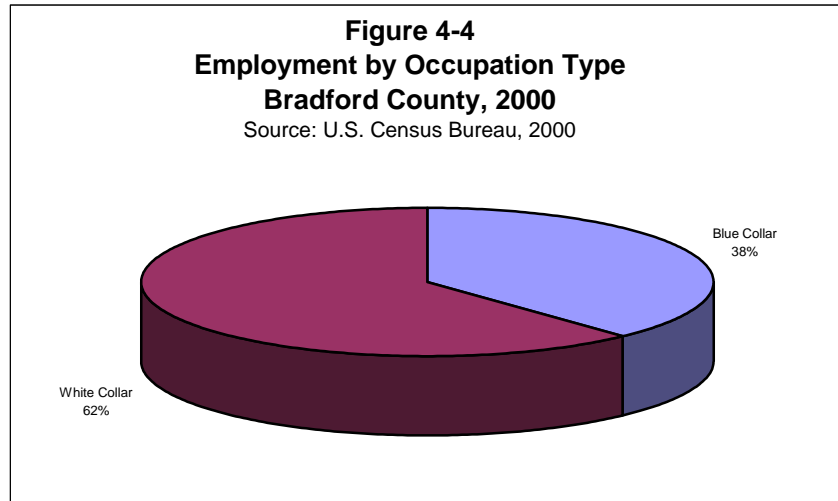
**RESIDENT EMPLOYMENT BY OCCUPATION**

Table 4-5 provides a comparative analysis of Bradford County's employment by occupation with that of Pennsylvania. As shown, the distribution of employment by occupation is similar for both the county and the state. However, the county has a considerably higher proportion of residents employed in the production, transportation, and material moving occupations (25.9 percent), and blue-collar occupations as a whole (38.2 percent). Specifically, the farming, fishing, and forestry occupations comprise a larger percent of the work force in Bradford County (2.3 percent) than the state (0.5 percent). Nearly 8,000 (27.6 percent) individuals in the county are employed in management and professional occupations, making this the most populated occupation sector. When grouped by white collar and blue collar designations, the majority of County residents are employed in white collar occupations.

**Table 4-5**  
**Employment by Occupation for Bradford County and Pennsylvania**  
**Employed Persons 16 Years and Over, 1990**

	Occupation	Bradford County		Pennsylvania	
		#	%	#	%
WHITE COLLAR	Management, Professional, and Related Occupations	7,712	27.6	1,841,175	32.6
	Service Occupations	3,848	13.8	838,137	14.8
	Sales and Office Occupations	5,745	20.5	1,525,131	27.0
BLUE COLLAR	Farming, Fishing, and Forestry Occupations	634	2.3	26,722	0.5
	Construction, Extraction, and Maintenance Occupations	2,793	10.0	500,898	8.9
	Production, Transportation, and Material Moving Occupations	7,253	25.9	921,437	16.3
	<b>Total</b>	<b>27,985</b>	<b>100.0</b>	<b>5,653,500</b>	<b>100.0</b>

Source: U.S. Census Bureau



### ECONOMIC DEVELOPMENT EFFORTS

#### *Economic Development Corporations*

Northern Tier Regional Planning and Development Commission - The County is a member of the Northern Tier Regional Planning and Development Commission (NTRPDC) in addition to Sullivan, Susquehanna, Tioga and Wyoming Counties. NTRPDC provides economic and community development services to business and communities throughout the region. NTRPDC provides focuses its efforts on export development, government procurement assistance, entrepreneurial development, loan and grant assistance, regional transportation planning, information technology, community development, industrial site selection assistance, Keystone Opportunity Zone program, workforce development and Team Pennsylvania. NTRPDC is supported by a combination of federal, state and local funding sources, including: Appalachian Regional Commission, U.S. Department of Commerce, U.S. Department of Defense, U.S. Department of Labor, Pennsylvania State Department of Transportation, Pennsylvania Department of Community and Economic Development, Bradford, Sullivan, Susquehanna, Tioga and Wyoming Counties.

#### *Chambers of Commerce*

Central Bradford County Chamber of Commerce - The Chamber aspires to be a representative of the business community, working together and dedicated to the promotion and growth of commerce within the Central Bradford County area. The Chamber offers a business networking environment, support and coordination of area activities, promotion of tourism, and marketing information to attract both residents and commerce.

Greater Wyalusing Chamber of Commerce – The Chamber represents businesses from across the southeastern portion of Bradford County. Members meet twice a year to discuss local development activities. In 2001, the Chamber sponsored an economic development forum.

Greater Valley Chamber of Commerce – The Chamber represents businesses from the Athens-Sayre-South Waverly region of Bradford County in preserving the competitive enterprise system of business and promoting business and community growth and development. The Chamber meets monthly and distributes a quarterly newsletter.

*Central Bradford Progress Authority/IDC & IDA* - The Central Bradford Progress Authority (CBPA) is a state authorized cooperative economic development organization comprised of four adjacent municipalities, which include the Borough of Towanda, Towanda Township, North Towanda Township, and Wysox Township. The Authority is directly responsible for the encouragement and facilitation of commercial development activity within the Central Bradford Commerce Zone. The Commerce Zone is comprised of a zoned commercial/industrial corridor defined roughly by US Route 6 and the Susquehanna River as they run through each of the four participating municipalities. CBPA offers services in the areas of business expansion, agriculture, silviculture, community investment and lifelong learning. The County's economic development efforts have been consolidated into the CBPA.

### *Main Street Programs*

Main Street programs are used in communities across America to save historic commercial architecture and to preserve community fabric. Economic development has been a powerful tool in achieving these goals. According to the National Main Street Center, "The Main Street program is designed to improve all aspects of the downtown or central business district, producing both tangible and intangible benefits. Improving economic management, strengthening public participation, and making downtown a fun place to visit are as critical to Main Street's future as recruiting new businesses, rehabilitating buildings, and expanding parking." Main Street programs are locally driven and arise and respond to local issues and context. In Bradford County, Towanda Borough is a Main Street community.

### *Community Development Block Grants*

The County pursues Community Development Block Grants (CDBG) through the Office of Planning and Grants. The CDBG Coordinator plays a vital role in distributing grant funds, through Bradford County Commissioners, to municipalities that qualify as low to moderate income municipalities or to projects that meet Community Development Block Grant eligibility criteria. On the average, Bradford County receives approximately \$350,000 for projects that may include some of the following: rehabilitation of historic structures, handicap accessibility to public buildings, economic development projects, public infrastructure development, housing rehabilitation, park facilities and recreation centers. Sayre Borough is a CDBG entitlement community and is able to apply directly for grant funding.

### **Trends and Issues**

- ❖ In recent years, natural resources and the history of their use have opened the region to tourism and its related service industries, in addition to their ongoing use in forestry and agriculture. Others have found the County to supply a rural lifestyle suitable for research and development facilities and staff and for home-based businesses.
- ❖ The total civilian labor force in Bradford County increased by 3 percent between 1980 and 2000 from 27,100 employees to 27,900 laborers, though it peaked in 1990 at 28,100.
- ❖ As shown, the total percentage of residents in the labor force increased slightly by 0.2 percent during this period. More significantly, the percentage of males in the County labor force declined by 17.8 percent, while the percentage of females increased by 3.1 percent.
- ❖ In 2000 Bradford County recorded one of the lowest unemployment rates (3.8 percent) in the region. This positive employment outlook may assist the county in maintaining and attracting individuals able to actively contribute to the labor force.



- ❖ The leading employment industries in Bradford County are manufacturing (26.0 percent) and educational, health, and social services (23.3 percent).
- ❖ The majority of Bradford County residents (61.9 percent) are employed in white collar occupations, with management, professional and related occupations leading the trend. A significant number of residents (25.9 percent) are also employed in the production, transportation, and material moving occupations.
- ❖ The majority of Bradford County residents (77.5 percent) that work outside of their home report driving alone in a private automobile as their mode of transportation to work. The median travel time to work for all residents was 22.6 minutes.

### **INTRODUCTION**

The transportation network of a community is the backbone for its development and its prosperity. It can help to attract a thriving society of merchants and residents and is part of an overall foundation for community growth. The transportation system often influences the advancement and success of a community, though if poorly planned or maintained, can also deter prosperity and overshadow a community's positive attributes.

### **EXISTING ROADWAY NETWORK**

The two major roadways within the planning area are US 6 and 220. US 6 runs east and west and provides connections between Tioga, Bradford, and Wyoming counties of the Northern Tier Region, and continues west to Ohio, and east to the Scranton/Wilkes-Barre Metropolitan area. US 220 runs north/south through Bradford County, to the New York/Pennsylvania State line. This route provides a major link for Bradford County to Williamsport and I-80 to the south and NY 17 to the north, which provides access to Elmira and Binghamton, New York.

Other roadways that play a primary role in the movement of people, goods, and services within the region include PA 549, PA 14, PA 414, PA 187, and PA 706. With the exception of PA 549, all of these roadways have been identified in the Northern Tier's Long Range Transportation Plan as major corridors for evaluation and improvement. Following is a brief description of each:

- Pennsylvania Route 549 runs north from US Route 6 in Tioga County through the northwest corner of Bradford County to the New York/Pennsylvania State line.
- PA 14 runs north and south through the western portion of Bradford County and provides an important connection to Williamsport to the south and Elmira, NY to the north.
- PA 414 runs east and west in Bradford County between PA 14 and US 220.
- PA187 runs north and south in Bradford County from US 6 to the New York/Pennsylvania State line.
- PA 706, located in the eastern part of Bradford County, provides an east-west connection between US 6 and US 11 in Susquehanna County.

### **BRIDGES**

The following is a brief summary of the status of the bridges located in Bradford County:

- There are 515 state-owned bridges; 12 are posted and 2 are closed. This is a 60 percent reduction since 1997.
- There are 114 locally owned bridges, 52 of these are owned by the county; 39 are posted and 2 are closed.
- 42 of the county-owned bridges are regularly inspected; the remainder do not meet the necessary criteria.
- There are 21 state and local bridges scheduled for rehabilitation or replacement according to PENNDOT's 12-Year Transportation Improvement Program.
- 12 state-owned bridges are scheduled for rehabilitation by the Bradford County Maintenance Forces. This group has recently completed 10 projects in the area.
- Significant bridge projects include a new County bridge that spans Towanda Creek in Monroe Township. Also, the Knapp Covered Bridge over Brown's Creek is presently undergoing reconstruction using approximately \$1M in federal and state funds.

Approximately 28 percent of the state owned bridges and 49 percent of the locally owned bridges in Bradford County are structurally deficient and/or functionally obsolete as compared to 37.2 percent

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statewide. However, it should be noted that bridges that are deemed “functionally obsolete” are not necessarily “hazardous”. PENNDOT defines structurally deficient and functionally obsolete as follows:

**Structurally Deficient** - Bridges with some level of deterioration or structural weaknesses or inadequate waterway.

**Functionally Obsolete**- Bridges that cannot adequately handle current traffic due to too few or narrow lanes, poorly aligned with the roadway, has insufficient vertical clearance or inadequate load carrying capacity.

### ACCESS POINTS TO MAJOR ROADWAYS

US 220 is a limited access freeway between its intersections with NY 17 to the north and SR 199 and around Towanda Borough. Beyond those noted above under the existing roadway network, the only other interchange/significant intersection in Bradford County is that of US 220 and US 6 located at the approximate center of the County.

### FUNCTIONAL CLASSIFICATION

Roadway classifications, such as *minor arterial* or *collector*, group streets and highways into categories according to the service they are intended to provide and define the role streets or highways play in serving vehicles trips through the transportation network. Roadways in Bradford County represent five of the six classifications defined as follows:

#### **Interstate**

Limited access highways designed for traffic between major regional areas or larger urban communities of 50,000 or more. These highways extend beyond state boundaries, with access limited to interchanges located by the U.S. Department of Transportation.

#### **Freeway**

Limited access highways designed for large traffic volumes between communities of 50,000 or more to regional traffic generators (such as central business districts, suburban shopping centers, and industrial areas). Freeways should be tied directly to arterial roads, with accessibility limited to specific interchanges to avoid the impediment of thru traffic.

#### **Principal Arterial**

Roads that provide land access while retaining a high degree of thru traffic mobility and serve major centers of urban activity and traffic generation. These roadways provide a high speed, high volume network for travel between major destinations in both rural and urban areas.

#### **Minor Arterial**

Roads that provide land access with a lower level of thru traffic mobility than principal arterials and serve larger schools, industries, institutions, and small commercial areas not incidentally served by principal arterials.

#### **Collector**

Roads that collect traffic between local roads and arterial streets and that provide access to abutting properties. Collectors serve minor traffic generators, such as local elementary schools, small individual industrial plants, offices, commercial facilities, and warehouses not served by principal and minor arterials.

