



*A Vision, Inventory,
and Strategy
for Natural and Cultural
Resource Conservation
and Outdoor Recreation
in Bradford County,
Pennsylvania.*

Bradford County Open Space, Greenways and Outdoor Recreation Plan

May 18, 2006



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

Bradford County Open Space, Greenways and Outdoor Recreation Plan

A Vision, Inventory, and Strategy
for Natural and Cultural Resource Conservation
and Outdoor Recreation
in Bradford County, Pennsylvania

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BRADFORD COUNTY Office of Community Planning & Grants
Administrative Agency for The Bradford County Planning Commission

Funding for this project was provided, in part, by a Community Conservation Partnership Program grant from the Pennsylvania Department of Conservation and Natural Resources, Bureau of Conservation and Recreation.

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ADMINISTRATIVE AGENCY

FOR THE

BRADFORD COUNTY PLANNING COMMISSION

Resolution # 2006 -01

**Bradford County Planning Commission
Endorsement of the Bradford County Open Space, Greenways &
Outdoor Recreation Plan**

WHEREAS, the Bradford County Commissioners adopted the revised County Comprehensive Plan on March 11, 2004 in compliance with § 301.4 and § 302. (d) of the Pennsylvania Municipalities Planning Code (Act of 1968, P.L. 805, No. 247, as reenacted and amended);

WHEREAS, the County Comprehensive Plan "Implementation Schedule for Bradford County Action Strategies", under the Community Facilities and Services Plan, recommends the development of a Countywide Open Space, Greenways and Outdoor Recreation Plan due to concerns about timing, intensity and impact of development, particularly on the character of the rural landscape;

WHEREAS, the Bradford County Open Space, Greenways and Outdoor Recreation Plan will serve as an amendment to the 2004 Bradford County Comprehensive Plan;

WHEREAS, the County Planning Commission held a Public Meeting on January 17, 2006 at the Office of Community Planning and Grants, RR 1 Box 179A, Towanda, PA 18848 at 6:00 p.m. to present the "DRAFT" Open Space, Greenways and Outdoor Recreation Plan and begin the forty-five (45) day public review process that included a request for comment up to and including Friday, March 3, 2006;

WHEREAS, the Open Space, Greenway and Outdoor Recreation Plan is a policy guide to assist the Bradford County Board of Commissioners, its departments, agencies and other community partners to enhance recreational uses and activities within Bradford County's largest and smallest communities and lend support to recreational projects and programs.

WHEREAS, the Open Space, Greenway and Outdoor Recreation Plan contains a Vision for Open Space, Greenways and Outdoor Recreation, and Introduction to Bradford County, an Inventory of Natural and Manmade Resources, an Index of Organizations and Initiatives, an Analysis of Open Space and Recreation Needs, a Vision for Sustaining Open Space and Meeting Recreation Needs, Action Plans and Implementation and First Steps toward Implementation;

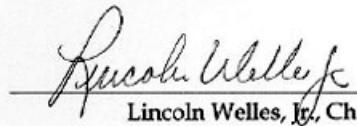
PLANNING COMMISSION MEMBERS

• Emerson Abell • Glenn Aikens • Kerry Dibble • Robert Kendall • Warren Knapp • Don Murray • Lincoln Welles, Jr. • Steve Westbrook • Laura H. Blain

NOW, THEREFORE BE IT RESOLVED, the Bradford County Planning Commission hereby endorses the Bradford County Open Space, Greenways and Outdoor Recreation Plan, amending the 2004 Bradford County Comprehensive Plan, and recommends that the Bradford County Board of Commissioners adopt the plan after the Public Hearing scheduled for Thursday, March 23, 2006.

IN WITNESS THEREOF, we have hereunto set our hands and seals this day, Tuesday, March 21, 2006.

BRADFORD COUNTY PLANNING COMMISSION

 3/21/06
Lincoln Welles, Jr., Chairman

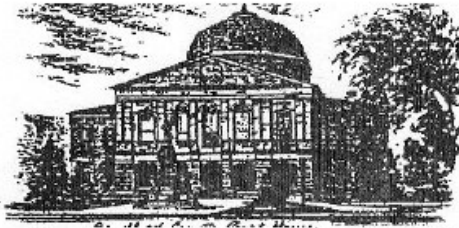
ATTEST:

 3/21/06
Sue Strickland, Secretary

SEAL

Bradford County Commissioners:

Nancy Schrader, Chairman
Janet Lewis, Vice Chairman
Douglas McLinko, Commissioner



Bradford County Commissioners' Office

Chief Clerk:
Gayle Kershner

Solicitor:
Jonathan Foster

Resolution # 2006 - 04

**Bradford County Board of Commissioners
Adoption of the County Open Space, Greenway and
Outdoor Recreation Plan**

WHEREAS, the Bradford County Commissioners adopted the revised County Comprehensive Plan on March 11, 2004 in compliance with § 301.4 and § 302. (d) of the Pennsylvania Municipalities Planning Code (Act of 1968, P.L. 805, No. 247, as reenacted and amended);

WHEREAS, the County Comprehensive Plan "Implementation Schedule for Bradford County Action Strategies", under the **Community Facilities and Services Plan**, recommends the development of a Countywide Open Space, Greenways and Outdoor Recreation Plan due to concerns about timing, intensity and impact of development, particularly on the character of the rural landscape;

WHEREAS, Bradford County also responded to the Commonwealth's initiative: "Pennsylvania's Greenways: An Action Plan for Creating Connections", aiming to connect Pennsylvania's open space and natural landscape features; scenic, cultural, historic, and recreational sites and urban and rural communities through direct state investment and through public and public-private partnerships;

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 Open Space, Greenway and Outdoor Recreation Plan and conducted a public involvement process through PAC meetings, numerous informal interviews and focus groups that consisted of large lot owners, youth leadership, working landowners and environmental stewards 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 County Planning Commission held a Public Meeting on January 17, 2006 at Office of Community Planning and Grants from 6:00 p.m. to 7:00 p.m., pursuant to § 302 of the Pennsylvania Municipalities Planning Code as amended, to present the "Draft" County Open Space, Greenways and Outdoor Recreation Plan and begin the forty-five (45) day public review process that included a request for comment up to and including Friday, March 3, 2006;

WHEREAS, the Bradford County Planning Commission recommended the Bradford County Commissioners adoption of the County Open Space, Greenway and Outdoor Recreation Plan by Resolution #2006-01 their monthly meeting held on March 21, 2006; and

WHEREAS, the Bradford County Commissioners held a public hearing pursuant to § 302 (b.) of the PA Municipalities Planning Code on March 23, 2006 at 9:00 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:

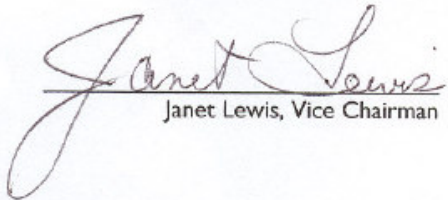
1. The Bradford County Board of Commissioners recognizes the Planning Commission of Bradford County as the official planning commission for Bradford County and that such agency promote public interest in, and understanding of, the County Open Space, Greenway and Outdoor Recreation Plan.
2. The County Open Space, Greenway and Outdoor Recreation Plan presented and adopted by the Planning Commission is hereby adopted by the Bradford County Board of Commissioners as the Official Open Space, Greenway and Outdoor Recreation Plan of Bradford County and supercedes any previous County Recreation Plan(s).
3. The Bradford County Board of Commissioners will consider the Plan's Vision and Goals for Open Space and Recreation in Bradford County and the related Action Plans presented in the Open Space, Greenway and Outdoor Recreation Plan when dealing with corresponding 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 Open Space, Greenway and Outdoor Recreation 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 of the County Open Space, Greenway and Outdoor Recreation Plan, and develop local and regional planning efforts consistent with the 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 18th Day of May, 2006.

Bradford County Board of Commissioners


Nancy Schrader, Chairman


Janet Lewis, Vice Chairman

Douglas McLinko, Commissioner

ATTEST:


Gayle Kershner, Chief Clerk

5/18/06
Date

SEAL

Bradford County Board of Commissioners

Nancy Schrader, Chair
Janet Lewis, Vice-Chair
Douglas McLinko

Bradford County Planning Commission

Lincoln Welles, Jr., Chairman	Robert Kendall
Steve Westbrook, 1 st Vice-Chairman	Warren Knapp
Glen Aikens, 2 nd Vice-Chairman	Don Murray
Laura H. Blain, Secretary/Treasurer	Mary Neil
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Bradford County Office of Community Planning and Grants

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Planning Advisory Committee

David Rockwell	John Palmer
Shirley Lewis	Jeff Mitchell
Tim Birney	Thomas Fairchild
John Shaffer	Warren Knapp
Wes Skillings	Gary Patterson
Ronald Hosie	Jeff Warner
Anthony Ventello	Richard J. Lupinsky, Sr.
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Thomas Neilson	Lorne Possinger
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Preface

A Vision for Open Space, Greenways and Outdoor Recreation in Bradford County

By 2025, Bradford County will be a community, where

- ... open space is recognized as a vital part of the county's rural character.
- ... greenways interconnect communities with the natural environment that supports them and the cultural environment that connects them to their past and their future.
- ... residents and visitors experience the many facets of the natural environment through outdoor recreation opportunities.
- ... public and private partners work together to protect open space, manage natural resources, and meet recreation needs.

To this end, the following research, analysis, and recommendations were developed.

Purpose

Bradford County has developed an Open Space, Greenways and Outdoor Recreation Plan. This is the first plan of this type in the county and in the Endless Mountains and Northern Tier regions. The county undertook this project for two primary reasons.

- The county's comprehensive planning effort from 2002-2004 determined that residents are concerned about the timing, intensity and impact of development, particularly on the quality of natural resources and the character of the rural landscape. The Comprehensive Plan recommended further study, strategy development, and partnerships to ensure that quality open space remains a part of the landscape.
- The Comprehensive Plan also noted that there is great potential to expand and enhance recreational uses and activities both in town and throughout the abundant natural landscape in the county. This plan provides a more detailed inventory of existing facilities and a foundation and focused direction for recreation investment by county and local leaders.

The Plan also responds to the Commonwealth's greenway initiative, *Pennsylvania's Greenways: An Action Plan for Creating Connections*. This initiative aims to connect Pennsylvania's open space and natural landscape features; scenic, cultural, historic, and recreation sites; and urban and rural communities through direct state investment and through public and public-private partnerships.

PA Greenways Vision

Pennsylvania and its many partners will develop an outstanding network of greenways across the Commonwealth, creating an asset highly valued by Pennsylvanians and enhancing the quality of life for all. This network of greenways will connect Pennsylvania's open space, natural landscape features, scenic, cultural, historic, and recreation sites, and urban and rural communities. Greenways will become one of the Commonwealth's most powerful tools to achieve sustainable growth and livable communities.

- Pennsylvania Greenways: An Action Plan for Creating Connections, June 2001

Plan Goals

The goals for the Open Space, Greenways and Outdoor Recreation Plan were threefold:

1. *Maintenance of the rural landscape:* One of the goals was to identify ways to maintain the character and viability of the rural landscape. In Bradford County, where the majority of the rural lands are privately owned and actively engaged in agricultural and forestry activities, this emphasis focuses on voluntary land management techniques that will benefit the larger community. On public lands, the open space emphasis is placed on demonstrated resource management, resource interpretation, and public access.
2. *Open Space Corridors:* A second goal was to link sites of cultural, recreational, or environmental value with protected or carefully managed open space corridors. Some of these corridors would provide public trail access and some corridors would serve solely as ecological corridors. Extensive research on sites of local interest was compiled by the Bradford County Office of Community Planning and



Grants in 2004. This data is current and comprehensive, providing a sound foundation for greenway planning that connects local sites for environmental, recreational, and tourism initiatives.

3. *Outdoor Recreation:* The third goal focused on several aspects of recreation planning: (1) an inventory of the active and passive recreational opportunities provided by state, county and local government;(2) an analysis of the recreational needs of county residents; and (3) recommendations for development of additional sites and trails. This plan provides an opportunity to bring together the recreation data and development ideas of municipal comprehensive plans across the county, to assess and give direction to the facilities and services of local and county parks and to coordinate access and recreational use of state lands to better meet local needs.

Why invest in open space and recreation?

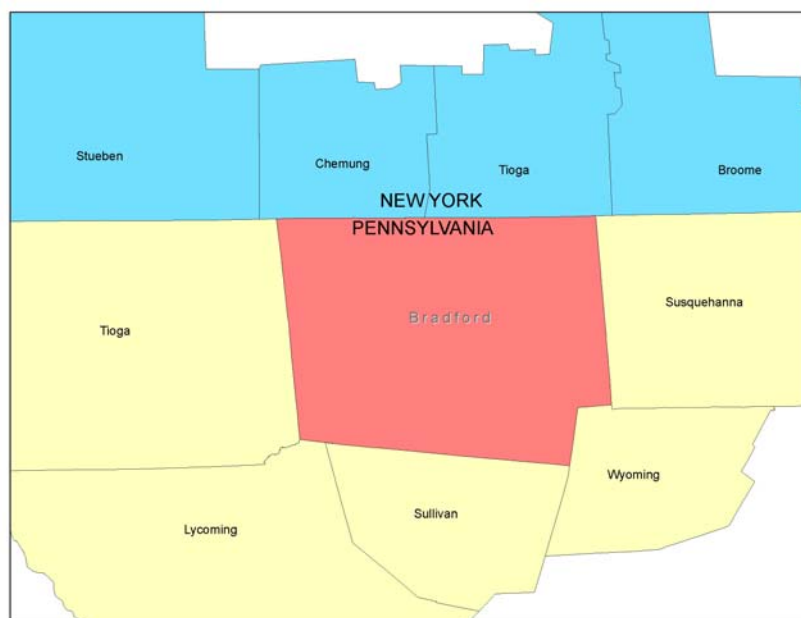
1. It provides a place to spend our increasing leisure time.
2. It improves the attractiveness of neighborhoods.
3. It provides an environment conducive to the establishment of new industries.
4. It stimulates tourism.
5. It directs youthful energies.