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### **Local**

Roads that are local in character and serve farms, residences, businesses, neighborhoods, and abutting properties.

The linear miles of roadway in Bradford County by functional classification are listed below:

- Interstate - 0.0 miles
- Freeway/Expressway - 4.9 miles
- Principal Arterial - 60.0 miles
- Minor Arterial - 122.1 miles
- Major Collector - 157.9 miles
- Minor Collector - 222.0 miles
- Local - 1,926.3 miles

The Functional Classification Map illustrates Bradford County's roadway network.

### **MAJOR ROADWAY CONDITIONS AND MAINTENANCE**

Roadway conditions refer to the physical properties and structural integrity of the roadway. Improvements to existing, established roadways generally consist of pavement overlays, pavement widening, shoulder construction and/or widening, and drainage improvements.

#### **State Transportation Network**

There are 902.3 segment miles on the state transportation network in Bradford County. The roadway system is broken down into treatment classifications based on the traffic volume, surface type, truck traffic, and development in the area. Listed below is a summary of the segment miles for each classification:

- 22.50 segment miles of concrete roads
- 325.66 segment miles of resurfacing routes
- 548.88 segment miles of seal coat roads
- 5.25 segment miles of unpaved roads

#### **Resurfacing Routes**

A resurfacing route is defined as a route to receive either betterment resurfacing or leveling and resurfacing (if funds are available). The resurfacing classification was defined as the desirable treatment for routes with an Average Daily Traffic (ADT) volume greater than 1,000 vehicles and does not necessarily mean that it will be resurfaced every 12 to 16 years. Often because of budget constraints, the routes with lower truck traffic or ADT less than 2,000 vehicles have to receive a seal coat to extend the pavement life. PENNDOT has started evaluating micro-surfacing as an economic alternative to seal coats for the resurfacing network.

Currently, Bradford County is at a 16-year average resurfacing cycle for the resurfacing network. On average, 20 to 25 miles are resurfaced each year on the resurfacing network. Resurfacing candidates are prioritized based on pavement condition, network, International Roughness Index, and customer input.

#### **Seal Coat Routes**

A seal coat route is defined as receiving a seal coat as the primary treatment and scheduling a leveling (3/4" to 1" of bituminous hot mix) when it is necessary to restore the pavement cross-section. Currently,

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the average seal coat cycle is 9.3 years and this is anticipated to reduce to 7 years over the next several years. Over the next five years, projects are programmed on 21.9 segment miles of the 22.50 segment miles of the concrete network.

General maintenance is completed each year by both department forces and by contract that include: shoulder cutting, patching, crack sealing, and joint sealing.

### ***Roadway Widening Program***

The long-range plan is to widen all state roadways to meet the minimum requirement defined in the Maintenance Manual (PENNDOT Publication #23). As part of its planning process, PENNDOT has established three categories for widening candidates that are summarized below:

- Category A – State roadways with an ADT between 1,000 and 10,000 vehicles with a roadway width less than 20'. There are 45.04 candidate miles of Category A roadways in Bradford County.
- Category B - State roadways with an ADT between 500 and 999 vehicles with a roadway width less than 18'. There are 20.68 candidate miles of Category B roadways in Bradford County.
- Category C - State roadways with an ADT less than 500 vehicles with a roadway width less than 18'. There are 118.78 candidate miles of Category C roadways in Bradford County.

The counties prioritize the widening projects based on traffic volume, safety, economic development, network, possible detour routes and customer input. Through the year 2005, widening is planned for 23.75, and 4.58 miles of Category A and B roadways, respectively. No Category C roadway widening projects are planned during that time. Widening projects, or "Betterments" are completed primarily using PENNDOT department forces.

### ***International Roughness Index (IRI)***

The IRI is used as an indicator to measure the smoothness or roughness of a roadway surface. The measurement is in inches/mile. In PENNDOT, this indicator is used to monitor the condition of several networks including the interstate, National Highway System (NHS), and non-NHS routes with traffic volumes equal to or greater than 2,000 vehicles. Following is a summary of the data obtained from the IRI:

- There are no interstates in Bradford County.
- There are 70.9 segment miles of NHS in Bradford County.
  - Of the 70.9 segment miles, 3.3 segment miles were defined as having poor IRI ratings in 2001.
  - It is estimated with the planned projects and the deterioration rate of the network, this value will reduce to 1.3 segment miles in 2005.
- There are 163.3 segment miles of non-NHS routes with traffic volumes equal to or greater than 2,000 vehicles.
  - Of the 163.3 segment miles, 18.2 segment miles were defined as having poor IRI ratings in 2001.
  - It is estimated with the planned projects and the deterioration rate of the network, this value will reduce to 8.0 segment miles in 2005.

### ***Guide Rail***

There is 189,400 linear feet of cable guide rail in Bradford County. PENNDOT has a plan to upgrade all cable guide rail to panel post guide rail over the next seven years.

### **Drainage Maintenance**

Drainage pipes are scheduled for replacement as part of PENNDOT resurfacing and widening projects, and on an as needed basis. Drainage pipe flushing is completed on a regular cycle.

### **Local Transportation Network**

There are 1,592.9 linear miles of local municipal roads in Bradford County. Maintenance is completed on an as needed basis. No formal maintenance plan or list of roadway deficiencies is available.

## **PUBLIC TRANSIT SERVICES**

Public transportation has numerous community benefits. It reduces congestion; offers transportation to those without automobiles; relieves stress on roadways, bridges, and intersections, thereby reducing the demand for expensive infrastructure upgrades; increases air quality; and reduces health risks.

The Endless Mountains Transportation Authority (EMTA) provides public transportation within Bradford County. As a rural transportation entity, the mission of EMTA is to “meet the transportation needs of the people and communities within our service area by providing safe, reliable and efficient services in Bradford, Sullivan and Tioga Counties and surrounding areas.” Ridership on the EMTA has increased by an average of 15 percent annually. Much of the increase can be attributed to increased ridership on the agency’s Blue Buses, which run on a set schedule between major communities.

There are nine scheduled routes within Bradford County consisting of the following:

- Route 10 – Sayre/Towanda
- Route 15 – Dushore/New Albany/Wysox/Towanda/Sayre
- Route 20 – Towanda/Troy/Canton
- Route 25 – Wyalusing - Camptown – Wysox – Towanda
- Route 35 – LeRaysville – Rome – Wysox – Towanda – Athens
- Route 40 – Towanda/Sayre to Arnot Mall
- Route 50 – Lycoming Mall
- Route 60 – Valley Loop
- Route 100 – Sayre Circulator

Additional services provided by EMTA include access to work, shared ride services, and the Mansfield Mountie Express. The Northeastern PA Welfare to Work Transportation Program (WTW) is a temporary program funded by Pennsylvania Department of Transportation meant to help Welfare and low income clients get to and from work until they are able to identify a permanent transportation resource.

The Mountie Express is part of the Public Transit System in Bradford, Sullivan, and Tioga Counties and provides fare-free service to anyone on-campus and to Mansfield University staff and students off campus.

EMTA also provides a free or reduced fare shared ride or “door-to-door” service for qualified residents of Bradford, Tioga, and Sullivan Counties. EMTA is also available to the general public at a general public fare that varies based on trip length. The Medical Assistance Transportation Program provides free transportation to and from medical appointments with the use of a valid Medical Access Card. A majority of seniors in the County use this service.

Public transportation is also provided by Capital Trailways and Woodward Bus Service. Capital Trailways provides scheduled bus service between Scranton and Elmira, New York passing through Wyalusing, Towanda, and Sayre in Bradford County. Woodward Bus Service provides school bus service and is in the process of obtaining a license to provide paratransit services. Sharaton Bus Service, Inc. is located in Wyalusing, and offers various single and multiple day tours and excursions.

### **RAIL TRANSPORTATION**

#### ***Rail Freight Transportation***

Two rail freight lines operate within Bradford County. The Towanda Monroeton Shippers Lifeline is 5.6 miles long and runs from Towanda to a feed mill in Monroe Borough. The Norfolk Southern Railway Co. operates a rail freight line that runs from within New York State to Wyoming County where it connects with the Reading Blue Mountain and Northern Railroad. The Reading and Northern Railroad Company is a regional railroad in eastern Pennsylvania that operates over 300 miles of track. They primarily haul coal out of eastern Pennsylvania for shipment throughout the United States, Canada, and exportation throughout the world. The railroad also hauls paper, lumber, plastics, fertilizer, stone, sand, road slat, brick, fly-ash and other products.

#### ***Rail Passenger Transportation***

Currently no rail passenger transportation facilities exist in Bradford County.

### **AVIATION FACILITIES AND SERVICES**

There are two general aviation airports located in Bradford County, Blue Swan Airport and Bradford County Airport. Bradford County Commissioners assumed control of the County Airport in 2000 which is now run by the County Airport Authority.

Blue Swan Airport, owned by the Borough of Sayre is located two miles west of the borough and is open to the public. There is one turf runway 2,850 long by 100 feet wide that is in good condition yet is on difficult terrain for expansion. Fuel is available at this airport that has approximately 47 aircraft operations a week serving 73 percent local general aviation and 27 percent transient general aviation. Ground transportation to the airport is by personal automobile.

Bradford County Airport is also open to the public and is located two miles south of Towanda. The airport has one asphalt runway recently expanded to 4,300 feet long by 75 feet wide that is in good condition. An additional 700 foot expansion of the runway is planned. Fuel is available as well as a number of other services including charter flights, flight instruction, aircraft rental, and aerial surveying. Aircraft operations average 50 per day generally comprising of approximately 82 percent local general aviation, approximately 18 percent transient general aviation, and less than one percent military operations. Ground transportation to the airport is by personal automobile or Courtesy Car. The Bradford County Airport is arguably the single most important General Aviation airport facility in Bradford County and the entire Northern Tier region.

The closest air carrier services are available at Williamsport Regional Airport in Lycoming County, Wilkes-Barre/Scranton International Airport in Luzerne County and Elmira/Corning Regional Airport and Binghamton Regional Airport in New York State.

### **PEDESTRIAN AND BICYCLE SYSTEMS**

Sidewalks are found mostly in the Boroughs and villages throughout the county. They are designed for moving around town or the neighborhood, but not to get into or out of these areas. As evidenced in the journey to work census data for 2000, few people use walking as a mode of travel to work within Bradford County. In fact, less than five percent of workers 16 and older walk to work. Almost one half of these are in Sayre (28 percent), Towanda (11 percent), Athens (6 percent), and Canton (5 percent). The balance is scattered fairly evenly throughout the remaining forty-six municipalities in the county.

In 2001 the Northern Tier Regional Planning and Development Commission completed the *Northern Tier Bicycle and Pedestrian Transportation Plan* that established a solid policy and planning direction for the

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five-county region including Bradford. The plan identified one route in Bradford County that is part of “Bicycle PA,” the movement to sign and designate multiple intrastate bicycle routes in Pennsylvania. The route primarily follows U.S. 6 and is identified as Route “Y”.

The *Northern Tier Bicycle and Pedestrian Transportation Plan* identified the following three action items for Bradford County:

- Development of off-road trail mapping
- Development of off-road trail systems/greenways trails
- Shoulder improvements on PA 414 between Canton and Monroeton Boroughs

Consultation with PENNDOT’s Statewide Bicycle-Pedestrian Coordinator revealed that Route J of “Bicycle PA,” currently in conceptual form, will travel through Bradford County as follows:

- PA 14                   Tioga County line to PA 414, Canton, 4.57 miles
- PA 414                PA 14 North junction to US 220, 21.99 miles
- US 220                PA 414 junction to SR 2027 (Bus. US 220), 1.68 miles
- SR 2027              US 220 to US 6, Towanda, 1.80 miles
- US 6                   SR 2027 to SR 1041, 1.79 miles
- SR 1041              US 6 to SR 1043, 0.74 miles
- SR 1043              SR 1041 to SR 1056, E. Athens, 12.04 miles
- SR 1056              SR 1043 to PA 199, Athens, 0.60 miles
- PA 199                SR 1056 to NY line, S. Waverly, 3.09 miles

A summer 2002 issue of *The Daily Review* in Towanda included an article that proposed a rail-trail system that would run from Monroe to Canton along a twenty-plus mile stretch of scenic railroad.

### LIQUID FUELS TAX

Each municipality in the planning area receives revenue from the Commonwealth’s Liquid Fuels Tax Program. This program allocates a portion of the tax collected from the sale of liquid fuels, e.g. oil and gasoline, to municipalities to supplement funding for local roadway improvements and emergency services fuels expenses. The amount received by each of the municipalities is based upon a formula including the number of local roadway miles and total population.

### PROGRAMMED TRANSPORTATION IMPROVEMENTS

Table 5-1 shows projects located within Bradford County that are listed on PENNDOT’s 2001 TIP.

**TABLE 5-1**  
**2001 Transportation Improvement Program Projects for PENNDOT**

Project	Route	Title/Sponsor	Improvement	Period	Costs (in thousands of dollars)					
					PE	FD	UTL	ROW	CON	Total
MODE: HIGHWAY										
48429		2001 NTIER SAFETY	HIGHWAY RESTORATION	1		75		25	250	350
58028		2001/2002 ENHANCEMENTS	TRANSPORTATION ENHANCEMENT	1					255	255
48430		2002 NTIER SAFETY	HIGHWAY RESTORATION	2		75		25	400	500
Project	Route	Title/Sponsor	Improvement	Period	PE	FD	UTL	ROW	CON	Total
MODE: HIGHWAY										
58020		2003 NTIER SAFETY	HIGHWAY RESTORATION	3		75		25	400	500
58021		2004 NTIER SAFETY	HIGHWAY RESTORATION	4		75		25	400	500
62374		ACCESSIBLE BUSES	PUBLIC TRANSIT	1					88	88



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**TABLE 5-1 (cont'd)**  
**2001 Transportation Improvement Program Projects for PENNDOT**

63940		ACCESSIBLE VANS	PUBLIC TRANSIT	1					212	212
58676		MARIE ANTOINETTE	TRANSPORTATION ENHANCEMENT	1	15	5		100	40	160
48516		NORTHERN TIER LDD	RAIL HIGHWAY GRADE CROSSING	2		5			90	95
48517		NORTHERN TIER LDD	RAIL HIGHWAY GRADE CROSSING	3		7			142	149
58022		NTIER HRST GRP 2003	HIGHWAY RESTORATION	3					2000	2000
58023		NTIER HRST GRP 2004	HIGHWAY RESTORATION	4					5200	5200
5336	6	EAST TROY RT 6 GR UPGRADE	HIGHWAY RESTORATION	1		80				80
				2					828	828
5332	6	NARROWS-RUMMERFIELD	HIGHWAY RECONSTRUCTION	1	80					80
50558	6	RESURFACE WEST OF TROY	HIGHWAY RESTORATION	1					1240	1240
50475	6	SR6 TUSCARORA BETTERMENT	HIGHWAY RESTORATION	4					1243	1243
47292	6	TIOGA LINE TO SYLVANIA	HIGHWAY RESTORATION	1					2691	2691
4984	14	GROVER CORNER	SAFETY IMPROVEMENT	1	200					200
				3				150		150
5299	14	PA14 ALBA TO TROY	HIGHWAY RECONSTRUCTION	1					440	440
5195	14	PA14 N OF COL X-RDS	HIGHWAY RESTORATION	1					240	240
58102	220	SAYRE-ATHENS BYPASS PATCH	HIGHWAY RESTORATION	2					1965	1965
5335	220	TOWANDA BYPASS PATCH	HIGHWAY RESTORATION	1					758	758
				2						0
4983	706	PA 706 @ WYALUSING	NEW ALIGNMENT	1	200					200
				3		650				650
5236	6006	CENT.BRAD.TRAFF.IMPV	NEW ALIGNMENT	1			1332	337	1839	3508
				2					1001	1001
				3					1001	1001
57535	6006	RIVER ST EXTENSION	NEW ALIGNMENT	1			976	1500		2476
									1001	1001
									2004	2004
5306	9900	UPPER SUSQ TRAIL SYS	TRANSPORTATION ENHANCEMENT	1					690	690
<b>MODE: BRIDGE</b>										
47936	6	SUGAR CK	BRIDGE RESTORATION	4		60				60
5198	14	MILL GREEK BR TR 14	BRIDGE REPLACEMENT	1		40	20	20		80
				3					330	330
5030	14	PA 14 SOUTH CK BR 2	BRIDGE REPLACEMENT	1		70	10	20		100
				2					1050	1050
5327	220	US 220 BR OVER US 6	BRIDGE RESTORATION	2					264	264
5322	409	CAMP CREEK BOX CULV.	BRIDGE REPLACEMENT	2					750	750
5199	706	PA 706 CAMPTOWN BR	BRIDGE REPLACEMENT	1		277	211	200		688
				2					1150	1150
				3					1150	1150
5333	1022	ULSTER BRIDGE REPL	BRIDGE REPLACEMENT	1	665					665
				2	161	1740	340	300		2541
				4					6400	6400

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**TABLE 5-1 (cont'd)**  
**2001 Transportation Improvement Program Projects for PENNDOT**

Project	Route	Title/Sponsor	Improvement	Period	PE	FD	UTL	ROW	CON	Total
5095	1056	ATHENS SUSQ RV BR	BRIDGE REPLACEMENT	1	800	235				1035
				2				270		270
				3					2747	2747
				4					2038	2038
5141	1075	SR 1075/WYALUSING CK	BRIDGE REPLACEMENT	3					840	840
5058	2024	SR 2024/TOWANDA CK	BRIDGE REPLACEMENT	1	30	300	20			350
				2				180		180
				3					2800	2800
5028	3006	POWELL TRUSS BRIDGE	BRIDGE REPLACEMENT	1		50		10		60
				2					465	465
5035	4014	BUCKS CREEK BR IV	BRIDGE REPLACEMENT	1					897	897
5057	4015	MILL CREEK BRIDGE	BRIDGE REPLACEMENT	3		80				80
5107	7214	T-412, COUNTY BRIDGE #20	BRIDGE REPLACEMENT	1		115		18	1065	1198
5105	9900	KNAPPS COVERED BR	BRIDGE REPLACEMENT	1		210		39	930	1179
5330	9900	PARKS HOLLOW ROAD BR	BRIDGE REPLACEMENT	1	90					90
				3		150				150
5122	9900	SLATER HILL RD BR	BRIDGE REPLACEMENT	1	78	90				168
				3					295	295
5253	9900	T-748 BULLARD CK BR	BRIDGE REPLACEMENT	1		85	12	10		107
				2					375	375
<b>MODE: TRANSIT</b>										
61221		ENDLESS MOUNTAINS	BUS PURCHASE	1					50	50
61222		ENDLESS MOUNTAINS	VEHICLE PURCHASE	1					70	70
61223		ENDLESS MOUNTAINS	BUS PURCHASE	1					440	440
61224		ENDLESS MOUNTAINS	SHOP EQUIPMENT	2					60	60
61225		ENDLESS MOUNTAINS	PURCHASE MAIN FACILITY	2					216	216
61226		ENDLESS MOUNTAINS	FACILITY REMODELING	2					220	220
63496		ENDLESS MOUNTAINS	PURCHASE DESIGN SERVICES	2					35	35
63497		ENDLESS MOUNTAINS	PURCHASE VEHICLES	2					150	150
63498		ENDLESS MOUNTAINS	PURCHASE 5 BUSES	2					300	300
63499		ENDLESS MOUNTAINS	PURCHASE 4 BUSES	2					240	240
63500		ENDLESS MOUNTAINS	PURCHASE EIGHT RADIOS	2					20	20
63699		ENDLESS MOUNTAINS	PURCHASE TRANSIT VEHICLE	1					41	41

Period = The scheduled phase of completion within the Twelve Year Improvement Program  
 PE = The cost of the Preliminary Engineering of the project development in thousands of dollars.  
 FD = The cost of the Final Design of the project development in thousands of dollars.  
 UTL = The cost of the utility changes (electric, telecommunications, mechanical) in thousands of dollars.  
 ROW = The cost of the right-of-way phase of the project in thousands of dollars.  
 CON = The cost of the construction phase of the project in thousands of dollars.  
 PRA = The costs of planning and research or administrative projects in thousands of dollars.  
 TOTAL = The total project cost in thousands of dollars.  
 Source: PENNDOT

PENNDOT also conducts the Transportation Enhancements Program. This program originated in the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 and continues under TEA-21. The program establishes a cooperative arrangement between the Federal Highway Administration, PENNDOT and a sponsor to implement projects that have a direct relationship to transportation use, needs and benefits. This cost reimbursement program provides 80 percent of the

## **Chapter 5 – Transportation Systems Profile**

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implementation/construction costs. As a reimbursement program, sponsors must demonstrate the ability to advance their portion of project costs prior to approval.

Projects must meet eligibility requirements and all federal and state regulations for transportation projects. There are twelve project categories defined by the Act:

- Provision of Facilities for Pedestrian and Bicycles
- Provision of Safety and Educational Activities for Pedestrians and Bicyclists
- Acquisition of Scenic Easements and Scenic or Historic Sites
- Scenic or Historic Highway Programs (Including the Provision of Tourist and Welcome Center Facilities)
- Landscaping or Other Scenic Beautification
- Historic Preservation
- Rehabilitation and Operation of Historic Transportation Buildings, Structures or Facilities (Including Historic Railroad Facilities and Canals)
- Preservation of Abandoned Railway Corridors (Including the Conversion and Use, Thereof for Pedestrian or Bicycle Trails)
- Control and Removal of Outdoor Advertising
- Archeological Planning and Research
- Mitigation of Water Pollution Due to Highway Runoff or to Reduce Vehicle-Caused Wildlife Mortality While Maintaining Habitat Connectivity
- Establishment of Transportation Museums.

As sponsors, municipalities may submit projects to the Transportation Enhancements Program for funding. Currently there are five Transportation Enhancement Program projects in Bradford County as follows:

- **Endless Mountains Overlook** – construction of a scenic overlook at Wyalusing Rocks in Wyalusing Township scheduled for construction in spring 2003.
- **South Waverly Bike Trail** – construction of a portion of trail in the Athens Township scheduled for construction in late 2003.
- **Rehabilitation 1881 Train Station** – rehabilitation of an historic station located in the heart of downtown Sayre scheduled for construction in early 2003.
- **Upper Susquehanna Valley Intermodal Trail System** – construction of pedestrian and bicycle trail located in Central Bradford County along US 6 and PA 187 scheduled for construction in late spring 2003.
- **Marie Antoinette Overlook** – rehabilitation/construction of an overlook in Wyalusing Township scheduled for construction in the summer of 2003. There are plans to develop a regional visitors center for the Endless Mountains Region with Endless Mountains Heritage Association.

### **RESIDENT COMMUTING PATTERNS**

Obtaining a basic knowledge about commuting patterns and the characteristics of commuter travel of the study area is an essential component in the land use and transportation planning process. Community pattern trends are essential for planning highway improvements and developing public transportation services, as well as for designing programs to ease traffic problems during peak periods, conserve energy, and reduce pollution.

Commuting pattern statistics for Bradford County, obtained from the 2000 Census, are presented in Table 5-2. As shown, 77.5 percent of those individuals who work outside of their home report driving alone in a private automobile while 11.4 percent carpool. Additionally, nearly 5 percent of Bradford County

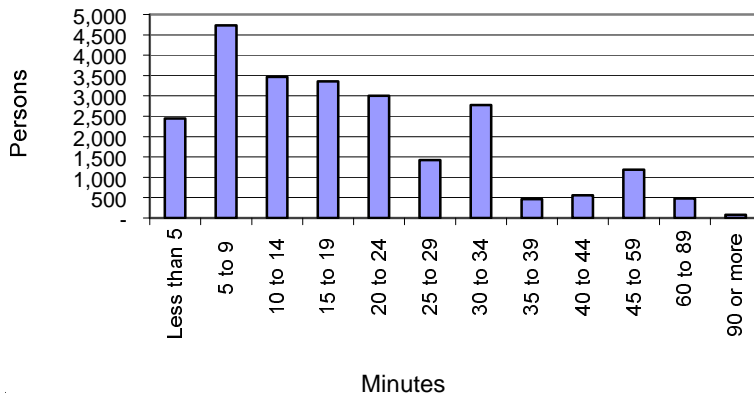
## Chapter 5 – Transportation Systems Profile

residents walk to work. Due to the challenges of operating a public transit system in a rural county, the percentage of individuals indicating that they use public transit in their daily commute to work was negligible.

The chart below presents the journey to work travel time statistics for Bradford County residents as recorded by the 1990 Census. The mean travel time for the commute of county residents was 22.6 minutes.