Excerpted and paraphrased from the Wyalusing Borough Comprehensive Plan 1982/1992

Study Area

The Open Space, Greenways, and Outdoor Recreation Plan addresses Bradford County as a whole. Nevertheless, select inquiry was made into local level planning and recreation services. Planners also looked beyond the county's borders to the Endless Mountains and Northern Tier planning regions in order to identify opportunities for contiguous open space protection, greenway linkages and recreational partnerships in neighboring counties.

Figure A Location of Bradford County



The Planning Process

The planning process was conducted through a series of steps to identify the following:

1. Unique and special resources, recreational areas, and organizations
2. Issues and concerns for meeting residents' needs
3. Goals for the protection of resource areas and corridors, the provision of recreational facilities and services, and the education of residents on these important community topics
4. Strategies for enhancing the management of open space, the establishment and extension of greenways and the development of a recreational network
5. Indicators by which to measure the plan's progress
6. Partners and programs for implementation

The project was developed with an extensive public involvement process. The Planning Advisory Committee or PAC met regularly to contribute their knowledge and perspective to the analysis and findings of the project as well as to the Plan's goals and recommendations. Resource managers and recreation service providers from the public and private sectors were interviewed to establish a broad understanding of conditions and trends in resources management and recreation. Focus groups with landowners of farms and forests, environmental stewards, and young residents of the county were conducted to seek the specific input of those residents whose livelihood is connected to resource production, who are working to improve environmental quality, and whose future in the county is yet to be determined. Finally, the draft Plan was presented at project review sessions before the Plan was finalized.

The Bradford County Office of Community Planning and Grants was the lead agency in preparing the plan. The planning staff administered a grant from DCNR, coordinated meetings, prepared the maps for the plan, and assisted in the preparation of the document.

The Plan's Relation to County Policy and Planning

The Open Space, Greenways, and Outdoor Recreation Plan is consistent with the Bradford County Comprehensive Plan. The Bradford County Planning Commission and the Office of Planning and Grants will be able to reference this document in their reviews of subdivision and land development plans. Where opportunities to accomplish the Plan's goals exist and are not recognized by the proposed plan, the Commission and the planning staff should feel confident in requesting further consideration of the identified opportunities by the landowner or developer. **It should be noted that the Open Space, Greenways and Outdoor Recreation Plan is not intended to condone the coercion or intimidation of any private property owners or support the use of Eminent Domain in the taking of their land.** The county planning staff may also reference this plan during the municipal planning efforts, such as comprehensive plans or parks, recreation and open space plans.



Local municipalities can look to the plan for its data on resources and existing facilities, its ideas for municipal and multi-municipal projects, its listing of project partners and assistance programs and its case studies of approaches to resource management and recreation services, particularly in rural areas. Municipalities can also directly reference the existence and recommendations of the plan in their grant applications to funding agencies; this emphasis on consistency with county policy often improves a municipality's competitiveness for limited funding.

The plan has value for many other county partners. School districts may be interested in sidewalk and trail projects that provide safe routes to school, interpretive sites for outdoor education and ideas appropriate for student service projects. Public and private recreation organizations may be willing to partner on unique recreation facilities or programs. Non-profit community and environmental associations may find new locations for special events that bring residents together. Finally, business development groups may take interest in projects that will enrich the quality of life for their employees and project sponsorship opportunities that help to market businesses in the region. In addition to their own interests, many project partners may be eligible to apply for technical and financial assistance to accomplish projects more efficiently.

The Plan's Regional Value

As the county's open space and recreational assets are also attractive to visitors, this Plan will provide a source of information to the Endless Mountains Heritage Region (EMHR). From the Plan, EMHR staff will see where Bradford County intends to encourage open space protection and recreational development, and can use this information in support of its cultural and heritage initiatives.

Similarly, the Northern Tier Regional Planning and Development Commission may reference the Plan as it prepares and assists others in preparing studies, initiatives, and programs. Along with the Bradford County Comprehensive Plan, this Plan will characterize the quality of life the county is seeking to provide to those who wish to play a part in Bradford County's future.

Plan Overview

The Bradford County Open Space, Greenways, and Outdoor Recreation Plan begins with an introduction to the county and the region in Chapter 1. Chapter 2 inventories and evaluates the county's current open space resources and recreation facilities and Chapter 3 identifies the organizations working in the fields of resource management and recreation and evaluates their policies and programs. Chapter 4 identifies and characterizes residents' need for recreation and open space. Chapter 5 presents Bradford County's vision and goals for open space, greenways and recreation and prioritizes resource protection. Chapter 6 presents strategies to improve management of current open space and recreation resources and identifies partners, and funding sources to facilitate implementation of the plan. Chapter 7 calls out priority projects. The appendix summarizes the public involvement activities of the planning effort and provides descriptions, eligibility and contact information on technical and financial assistance programs.

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Chapter 1

An Introduction to Bradford County

Bradford County lies in the northeastern portion of Pennsylvania, a region known as the Endless Mountains. The North Branch of the Susquehanna River flows from upstate New York 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 settlement. Residents today still enjoy a predominantly rural landscape of forested hills and mountains, agricultural valleys, small towns and villages at rural crossroads.



Location and Regional Context

Bradford County is located along Pennsylvania's northern border with New York state. Adjacent Pennsylvania counties include Susquehanna to the east, Wyoming to the southeast, Sullivan to the south, Lycoming to the southwest, and Tioga to the west. Chemung and Tioga Counties, New York, lie to the north.

Bradford County is a 6th class county and was the 43rd county created by the Commonwealth of Pennsylvania. It comprises 51 municipalities – 14 boroughs and 37 second class townships.



Figure 1-1 Bradford County Regional Location

Bradford County is the second largest county in land area in Pennsylvania, following Lycoming County. The highest point in the County is at 2440 feet above sea level on Armenia Mountain along the western border. The lowest point is the Susquehanna River as it exits the County in the southeast.

Bradford County is part of **two multi-county service regions** that will be referenced throughout this plan. The **Endless Mountains Heritage Region (EMHR)** is a Pennsylvania Heritage Park, a region that contains a multitude of cultural, historic, recreational, natural and scenic resources of state and national significance that collectively exemplify the industrial heritage of Pennsylvania."¹ The EMHR includes Bradford, Sullivan, Susquehanna, and Wyoming Counties. The **Northern Tier** includes those same counties with the addition of Tioga County. These counties are served by the Northern Tier Regional Planning and Development Commission, a local development district (LDD) providing economic and community development services to businesses and communities in its service region.

Periodically, the **Southern Tier** is also mentioned in this plan. The Southern Tier Central Regional Planning and Development Board serves Chemung, Schuyler and Steuben Counties of New York State with economic and community development services. The Southern Tier East Regional Planning and Development Board serves Broome, Chenango, Cortland, Delaware, Schoharie, and Tioga Counties, New York.

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 New England, particularly from Connecticut. Many came directly from eastern ports looking for available land and political freedom. These people were rooted in conservative religions and strong work ethics, and worked hard to clear the floodplain lands for fields and pastures and to set up farms along the stream and river valleys and the mountain foothills.

¹ Pennsylvania Heritage Parks Program Manual, 2005.

Among the early County pioneers was a group of French exiles who settled along the banks of the Susquehanna River in the autumn of 1793. Within a few years, a lively community established several small shops, a schoolhouse, a chapel, and a theatre around the market square. A gristmill, blacksmith shop and a distillery were also erected, and the manufacture of potash and pearlash began. In time, as local monies were exhausted and financial support from France ceased, many of the émigrés 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.²

Facts about Bradford County

Location: Northeast Pennsylvania, USA

Date of Establishment: February 21, 1810

Namesake: General William Bradford (1755-1795), the 2nd United States Attorney General

Number of Municipalities: 51

County Seat: Towanda

Form of Government: 6th Class County; elected 3-member Board of Commissioners

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

Population (2000): 62,761; 2004 estimate 62,596

Largest/Smallest Municipality by population (2000)

Sayre Borough: 5,813 persons
Armenia Township: 166 persons

Median Age: 38.9 years

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

Schools

7 public districts
7 private institutions

Public Libraries: 10

Natural Setting:

Major waterways/watersheds:

Susquehanna River
Sugar Creek
Wyalusing Creek
Chemung River
Towanda 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:

State Lands: Mount Pisgah State Park, Tioga State Forest, 10 State Game Lands

County Parks: Larnard-Hornbrook, Mount Pisgah, and Sunfish Pond, Marie Antoinette Overlook

Municipal parks: 38

The discovery of coal on Barclay Mountain spurred growth in the early 1800s. Miners initially dug tunnels to extract the coal, but later found that stripping the surface of the forest and removing the soil surface gave them ready access to timber for fuel as well as the coal itself. Small villages developed as mining companies built company buildings and miners' homes near the mining sites. Barclay and Carbon Run originated during the prime of coal extraction. Railroads were constructed to transport the coal quickly to larger cities and urban markets. While mining extracted primarily coal, the forest was heavily impacted by the demand for lumber to construct mine supports, railroads, and buildings, as well as raw timber for fuel. By the late 1800s, the natural coal supply had been exhausted as had much of the forest, the mining companies moved elsewhere, and the villages were abandoned.

Landowners continued to clear virgin and regenerating forests. Raw timber along the river and major stream corridors was initially cut and floated downstream, but with

the coming of logging railroads in the late 1800s, forests ever farther from the waterways were increasingly accessible to lumber companies. Whether transported by water or rail, logs were milled en route to lumber yards that supplied building materials to communities up and down the east coast. The aptly-named 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 1900s and fostered the development of the County's major towns and villages, including the now uninhabited Laquin on Barclay Mountain. The timber heyday declined once the seemingly "endless" forest had been cut. Lumber companies moved south and west into the Great Lakes and lower mid-Atlantic regions. The prosperous communities these companies had once supported faced economic collapse as wages declined and jobs disappeared.

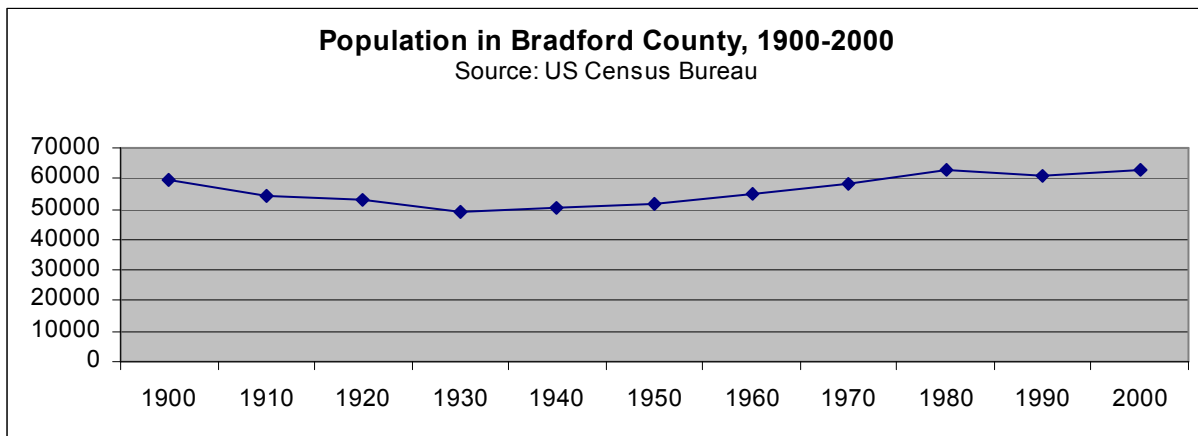
Manufacturing breathed new life into the county in the mid 1900s. Job opportunities attracted young workers to settle close to home. A few immigrants also noticed the county's attractive employment and rural living opportunities which further spurred this growth through the late 1900s.

Recent Socioeconomic Conditions and Trends

The Bradford County Comprehensive Plan (2004) provides a snapshot of current socioeconomic conditions and a brief analysis of select historic trends. The following bulleted points were selected from the comprehensive plan; additional analysis and interpretation is presented to relate these points to the open space, greenways, and outdoor recreation plan.

- The total number of residents in Bradford County is slightly higher than it was 100 years ago. The 1900 census reported 59,400 persons and the 2000 census reported nearly 63,000 persons. The trend has not been slow steady growth but rather a steady decline and rebound as residents moved out and moved into the county based on employment opportunities. During this time, the economy was transitioning from a resource-based economy to one led by manufacturing. Population levels in the two decades have not continued the increase that was experienced from 1930 to 1980. This trend may suggest that job opportunities are relatively limited and that another transition is underway.

Figure 1-2 Population in Bradford County, 1900-2000



- Bradford County residents are choosing suburban and rural living over urban neighborhoods found in the County's boroughs. While the total county population count was relatively stable, more dramatic changes occurred between the municipalities. Eighty percent of Bradford County's municipalities experienced population increases between 1970 and 2000. The majority of the remaining municipalities that lost population were boroughs.

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

Municipality	Total Population				Population Change	
	1970	1980	1990	2000	1990-2000	
					#	%
BRADFORD COUNTY	57,962	62,919	60,967	62,761	1,794	2.9
Alba Borough	184	222	170	186	16	9.4
Albany Township	705	853	927	927	0	0.0
Armenia Township	62	191	134	166	32	23.9
Asylum Township	843	1,027	981	1,097	116	11.8
Athens Borough	4173	3,622	3,468	3,415	-53	-1.5
Athens Township	4007	4,994	4,755	5,058	303	6.4
Burlington Borough	148	162	479	182	-297	-62.0
Burlington Township	585	765	705	799	94	13.3
Canton Borough	2037	1,959	1,966	1,807	-159	-8.1
Canton Township	1645	1,898	2,099	2,084	-15	-0.7
Columbia Township	1042	1,119	1,077	1,162	85	7.9
Franklin Township	387	559	557	698	141	25.3
Granville Township	761	903	837	873	36	4.3
Herrick Township	516	601	647	676	29	4.5
Le Raysville Borough	346	356	336	318	-18	-5.4
Leroy Township	587	639	610	627	17	2.8
Litchfield Township	1002	1,203	1,296	1,307	11	0.8
Monroe Borough	627	627	540	514	-26	-4.8
Monroe Township	1004	1,214	1,235	1,271	36	2.9
New Albany Borough	382	336	306	306	0	0.0
North Towanda Township	801	1,003	909	927	18	2.0
Orwell Township	783	1,020	1,107	1,097	-10	-0.9
Overton Township	155	239	157	187	30	19.1
Pike Township	503	598	684	657	-27	-3.9
Ridgebury Township	1669	2,102	2,026	1,982	-44	-2.2
Rome Borough	338	426	475	382	-93	-19.6
Rome Township	614	938	1,043	1,221	178	17.1
Sayre Borough	7473	6,951	5,791	5,813	22	0.4
Sheshequin Township	928	1,141	1,211	1,300	89	7.3
Smithfield Township	1397	1,536	1,520	1,538	18	1.2
South Creek Township	1114	1,345	1,229	1,261	32	2.6
South Waverly Borough	1307	1,176	1,049	987	-62	-5.9
Springfield Township	1061	1,121	1,118	1,167	49	4.4
Standing Stone Township	383	419	436	596	160	36.7
Stevens Township	347	412	401	414	13	3.2
Sylvania Borough	241	236	203	200	-3	-1.5
Terry Township	645	823	871	942	71	8.2
Towanda Borough	4224	3,526	3,242	3,024	-218	-6.7
Towanda Township	1075	1,269	1,133	1,131	-2	-0.2
Troy Borough	1315	1,381	1,262	1,508	246	19.5
Troy Township	1545	1,666	1,797	1,645	-152	-8.5
Tuscarora Township	779	930	996	1,072	76	7.6
Ulster Township	1201	1,321	1,295	1,340	45	3.5
Warren Township	748	874	927	1,025	98	10.6
Wells Township	1004	1,080	1,018	1,278	260	25.5
West Burlington Township	588	637	417	782	365	87.5
Wilmot Township	763	995	1,057	1,177	120	11.4
Windham Township	618	800	862	967	105	12.2
Wyalusing Borough	723	716	686	564	-122	-17.8
Wyalusing Township	911	1,192	1,235	1,341	106	8.6
Wysox Township	1666	1,796	1,685	1,763	78	4.6

Source: U.S. Census Bureau

Table 1-2 Population Projections for Bradford County, 2005-2020

Municipality	Population Projections					Change 2000-2020	
	2000	2005	2010	2015	2020	#	%
BRADFORD COUNTY	62,761	63,642	64,545	65,473	66,428	3,667	5.8
Alba Borough	186	192	198	204	211	25	13.2
Albany Township	927	926	925	923	922	-5	-0.6
Armenia Township	166	183	201	219	238	72	43.4
Asylum Township	1,097	1,156	1,216	1,277	1,340	243	22.2
Athens Borough	3,415	3,384	3,352	3,318	3,283	-132	-3.9
Athens Township	5,058	5,209	5,362	5,517	5,673	615	12.2
Burlington Borough	182	187	192	197	203	21	11.3
Burlington Township	799	847	896	947	999	200	25.0
Canton Borough	1,807	1,725	1,642	1,558	1,474	-333	-18.4
Canton Township	2,084	2,074	2,063	2,052	2,039	-45	-2.1
Columbia Township	1,162	1,204	1,247	1,291	1,335	173	14.9
Franklin Township	698	772	849	930	1,015	317	45.4
Granville Township	873	891	908	926	944	71	8.1
Herrick Township	676	690	704	718	733	57	8.4
Le Raysville Borough	318	308	298	288	278	-40	-12.5
Leroy Township	627	635	643	651	658	31	5.0
Litchfield Township	1,307	1,311	1,315	1,318	1,321	14	1.1
Monroe Borough	514	500	486	472	457	-57	-11.1
Monroe Township	1,271	1,288	1,305	1,321	1,338	67	5.3
New Albany Borough	306	306	306	305	305	-1	-0.4
North Towanda Township	927	935	943	951	959	32	3.5
Orwell Township	1,097	1,090	1,083	1,076	1,068	-29	-2.6
Overton Township	187	203	219	236	253	66	35.4
Pike Township	657	643	628	613	597	-60	-9.1
Ridgebury Township	1,982	1,957	1,932	1,905	1,878	-104	-5.2
Rome Borough	382	336	290	244	198	-184	-48.0
Rome Township	1,221	1,313	1,407	1,505	1,605	384	31.5
Sayre Borough	5,813	5,817	5,820	5,820	5,819	6	0.1
Sheshequin Township	1,300	1,344	1,389	1,435	1,481	181	13.9
Smithfield Township	1,538	1,546	1,553	1,559	1,566	28	1.8
South Creek Township	1,261	1,276	1,290	1,305	1,319	58	4.6
South Waverly Borough	987	954	921	888	853	-134	-13.5
Springfield Township	1,167	1,191	1,214	1,238	1,262	95	8.1
Standing Stone Township	596	682	773	869	972	376	63.2
Stevens Township	414	420	426	432	438	24	5.7
Sylvania Borough	200	198	197	195	193	-7	-3.5
Terry Township	942	978	1,014	1,051	1,088	146	15.5
Towanda Borough	3,024	2,911	2,796	2,679	2,562	-462	-15.3
Towanda Township	1,131	1,128	1,126	1,122	1,119	-12	-1.1
Troy Borough	1,508	1,636	1,768	1,905	2,047	539	35.7
Troy Township	1,645	1,567	1,487	1,408	1,327	-318	-19.3
Tuscarora Township	1,072	1,110	1,148	1,187	1,226	154	14.4
Ulster Township	1,340	1,361	1,383	1,404	1,426	86	6.4
Warren Township	1,025	1,075	1,126	1,178	1,231	206	20.1
Wells Township	1,278	1,415	1,557	1,706	1,862	584	45.7
West Burlington Township	782	811	841	871	901	119	15.2
Wilmot Township	1,177	1,238	1,300	1,363	1,428	251	21.3
Windham Township	967	1,021	1,076	1,132	1,189	222	23.0
Wyalusing Borough	564	503	443	382	322	-242	-42.9
Wyalusing Township	1,341	1,394	1,448	1,503	1,559	218	16.2
Wysox Township	1,763	1,801	1,839	1,877	1,915	152	8.6

Source: U.S. Census Bureau; BonData Services

This shift to township living impacts both borough and township communities. The boroughs are left to maintain their infrastructure of roads, water and sewer, and services with support from a shrinking population. Rural townships that had little development between the early and mid 1900s now host “modern” development densities, patterns and designs that seem non-traditional and impact increasingly larger portions of the rural landscape.

- While older generations appreciate the quality of life Bradford County has to offer, younger generations are deterred by the lack of employment and lifestyle options within the county. This trend has occurred as significant numbers of retirees move into the county and young individuals and families seek diverse employment opportunities and recreation and leisure amenities elsewhere. 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. During the same period, the county experienced a 29.1 percent decrease in the number of people in the 25 to 44 age group, the group most heavily engaged in the labor force, home buying, and family formation and development.

These changes in the demographic composition of the county may have substantial impacts on the demand for recreation and leisure services and transportation services; they may also affect income-based government revenue and the overall availability of disposable income for household and leisure pursuits and capital and community investments.

- Bradford County school enrollments are lower than in previous years, reflecting the decline in young adult and youth age groups. Six of the seven school districts in Bradford County saw a decrease in enrollments between 1990 and 2000.
- Bradford County is projected to grow by an estimated 3,667 persons or at a rate of 5.8 percent over the next 15 years, based on the 1990-2000 trend.³ This growth is expected to occur predominantly in the northern and south central townships.
- More dramatic changes in municipal population, again based on the 1990-2000 trend, suggest that the population will continue to shift within the county. Seventeen municipalities are projected to lose a total of 2,165 persons, while the remaining 24 municipalities gain 5,833 persons. Only four of the fourteen boroughs are projected to grow: Alba, Burlington, Sayre, and Troy.
- 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.
- An especially positive trend for Bradford County is the decline in the poverty rate. The percentage of the total population with an income below the poverty level was 11.8 percent in 2000, a decline of 1.5 percentage points from 1990.
- 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. This decrease is somewhat expected in a rapidly aging community, where young families are moving out.
- 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

³ This trend is based on the sum of mathematically calculated municipal populations. As such, these projections do not account for external influences on population growth and decline.

fall within the \$50,000 to \$99,999 value range; an additional 18.7 percent had values less than \$50,000. Housing affordability is critical to community development, particularly the affordability of starter homes whose sale supports transactions throughout the housing market.

- Recent labor force statistics again reflect an aging population; fewer residents are working. The total civilian labor force has declined from 28,100 in 1990 to 27,900 in 2000, as older residents retire and young residents leave the county for job and lifestyle options elsewhere.
- The top three industries employ more than 50 percent of the work force, notably higher figures than those of the state and nation for these industries. The leading industry in Bradford County is manufacturing, employing 26.0 percent of the workforce. Major manufacturing employers in the county include Taylor Packing Company, Taylor-Excel Food Solutions Company, Mills Pride, Craftmaster, Osram-Sylvania, DuPont and Ingersoll Rand. The educational, health, and social services industry follows close behind, employing 23.3 percent of the workforce. The Guthrie Clinic/Robert Packer Hospital, a teaching hospital and trauma center located in Sayre, and the various school districts boost this industry toward the top.
- The third leading employment sector is the resource cluster of agriculture, forestry, fishing and hunting, and mining, representing 6.3 percent of the workforce, a noticeably higher proportion than in the state overall (1.3%).

Table 1-3 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
Totals	129,721,512	100.0	5,653,500	100.0	27,985	100.0

Source: U.S. Census Bureau, 2000

- These three industries thrive in Bradford County for logical reasons, and their contribution to the community and landscape of the county is significant. Natural resources are readily available for cultivation and production, extraction and processing into raw materials. Businesses have access to

regional markets through the highway and rail system. A technically capable and skilled workforce is available. With these assets at hand, these industries may continue to thrive and, in fact, play a part in further community development and conservation. Farmers, foresters, landowners and miners are active managers of land and water resources.

- Manufacturers are the leading economic reason people live in the county; their profitability and ultimate viability is influenced by community support and workforce readiness. Finally, while the education, health, and social services industry manage a far smaller portion of land and water resources, the employees can be strong advocates for health and wellness supported by livable communities with clean air and water and recreation sites and walkable neighborhoods for fitness.
- Over 60 percent of Bradford County's workforce is employed in white-collar occupations. Management, professional and related occupations account for 27.6 percent of these white-collar positions. Almost 26 percent of residents are employed in the production, transportation, and material moving occupations. The distribution of occupations is of interest in that it reflects the diversity of job opportunities in the county economy.

Table 1- 4 Top Employers in Bradford County (2004)

Employer	# Employees	Description
Guthrie Health Care	6,030	General Medical and Surgical Hospital
Robert Packer Hospital Inc.	1,574	General Medical and Surgical Hospital
Taylor Packing Company Inc./Taylor Excel Food Solutions Company	1,100	Beef-processing
Osram-Sylvania Products Inc.	1,000	Electric Lighting Equipment Manufacturing
Bradford County	800	County Government-General Offices
Craftmaster Manufacturing Inc.	750	Manufacturing
E I Dupont De Nemours and Company	600	Chemical Manufacturing
JCP Logistics LP	n/a	Transportation and Warehousing
Mill's Pride Pennsylvania LLC	510	Wood Kitchen Cabinet and Countertop Manufacturing
Memorial Hospital Inc and Skilled Nursing Unit	450	General Medical and Surgical Hospital

Source: Pennsylvania Department of Labor and Industry (3rd Quarter 2004); Central Bradford Chamber of Commerce

*Pennsylvania State Government includes all state employees except Pennsylvania State University, SEPTA, and the System of Higher Education

- Bradford County is a leader in Pennsylvania agriculture. Total receipts from all agricultural activity in the county exceeded \$200 million in 2002 (3rd in the state and 49th in the nation). Sales from 450 dairy farms alone exceeded \$85 million in 2002. 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. Again, the importance of farmers as land and water resource managers cannot be overstated.

However, 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 operations have moved closer to production sites and national cooperatives have

established set prices for agricultural products. These changes in the industry have challenged local farmers to make farm operation evermore efficient to sustain profitability.

- **The estimated value of standing timber in the County is in excess of \$287 million.** As a result, the 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.
- Tourism and related service industries are growing in the county. The history and natural resources of the area attract more and more visitors to the county each year.

Major Communities

Towanda

The Towanda area includes three municipalities: Towanda Borough, Towanda Township and North Towanda Township. County government, Ostram-Sylvania, and Dupont are the major employers in the area. Towanda Borough is the county seat and has a historic district that includes its main street business district and adjacent residential areas. Recent improvements in the area include a multi-million dollar River Street extension designed to alleviate congestion at the town's major intersection; the project also created a one-mile walking trail along the river.

Troy-Canton

Troy-Canton is located in the western portion of the County. Troy is located at the junction of US Route 6 and PA Route 14; Canton lies a few miles south of Troy along PA 14 between Armenia and Barclay Mountains. Alparon Park, home of the County Fair, is located in Troy.

The Valley

Athens, Sayre and South Waverly Boroughs and Athens Township comprise The Valley community in the northern part of the County. They are located on the land between the Susquehanna and Chemung Rivers. Athens Borough lies at the southern point of the peninsula, Sayre Borough in the middle and South Waverly Borough to the north along the state border.

The Valley community contains dense neighborhoods, central business districts, and integrated industrial sites developed in the late 19th and early 20th centuries during the railroad heyday. Mills Pride, Ingersoll Rand, and the Guthrie Clinic/Robert Packer Hospital are the major employers, in addition to the local school district.

Wyalusing

Wyalusing Borough and Wyalusing Township are located in the southeastern portion of the County along the Susquehanna River and US Route 6. The Borough developed when the river-based logging industry was in its prime in the mid to late 1800s. The town is known for its architecture, which dates to the mid 1850s, and is the keystone to the borough's historic district.⁴ Railroads later improved access to the town and enabled the year round shipping of livestock, crops, and forest products that fostered the growth of food and resource processing operations. Taylor Meat Packing (Excel) is the major industrial employer in the area. Several small businesses are located in the downtown.

⁴ Wyalusing Comprehensive Plan. 1992.

Wysox

Wysox Township is located in central Bradford County across the river from Towanda. Craftmaster Manufacturing Inc. is the major manufacturing employer in the township. Bradford County's "Golden Mile" is located in Wysox Township along US Route 6; commercial retail enterprises such as Kmart and McDonalds as well as local businesses have located along this busy roadway segment.