**Travel Time to Work for Bradford County, 1990**

Source: U.S. Census Bureau, 1990



**Table 5-2  
Journey to Work - 2000**

Mode of Travel	Bradford County		Pennsylvania	
	#	%	#	%
Car, truck, or van:				
Drove alone	21,236	77.5	4,247,836	76.5
Carpooled	3,114	11.4	577,364	10.4
Public transportation	82	0.3	289,699	5.2
Walked	1,349	4.9	229,725	4.1
Other means	263	1.0	29,805	0.5
Worked at home	1,361	5.0	164,646	3.0

Source: U.S. Census Bureau, 2000

### TRENDS AND ISSUES

- ❖ Currently no rail passenger transportation facilities exist in Bradford County. Discussions at the Northern Tier Regional Transportation Advisory Committee concern the future use of the Norfolk Southern Rail Line in Bradford and Wyoming counties and possible economic development opportunities that might support passenger rail. A multi-county rail authority has not been established at this time.
- ❖ Maintenance program planning is needed at the local level. All 51 municipalities in Bradford County maintain their own roads with the assistance of the PENNDOT Liquid Fuels Program with funds allocated based on road and population criteria established in the 1930's. Municipalities may require assistance in prioritizing critical transportation projects on the Twelve Year Program. The Dirt and Gravel Program may assist communities where water quality issues may be present.
- ❖ Aviation facilities at Bradford County Airport continue to be up-graded and functions as a business class airport. Recent expansions have included the runway, hangars and fuel facilities. The airport receives funds from the Bureau of Aviation and private contributions from local industries. Consideration is being given to future runway expansions.
- ❖ The Northern Tier Regional Planning and Development Commission recently developed and adopted a Regional Bicycle and Pedestrian Plan for all five counties in the Northern Tier.
- ❖ More coordination efforts are needed between state, county and local governments in establishing bike/pedestrian routes and trails in providing connections to downtown areas and recreation facilities, including the Susquehanna River.
- ❖ Truck traffic through downtown areas is creating concern in some communities as it affects traffic flow, safety and tourism. The need for bypassing communities and more direct linkages to major highways continues to be an issue.
- ❖ Bridges represent an important link in the County's transportation system, even when they carry low volumes of traffic. The County has an enormous inventory of aging locally owned bridges. The County and its municipalities will be faced with a greater stock of mature bridges that will require greater maintenance and rehabilitation attention.
- ❖ The importance of the roadway network to Bradford County cannot be overstated. While the county's roadway network does not constitute the entire transportation system, it does represent the backbone around which the other modes interact. In a large, rural county where destinations are far apart, the condition and performance of the roadway network is critical. These performance measures include safety and bicycle/pedestrian accommodation (shoulder widths), economic development and land use planning (access to the KOZ site and other industrial land in Sayre), public involvement (context sensitive design), mobility (access to markets outside of the county) and capacity (truck climbing lanes).

## **Chapter 6 – Community/Utility Facilities and Services Profile**

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### **INTRODUCTION**

This chapter inventories Bradford County's community facilities and services and discusses the issues associated with their operation and provision. This is useful in identifying strengths as well as inadequacies and needs. The operation and provision of the County's various facilities and services are the duties of both private and public organizations, as noted throughout this chapter.

### **PUBLIC SAFETY**

#### ***Police Protection Services***

Police protection is an essential service required for the protection of local residents and the business community. The traditional role of the police involves three functions—(1) law enforcement, (2) order maintenance, and (3) community service. Law enforcement involves the application of legal sanctions, usually arrest, to persons who injure or deprive innocent victims of life or property. Order maintenance involves the handling of disputes. The third aspect of the police function varies from community to community according to tradition and local ordinances. These are activities not necessarily related to criminal acts and include such tasks as traffic control, education, and other public services. Though the county's population has risen in recent years, the number of reported crimes has actually declined. Between 1995 and 2000, the total number of reported crimes fell by 22.6 percent. In addition, the number of reported serious crimes declined by 33.2 percent.

The existing police service is managed primarily through a combination of full and part-time police located in some of the townships and boroughs and the Pennsylvania State Police. The departments and their primary response areas are shown in Table 6-1. The County Sheriff is housed at the Bradford County Courthouse in Towanda.

Emergency calls and responding communications are handled through the Emergency Management Agency located in North Towanda Township. The 911 system established for this purpose has been in existence since 1995 and for the most part, is working well. One issue the County is presently dealing with relates to the rural nature of the area and the corresponding address system for residents and businesses. Oftentimes, it is difficult to find the specific location of the emergency because addresses are not exact enough for emergency services to locate. The County has been working to resolve this issue and should be completed with establishing a new system within the next two to three years.

**Table 6 -1  
Public Safety - Police Facilities**

<b>Name</b>	<b>Primary Response Area</b>
Pennsylvania State Police Department	Alba Borough, New Albany Borough, Albany Township, Armenia Township, Asylum Township, Burlington Borough, Burlington Township, Canton Township, Columbia Township, Franklin Township, Granville Township, Herrick Township, Leroy Township, Litchfield Township, Monroe Township, North Towanda Township, Overton Township, Pike Township, Rome Township, Sheshequin Township, Smithfield Township, South Creek Township, Springfield Township, Standing Stone Township, Stevens Township, Sylvania Borough, Terry Township, Towanda Township, Troy Township, Tuscarora Township, Warren Township, West Burlington Township, Wilmot Township, Windham Township, Wyalusing Township, Wysox Township

## Chapter 6 – Community/Utility Facilities and Services Profile

**Table 6-1 (contd.)  
Public Safety – Police Facilities**

Name	Primary Response Area
Athens Police Department	Athens Borough
Athens Police Department	Athens Township
Canton Police Department	Canton Borough
Northeast Police Department	Leraysville and Orwell
Monroe Police Department	Monroe Borough
Ridgebury Police Department	Ridgebury Township
Rome Police Department	Rome Borough
Sayre Police Department	Sayre Borough
South Waverly Police Department	South Waverly Township
Towanda Police Department	Towanda Borough
Troy Police Department	Troy Borough
Ulster Police Department	Ulster Township

Source: The Fire and EMS Information Network. <http://www.fire-ems.net>

### **Emergency Medical Services**

Emergency medical services can be divided into two general types. The first, emergency ambulance service, involves the transportation of patients from the scene of a medical emergency to a local medical care facility for treatment. The second, routine transports, provides transportation to patients from one medical care facility to another.

The emergency ambulance services are provided by fourteen (14) Emergency Medical Services located throughout the County. The primary goals of these emergency services are to provide basic life support and transport to local hospitals. These services are provided by volunteers, which, in most cases, are insufficient in number to handle the volume of calls received. These services and their primary response areas are listed in Table 6-2.

**Table 6-2  
Public Safety - Emergency Medical Service Facilities**

Emergency Medical Services	Primary Response Area
Dushore Emergency Medical Services	New Albany Borough, Albany, Overton, Terry and Wilmot Townships
H.O.P.S. Emergency Medical Services	LeRaysville, Herricksville, Orwell, Pike and Stevens Townships
South Creek Emergency Medical Services	South Creek
Memorial Emergency Medical Services	Ridgebury, Sheshequin, Smithfield, Ulster, Monroe, Towanda, North Towanda, Burlington, and Franklin Townships and Monroe and Towanda Borough
Troy Emergency Medical Services	Burlington, Sylvania and Troy Boroughs, Armenia West Burlington, Columbia, Granville, Springfield, and Troy Townships. Burlington Townships part-time
Western Emergency Medical Service	Alba, Canton, Burlington, Sylvania, Troy, Columbia, Leroy Armenia, Granville, Springfield, Troy, West Burlington
Greater Valley Emergency Medical Services	Athens, Sayre, South Waverly Boroughs, Athens and Litchfield Townships

## Chapter 6 – Community/Utility Facilities and Services Profile

**Table 6-2 (cont'd)**  
**Public Safety – Emergency Medical Services Facilities**

Emergency Medical Services	Primary Response Area
Windham Emergency Medical Services	Windham, Orwell, Rome and Warren Townships
Wyalusing Emergency Medical Services	Wyalusing Borough, Tuscarora, Terry, Wyalusing, Stevens, Wilmot Townships
Wysox Emergency Medical Services	Rome Borough, Asylum, Standing Stone, Wysox, Orwell, Rome Townships and part time services to Rome Townships
Millerton and Daggert Emergency Medical Services, Jackson Twp, Tioga County	Wells Township
East Smithfield Emergency Medical Services	Burlington, Smithfield, Springfield, West Burlington
Ulster Emergency Medical Services	Sheshequin and Ulster Townships
Ridgebury Emergency Medical Services	Ridgebury and Springfield Townships
South Creek Emergency Medical Services	South Creek Township

Source: The Fire and EMS Information Network. <http://www.fire-ems.net>

### **Fire Protection Services**

There are 25 fire departments in the County with some having multiple stations. The coverage that these departments provide is considered to be excellent. Fire stations are for the most part, located within the boroughs and operated by volunteers. There are mutual agreements among fire departments to respond to fire calls from more than one area at a time. Fire protection is funded by various methods such as from townships that pay for the service through a special municipal tax, donations, and grants received from the state and federal government. Generally, fire departments located in the more densely populated areas have the modern equipment needed to respond effectively where the more rural area departments do not. Table 6-3 lists fire departments that provide services to Bradford County.

**Table 6-3**  
**Public Safety - Fire Rescue Facilities**

Name	Primary Response Area
<b>Fire Companies</b>	
Athens Borough Fire Company	Athens Borough
Athens Township Fire Department	Athens Township
Canton Fire Department	Canton Borough, Alba Borough, Canton and Leroy Townships
LeRaysville Fire Department	LeRaysville Borough, Orwell, Pike and Stevens Township
Monroe Fire Department	Monroe Borough, Monroe Township
New Albany Fire Department	New Albany borough, Albany and Overton Township
Rome Fire Company	Rome Borough, Rome and Orwell Township
Sayre Fire Company	Sayre Borough
South Waverly Fire Department	South Waverly Borough
Towanda Fire Department	Towanda Borough, Towanda Township
North Towanda Fire Department	North Towanda Township
Troy Fire Department	Burlington, Sylvania, and Troy boroughs. One third of Burlington Township, W. Burlington, Columbia, Granville, Troy, Springfield and Armenia Townships
Wyalusing Fire Department	Wyalusing Borough and Township, Terry and one third of Tuscarora Township and Stevens Township
Athens Township Fire Department	Athens Township and Borough



## Chapter 6 – Community/Utility Facilities and Services Profile

Table 6-3 (cont'd.)  
Public Safety – Fire Rescue Facilities

Name	Primary Response Area
Herrick Township Fire Department	Herrick and Orwell Township
East Smithfield Township Fire Department	East Smithfield, Springfield and one third of West Burlington Township
South Creek Fire Department	South Creek Township
Ulster Township Fire Department	Ulster and Sheshequin Townships
Warren Township Fire Department	Warren Township
Windham Township Fire Department	Windham Township
Wysox Township Fire Department	Wysox Standing Stone and Asylum Townships
Franklindale Fire Department	Franklin and Burlington Townships
Litchfield Fire Department	Litchfield Township
Wilmot Fire Department	Wilmot Township
Millerton and Daggert Fire Department	Wells Township
Ridgebury Township Fire Department	Ridgebury and Springfield Township

Source: The Fire and EMS Information Network. <http://www.fire-ems.net>

### **Hazardous Materials Team**

Each of the 67 counties in Pennsylvania is required under Act 165 (Act 1990-165 Hazardous Materials Response Fund) to have contracted a state certified hazardous materials response team. The program, which is managed by the Pennsylvania Emergency Management Agency (PEMA), establishes operational, staffing, training, medical monitoring, supply, and equipment guidelines.

Bradford County relies on TEEM Environmental Services Inc. a private consultant located in Old Forge, Pennsylvania if hazardous materials are identified and are required to be removed immediately, e.g., a chemical truck spill. The Emergency Management Agency has expressed a shortage of funds for hazardous waste cleanup that is required throughout the County.

### **UTILITY SERVICES**

Increased residential and commercial development in Bradford County has placed greater demands for natural gas, electricity, and telecommunication services. While most utility service providers have the ability to meet increased demands, it is essential for this Comprehensive Plan to provide a brief inventory and review of Bradford County utility service providers.

#### **Natural Gas**

Natural gas is distributed to the area by PPL Utilities and NUI Corporation, formerly Valley Cities Gas Service. The natural gas supplier for the region is Tennessee Gas Pipeline Co.

#### **Electricity**

Pennsylvania is one of several states that offer residents a choice in their electric service generation supplier. Under the Electric Choice program established in 1999, customers can select their electric service based on cost, services and incentives, or personal preference.

Electricity suppliers include Allegheny Energy Supply, Dominion Peoples Plus, GPU Energy and Green Mountain Energy Company. Electricity distributors include Claverack Rural Electric Cooperative, GPU Energy, Sullivan County Rural Electric Cooperative and Tri-County Rural Electric Cooperative.

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## **Chapter 6 – Community/Utility Facilities and Services Profile**

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### **Telecommunications**

Due to the dynamic nature of the telecommunications industry provider names and companies are in a constant state of flux. The following list is subject to continuous change.

Telephone service in the County is provided by: AT&T, Capital Network Communications, Commonwealth Telephone Company, Frontier Communications, MCI World Com., North Penn Telephone, Sprint and Verizon.