Major Transportation Corridors

The Northern Tier Long Range Transportation Plan identifies 15 corridors of regional significance in its 5-county region, including six corridors that travel through Bradford County: US 6, US 220, PA 14, PA 414, PA 187 and PA 706. The discussion below considers each corridor in terms of its recreation potential.

US Route 6 crosses Bradford County in an east-west pattern through Wyalusing, Towanda, Wysox, Burlington, Troy, and Sylvania. This transcontinental highway from Provincetown, MA to Long Beach, California is recognized for its scenic and strategic importance. In 1995, the US Congress designated the roadway as part of its National Highway System (NHS) and PennDOT designated the route as part of its network of cross-state bicycle facilities (Bicycle PA Route Y). The route provides a strategic connection to out-of-county, off-road trail facilities such as the Iroquois Trail in Wyoming County and the Pine Creek Trail in Tioga County.

US Route 220 transects the County from north to south from Waverly, New York to Rockingham, North Carolina passing through the Valley region, Ulster, Towanda, Monroeton, and New Albany. The Long Range Transportation Plan (LRTP) recognizes the need for bicycle and pedestrian facilities in this corridor, not only for recreational purposes, but for journey to work or commuter trips as well.

PA Route 14 is primarily located in Bradford County and passes through its western region in a north-south pattern. It passes through Canton, Alba, Troy and several villages on its way to New York.

PA Route 187 is located in Bradford and Wyoming Counties, connecting Lovelton to the New York state line. With its poor roadway surface, some area bicycling advocates have judged PA 187 as "the worst major road in [Bradford] County." The roadway however is a good north-south through route for bicyclists, with its favorable terrain and lower traffic volumes than on PA 14.

PA Route 414 passes through Bradford, Lycoming and Tioga Counties from Wheelerville to Monroeton. This corridor has some potential to be considered as part of a scenic byway. (Lycoming County has developed a county scenic byways program and may consider this designation for its portion of the PA 414 corridor.) Major natural features include large acreages of state game lands, Sunfish Pond, Holcomb Pond and Tioga State Forest. Portions of the PA 414 roadway are also used during the annual bicycle race known as the "Tour de Shunk."

PA Route 706 passes through Bradford and Susquehanna Counties from Wyalusing to Milford. Regional bicycle advocates agree that PA 706 is "one of the few good connectors" into Susquehanna County. It is preferable for bicyclists to travel on PA 706 than on US 6 east of Wyalusing.

PA Bikeways

One Bicycle PA Route passes through Bradford County: Route Y follows US Route 6. Additional bicycle routes have been proposed to PennDOT by the local development district, Northern Tier Regional Planning and Development Commission.

Major Land and Water Features

Most of the county lies within the Glaciated Low plateau Section with rounded hills and valleys of low to moderate relief with low amplitude folds and dendritic drainage patterns. Areas of the southwestern portion of the county are in the Glaciated High Plateau Section with rounded to flat, elongate uplands with higher relief and angulate and dendritic drainage patterns. Bedrock formations in the county are all of sedimentary origin.

While much of the topographic relief in the county has resulted from the eroding action of streams and rivers cutting into the bedrock, the topography of Bradford County has also been significantly influenced by glaciation. As the glaciers advanced and receded, they scoured the fine particles from the surface and deposited them back on the surface. This process formed the topography beneath the extensive glacial lakes and wetlands. Melting glaciers generated the tremendous volumes of water that sculpted the wide floodplains, rolling hills and steep cliffs throughout the county.

Barclay Mountain lies along the County's southern border adjacent to Sullivan County. Schrader and Satterlee Creeks steeply divide the mountain into smaller ridges. The majority of the ridge and side slopes of the mountain are managed as State Game Lands (SGL) 12 and 36. Holcomb and Sunfish Ponds, two of the larger ponds in the County, are located adjacent to SGL 36 on Barclay Mountain. The foot slopes and a few inholdings are privately owned.

The tip of **Armenia Mountain** extends into the county from Tioga County and is managed as part of the newly names Loyalsock State Forest. These lands were formerly part of the Tioga State Forest.

The **North Branch of the Susquehanna River** enters Pennsylvania in Bradford County. The river bisects the County into nearly equal eastern and western regions, dropping 113 feet in elevation along its 45-mile route. It then travels through Wyoming County, Luzerne and Columbia Counties en route to its confluence with the West Branch at Sunbury and ultimately to the Chesapeake Bay.

The river's major tributaries are Sugar Creek, Towanda Creek, Wyalusing Creek, and Wysox Creek. Each of these creeks drains significant land area in the County. Sugar and Towanda Creeks comprise 148,773 and 143,640 acres, respectively, and are characterized as agricultural valleys with scattered woodlands. Wysox Creek has a greater portion of woodland, including maple woodlands that produce maple syrup, among its 65,390 acres. Wyalusing Creek originates in Susquehanna County and passes through 49,161 acres of agricultural and woodland landscapes in Bradford County en route to its confluence with the River. Other major streams in the County are Bentley Creek (33,605 acres), a tributary to the Chemung River, Sugar Run Creek (24,000 acres) and Wappasening Creek (36,459 acres), a tributary to the North Branch.

Table 1-5 Stream Length and Watershed Areas in Bradford County

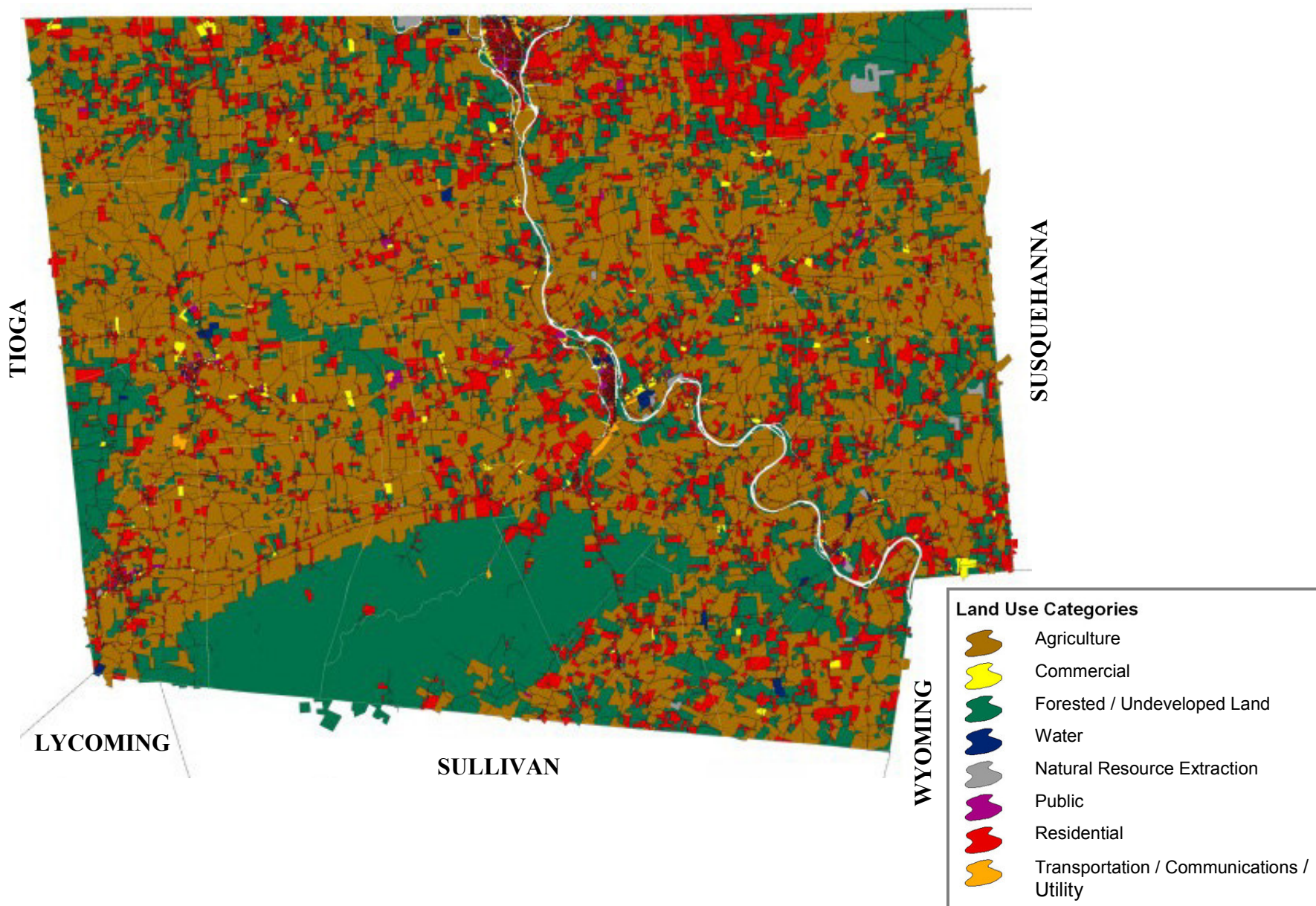
Stream/Watershed	Mainstem Stream Length⁵	Watershed Area⁶
Bentley Creek	12.8 miles	33,605 acres
Seeley Creek	20.2 miles	34,304 acres ⁵
Sugar Creek	32.2 miles	148,773 acres
Towanda Creek	35.1 miles	143,640 acres
Wappasening Creek	17.6 miles	36,459 acres
Wyalusing Creek	19.2 miles	49,161 acres
Wysox Creek	14.5 miles	65,390 acres

⁵ Pennsylvania Gazetteer of Streams, Part II, 1984.

⁶ Bradford County GIS, 2005.

According to the Bradford County Comprehensive Plan (2004), agricultural and forest lands constitute the two single largest land cover types and together cover roughly 85 percent of the County; intensive

Figure 1-3 2002 Existing Land Use Map, Bradford County, PA



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development occupies only 15 percent of the County. The Bradford County Natural Areas Inventory analyzed the extensive forest resources, presenting illustrations of the significant forest blocks. Research performed by the Penn State Cooperative Extension indicates that the forest cover alone may be as high as 59 percent and is predominantly owned by private landowners.

Public Recreation and Resource Lands

Public recreation and resource lands are inventoried in extensive detail and depicted on the Park and Recreation Map and the Open Space Map in Chapter 2.

Federal Lands

There are no federal land holdings in Bradford County.

State Forest

The newly named Loyalsock State Forest re-aligns former state forest lands in Sullivan, Lycoming, and Bradford Counties. Three out-parcels are located Albany, Asylum, and Monroe Townships in the southern portion of the County. Together these areas constitute approximately 4,500 acres.

State Park

Mount Pisgah State Park is located in West Burlington Township adjacent to the County's Mount Pisgah Park. The State park is approximately 1,300 acres in size and includes Stephen Foster Lake. The park offers boating, fishing, and swimming, ice fishing, and ice skating, sledding, 10 miles of trails, and an interpretive center. Portions of the trail network are open to cross-country skiers and snowmobilers.

State Game Lands

Ten State Game Lands tracts are located throughout the County: 12, 36, 123, 142, 172, 219, 237, 239, 250 and 289. The tracts are collectively managed as part of the Pennsylvania Game Commission's Northeast Region. The largest tract is SGL 12 located on Barclay Mountain; the smallest is SGL 237, a river island.

County Parks

Bradford County owns and operates three parks: Larnard-Hornbrook Park, Mount Pisgah Park, and Sunfish Pond. Larnard-Hornbrook Park is located along the Susquehanna River in Sheshequin Township. Mount Pisgah Park is located adjacent to the Mount Pisgah State Park among the County's western uplands in West Burlington Township. Sunfish Pond is located within SGL 12 on Barclay Mountain in Leroy Township.

Municipal Parks

There are 38 municipal parks in Bradford County. These facilities include active recreation areas, such as ballfields and playgrounds, as well as passive recreation areas, such as lookouts, nature areas, and boat launches.

Growth Management Policy

The authority to establish growth management policy and implement management tools in Pennsylvania lies with local government, as authorized by the Pennsylvania Municipalities Planning Code (as enacted and amended). Any national or state policy simply provides guidance to local decision makers and does not supersede established local policy and standards.

National Policy

As a whole, the nation has not witnessed the dramatic impacts of intensive and rapid development. While no national policy exists, several states have developed policies on growth management, which can serve as references for county and municipal policy development in Pennsylvania. Maryland and Oregon have perhaps the strongest statewide policies on record. Maryland has, in fact, established the Governor's Office of Smart Growth "to better coordinate the State's renowned anti-sprawl program and to strengthen

its core mission of encouraging development in older communities.”⁵ The department has also enabled the county designation of priority funding areas to attract development and published a number of guidance documents for local government. Oregon has also taken a cooperative approach between its Department of Transportation and Department of Land Conservation and Development to support sound land use and transportation development at the state and local levels. “The Oregon program has served as a model for similar programs in Vermont, Maine, Florida, and Georgia.”⁶

State Policy

The Pennsylvania Municipalities Planning Code was enacted in 1968 and amended as recently as 2000. The recent amendments expanded county and municipal authority and responsibility to plan for their futures. Amendments included provisions for farmland preservation, forestry activities, mixed uses and new tools for designating the most basic of land use planning decisions: growth and conservation areas. The Municipalities Planning Code (MPC) has historically required counties to provide regional guidance; it now requires local municipal planning efforts to be consistent with this guidance.

While Pennsylvania has no statewide growth management policy, the State Planning Board was reinstated in 2004. “This advisory board, comprised of cabinet secretaries, state legislators and citizens, has a mission to monitor trends and issues of concern to the Commonwealth, gather input from state and local officials and citizens and develop reports and recommendations for the Governor and the Legislature on improved state policies and programs.”⁷

County Policy

The Bradford County Comprehensive Plan includes a future land use map and policy for guiding future growth and development. The text and map define and illustrate four broad land use categories to characterize the type of development suited to the goals of promoting distinct town, village and countryside landscapes, protecting sensitive resources and fostering community values and identities.

- **Town Growth Areas and Village Growth Areas** are primarily intended to accommodate and permit growth and development of intensive land uses, including residential, commercial, industrial and institutional uses at higher densities, in the county’s major and minor communities.
- **Rural Resource Production Areas** are primarily intended to encourage natural resource based industries and non-developed uses, while accommodating limited growth and development.
- **Resource Preservation Areas** are intended to protect natural resources from direct and indirect development and disturbance impacts.

The various strategies identified in the plan outline specific tasks to increase development interest in towns and villages, reduce development pressure in rural areas, and maintain community character—whether town/village or rural—as ownership changes and new development occurs.

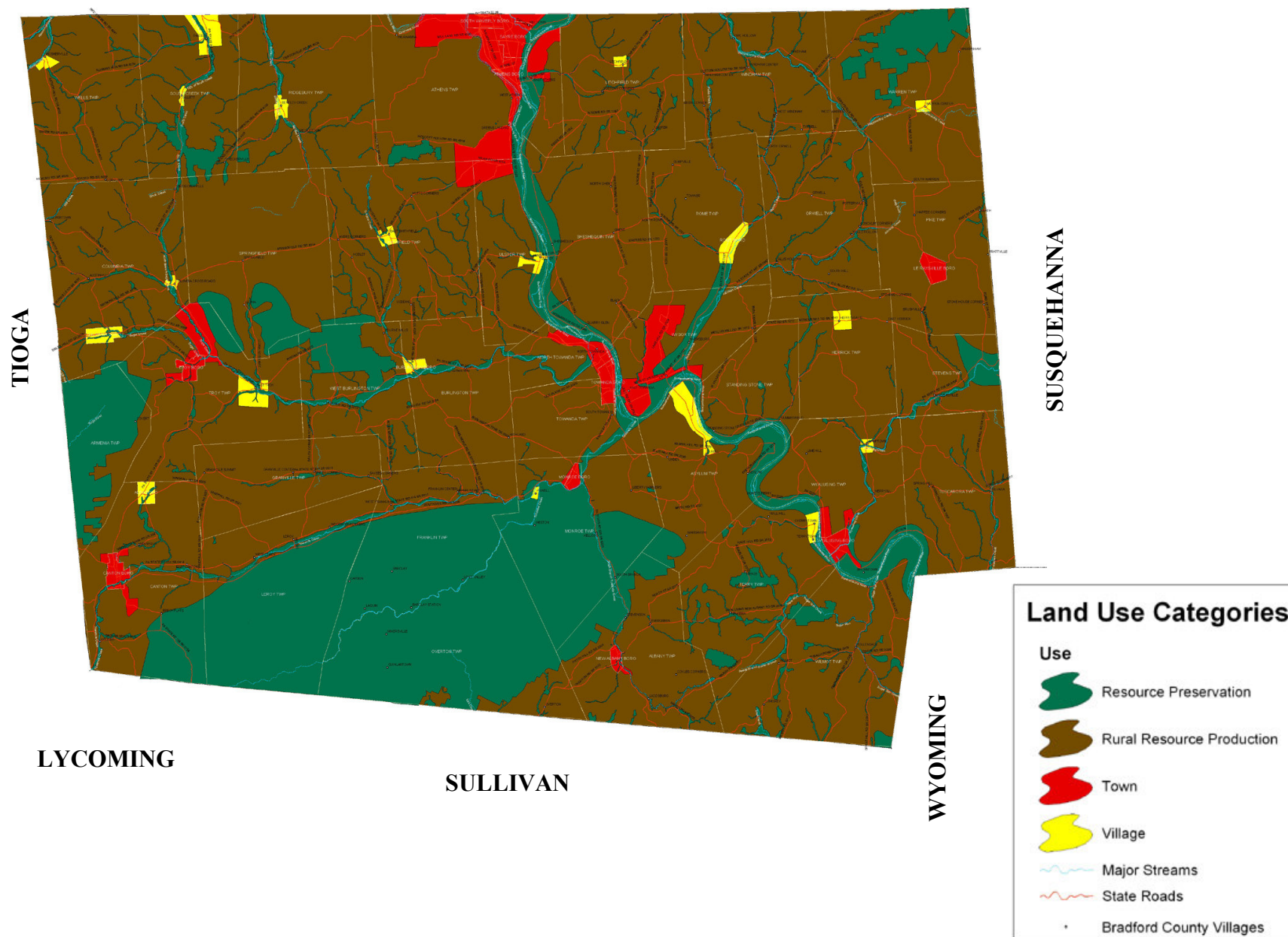
Bradford County provides a countywide subdivision and land development ordinance (SALDO) that is used by 45 of its municipalities. The SALDO was most recently updated in 2003.

⁵ Maryland Department of Planning, Smart Growth Program website.

⁶ Cited among Quotations About Oregon's Statewide Planning Program, prepared by the Department of Land Conservation and Development, October 1991.

⁷ Press Release from the Office of the Governor, July 21, 2004.

Figure 1-4 Future Land Use, Bradford County, PA



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Local Policy

Comprehensive municipal planning in Bradford County dates to the early 1970s when the federal government offered community planning with grants through the Department of Housing and Urban Development (HUD). While communities continued to develop through the 1970s and 1980s, “official” planning languished for many years. Planning became a priority again in the early 1990s and continues to gain acceptance, as many municipalities have their first official planning efforts underway. Seventeen municipalities have adopted individual or regional municipal comprehensive plans; another five are currently preparing individual or regional plans.

Fewer municipalities have implemented their comprehensive plans through zoning ordinances. Only 13 municipalities have adopted a zoning ordinance to manage the type and density of land uses. Indeed some growth management can be accomplished through subdivision and land development regulations. However the municipal zoning ordinance offers additional management options.

In the absence of municipal planning and with the authorization from municipal government, county government may establish growth and development policy and standards. Enforcement remains a municipal responsibility that can be conducted at the municipal or county level at the direction of municipal officials. This provision for countywide policy applies to both zoning and subdivision and land development ordinances. Asylum Township, Athens Township, Troy Borough, Wyalusing Borough and Wyalusing Township have each adopted their own municipal subdivision and land development ordinances. Litchfield Township adopted a municipal subdivision and land development ordinance that went into effect in April 2005. The remaining 45 municipalities abide by the countywide subdivision and land development ordinance.

While the regulations are the standards by which to measure growth and development’s fit to local communities, it is the planners and planning commission members who are essential as the authors and enforcers of these principles. Nearly half of the municipalities in Bradford County have municipal planning commissions.

Resource and Recreation Planning

While the Open Space, Greenways and Outdoor Recreation Plan is the first countywide plan of its kind in the region, many previous studies and plans have provided data, analysis, policy recommendations and priority projects with similar or related objectives for resource protection and management and recreation services.

- **Bradford County has two county ordinances that address natural resource protection.** The County’s Subdivision and Land Development Ordinance is not strong in its provisions, however the Stormwater Ordinance is very specific in its requirements. These ordinances are formally referenced in plan reviews performed by the planning office.
- The **Bradford County Natural Areas Inventory** was completed in early 2005. This inventory of significant natural areas is intended to inform residents and local leaders about the living natural heritage in their county and to provide them with a tool to use in planning the future and protecting the resources of their communities. The inventory presents sites of significance to Pennsylvania and to Bradford County by rank of significance and by municipality, and provides management recommendations for each of the 72 identified sites. Concentrations of significant sites are located along the Susquehanna River and throughout the southwestern region of the county. The Natural Area Inventory is informally referenced in plan reviews performed by the planning office.
- **Municipal resource and recreation planning in Bradford County has been limited.** This review of adopted municipal comprehensive plans highlights the analysis, conclusions, and recommendations of the adopted municipal comprehensive plans that support open space, greenways and outdoor recreation planning. Key terms and ideas are italicized.

The **Asylum Township** Comprehensive Plan was adopted in 2003. A community survey conducted during the plan's development revealed residents' values for open space and recreation.

- More than 30 percent of new residents (<5 years) and 100 percent of long term residents (5 years or more) claimed *open space/privacy/clean air* as a primary reason for moving to the Township.
- *Open space* was considered one of the most important issues along with *parks and recreation, environmental protection, historic preservation, education, public safety, future growth, community pride, agriculture, and industry.*
- Residents expressed interest in additional playgrounds/recreation areas and improved *access to the Susquehanna River.*

The plan's goals and objectives reflected more specific consideration for natural resource protection and demonstrate its commitment to agricultural preservation through current programs, incentives, and public outreach. A few of the plan's more specific and innovative ideas include:

- Promote the use of *cluster or other innovative design techniques* for new development in the township as a means of preserving open space and minimizing the amount of land disturbed for new development.
- Support and promote educational programs that foster a greater *understanding of the local environment* and the need for its protection.
- Support the preparation of *stormwater management plans* for each of the township's watersheds by the Bradford County Planning Commission, as funding becomes available.
- Support landowner participation in the county's "*purchase of development rights*" program to protect agricultural properties from development pressure.
- Encourage agricultural property owners to participate in various farm-related or land conservation organizations to maintain awareness and knowledge of available, preservation *assistance programs.*
- Continue holding annual "community clean up day" in conjunction with the Northern Tier Solid Waste Authority to help maintain the township's overall appearance and enhance the *community's sense of pride.*

Athens Borough adopted its comprehensive plan in 2002. This plan places strong emphasis on recreation services, sites and linkages; acknowledges interrelationship with adjacent communities via streets, sidewalks, and trails; and proposes a historic district in downtown Athens.

"With its attractive tree lined streets, quiet neighborhoods, and level terrain, Athens Borough residents walk for leisure, exercise and social interaction with their neighbors or people at businesses in the downtown...There is no doubt that residents and people in the "Valley" communities are linked with a system of sidewalks and linear amenities not improved as yet."

--Athens Borough Comprehensive Plan, 2002

The following goals and objectives are particularly relevant to this project, as well as the included map of the proposed trail corridor, including the Portage Trail and the Carantouan Greenway.

- Provide a variety of recreational opportunities for *children, adults, senior citizens and those physically challenged.*
- Establish *recreational linkages*, in the form of walking, hiking, or biking trails that provide linkages to the Susquehanna River, municipal parks and other Valley amenities.
- Develop the Valley Recreation Center as a widely utilized community and recreation facility that provides building space for community events and sport facilities that can be utilized by citizens, clubs, and organizations alike. The master plan for the facility indicates planned improvements for athletic fields, picnic sites, and parking.

The plan's implementation strategies focused efforts on coordination between the public and private sectors:

- Work with the Bradford County YMCA, senior citizens organizations, community groups, the Athens and Sayre school districts, Ingersoll-Rand and the Recreation Center Committee to implement the center's feasibility study and recreation plan.
- Coordinate with the Northern Bradford Authority and the Carantouan Greenway to develop *trail linkages* along the Susquehanna River and other environment to connect communities to the north in New York State and southward to central Bradford County.
- Involve youth to plan and design future recreational facilities.
- Work with the Planning Commission, Shade Tree Commission and Chamber of Commerce establishing "*decorative gateways*" into Athens Borough.
- Initiate developing a *promotional trail map* for the borough identifying historic, recreational, environmental resources and businesses along routes.

The **Athens Township** Comprehensive Plan was adopted in 1992 and recently updated in 2005. Both plans emphasize the protection of natural features through land use planning, site development standards, and development rights purchases; expansion of recreation facilities specific to resident and regional needs; and the enhancement of community identity through historical and cultural initiatives. Specific strategies to accomplish these goals include:

- Continue to support and expand existing *Agricultural Security Areas*, and encourage "Clean and Green" tax benefit enrollments as a means of preserving farmland, where appropriate.
- Consider participation in a "*purchase of development rights*" program if offered by the county as means of preserving prime agricultural areas.
- Minimize *non-farm encroachments* in farming-dominant areas of the Township or in areas of prime agricultural soils through the development of well-conceived land use control regulations.
- Develop Conservation Design standards within the Township Subdivision and Land Development Ordinance.
- Minimize the total area disturbed by development and retain open space in the Township by suggesting *cluster development designs* for major new subdivisions.
- Identify natural features and resource areas and protect those areas.
- Determine the need for, or interest in, development of additional recreational facilities.
- Continue to support the efforts of the Township Park Commission.
- Examine the possibility of developing *multi-municipal recreation facilities* to maximize financial investment and increase the variety or level of service provided.
- Develop a plan for trails, walks, fishing sites, etc.; implement plan as funding is available.
- Inform Township citizens of important historic and cultural opportunities.

The **South Waverly Borough** Comprehensive Plan was adopted in 2003. Its overall goals include protection and improvement upon the Borough's natural and physical environment. Among its short term strategies (1-5 years) for Borough development, the plan outlines:

- Establish a *shade tree commission*
- Establish a *recreational trail system* that links New York state, central Bradford County, and other "Valley" nodes.
- Develop attractive *community gateways* into the Borough.
- Enforce a Borough *sidewalk program* and pursue grant funds, when available, to offset property owner costs for sidewalk replacement.
- Develop a *trail and community resources map* to attract bicyclists, walkers, river enthusiasts and the like.

The **Troy Borough/Troy Township** Joint Comprehensive plan was adopted in 2005. This plan includes general goals to protect environmental resources from degradation and to minimize flood damage.

The **Wyalusing Borough** Comprehensive Plan was adopted in 1982 and updated in 1992. The plan's primary goal is to sustain the community's quality of life through "preservation, conservation and wise use of the natural and historic assets of Wyalusing Borough."

The plan advocates protection of natural features by the Borough and private landowners.

- Adopt and enforce land use controls to stop scattered land uses from occurring.
- Develop *stormwater management plan* for Wyalusing Creek.
- Work for the *protection of groundwater resources* used as public drinking water for Borough residents and future generations.
- Identify those areas that have a potential flood hazard or *lands that are flood prone*. Initiate procedures to be implemented through the zoning ordinances and subdivisions and land development regions to provide for the safe use of these areas.
- Foster greater public awareness, education and support of sensitive environmental concerns.

Wyalusing Township adopted its comprehensive plan in 1991. In addition to its broad goals for natural resource protection, this plan identified the need to protect wetlands by:

- Preserving 100 percent of the vegetation in all wetlands.
- Preserving 80 percent of the vegetation that will comprise a *buffer zone* of 100 feet from the wetland. This buffer zone will minimize harmful effects on the wetlands.

The plan also recommended that the Township plan for land acquisition for a new park between 1991 and 2010.