Cable television service in the County is provided by: Beaver Valley Cable Service, Blue Ridge Communications, Cablevision Industries, Retel TV Cable, TCI of Pennsylvania, and Time/Warner Cable.

Cellular telephone service is provided by: PennSel, Tri-County Communications, Twin Tier Communications, and Verizon Wireless.

Internet service providers in Bradford County include: Ben's Computer Technologies, Cyber-Quest, Data Management Group, Eagles Nest Electronics, Endless Mountains CYBERSPACE, Epix, Johnson Hill Communications, MB Tech, Prolog: PenteleData, Sarver's Output Services and Teledair.

Local radio stations include: WATS AM/WAVR FM, WHGL and WTTC. Local television is provided by WENY-TV and WETM-TV in Elmira, NY, WBNG-TV, WICZ-TV and WMGC-TV in Binghamton, NY, WNEP-TV in Moosic, WYOU-TV in Scranton, and WBRE-TV in Wilkes-Barre.

## **EDUCATIONAL FACILITIES AND SERVICES**

### **Public Facilities**

Following is a list of the seven public school districts in Bradford County. Each district includes any identified plans for rehabilitation, expansion, or consolidation. The Community Facilities Map illustrates school districts and building locations in the County. Table 6-4 lists the school districts and highlights general information about each of them.

- **Athens Area School District** – One of their elementary schools will be closed after the 2003/2004 school year and will be consolidated with a recently renovated elementary school. The middle school is currently being rehabilitated. Construction of the high school expansion will begin in the spring of 2003.
- **Canton Area School District** – This district consists of an elementary school that was refurbished within the past four years and a high school that is under major renovation. The renovations are anticipated to be complete in October 2003.
- **Northeast Bradford School District** – This district consists of two facilities (grades K-6 and 7-12) located on one campus in Orwell Township. Both buildings have been renovated within the past ten years.
- **Sayre Area School District** – The three facilities in this district are in good condition due to an aggressive maintenance program. The three facilities include a junior/senior high school that serves grades 7-12, an elementary school for grades Pre-K through 6, and a rural elementary school in Litchfield that serves grades K-4.
- **Towanda Area School District** – This district is in the beginning stages of consolidating the current seven school buildings into three buildings that will house K through second grades, third

## **Chapter 6 – Community/Utility Facilities and Services Profile**

through sixth grades, and seventh through twelfth grades. The present high school and one of the existing elementary schools will undergo expansion, and the present middle school will be rehabilitated to accommodate the new school structure.

- **Troy Area Schools** – This district is in the process of consolidating from four to three elementary schools. Two of the remaining three elementary schools are being rehabilitated. A new science lab and auditorium are being added to the High School in Troy, which was recently listed on the National Register of Historic Places. A new addition to W.R. Croman Elementary School in Troy is currently underway.
- **Wyalusing Area School District** – Other than an upgrading of the track at the senior high school, there are no major changes scheduled for this district.

**Table 6-4  
Public Educational Facilities**

Public School Districts	2000-2001 Enrollment	Enrolled in Vo-Tech	2000 Graduating Class	Graduating Class Attending 4-Year School	Graduating Class Attending 2-Year School	Military
Athens Area	2,571	75	187	41%	19%	5%
Canton Area	1,202	25	82	59%	11%	3%
Northeast Bradford Area	960	23	58	29%	<1%	<1%
Sayre Area	1,214	28	83	57%	30%	6%
Towanda Area	1,949	30	121	54%	2%	4%
Troy Area	2,010	40	132	47%	10%	7%
Wyalusing Area	1,592	32	124	41%	17%	11%

Source: Bradford County Community Data Book, 2000

### **Private Facilities**

Private schools located in Bradford County are listed in Table 6-5 along with the 2000-2001 enrollment.

**Table 6-5  
Private Schools and Facilities for Higher Education**

<b>Private Schools</b>		
Facility	Enrollment	Location
Valley View Amish School	21	Lefravesville
Epiphany Roman Catholic School	187	Sayre
His Majesty Christian Academy	23	Athens
North Rome Christian School	182	Ulster
St. Agnes School	196	Towanda
Sonshine Christian School	23	Canton
Union Valley Christian School	3	Ulster
<b>Facilities for Higher Education</b>		
Keystone College	80	Towanda
Lackawanna Junior College	125	Towanda
Mansfield University/Robert Packer Department of Health Sciences – Nursing Program		Sayre
Penn State Wilkes-Barre Northern Tier Center	185	Towanda/ Sayre

Source: Bradford County Community Data Book, 2000

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## **Chapter 6 – Community/Utility Facilities and Services Profile**

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### ***Facilities for Higher Education***

Four facilities for higher education are located in Bradford County including Keystone College, Lackawanna Junior College, the Mansfield University/Robert Packer Department of Health Sciences – Nursing Program, and the Penn State Wilkes-Barre Northern Tier Center. Enrollment and location of these facilities is given in Table 6-5 (previous page).

Keystone College, currently located in St. Agnes Elementary School in Towanda, offers a weekender program for adult students, which allows them to obtain up to 12 credits per trimester for a total of thirty-six college credits per year. Classes meet every 3<sup>rd</sup> weekend throughout the year. The college is currently negotiating for new space located in downtown Towanda that it hopes to occupy by January 2003. The new space will allow for increased programs and enrollment.

Lackawanna Junior College in Towanda, a satellite campus to the main college located in Scranton, has open enrollment and currently has 162 full and part time students. A new information technology lab located in the Progress Building in Towanda Borough should be functional by the fall of 2003.

The Penn State Wilkes-Barre Northern Tier Center was established in 1986 under the direction of Penn State Wilkes-Barre Continuing Education Department. Courses are currently offered during weekday evenings, and include graduate courses for teachers and customized training for business and industry. Professional development courses including real-estate licensing and computer workshops are also offered. The center is expecting to receive approval within the next year to offer a Masters in Education Degree.

The Mansfield University/Robert Packer Department of Health Sciences – Nursing Program offers a state approved, National League of Nursing-accredited baccalaureate degree in Nursing Science. This four-year degree program is the only one of its kind in both Pennsylvania and New York. The first two years are spent at Mansfield's main campus in Mansfield, Tioga County, and focus on general education and nursing courses. The second two are completed at the Mansfield University/Guthrie Educational Center in Sayre and include most of the nursing courses as well as their clinical experience.

## **HEALTH CARE FACILITIES AND SERVICES**

### ***Hospitals and Physicians***

Similar to other rural Pennsylvania areas, Bradford County has witnessed a decline in the number of hospital beds and admissions in recent years. The number of hospital beds has declined by 29.2 percent, while admissions have fallen by 17.6 percent.

In 1999, Bradford County had 103 active primary care physicians. This number equates to 164.1 physicians per 100,000 residents, which is nearly double the average across rural Pennsylvania (76 per 100,000 residents). Conversely, Bradford County reported 24 active dentists. This equates to 38.2 dentists per 100,000 residents, which is significantly lower than the 45 dentists per 100,000 average across rural Pennsylvania.

**Memorial Hospital** is located in Towanda. The hospital currently has a total of 94 beds, 46 short-term and 48 long-term care. The current occupancy rate for the long-term care beds is 100 percent while the short-term beds get usage of about 60-70 percent. Current expansions to their facility include adding 20 long-term beds, new area for cardiac rehabilitation, new area for variety of services, and expansion of the podiatry therapy clinic. There are current plans to expand the imagery center in early 2003.

## **Chapter 6 – Community/Utility Facilities and Services Profile**

**Robert Packer Hospital** is located in Sayre, and is a 258-bed tertiary care teaching hospital. It serves a 40-county region in the southern tier of New York and the northern tier of Pennsylvania. A part of the community since 1885, it is a member of the Guthrie Health System. Facilities include and accredited Level II Trauma Center, the Guthrie One critical care helicopter transport service, and many other services and Regional Centers of Excellence.

**Troy Community Hospital** is another member of the Guthrie Health System. Located in Troy, the facility offers medical and surgical care, as well as 24-hour emergency care. It also provides temporary placement for patients waiting for admittance to nursing homes.

The Guthrie web site – [www.guthrie.org](http://www.guthrie.org) - provides detailed information about these facilities, as well the various clinics located throughout the area.

### **Clinics**

The Guthrie Clinic is a multi-specialty group practice originally founded in 1910 by Dr. Donald Guthrie. It currently comprises 240 specialists with locations throughout Pennsylvania and New York. The main clinic is located in Sayre, and there are satellite offices located in Athens, Canton, Towanda, Troy, and Wyalusing. The Valley Family Planning Clinic is also located in Sayre and provides a wide range of family planning services.

### **Nursing Homes and Special Care Facilities**

The following is a list of nursing homes in the County:

- Heritage Nursing Home - Athens
- Bradford County Manor – Burlington
- Sayre House Inc. – Sayre
- The Valley Inn Personal Care Home - Sayre
- Smith’s Personal Care Home – Wyalusing
- Wyalusing Valley Retirement and Personal Care – Wyalusing

In addition to these facilities, Martha Lloyd Community Services, located in Troy, provides a number of programs for men and women with mental retardation and developmental disabilities. They include a year-round residential program, adult day care services, and vocational training and work experiences. Detailed information about their services can be found on their website at [www.marthalloyd.org](http://www.marthalloyd.org).

Table 6-6 lists the health care facilities and their locations in Bradford County.

**Table 6-6  
Health Care Facilities**

Name	Address
<b>Hospital Facilities</b>	
Memorial Hospital	Towanda
Robert Packer Hospital	Sayre
Troy Community Hospital	Troy
<b>Clinics</b>	
Guthrie Clinic	Athens, Canton, Sayre, Towanda, Troy, Wyalusing
The Valley Family Planning Clinic	Sayre
<b>Nursing Care Facilities</b>	
Bradford County Manor	West Burlington

## Chapter 6 – Community/Utility Facilities and Services Profile

**Table 6-6 (contd.)  
Health Care Facilities**

Sayre House Inc	Sayre
The Valley Inn Personal Care Home	Sayre
Wyalusing Valley Retirement & Personal Care	Wyalusing
Heritage Nursing Home	Athens
Smith's Personal Care Home	Wyalusing
Source: PA Department of Health	

### **LIBRARY FACILITIES AND SERVICES**

The Bradford County Library System, established in 1981, is comprised of nine member libraries. The libraries share resources, provide interlibrary loans, rotate video collections, and hold librarians' workshops. All of Bradford County's libraries are networked for easy information access.

The Bradford County Library system headquarters is located on Route 6 near Burlington and is also the bookmobile and literacy program headquarters. Services such as children's programs and reading clubs are available at the headquarters and may be available at the branch locations as well. Branch libraries are located in the following communities:

- Athens
- Canton
- Monroeton
- Sayre
- Towanda
- Troy
- Ulster
- Wyalusing

New Albany Community Library, located in New Albany, is a Bradford County Library affiliate.

### **SOLID WASTE MANAGEMENT SERVICES**

The Pennsylvania Municipal Waste Planning, Recycling and Waste Reduction Act 101 of 1988, requires counties to develop formal plans for managing municipal wastes. Plans are subject to municipal ratification and approval from the PADEP. In accordance with the Act, each County must ensure 10 years of available disposal capacity and establish a post-closure care trust fund for landfills.

The Northern Tier Municipal Solid Waste Management Plan for Bradford, Sullivan and Tioga Counties was last updated in 2000 by the Northern Tier Solid Waste Authority (NTSWA) as per Act 101 requirements. The 2000 Plan contains information regarding NTSWA's operations and plans for solid waste collection, recycling and disposal. Elements from the 2000 Plan are summarized below:

#### ***Construction and Demolition Waste***

There is very little recycling of construction and demolition waste at this time because the composition of such waste makes it difficult to remove materials from the waste stream. The NTSWA has purchased a "woodhog" to grind wood based waste.

#### ***Yard Waste***

NTSWA disposal facilities are equipped to handle yard waste, yet very little is transported in the County due to backyard composting in rural areas and organized municipal operations. The NTSWA has investigated the need for composting sewage, septage sludge and yard waste, but a regional facility is not presently needed.

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## **Chapter 6 – Community/Utility Facilities and Services Profile**

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### ***Bulk Items***

Appliances, mattresses, furniture and other non-recyclable materials are considered as municipal waste and disposed at appropriate facilities. Metal objects are not sent to landfills, but rather to brokers or recyclers. NTSWA has trained staff to remove Freon gas from refrigerators and similar appliances prior to recycling.

### ***Hazardous Waste***

Hazardous waste generated by major industries, is not covered under the Northern Tier Solid Waste Management Plan and the NTSWA does not accept hazardous waste for disposal. It is the responsibility of the entity generating such waste to properly collect, store, transport and dispose of such waste.

Household hazardous waste is considered part of the municipal waste stream and sent for reclamation or recycling and therefore, not accepted at the County's landfill. This waste is handled on a case-by-case basis.

### ***Sewage and Septage Waste***

The NTSWA Leachate Treatment Facility accepts only a fraction of septage sludge from the area, but has capacity to treat much more. Due to soil conditions and cost factors there is little land application of this material at this time.

### ***Special Handling Waste***

Asbestos and contaminated soils are considered as special handling wastes. Generators of such waste must submit proper DEP documentation prior to any acceptance at a NTSWA facility. Infectious, pathological and chemotherapeutic wastes are not accepted for disposal at NTSWA facilities.

### ***Recycling***

The NTSWA operates the Recycling Plus Program as part of its waste management. The NTSWA conducts much of the collection, storage, processing and transport of materials in the County.

As mandated by Act 101 the State's recycling goal has been increased to 35 percent for 2003. In 1998 Bradford County exceeded the previous State goal of 25 percent by recycling approximately 27 percent of its waste stream. This total increased to 29.4 percent in 1999 and 31percent in 2000. The NTSWA anticipates that Bradford County will be able to achieve the 35 percent goal.

Currently only Sayre Borough is mandated to recycle at the curb due to current population requirements, all other municipalities do so on a voluntary basis. It is anticipated that Sayre Borough will remain the only mandated community for curbside recycling in Bradford County under Act 101 requirements. Presently, curbside recycling is conducted in:

- Athens Borough
- Canton Borough
- Columbia Township
- Monroe Borough
- Sayre Borough
- South Waverly Borough
- Springfield Township
- Towanda Borough
- Troy Borough
- Troy Township
- Wyalusing Borough

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## **Chapter 6 – Community/Utility Facilities and Services Profile**

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### **Bradford County Landfill**

The NTSWA's Landfill #2 is located on an 88-acre tract of land along U.S. Route 6 in West Burlington Township, approximately nine miles east of Troy. The landfill accepts waste Monday through Friday from 8:00 am to 4:00 pm and Saturdays from 8:00 am to noon. Permit conditions allow for 46.3 acres of disposal area as a double-lined municipal solid waste landfill. Remaining acreage is for support services and operation.

The landfill receives approximately 295 tons of waste per day. A maximum of 750 tons per day can be accepted, but average tons per day cannot exceed 500 tons under permit requirements. Wastes accepted at the facility include municipal waste, residual waste, asbestos contaminated waste, contaminated soil and sewage sludge. Leachate treatment, landfill gas and tire shredding operations are conducted on site. In addition, the landfill also produces and sells methane gas as part of their operations. Waste received from outside the NTSWA service area is limited to 10 percent of the total amount of all solid waste generated in Bradford, Tioga and Sullivan Counties on a yearly basis. It is estimated that the remaining life of the landfill is at least 20 years.

### **Private Waste Facilities**

Three private-owned salvage yards recycle metal materials in Bradford County. These include Towanda Iron and Metal in Towanda; Strobe's Salvage Yard in North Towanda; and Schill's Salvage in Burlington. Towanda Iron and Metal also accepts plastics and paper.

## **PUBLIC WATER FACILITIES AND SERVICES**

Approximately 35 percent of municipalities within Bradford County are serviced by public water. The municipalities covered by water services are listed below.

- Athens Borough
- Athens Township (partially served)
- Canton Borough
- LeRaysville Borough
- Monroe Borough
- New Albany Borough (currently a private system, but will transfer to Towanda Municipal Authority)
- North Towanda Township (partially served)
- Rome Borough
- Sayre Borough
- South Waverly Borough
- Towanda Borough
- Troy Borough
- Troy Township
- Ulster Township
- Village of Ulster (partially served)
- Wyalusing Borough
- Wyalusing Township (partially served, Wells Mill/High School)

## **PUBLIC SEWER FACILITIES AND SERVICES**

The Pennsylvania Sewage Facilities Act of 1966 as amended, commonly referred to as "Act 537", is the primary law that controls individual and community sewage disposal systems. Act 537 requires that every



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## **Chapter 6 – Community/Utility Facilities and Services Profile**

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municipality prepare and maintain a sewage facilities plan. Act 537 requires municipalities to review their official plans at five-year intervals and perform updates, as necessary. Municipalities can apply to the PADEP for up to 50 percent reimbursement of the cost of preparing an Act 537 plan.

High growth municipalities are frequently performing updates to their Act 537 Plan. For stable or slow growth municipalities, 20 years or more may elapse between editions. Regardless of timing, such plans and PA Department of Environmental Protection approval are needed before any major sanitary sewer projects are eligible for funding by the state.

Wastewater is treated at treatment plants located in or near each municipality providing service. Each facility therefore, has its own capacities and point of treated discharge, usually an adjoining tributary. Each unit of local government or a Sewer Authority operates the various facilities.

Presently, public sewer service in Bradford County is provided to local residents by local municipalities at the township and borough levels of government. The following Municipalities have public sewer facilities.

- Athens Borough
- Athens Township (partially served)
- Canton Borough
- Canton Township (partially served)
- LeRaysville Borough
- New Albany Borough
- North Towanda Township (partially served, Rte. 6/U.S. 220 to State Police Barracks and proposed to Vo-Tech)
- Sayre Borough
- Smithfield Township (planned or under construction, proposed in Village of East Smithfield)
- South Creek Township (planned or under construction)
- South Waverly Borough
- Towanda Borough
- Towanda Township (partially served and proposed extension along portion of US 220)
- Troy Borough
- Troy Township (partially served along Fallbrook Road and proposed extensions North on Rte. 14 to Cummings Lumber)
- West Burlington Township (partially served – Bradford County Manor and Prison)
- Wyalusing Borough
- Wysox Township (partially served, US 6 “Golden Mile” and Lake Road to Lake and proposed extensions East of US 6 and PA 187 to trailer park)
- Municipal Package Treatment - Village of Herrickville, Herrick Township and High Street (Bently Creek), Ridgebury Township

Additional proposed facilities and/or extensions of service:

- Monroe Borough and Township (proposed Central Bradford Extension from Towanda)

### **MUNICIPAL FACILITIES**

The following facilities are owned and operated by Bradford County.

- **The Courthouse** – Located in Towanda and originally constructed in 1897 the building has been fully modernized over the past fifteen years and is on the National Register of Historic Places. The building has been updated mechanically and accessibility issues have been addressed so that all four floors are now being utilized. First floor renovations were financed through a Keystone Grant.

## ***Chapter 6 – Community/Utility Facilities and Services Profile***

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- **Bradford County Library** – The library was constructed in 1984 and is located in Burlington Township.
- **The County Manor** – The care facility located near Burlington accommodates approximately 200 beds. A new wing adding 50 beds was constructed in 1981 and a new sewage treatment plant was constructed onsite in 2001. Projects are currently being scheduled to modernize the facility to make it more user-friendly and family-oriented and to correct safety issues.
- **County Correctional Facility** – The facility, which has the capacity to hold approximately 120 inmates, was constructed in 1987. The county is currently planning to do a feasibility study to construct an addition that would accommodate an additional 75 inmates.
- **Court Street Annex** – Located in Towanda, the brick facility was renovated in 1982 to create office space that now holds the County MIS Department and other county agencies.
- **Fourth Street Annex** – Located on Fourth Street in Towanda, the building was completely renovated in 1982. It currently houses the local district justice and the agricultural extension agency.
- **North Towanda Annex #1** – Constructed in 1984-1985 in North Towanda Township, the building houses the Emergency Operations Center (EOC) and 911 Center. The Office of Community Planning and Grants is scheduled to move into the building by the end of 2002.
- **North Towanda Annex #2** – Annex #2 was constructed in 1987 in North Towanda Township. The building is currently being leased for use as a minimum-security residential center for young boys.
- **Sage House** – The Sage House located on South Main Street in Towanda is a home for youth. Sewer and water improvements were completed in 1980 and a small one-story office addition was constructed in 1986.
- **Wysox Magistrates Office** - In 1981 the Dibble Building, located in Wysox, was 75 percent demolished. The remaining structure was totally renovated and is occupied by the District Magistrate.

### **PARKS AND RECREATIONAL FACILITIES AND SERVICES**

Bradford County lies within the Endless Mountains and is some of the most beautiful land in the country. The Endless Mountain Region is comprised of four counties in northern Pennsylvania: Bradford, Susquehanna, Sullivan, and Wyoming Counties. The region's natural beauty and numerous opportunities attract many tourists each year. According to *The Pennsylvania Economic Impact*, visitors to Bradford County spent approximately \$68.9 million in 1999.

Recreation is very important to Bradford County. Activities such as hunting, fishing, hiking, swimming, snowmobiling, and sightseeing are major attractions for residents and non-residents of this region. Fish and Wildlife resources are important assets to the recreational environment in Bradford County. Related services for sportsmen such as equipment sales and rentals, supplies, and lodging provide additional revenue to the local economy.

The County has many natural water areas that include fishing opportunities for such species as trout, large and small mouth bass, channel catfish, muskellunge, suckers, walleyes, bullhead, fallfish, northern pike, pickerel, yellow perch, various panfish, and carp. Major problems that are affecting fish resources in the area include erosion, sedimentation, pollution, low flow, particularly during recent drought periods and heavy fishing pressure.

## **Chapter 6 – Community/Utility Facilities and Services Profile**

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The County also has an abundance of game species. Principal game species include deer, turkey, bear, ruffed grouse, pheasant, squirrel, snowshoe hare, woodchuck, rabbit, migratory waterfowl and others. Changes in land use patterns, farming techniques, increased hunting pressure, and excessive deer population are the major problems affecting game resources. There are 11 game lands and approximately 48,190 acres owned by the state that permit hunting and fishing. Most of the game lands are found in the southern part of the County. The game lands found in Bradford County are #12, 36, 123, 142, 172, 175, 219, 237, 239, 250 and 289.

**Mt. Pisgah State Park** is the only State Park in the County. It covers approximately 1,300 acres just north of Route 6 in the western part of Bradford County. This park has a number of facilities including a swimming pool, court area, and pavilions. There are also 10 miles of hiking trails (some of which are designated for cross country skiing also), 9 miles of snowmobile trails, approximately 1,100 acres for hunting, and Stephen Foster Lake provides fishing and boating opportunities.

**Tioga State Forest** covers 160,000 acres in Bradford and Tioga Counties. Most of the forest in Bradford County is located in Armenia Township, although there are some small sections in Columbia, Troy, and Canton Townships. The composition of the forest is a result of 50 years of timber cutting and occasional fires. The forest has picnic areas, scenic vistas, including Lamb's Lookout, hiking and biking trails, and groomed snowmobile trails.

There are three County-owned parks as listed below:

- **Hornbrook County Park** located in Sheshequin Township along the Susquehanna River offers seasonal camping, showers, a boat launch, and a newly installed playground. This park is approximately 30 acres in size.
- **Mount Pisgah County Park** is located in Springfield Township. The park is 615 acres and offers multiple activities including primitive camping.
- **Sunfish Pond County Park** is located in LeRoy Township. The park offers seasonal camping, a 25-acre trout stocked pond, boat launch, and a newly constructed fishing pier.

Municipal parks are listed below according to Borough or Township. Municipal parks are important to a community because people are able to take advantage of them locally without long travel time. Preserving open land and creating parks in a community has a number of benefits. It provides a source of occupation, keeps children off the street, prevents antisocial actions, provides attractiveness to the area, and stimulates the economy through tourism.

### **Alba Borough**

Alba Borough Community Park

### **Athens Borough**

Valley Playland & Rec Center

### **Athens Township**

Athens Park  
Round Top Recreation Area  
Tioga Square

### **Canton Borough**

Canton Pool

### **Columbia Township**

Bradley Hall

### **South Waverly Borough**

2 Acre Park

### **Towanda Borough**

Memorial Park  
The Third Ward Playground  
SCI Building  
2 Little League Fields  
Towanda Boat Club  
Towanda Rod and Gun Club

### **Troy Township**

Alparon Park

### **Ulster Township**

Totem Park

## Chapter 6 – Community/Utility Facilities and Services Profile

### **Monroe Borough**

Softball Field  
2 Acres Recreation Area

### **Sayre Borough**

Three Playgrounds  
The Guthrie Square  
Sayre Sportsmen's Pistol Range  
Borough Owned Pond  
2 Ball Fields  
Facilities at High School  
Sayre Riverfront Park

### **Warren Township**

10 Acre Recreational Site

### **Wells Township**

Coryland Park  
2 Acre Park

### **Wyalusing Borough**

The Wells Memorial Park

### **Wysox Township**

Fireman's Park  
Riverfront Park

Private recreational opportunities play a large recreation role in Bradford County. Private opportunities include facilities such as campgrounds, golf courses, horse clubs, hunting clubs, bowling alleys, youth camps, and many others. Private recreation has limited use to the public, but generates large amounts of money for the economy.