The **Wysox Township** comprehensive plan dates to 1983. Though one of the oldest municipal plans, this plan includes sound planning rationale, analysis and recommendations. The plan mentions open space in its foreword entitled "Why Plan?" Among other sound benefits for planning, the document states that planning "improve[s] the physical setting and appearance of Wysox through the maintenance of existing open space and the retainment of *open space* in new development." The plan also acknowledges the functional role of *floodplains* as "*a safety valve or sponge for frequent high waters,*" and recognizes that floodplains should "generally be considered as unsuitable for development due to the flooding hazard and poor drainage." Finally, the plan projects the conversion of agricultural and some forest land to residential uses and directs decision makers to consider these conversions carefully.

- **There are few local ordinances in place that protect the County's natural resources through specific standards; floodplain protection ordinances are an exception.** 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. Most municipalities rely on the county subdivision and land development ordinance and very few have municipal zoning ordinances.
- **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 are expected to be completed.
- **There are few local measures to protect prime agricultural soils,** however several of the municipalities with comprehensive plans include policy statements on supporting landowner enrollment in the agricultural security area program. Landowners across the county have enrolled 144,588 acres from 1945 landowners in 31 municipalities in the ASA program.
- **Specific municipal planning for public recreation has not received much attention in Bradford County.** Some facility planning and service programming has occurred in the major communities. While none of the municipalities have adopted park and recreation plans, a few of the municipal

comprehensive plans note feasibility studies and master plans for specific facilities. And recently adopted comprehensive plans show that increasingly communities are recognizing the value that public recreation facilities add to the overall quality of life, with or without mention of specific facilities.

- **The Wysox Creek Watershed is the only watershed in Bradford County with an Act 167 Stormwater Management Plan.** The plan recognizes the short and long term impacts of increasing development on the hydrologic system, land features and wildlife. The Plan states that development in the Wysox Creek watershed causes an increase in stormwater runoff and a reduction in groundwater recharge. These impacts lead to an increased risk of downstream flooding, erosion and sedimentation problems, reduced water quality, higher stream temperatures, and impairments to the aquatic food chain in the Creek's surface waterways. Reduced groundwater recharge results in reduced base flow during the drier summer months, as well as the potential for dry wells. Erosion of the streambanks is of particular concern as on the lower reaches of the Wysox Creek.

The plan emphasizes the appropriate use and preservation of the natural drainage system as well as provisions for groundwater recharge, where appropriate, through municipal ordinances that guide approval of development. It justifies the need for careful consideration of the location and practices of land development in this watershed in order to protect surface water and groundwater for human consumption and wildlife habitat, and to protect land features and the development that occurs on the land from the inherent functions (e.g. flooding and drought) of the water system. The plan includes a Stormwater Management Ordinance specific to the Wysox Creek watershed and its municipalities. This ordinance emphasizes the use and preservation of the existing natural drainage system and encourages recharge, where appropriate, with water quality protection provisions.

- **Other watersheds in Bradford County are working at various stages of watershed and resource assessment, planning and management.** These organizations and their efforts are presented in Chapter 4, An Index of Organizations and Initiatives.

Table 1-6 County and Municipal Planning Efforts

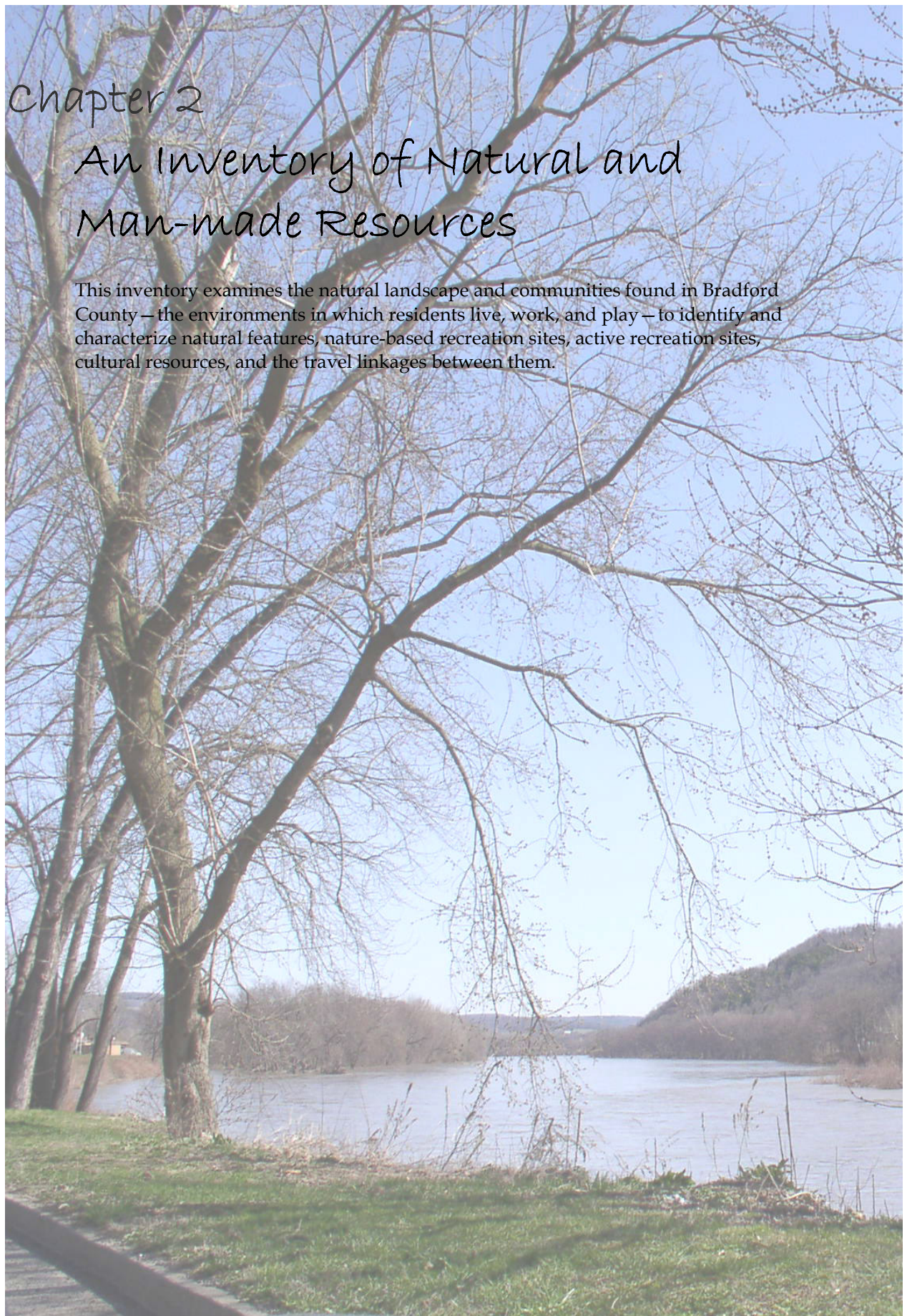
Municipality	Comp Plan	Zoning Ordinance	Subdivision and Land Development Ordinance	Planning Commission
Bradford County	2004	No	Yes	Yes
Alba Borough	No	No	County	No
Albany Township	No	No	County	No
Armenia Township	No	No	County	No
Asylum Township	Yes	No	Yes	Yes
Athens Borough	1989	1990/2001	County	Yes
Athens Township	1992/2005	1998/2001	Yes	Yes
Burlington Borough	No	No	County	No
Burlington Township	No	No	County	No
Canton Borough	No	1976	County	Yes
Canton Township	No	No	County	Yes
Columbia Township	No	No	County	Yes
Franklin Township	No	No	County	No
Granville Township	No	No	County	Yes
Herrick Township	No	No	County	No
LeRaysville Borough	No	No	County	No
Leroy Township	No	No	County	No
Litchfield Township	2003	No	Yes	Yes
Monroe Borough	No	1969/2001	County	Yes
Monroe Township	No	No	County	No
New Albany Borough	No	No	County	No
North Towanda Twp. (Joint)	1985/Underway	1969	County	Yes
Orwell Township	No	No	County	No
Overton Township	No	No	County	No
Pike Township	No	No	County	No
Ridgebury Township	2005	No	County	Yes
Rome Borough	No	1976	County	Yes
Rome Township	No	No	County	No
Sayre Borough	Underway	1997	County	Yes
Sheshequin Twp.	Underway	No	County	Yes
Smithfield Township	No	No	County	No
South Creek Township	No	No	County	No
South Waverly Borough	Yes	1994/2001	County	Yes
Springfield Township	No	No	County	No
Standing Stone Twp.	2004	No	County	Yes
Stevens Township	No	No	County	No
Sylvania Borough	No	No	County	No
Terry Township	No	No	County	No
Towanda Borough (Joint)	Underway	1970	County	Yes
Towanda Township (Joint)	Underway	No	County	No
Troy Borough (Joint)	2005	1957	Yes	Yes
Troy Township (Joint)	2005	No	County	Yes
Tuscarora Township	No	No	County	No
Ulster Township	2004	No	County	Yes
Warren Township	2005	No	County	Yes
Wells Township	2004	No	County	Yes
West Burlington Township	No	No	County	No
Wilmot Township	No	No	County	No
Windham Township	No	No	County	No
Wyalusing Borough	1992	1997	Yes	Yes
Wyalusing Township	1991	1997/2002	Yes	Yes
Wysox Township	1983	1994/2001	County	Yes

Source: Bradford County Community Matrix; Pennsylvania E-Library

Chapter 2

An Inventory of Natural and Man-made Resources

This inventory examines the natural landscape and communities found in Bradford County – the environments in which residents live, work, and play – to identify and characterize natural features, nature-based recreation sites, active recreation sites, cultural resources, and the travel linkages between them.



The resources outlined in this chapter have been inventoried by various federal, state, and county agencies, as well as by private organizations. These studies have assessed the abundance, diversity, productivity, and general health of the county's forests, farmlands, waterways and habitat areas and wildlife; the location, facilities and services of public recreation areas; and the value of numerous historic and cultural sites. These documents provide data, analysis, and recommendations that relate to open space, greenways and recreation planning. This inventory reports the relevant findings of these existing reports.

Natural Resources

Natural resources provide us with the basic environments from which we create our communities—the various environments in which we live, work and play. The environments include land, water and riparian landscapes, as well as the vegetation and wildlife that inhabit them. In addition to their ecological value, these resources support community and economic pursuits that shape the quality of life experienced in Bradford County.

Land Resources – Soils and Topography

The variable terrain of Bradford County creates spectacular vistas of the sculpted valleys and top-of-the-world views across the repetitious mountain ridges, as well as a variety of habitats for local wildlife.

The drainage patterns, bedrock material and vegetation have created deep soils on the shallow slopes of the valley lowlands. These deep soils, particularly those along Sugar and Towanda Creeks, as well as the Susquehanna River, are of great value for agriculture and forestry. These relatively flat lands are rich in minerals that have dropped from the slowing drainage flow and are usually well-drained by their depth.

Prime agricultural soils and soils of statewide importance are abundant in Bradford County, as shown on the **Natural Features Map** at the end of the chapter. Soil classification by the USGS Soil Survey shows that 415,021 acres of the county's 736,640 acres (56.3 percent) have high quality soils for agriculture and forestry. According to the Bradford County GIS database, Bradford County has approximately 22,266 acres of Class I soils and 68,525 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. Soils from these two classes cover approximately 12.3 percent of the county. There are 344,270 acres of Class III soils in the County, covering roughly 44.0 percent of the land area.

Where poorer soils are found on farmland, they are typically utilized for pasturelands. Drainage is the most limiting factor in the agricultural quality of soils. County-wide, nearly 70 percent of the soils have drainage problems, although some of these soils have other factors that make them suited for agricultural production.

A number of soils are particularly sensitive to disturbance and development. Soils found on steep slopes contribute sediment to surface waters under conditions of disturbance and pressure. Hydric soils are susceptible to compaction and uneven settling under the same conditions. With the exception of Athens Township, there are no municipalities in Bradford County that regulate development on steep slopes.

Land Capability Classification

Capability classes show, in a general way, the suitability of soils for most kinds of field crops. The soils are classed according to their limitations when they are used for field crops, the risk of damage when they are used, and the way they respond to treatment. The grouping does not take into account major and generally expensive land-forming that would change slope, depth, or other characteristics of the soils; does not take into consideration possible but unlikely major reclamation projects; and does not apply to rice, cranberries, horticultural crops, or other crops that require special management. Capability classification is not a substitute for interpretations designed to show suitability and limitations-of groups of soils for rangeland, for forest trees, or for engineering purposes.

Capability classes are designated by Roman numerals I through VIII. The numerals indicate progressively greater limitations and narrower choices for practical use. The classes are defined as follows:

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

-- Land Capability Classification (Agriculture Handbook 210),
USDA Natural Resource Conservation Service; Rhode Island NRCS website,
<http://www.ri.nrcs.usda.gov/technical/capclass.html>.

Roughly 85 percent of the county is used for agricultural and forestry uses, as shown in **Figure 1-4**, the **Existing Land Use Map**, in Chapter 1. According to the Bradford County GIS database, approximately 428,000 acres (53 percent) are used for agriculture and roughly 244,000 acres (30 percent) are used for forestry. The Office of Planning and Grants developed the existing land use map for the 2004 comprehensive plan. These figures reflect *land use* as determined by the Bradford County Tax Assessment Office. County planners and resource specialists in fact believe that the land use figures are a conservative estimate of open space lands in the county, as parcels that, for example, contain residential structures, farmland, and woodland receive only one land use classification, typically residential. *Land cover* classifications could provide a more detailed and more accurate analysis of the abundance and distribution of agricultural and forest lands, however such data is not currently available. See the Land Use Data Methodology and Limitations text below for further explanation.

Land Use Data Methodology and Limitations

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:

Developed

Commercial
Industrial
Public
Residential

Undeveloped

Agriculture
Forested/Undeveloped
Natural Resource Extraction
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); 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 greater ease than previous mapping techniques. With 2002 land use database as a baseline, County has the ability to track changes in land use patterns over time.

2004 Bradford County Comprehensive Plan

Farm numbers and farm size have slipped slightly in recent years, but market value has been on the rise. According to the USDA Census of Agriculture, the number of farms has decreased by 44 from 1,539 in 1997 to 1,495 in 2002. The County's average farm size is approximately 202 acres, down just slightly from 204 acres in 1997. Meanwhile, total market sales were up four percent from 1997, totaling \$99.8 million in 2002 and placing the county 8th among state counties in total market sales. The vast majority of these sales (\$92.6 million) was in livestock, placing Bradford County 5th in the state for livestock sales.