### **CULTURAL AND HISTORIC RESOURCES**

Bradford County has years of rich culture and history that is on display in the many museums across the County. There are also numerous opportunities to learn the County's culture and history by visiting a few of its historical sites, eight of which are on the National Register. Most of Bradford County's historic resources are found along the Susquehanna River while the others are scattered around the County. The following is a list of historical and cultural resources located in Bradford County.

#### **Historic Resources**

##### **Name**

##### **Location**

##### ***Buildings/Churches***

Athens United Methodist Church	Athens
Athens Post Office	Athens
Spaulding Memorial Library*	Athens
Masonic Hall Association	Athens
Tioga Academy	Athens
Methodist Episcopal Church of Burlington*	Burlington
Burlington Historic Church	Burlington
St. James Episcopal Church	Canton
Jeremiah Taylor House	Granville Township
Our Lady of Perpetual Help Catholic Church	Ridgebury
Philip B. Bliss House*	Rome
Sayre Post Office	Sayre
Universalists Meetinghouse	Sheshequin
Sheshequin Universalist Church	Sheshequin
Charles S. Means House	Standing Stone
100 Grant Street	Towanda

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## Chapter 6 – Community/Utility Facilities and Services Profile

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Bradford County Courthouse*	Towanda
Citizens Bank Building	Towanda
Col. Means House	Towanda
First Ward School	Towanda
James Macfarlane House	Towanda
David Wilmot House	Towanda
Keystone Theater	Towanda
SCI Building	Towanda
Gregory Parson House	Troy
Troy High School	Troy
Van Dyne Civic Building*	Troy
Ellen and Charles F. Welles House*	Wyalusing
Quintin Chaffee House	Wysox
Wysox Presbyterian Church	Wysox
Bradford County Jail	
Christ Episcopal Church	
Gingerbread House	
William Mean House	
George A. Perkins House	
James A. Chadwick House	
Thomas L. Brown House	
Stephen Foster Home	

### **Transportation Facilities**

Athens Township Bridge*	Athens
Knapp's Covered Bridge*	Burlington Township
Southwick J. Creek Bridge	Pike Township
Lehigh Valley RR Station	Sayre
Towanda Creek Bridge	Towanda
Towanda Railroad Yard	Towanda
Towanda Canal & Locks	Towanda
Ulster Bridge	Ulster
Wyalusing Creek Bridge	Wyalusing
Old North Branch Canal	
Historic Bridge	
Homett's Ferry	
Covered Bridge at Luther Mills	
Sullivan Trail	
The Dogwood Trail	

### **Places**

Athens Historic District	Athens
Protection of the Flag Monument	Athens
Spanish Hill	Athens
The Underground Railroad	Athens
French Azilum	Asylum
Canton Historic District	Canton
Padget Property	N. Towanda
Howard Elmer Park	Sayre
Sayre Historic District	Sayre
George Ryan Property	Towanda
Towanda Commercial Historic District	Towanda

## ***Chapter 6 – Community/Utility Facilities and Services Profile***

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Towanda Historic District*	Towanda
Troy Historic District	Troy
Joseph F. Cooper Property	Warren Township
William Camp Property	Wyalusing
Oak Hill Cemetery	
Riverside Cemetery	
Queen Esthers Village	
Fort Sullivan	
Murray Farm	
Murray Garden Burial Site	
Blackman Site	
Ogehage Site	
Oscolui Site	
Hagerman's Site	
Friedenshutzen Monument	
Moravian Monument	
Indian Hill	
Sullivan's March	
Minnequa Springs	
Camptown Races	
Laquin	

### **Cultural Resources**

Tioga Point Museum	Athens
Philip P. Bliss Museum	Rome
Valley Railroad Museum	Sayre
Sylvania Antique Center	Sylvania
Towanda Main Street	Towanda
Bradford County Historical Society	Towanda
Sleigh Maker	Troy
Glass Maker	Troy
Bradford County Heritage Museum	Troy
Farm Museum	Troy
Bradford Basket	Troy
Roloson Brothers Maple Syrup	Troy
Wyalusing Museum	Wyalusing
Wyalusing Main Street	Wyalusing
Tee To Tum Museum	Wysox
Amish Cheese Factory	

\*Denotes National Register of Historic Places Listing

### **TRENDS AND ISSUES**

- ❖ Police Services - The County is updating services for quicker response to 911 calls.
- ❖ Fire and EMS Services - There continues to be excellent coverage from the 25 fire departments in the County. EMS lack numbers of volunteers to handle the number of calls received.
- ❖ Utility Networks - Lack of cell phone coverage for emergency and economic development and business purposes is a problem in the County.
- ❖ Educational Facilities - Consolidation of educational facilities is taking place within the County due to stagnant or declining enrollments and limited financial resources.

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## ***Chapter 6 – Community/Utility Facilities and Services Profile***

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- ❖ Health Care Facilities - There are three community hospitals in Bradford County, as well as five local Guthrie clinics. The hospitals are located in Towanda (Memorial Hospital), Sayre (Robert Packer Hospital), and Troy (Troy Community Hospital). The main Guthrie clinic is located in Sayre, and there are satellite offices located in Athens, Canton, Towanda, Troy, and Wyalusing.

In 1999, Bradford County had 103 active primary care physicians. This number equates to 164.1 physicians per 100,000 residents, which is nearly double the average across rural Pennsylvania (76 per 100,000 residents).

- ❖ Library Facilities - The Bradford County Library System is comprised of ten member libraries. The Bradford County Library system headquarters is located on Route 6 near Burlington. This facility is also the bookmobile and literacy program headquarters. (The bookmobile in fact makes over 30,000 materials available to nearly 4,000 County residents.) The County's library system plays a substantial role in public education and also supports the County in areas related to tourism and economic development. Approximately 40,000 people pass through library doors each year.
- ❖ Solid Waste Management - Voluntary recycling tends to be working quite well and local municipal recycling goals are being met.
- ❖ Public Water Facilities - One area in need of service may be the Route 6 "Golden Mile" area of Wysox. Public water services are being extended outward from local municipalities creating extended service areas.
- ❖ Public Sewer Facilities - Services are being extended farther from municipal centers creating extended service areas.
- ❖ Parks and Recreation Facilities and Services - Increasing demand for recreation, particularly in natural settings, is creating a need for more recreational outfitters in Bradford County.
- ❖ Cultural and Historic Resources - There is a continuous trend to preserve historic and cultural resources throughout the County. Historic districts are possible for Athens and Wyalusing in the near future.

### INTRODUCTION

An important component of any comprehensive plan is an analysis of existing land use. The data was provided by the Bradford County Office of Planning and Grants and was generated from a parcel-by-parcel classification of land use based on tax assessment categories and aerial photograph interpretation. This analysis will help the County make better planning decisions regarding future land uses. The existing land use survey will be used in conjunction with other background studies to formulate a future land use plan that preserves and enhances the existing character of Bradford County.

### METHODOLOGY

The Office of Planning and Grants developed the existing land use map and provided the data for analysis. The 1982 Comprehensive Plan provided some data, however with the technological advances of Geographic Information Systems (GIS), the County determined that new land use mapping would be beneficial.

The creation of a land use GIS database required several steps. First, tax parcels were digitized. Second, the 3-digit assessment code assigned to each parcel was recorded in the database. As the final step, the 3-digit codes were classified into developed and undeveloped land use categories:

<u>Developed</u>	<u>Undeveloped</u>
Commercial	Agriculture
Industrial	Forested/Undeveloped
Public	Natural Resource Extraction
Residential	
Transportation/Communication/Utility (rights-of-way)	

This methodology was determined to provide the best countywide snapshot of current land use given the resources available. **There are caveats to this methodology:** 1) Both the assessment data and the code-to-use classification involved some degree of interpretation, 2) Large parcels may include multiple uses, e.g. residential and some undeveloped use, as is the case in the northern portion of the County (Windham Township is a good example), 3) single use assignments may not accurately represent land usage.

As a digital database, the land use information can be edited, updated and re-mapped with ease. With 2002 land use database as a baseline, County has the ability to track changes in land use patterns over time.

### EXISTING LAND USE

The County's natural resources and topographic features have greatly influenced past and current land uses. For example, fertile soils in the valleys have sustained various agricultural activities. Wooded hillsides and ridge tops have yielded valuable timber harvests. Today, quarrying operations are taking advantage of subsurface resources, namely decorative and construction quality stone.

This emphasis on natural resources is not surprising for a Pennsylvania county in the Appalachian Mountains. Together, agriculture and forested lands account for 83 percent of land uses in the County.

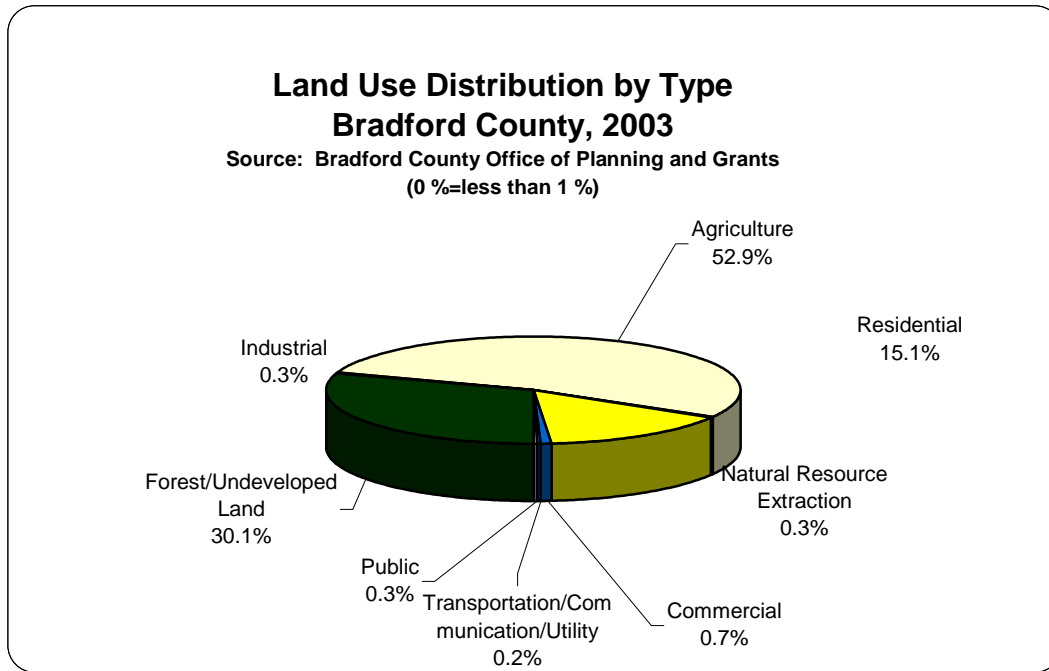
The Existing Land Use Map illustrates the geographic distribution of land uses in Bradford County. Agriculture accounts for more than 50 percent, forests and undeveloped land for just over 30 percent, and residential uses for 15 percent. The remaining 2 percent includes all commercial, industrial, public, and transportation/communications/utility uses, as well as natural resource extraction, i.e., mining and quarrying. A more detailed description of the location of each land use category follows.

**Agriculture** – Agricultural parcels include those lands used for crop production and pasturing. At the present time, over 428,000 acres, or 53 percent, are classified as agricultural in Bradford County and are



## Chapter 7 - Existing Land Use Profile

widely distributed throughout the county. The majority of this agricultural activity occurs in the valleys, though gentle slopes and hill tops are also utilized. As would be expected, there are no agricultural parcels within the State Game Lands or State Forests, which occupy the south western portion of the County. As a result of the forestry and maple production activity that dominates the northeastern portion of the County, there is little agricultural land in this region. Agricultural parcels in the eastern portion of the County are smaller on average than those in the western portion of the County, as a result of higher development/subdivision pressure.



**Forest/Undeveloped Land** - This category includes forests, open space, uncultivated fields, and public and private recreation areas. These lands occupy 30.2 percent of the County's lands in a wide range of locations from floodplains to ridge tops. More than half of forest and undeveloped lands are owned by public agencies, such as the Pennsylvania Game Commission and the Pennsylvania Bureau of Forestry. State Game Lands are found in sixteen different municipalities within the County. Portions of Tioga State Forest can be found in Armenia Township on the border with Tioga County, and also south of Monroe Borough in Monroe, Asylum, and Albany Townships. Mount Pisgah State Park, owned by PA DCNR, and the County parks are located in the western portion of Bradford County.

There are also many private parcels that are classified as forest or undeveloped lands.