Bradford County has taken action to preserve land for agriculture, as shown on the **Open Space Map** at the end of the chapter. To date, 952.73 acres have been preserved by the county's Agricultural Land Preservation Board. Another 558.93 acres were expected to be preserved by the end of 2005. The program includes soil quality among its criteria for ranking properties for agricultural easements; higher quality soils increase a property's rank for competitive county farmland preservation funding.

Many landowners have made short term commitments to retain lands in agricultural use. The Agricultural Security Area (ASA) program has enrolled 144,588 acres in the county. 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.

ASA properties are found across the county in all but five townships, as shown on the **Open Space Map**. The heaviest concentrations of such properties are located in Herrick, Pike, and Orwell Townships in the eastern part of the County.

Forest landowners have also begun to commit their lands to continual forest use. Two properties totaling nearly 500 acres have been eased by local land trusts. In addition, some of the agricultural lands that have been conserved include woodlands with forest stewardship plans in their total acreage.

Glacial outwash created sand and gravel deposits that support local mining operations. Such operations include large scale commercial quarries as well as small scale extraction occurring on personal properties along the river corridor. Other mineral resources of value consist of flagstone, bluestone, slate, and coal. Natural gas deposits are also prevalent in the northeastern region and have tapped by commercial fuel companies. The Bradford County Conservation District reports that two to three applications for mining sites are submitted to DEP each month, with copies provided to the conservation district office. The northeast region of the county is the most heavily mined region.

The land resources in Bradford County support agriculture, forestry, mining, recreation and tourism. Ecologically, they utilize the land as productive open space – land with a permeable surface from which products are harvested or extracted with minimal infrastructure. These factors enable rain and snow to penetrate the surface and recharge the surface and groundwater and retain the connectedness of vegetation. Economically, these industries provide jobs and wages for individuals and families. Finally, these resources and industries, even including quarries, provide scenic and physically challenging features for recreationists and tourists.

Water Resources – Surface Waters and Groundwater

Water features are shown on the **Natural Features** and other maps at the end of the chapter.

Surface waters are critical to human and wildlife communities. They provide drinking water for terrestrial creatures and habitat for aquatic species. Some surface waters serve public water supplies while others support recreation and tourism. The state-designated water uses for surface water bodies in the county are listed in Table 2-1, Designated/Protected Water Uses, below.

Table 2-1 PA DEP Designated/Protected Water Uses

Stream	Zone	Water Uses Protected
Chemung River Corridor		
Chemung River	Main Stem (all sections in PA)	WWF
Dry Brook	Basin	WWF
Murray Creek	Basin	WWF
Orcutt Creek	Basin	WWF
Stone Lick Creek	Basin	WWF
Toad Hollow	Basin	WWF
Tutelow Creek	Basin	WWF
Walcott Creek	Basin	WWF
Unnamed Tributaries	Basin (all sections in PA)	WWF
Bentley Creek Watershed		
Bentley Creek	Basin (all sections in PA)	WWF
Buck Creek	Basin	WWF
Seeley Creek Watershed		
Seeley Creek	Basin (all sections in PA)	CWF
Susquehanna River Corridor		
Bennetts Creek	Basin	WWF
Cash Creek	Basin	WWF
Cayuta Creek	Basin (all sections in PA)	WWF
Durell Creek	Basin	WWF
Hemlock Run	Basin	WWF
Horn Brook	Basin	WWF
King Creek	Basin	WWF
Laning Creek	Basing	WWF
Mallory Creek	Basin	WWF
Parks Creek	Basin (all sections in PA)	WWF
Rummerfield Creek	Basin	WWF
Saterlee Creek	Basin	CWF
Snyder Creek	Basin	WWF
Spaulding Creek	Basin	WWF
Vought Creek	Basin	WWF
Unnamed Tributaries	Basins, Wyalusing Creek to Lackawanna River	CWF
Unnamed Tributaries	Basins; PA-NY state border to Wyalusing Creek	WWF
Sugar Creek Watershed		
Sugar Creek	Basin, Tomjack Creek to Mouth	WWF
Tomjack Creek	Basin	TSF
Sugar Run Watershed		
Sugar Run	Basin	CWF

(Table continued)

Table 2-1 Water Use in Waterways (continued)

Stream	Zone	Water Uses Protected
Susquehanna River Corridor (continued)		
Towanda Creek Watershed		
Towanda Creek	Basin, Source to Canton Borough	CWF
Towanda Creek	Main Stem, Canton Borough to South Branch	TSF
Towanda Creek	Main Stem, South Branch to Mouth	WWF
Alba Creek	Basin	CWF
Coal Run	Basin	HQ-CWF
Mill Creek	Basin	CWF
North Branch Towanda Creek	Basin	CWF
Preacher Brook	Basin	CWF
Schrader Creek	Basin, Source to Coal Run	EV
Schrader Creek	Basin, Coal Run to Mouth	HQ-CWF
South Branch Towanda Creek	Basin	CWF
Unnamed Tributaries	Basins, Canton Borough to South Branch	CWF
Unnamed Tributaries	Basins, South Branch to Mouth	CWF
Wappasening Creek Watershed		
Wappasening Creek	Basin (all sections in PA)	CWF
Sackett Creek	Basin (all sections in PA)	WWF
Wyalusing Creek Watershed		
Wyalusing Creek	Basin, Confluence of East and Middle Branches to North Branch	WWF
Wyalusing Creek	Basin, North Branch to Mouth	WWF
Wysox Creek Watershed		
Wysox Creek	Basin	CWF
Little Wysox Creek	Basin	WWF

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.

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.

Special Protection

HQ *High Quality Waters*

EV *Exceptional Value Waters*

Source: The Pennsylvania Code (93.3 Protected Water Uses)

Table 2-2 Fishable Waterways

Waterway	Fish Species
Rivers and Streams	
Chilson Run: From headwaters down to mouth	Wild Trout
Deep Hollow: 2.87 miles upstream mouth downstream to mouth	Wild Trout
Millstone Creek: From headwaters downstream to Deep Hollow Run	Wild Trout
Pine Swamp Run: From headwaters downstream to mouth	Wild Trout
Sugar Run: From headwaters downstream to mouth	Wild Trout
Schrader Creek	Approved Trout; delayed harvest and artificial lures only between the Bull Run confluence and SGL#36; stocked in late fall
South Creek	Approved Trout
Sugar Creek (East Troy to confluence of South Branch of Sugar Creek)	Approved Trout
Sugar Creek North Branch (Mouth upstream to fairgrounds)	Approved Trout
Susquehanna River	Bass, walleye, and muskellunge
Towanda Creek	Approved Trout; delayed harvest and artificial lures only from SR 3001 downstream to T-350
Towanda Creek - South Branch	Approved Trout
Tuscarora Creek	Approved Trout
Wysox Creek	Approved Trout
Lakes and Ponds	
Mountain Lake	Catfish, Perch, Sunfish, Bass, etc.
Stephen Foster Lake	Catfish, Perch, Sunfish, Bass, etc.; ice fishing permitted
Sunfish Pond	Approved Trout, Catfish, Perch, Sunfish, Bass etc.

Source: Bradford County; PA Fish and Boat Commission

There are approximately 6,000 acres of surface water in Bradford County. Most of this acreage is accounted for in the rivers and tributaries, but natural and man-made ponds and lakes are also present throughout the county.

All waterways of the Chemung River corridor in the county are managed as warm water fisheries, except Seeley Creek, which is a cold water fishery.

There is one waterway of exceptional value and two high-quality cold water fisheries in the Towanda Creek watershed. The headwaters of Schrader Creek on Barclay Mountain is the one exceptional value stream in the county. Coal Run and the mainstem of Schrader Creek are classified as high-quality cold water fisheries.

All other waterways in the county are predominately managed for warm water and cold water fisheries. The cold water fisheries comprise headwater streams in larger stream networks. The mainstem of Towanda Creek and Tomjack Creek, a tributary to Sugar Creek, are managed as trout stocked fisheries.

Thirteen rivers and streams are identified as fishable trout waters in the county. Five are noted for wild trout and eight for stocked trout, as shown in Table 2-2, Fishable Waterways.

The three largest lakes and ponds in the county are identified as sites for warm water fishing. Mountain Lake, Stephen Foster Lake and Sunfish Pond are fishing sites for catfish, perch, sunfish, and bass; trout can also be fished from Sunfish Pond.

Surface waters across the county have been impacted by soil erosion and deposition. Soil erosion occurs as a result of natural functions. In Bradford County, the natural geology and hydrology make streambeds and banks susceptible to erosion. Shallow soils with limited capacity to absorb stormwater result in flash flows across the land and into streambeds, eroding loose soil particles along the way. Erosion can also be caused, exacerbated or mitigated by man-made construction. The construction bridges, culverts, and floodplain modifications can destabilize sensitive hydric soils and divert stream flows out of the stream course and into the floodplain, increasing erosion potential across broader lands. Similarly stream dredging can disturb streambeds and banks.

Erosion 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 is also a threat to farm productivity as fields shrink from the riverside edges; such erosion can be caused by mismanagement, improper sizing and placement of obstructions and riparian issues. Soil erosion results in pollution of stream beds and waters (two distinct aquatic habitats), deposition of sediment in streams, and reduced water quality for all uses. Many creek beds are filled with sediment resulting in flows being minimal until storm events occur.

What is a water quality standard?

The Clean Water Act sets a national minimum goal that all waters be “fishable” and “swimmable.” To support this goal, states must adopt water quality standards. Water quality standards are state regulations that have two components. The first component is a designated use, such as “warm water fishes” or “recreation.” States must assign a use, or several uses, to each of their waters. The second component relates to the in-stream conditions necessary to protect the designated use(s). These conditions or “criteria” are physical, chemical, or biological characteristics, such as temperature, minimum levels of dissolved oxygen, and maximum concentrations of toxic pollutants.

It is the combination of the “designated use” and the “criteria” to support that use that makes up a water quality standard. If any criteria are being exceeded, then the use is not being met and the water is said to be impaired.

What is a TMDL?

A Total Maximum Daily Load (TMDL) sets a limit on the pollutant loads that can enter a water body so the water body will meet water quality standards. The Clean Water Act requires states to assess streams and water bodies and compile a list of all waters that do not meet their water quality standards even after pollution controls required by law are in place. For these waters, the state must calculate how much of a substance can be put in the water without violating the water quality standard and distribute that quantity to all the sources of the pollutant on that water body. A TMDL plan may include load allocations for sources of pollution being discharged from treatment ponds on active mining operations, pollution load allocations for sources of abandoned mine drainage, and a margin of safety. The Clean Water Act requires states to submit their TMDLs to EPA for approval. If a state does not develop the TMDL, the Clean Water Act states that the EPA must do so.

---DEP TMDL Factsheet and PA DEP Chapter 93

The quality of the surface waters in Bradford County is assessed by The Pennsylvania Department of Environmental Protection (PA DEP). The 2004 Pennsylvania Integrated Water Quality Monitoring and Assessment Report categorizes water bodies according to the extent to which their quality is adequate to meet all designated uses. The categorization scheme is outlined in the explanatory box that follows the listing below. The categorization of Bradford County water bodies, based on 2004 data, is shown below. Current or more recent data may be available from PA DEP.

- *Category 1 – The water body meets all of its designated uses.*
None in the county.
- *Category 2 – The water body meets some of the designated uses (typically aquatic habitat).*
Most water bodies in the county fall in this category.
- *Category 3 – There is insufficient data at the time of DEP's report to make a conclusive assessment.*
 - The Athens-Sayre reservoirs and Sayre reservoir and portions of Alba Creek, Long Valley Run (Towanda Creek), Schrader Creek, South Branch of Towanda Creek, the mainstem of Towanda Creek, Sugar Run, and the Susquehanna River.
- *Category 4a – The water body is impaired for one or more designated uses but does not require a TMDL because one has been completed.*
 - The 75-acre Stephen Foster Lake is impaired by excess nutrient and sediment loading; the lake was listed in 1996 and its TMDL approved in 2001.
- *Category 4b – The water body is impaired for one or more designated uses but does not require a TMDL because it is expected to meet all designated uses within a reasonable timeframe.*
None in Bradford County.
- *Category 4c – The water body is impaired for one or more designated uses but does not require a TMDL because its impairment is not caused by a pollutant.*
 - 3.2 miles of Bentley Creek, due to hydromodification or other habitat alterations
 - 1.7 miles of Laning Creek, due to Urban Runoff/Storm Sewers/Water/Flow Variability
 - 3.6 miles of Wysox Creek in two segments due to Agriculture/Water/Flow Variability and Road Runoff/Water/Flow Variability, listed in 2004
- *Category 5 – The water body is in the process of TMDL development*
 - 11.8 miles of the Chemung River, impaired by mercury from unknown sources; a TMDL is required by 2011.
 - 3.4 miles of Coal Run (Towanda Creek), impaired by abandoned mine drainage/pH; a TMDL is required by 2015.
 - 1.6 miles of Long Valley Run (Schrader Creek, Towanda Creek), impaired by abandoned mine drainage/pH from underground coal mining began in the watershed around the 1820s. This run was recognized to be impacted by acid mine drainage (AMD) by the Pennsylvania Fish Commission as early as 1931. The run's swampy headwaters contribute an additional tendency toward acidity and lend little buffering to acidic inputs from AMD. A TMDL was approved in 2004 prior to the 2005 target date.¹
 - 6.9 miles of Sugar Creek, impaired by mercury from unknown sources; a TMDL is required by 2011.
 - 6.6 miles of Towanda Creek, also impaired by mercury from unknown sources; a TMDL is required by 2011.
 - the 35-acre Sunfish Pond, impaired by atmospheric deposition/mercury; a TMDL is to be established by 2015.

¹ LONG VALLEY RUN WATERSHED TMDL, Bradford County, Pennsylvania Department of Environmental Protection, June 4, 2004.

Classifications used in the 2004 Pennsylvania Integrated Water Quality Monitoring and Assessment Report

Category 1: Waters attaining all designated uses.