**Residential** – Residential uses includes both single and multi-family uses. Historically, residential uses concentrated in the County's boroughs and villages, though homesteads associated with agricultural operations were located throughout rural areas. Outside of the boroughs and villages, the most heavily concentrated residential uses are found east of the Athens-Sayre-South Waverly community in Windham Township. Other areas of notable residential development include township-borough borders.

**Commercial** – The highest concentration of commercial properties are typically found in the boroughs of Athens, Sayre, and Towanda, and their adjacent Townships. Additionally, there are a number of larger commercial parcels located along the major transportation corridors of the County. According to the County's data, commercial lands account for less than one percent of the total land area of the County, approximately 5,800 acres.

**Public** – Public lands include government properties (not forested), schools, cemeteries, churches, and civic clubs. In Bradford County, these uses cover approximately 2,770 acres and are generally located in

## Chapter 7 - Existing Land Use Profile

Sayre and Towanda. In addition, a few significant public parcels are located outside these urban centers, including the Bradford County Home, the County Correctional Facility, and a County library on Route 6 just west of Burlington Township.

**Industrial** – These uses total just over 2,200 acres in Bradford County. Most are located near the boroughs of Sayre, Troy and Towanda. However, several meat packing and wood processing operations are located outside of these communities.

**Natural Resource Extraction** – These are quarrying and mining operations within the County and cover about 2,392 acres. Two large tracts represent the vast majority of such uses. One is located along the PA-NY State line west of Sayre north of the bend in the Chemung River, and the other is found in Warren Township and is surrounded on three sides by State Game Lands. Other extraction lands include areas of Stevens Township south of Wyalusing Creek, Tuscarora Township, and parcels scattered along the Susquehanna River Corridor between Towanda and Wyalusing.

**Transportation, Communication, and Utility** – This category includes transportation facilities (except the roadway network) and communications and utility rights-of-way. Fewer than 2,000 acres are used for these activities within the County. Notable parcels include the Bradford County Airport south of Towanda, the Towanda-Monroeton Shippers Lifeline shortline railroad, and Norfolk Southern Rail properties in Towanda and Sayre.

### Public vs. Private Ownership

There are almost 40,000 acres of public land within Bradford County (16.2 percent of total land area). They include 35,000 acres of State Game Lands and over 3,000 acres of State Forest. The remaining acres are located in Mt. Pisgah State and County Parks, as well as Sunfish Pond County Park. Public land is a significant asset to the County. Few other counties in Pennsylvania have such immediate access to the natural resources of these lands for hunting, fishing, boating, and passive recreation.

### Land Use Trends

A previous land use survey of Bradford County was completed during the preparation of the un-adopted 1982 Comprehensive Plan. While the data is not truly comparable, due to differences in methodology and technology as seen in the difference of total land acreage for the County, general trends are apparent and have been supported with local observations. The following table illustrates land use data for both the 1978 and 2003 surveys.

**Table 7 - 1 Land Use in Bradford County, 2003**

	1978		2003		1978-2003	
	ACRES	% of TOTAL LAND	ACRES	% of TOTAL LAND	CHANGE IN ACRES	CHANGE IN %
<b>Natural Resource Lands</b>						
Forested/Undeveloped Land	348,738.00	47.9	244,054.70	30.1	-104,683.30	-17.7
Agriculture	304,590.00	41.8	428,840.40	52.9	124,250.40	11.2
Natural Resource Extraction	240.00	0.0	2,392.28	0.3	2,152.28	0.3
<b>NRL TOTAL</b>	<b>653,568.00</b>	<b>89.7</b>	<b>675,287.38</b>	<b>83.4</b>	<b>21,719.38</b>	<b>-6.3</b>
<b>Developed Lands</b>						
Residential	6,160.00	0.8	121,946.89	15.1	115,786.89	14.2
Commercial	1,240.00	0.2	5,847.41	0.7	4,607.41	0.6
Industrial	320.00	0.0	2,203.98	0.3	1,883.98	0.2
Public	53,920.00	7.4	2,770.04	0.3	-51,149.96	-7.1
Transportation/Communications/ Utility	13,588.00	1.9	1,935.47	0.2	-11,652.53	-1.6
<b>DL TOTAL</b>	<b>75,228.00</b>	<b>10.32</b>	<b>134,703.79</b>	<b>16.63</b>	<b>59,475.79</b>	<b>6.31</b>
<b>TOTAL LAND</b>	<b>728,796.00</b>		<b>809,991.18</b>			

Source: Bradford County Office of Planning and Grants

- In 1978, forestry was the leading land use by acreage and agriculture followed closely behind. Today, agriculture leads forestry in land use by acreage.
- Natural resource extraction has increased, perhaps as much as tenfold.

## **Chapter 7 - Existing Land Use Profile**

- Developed land uses, particularly residential uses, have significantly increased. While population has increase by approximately 4 percent since 1978, residential lands have increased by 14.2 percent, indicating the development of second/vacation homes and the shift from smaller lot to larger lots.

### **OBSERVED LAND USE CHANGES**

In addition to the analysis of current and historic data, several land use trends were noted in the field and through discussions with County planners and others.

1. While the data shows that acreages of agricultural lands have increased, some agricultural lands are reverting to forest lands.
2. Development pressure, particularly residential pressure, is greater in the eastern portion of the County and along the NY border.

### **LAND USE REGULATIONS**

The Pennsylvania Municipalities Planning Code (MPC) provides the legal framework for local governments to enact, administer and enforce both zoning, and subdivision and land development regulations. Zoning ordinances determine where certain types of land uses will be permitted and usually provide specific standards for lots sizes and structures. They are designed to guide growth as well as to protect public health, safety, and welfare. In contrast, subdivision and land development regulations control how a use or activity relates to the land upon which it is located.

Bradford County has not adopted a County Zoning Ordinance. The County's Subdivision and Land Development Ordinance was adopted in 2002.

Of Bradford County's 51 municipalities, thirteen have local zoning ordinances and five have local subdivision and land development ordinances.

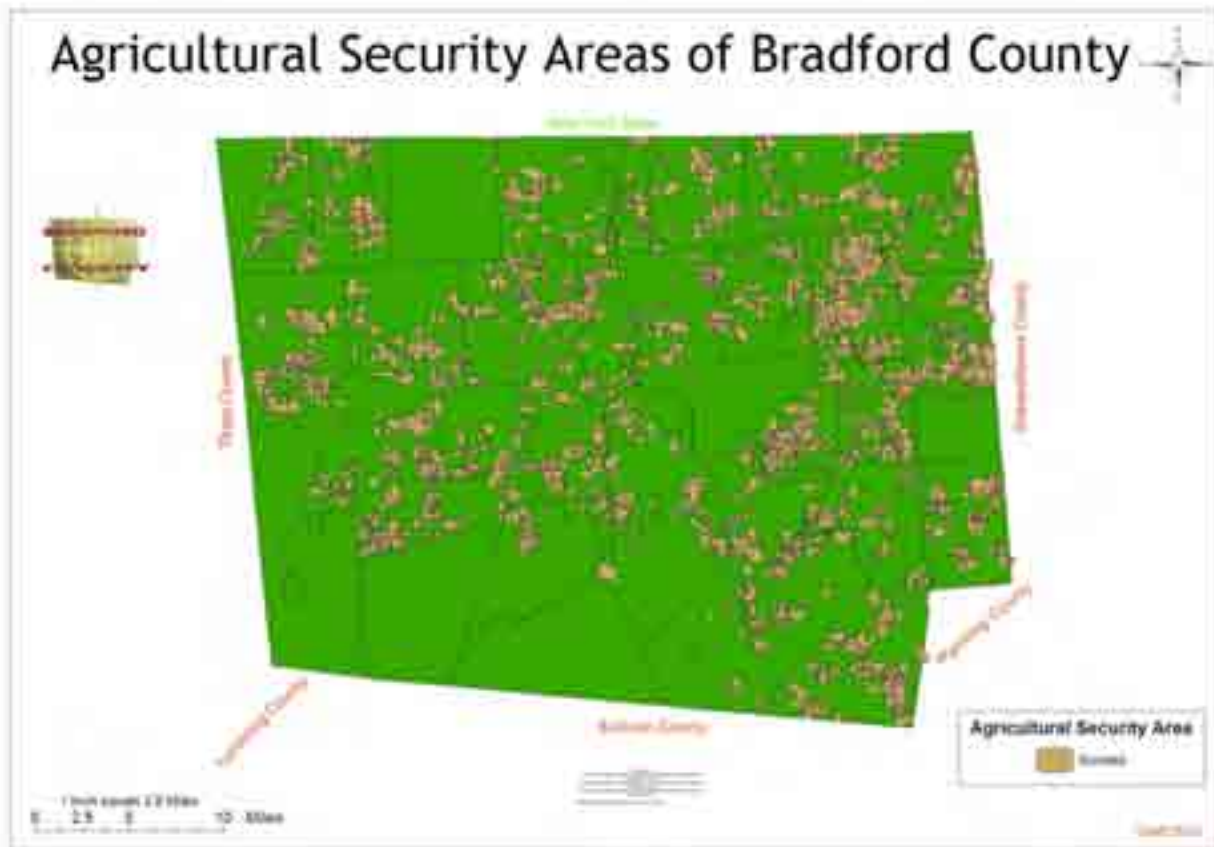
### **AGRICULTURAL AND OPEN SPACE LAND PRESERVATION**

#### *Agricultural Area Security Law*

To combat the losses of agricultural land throughout the commonwealth, the Agricultural Conservation Easement Program was developed in 1988 under an amendment to the Agricultural Area Security Law, Act 43 of 1981. This amendment—Act 149—allows local governments to purchase easements, (i.e., development rights) from owners of prime farmland. This program is currently funded by a two-cent tax per pack of cigarettes sold in the state, which annually generates approximately \$20 million.

Prior to being purchased, the selected parcels must be included within an Agricultural Security Area (ASA). The ASA program was first created under Act No. 43 and it allows a landowner or landowners, who collectively own 250 or more acres of viable farmland, to protect their land from nonagricultural uses and obtain special considerations under local ordinances and state regulations. Unlike the conservation easement program, parcels included in an ASA are reevaluated every seven years and new parcels may be incorporated at any time.

Many landowners in Bradford County have taken advantage of the ASA program and enrolled their properties. ASA properties are found across the County in all but five townships. The heaviest concentrations of such properties are located in Herrick, Pike, and Orwell Townships in the eastern part of the County. The following map shows the geographic distribution of parcels currently enrolled in the ASA program.



In addition to the ASA program, Pennsylvania has attempted to benefit farmers with reduced property taxes through the Clean and Green Program. Clean and Green is a Pennsylvania Department of Agriculture conservation program for land in agricultural use, agricultural reserve or forest reserve that adjusts the property tax rate for landowners enrolling in the program.<sup>1</sup> Values are set annually by the Department. In order to be eligible, properties must meet certain requirements, including a minimum parcel size of 10 acres maintained as an agricultural or forest use property. The assessed value of these properties is then based on the land productivity value, rather than market value and a reduced property tax is collected. Once land owners remove the property from agricultural or forest use, the market tax rate is applied and roll-back taxes plus interest are due.

The Clean and Green Program has proven beneficial to County landowners, however the reduced tax revenue has been a challenge to local municipalities in some cases.

### Trends and Issues

- ❖ Together, agriculture and forested lands account for 83 percent of land uses in the County.
- ❖ A notable portion of agricultural lands are reverting to forest lands.
- ❖ A significant percentage of County land (16.2 percent), which is more than half of the County's forested and undeveloped lands, are owned by public entities.

<sup>1</sup> <http://www.co.centre.pa.us/planning/cleanandgreen/cleanandgreensummary.pdf>

## ***Chapter 7 - Existing Land Use Profile***

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- ❖ Agricultural Security Areas and the Clean and Green Program provide incentives for private land owners to maintain an undeveloped land condition. The tax incentives associated with these programs reduce property taxes paid by the land owners and the tax revenues received by the local municipalities.
- ❖ Natural resources extraction has significantly increased over the past 25 years but accounts for less than one percent of total land area in the County.
- ❖ Developed uses account for less than 17% of the Bradford County lands.
- ❖ Lands devoted to residential uses are increasing and development is occurring as scattered development across the rural landscape.
- ❖ There is more development pressure in the eastern portion of the County and along the NY border.
- ❖ Commercial and Industrial lands are not necessarily located within or adjacent to boroughs. Transportation has influenced their ability to locate elsewhere in the County.
- ❖ Bradford County recently adopted a new Subdivision and Land Development Ordinance.
- ❖ Of Bradford County's 51 municipalities, 13 have local zoning ordinances and five have local subdivision and land development ordinances. Bradford County regulates subdivision and land development regulations in 46 of the County's municipalities.