Category 2: Waters where some, but not all, designated uses are met. Attainment status of the remaining designated uses is unknown because data are insufficient to categorize a water consistent with the state's listing methodology.

Category 3: Waters for which there are insufficient or no data and information to determine, consistent with the State's listing methodology, if designated uses are met.

Category 4: Waters impaired for one or more designated uses but not needing a TMDL.

Category 4A: TMDL has been completed.

Category 4B: Expected to meet all designated uses within a reasonable timeframe.

Category 4C: Not impaired by a pollutant.

Category 5: Waters impaired for one or more designated uses by any pollutant. Category 5 includes waters shown to be impaired as the result of biological assessments used to evaluate aquatic life use even if the specific pollutant is not known unless the State can demonstrate that non-pollutant stressors cause the impairment or that no pollutant(s) causes or contribute to the impairment. Category 5 constitutes the Section 303(d) list that EPA will approve or disapprove under the CWA. Where more than one pollutant is causing the impairment, the water remains in Category 5 until all pollutants are addressed in a completed/EPA-approved TMDL or one of the delisting factors is satisfied.

--PA Department of Environmental Protection

TMDLs have recently been established by the PA DEP for Long Valley Run. These water quality standards prescribe maximum inputs of manganese and acidity to the water. A vertical flow AMD passive treatment system, constructed in 1997, has helped improve water quality by elevating pH level and reducing levels of pH and elevated levels of iron and aluminum.

TMDLs have also been established for Stephen Foster Lake at Mount Pisgah State Park. Water quality concerns include excessive algae growth, low hypolimnetic (bottom water) dissolved oxygen concentrations and localized sedimentation. According to the TMDL report, "algal blooms have occurred in the lake since shortly after construction of the impoundment. The blooms have increased in recent years, limiting the recreational use of the lake. Siltation is a concern near the lake inlet. There are no point source discharges in the Stephen Foster Lake watershed." An analysis of sources of nutrients and sediment by land use indicated that cultivated fields were the predominant source of phosphorus and nitrogen, though pasture and forest lands were also significant contributors. (The conclusion of forest land as a contributor is somewhat surprising, since forest buffers can remove pollutants from surface and shallow subsurface water; the source may be related to the management and harvest practices on these lands, though such was not clearly stated in the report.) Major sources of sediment were streambanks and channels.

Local watershed organizations are in various stages of environmental inventory, assessment and planning of the County's main waterways. These inventories include technical information such as farmland loss; proximity of streams to endangered buildings, roads, bridges and other facilities; and the probability of continued soil/streambank loss. As importantly, they also document community interests in the ecological, economic and recreational value of the watershed.

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 developed communities in the County. 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 1,000 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.

Riparian Resources

Riparian areas, such as floodplains and wetlands, provide critical ecological functions and serve economic and community interests. They offer unique habitat for flora and fauna, as well as intriguing sites for passive recreation. They also provide critical water storage and recharge areas in times of flooding, preventing downstream flood damage.

Bradford County's riparian resources include 42,544 acres of 100-year floodplains and 21,326 acres of river, lake and marsh-based wetlands. Currently all municipalities except Herrick Township have adopted floodplain ordinances to protect the 100-year floodplain from inappropriate development.

The Bradford County Natural Areas Inventory noted that the high plateau in the southern region of the county is "one of the highest quality natural areas in the state," and that the county "accounts for a disproportionate share of the state's wetlands." Despite its upland location, this region contains extensive wetlands, seeps, rock outcrops, and waterfalls due to its glaciated history and retains these features under an almost continuous forest cover.

Landowners have enrolled a total of 65 acres in the NRCS Wetland Reserve program. This voluntary program offers landowners the opportunity to protect, restore, and enhance wetlands on their property through long-term conservation and wildlife practices.²

Landowners have also enrolled over 11,000 acres in the Conservation Reserve Enhancement Program (CREP). CREP is a voluntary program that helps agricultural producers "retire" agricultural land to natural vegetation, thereby protecting environmentally sensitive land, decreasing erosion, restoring wildlife habitat, and safeguarding ground and surface water.³ The program is administered by the USDA's Farm Service Agency. CREP lands include 900 acres of riparian lands; at an average of 100 feet wide, these lands include about 70 miles of streambank, of which 27 miles have already been revegetated a forested riparian buffers. The conservation district projects that enrollment will continue and may multiply the total program area two to threefold.

Vegetation and Wildlife Resources

As living natural resources, vegetation and wildlife perform critical ecological functions and support economic and community pursuits. Vegetation stabilizes soils, filters pollutants from waters, converts gases, transports minerals, and provides wildlife habitat—both food and shelter. Vegetation lies at the heart of the forest products industry and, in combination with wildlife, provides the environment for hunting and trapping and numerous passive recreation experiences, such as hiking, biking, and viewing from scenic vistas.

² NRCS website, <http://www.nrcs.usda.gov/programs/wrp>.

³ USDA Farm Service Agency website, <http://www.fsa.usda.gov/pas/publications/facts/html/crep03.htm>

Over half of the County's existing land cover is forest and is predominantly owned and managed by private landowners. According to the Penn State Cooperative Extension, Bradford-Sullivan Forest Landowners' Association, approximately 59 percent (433,000 acres) of the county is forested land. The woodland in Bradford County is 84 percent private, 3 percent industry, and 13 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 and pine.

There are four basic types of wildlife habitat in Bradford County: open land, woodland, wetland, and aquatic supporting game and non-game species.

- **Open land habitat** 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 open lands attract wildlife such as meadowlark, field sparrow, cottontail, and red fox.
- **Woodland habitat** 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.
- **Wetland habitat** consists of open, marshy or swampy shallow areas. Wildlife attracted to this type of habitat are ducks, geese, shore birds, muskrat, and beaver, as well as migratory birds.
- **Aquatic habitat** consists of streams, lakes, and ponds and supports warm and cold water fish species in addition to aquatic vegetation.

Both game and non-game wildlife species are important in maintaining a diverse and stable ecosystem. 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 non-game species within the County.

The Natural Areas Inventory of Bradford County has recently inventoried the outstanding floral, faunal, and geologic features. The inventory classifies outstanding features according to their global, federal and state rankings as endangered, threatened, or rare/species of concern, and rates the quality of each feature. The inventory also considers disturbances and threats to the features in order to rank their need for protection and management. Sites of statewide significance are designated for the protection of biological diversity in the county; these are presented in Table 2-3. Sites of local significance, which identify locations with diverse wildlife and plant life, water quality protection and/or recreational value, are presented in Table 2-4.

According to the Bradford County Natural Areas Inventory, human disturbances, such as certain farming and forestry practices and urbanization, have had profound effects on natural communities and individual species. Such development isolates pockets of natural vegetation and habitat from the natural network of habitats, and introduces development and human presence into very remote habitats and wildlife corridors, e.g. along stream corridors. Without physical connections to a larger habitat network, both vegetative and wildlife diversity decline and reduce the stability of species populations. Farming practices have drained wetlands, reducing the available habitat. In addition, non-native invasive species have out-competed native plant species crucial to the habitat of certain wildlife species.

Table 2- 3 NAI Sites of State Significance (Ranks 1-3)

County Rank	Site Name	Municipality	PA Heritage Ranks and Site Importance
1	Carbon Run Wetlands	Franklin & Leroy Twps.	Several shrub swamps and artificially impounded ponds surrounded by forest are located at this site. Seven animal species of concern and five other aquatic species of concern can be found at this site and all use the wetland area.
1	County Line Bogs	Wilmot Twp. & Susquehanna Co.	Two plant and one animal species of concern are located at this site. The bog habitat is mostly floating mats of moss colonized by herbs, shrubs, and trees.
1	Sugar Run Headwaters	Overton Twp.	At this site there exists a diverse wildflower population and one animal species of concern.
1	Susquehanna River (Upper Section)	Athens, Litchfield, Sheshequin & Ulster Twps.	One plant species of concern and four aquatic animal species of concern have been documented in this area.
1	Susquehanna River (Middle Section)	Asylum, North Towanda, Standing Stone, Towanda & Wysox Twps.	Nesting Bald Eagles and four aquatic animal species have been documented in this area.
1	Susquehanna River (Lower Section)	Terry, Tuscarora, Wilmot & Wyalusing Twps.	Four aquatic species of concern have been documented in this area.
1	Three Falls Glen	Ridgebury & South Creek Twps.	This area is a large unfragmented forested block with a series of waterfalls and contains one plant species of concern.
2	North Branch Sugar Creek Rookery	Columbia & Troy Twps.	This site contains a large nesting colony of one animal of concern.
3	Armenia Mountain Wetlands	Armenia Twp.	One plant species of concern has been documented at this site which is composed of boggy shrub thicket surrounded by a well-drained hardwood forest.
3	Lower Schrader Creek	Franklin, Leroy, Monroe & Overton Twps.	This site contains a rookery of one animal species of concern and a designated High Quality Cold Water Fishery from Coal Run to Towanda Creek by DEP.
3	Standing Stone Marsh	Standing Stone Twp.	Several wetlands are at this site and two animal species of concern have been documented.
3	Sugar Run Creek	Wilmot Twp.	A nesting colony of one animal species of concern has been documented.

Source: Bradford County Natural Areas Inventory, 2005.

Table 2- 4 High Priority NAI Sites of Local Significance

Site Name	Municipality	PA Heritage Ranks and Site Importance
Case Glen	Armenia & Troy Twps.	This site contains Case Glen, a hemlock-dominated ravine, where groundwater feeding into the headwaters originates from an artificially divided wetland where the southern portion is a modified dam and northern portion has been unaltered.
Crane Swamp	Wilmot Twp.	There is a diversity of wetland dependent birds and pond bird species at this large pond site.
East Holcomb Pond Wetlands	Franklin & Leroy Twps.	This site is a wetland that contains a variety of habitat types and have had past or current beaver impoundments.
Falls Creek Wetlands	Franklin Twp.	Falls Creek drains southward into Schrader Creek creating a series of waterfalls and at the headwaters area there are a series of variously thick wetlands.
Gulf Pond	Orwell Twp.	This site is a high quality natural community due to the undisturbed bog-like wetlands.
Little Schrader Creek Headwaters	Leroy Twp.	This site is a large, open, shrub, swamp wetland that has experienced periodic flooding.
Overton Ponds	Overton Twp.	Four open water ponds and one pond with floating vegetation mats are contained at this site and all five could have beaver, human, or nature induced dams.
SGL #36 Reclaimed Strip Mine	Franklin Twp.	This site was a former strip mine that has been successfully reclaimed with a variety of grasses and low shrub plantings. This environment provides habitat for a diversity of bird species. According to The Nature Conservancy this site is the best example of a reclaimed strip mine in the county.
Swimming Dam Bog	Franklin Twp.	This site is a former bog that now has remnants of floating mats of vegetation buoyed by sphagnum moss.
Tamarack Swamp	Armenia & Troy Twps.	This site is a bog that has been modified by a man-made dam. This bog could contain a 90-year record of bog rosemary.
West Branch Parks Creek	Windham Twp.	Beaver influenced diverse wetlands and conifer dominated forests are contained at this site with a section of the creek containing an undisturbed forested buffer.
Wolf Run - Rollinson Run Wetlands	Leroy Twp.	Dense shrub swamps with many plant species are contained at this site.

Source: Bradford County Natural Areas Inventory, 2005.

Over 700 acres of forest and other non-agricultural lands have been preserved in Bradford County.

The Northcentral Pennsylvania Conservancy holds three (3) conservation easements for two (2) property owners equaling 463 acres in Monroe and Asylum Townships. The North Branch Land Trust has preserved 308 acres of mixed forest, wetlands and fields over two (2) conservation easements in Bradford County: 38 acres in Tuscarora Township and 270 acres in Wyalusing Township.

There are no important bird areas in the county, according to the Important Bird Area (IBA) program of Audubon Pennsylvania, the state chapter of the National Audubon Society.⁴ The IBA program is one of several priority initiatives of PA DCNR.

There are, however, **important bird areas in the Northern Tier and Endless Mountains regions**.

- The **Marsh Creek Wetlands** (IBA #27) “continue to provide critical habitat for thousands of migrating and nesting birds each year. Bald Eagle and Osprey...have been successfully reestablished here.”⁵
- The **Pine Creek Gorge Natural Area** (IBA #28) contains extensive rock outcrops and secluded habitat for river mammals, such as the Eastern Wood Rat and the River Otter, as well as bird species, including Eagles, Belted Kingfishers, Common Mergansers, Wood ducks, green and great blue heron, hermit thrush, black-throated blue warbler, scarlet tanager, and Pine and Blackburnian Warblers.
- The **Loyalsock State Forest and World’s End State Park** (IBA #42) contain large areas of continuous forest cover that support rare forest-interior birds, such as Black-throated Green Warbler and Blackburnian Warbler, among other species.
- The **Dutch Mountains Wetland complex** (IBA #48) also contains habitat for forest-interior species; these include the Barred Owl, Brown Creeper, Pileated Woodpecker, Scarlet Tanager, Sharp-shinned Hawk. “This area also may contain the state’s largest population of Yellow-bellied Flycatcher, “and was the only confirmed breeding site of the Blackpoll Warblers in 1993.
- In the **Creveling Lake Area of Rickett’s Glen Sate Park** (IBA #49), similar forest-interior species are found, as well as the Black-throated Green Warbler and Black-throated Blue Warbler. The Green-winged Teal and the Hooded Merganser are locally breeding waterfowl.

There are no important mammal areas in the county, according the Important Mammal Areas Project (IMAP).

There are however, important mammal areas in the Northern Tier and Endless Mountains regions.

- (IMAP #9) Hills Creek State Park
- (IMAP #27) Loyalsock State Forest
- (IMAP #28) Ricketts Glen State Park/SGL 57, 13, 66

The abundance, distribution and connectivity of these various habitats have 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.

⁴ Important Bird Areas Sites Notes, Audubon Pennsylvania, 2005.

⁵ Ibid.

Nature-based Recreation

The abundance and quality of natural resources in the area supports numerous recreational opportunities, and demand for nature-based recreation and tourism is increasing. State-provided facilities include access areas along the Susquehanna River, 35,000 acres of state gamelands, 6,414 acres of state forest and 1,300 acres of state park. In addition, there are numerous county, local, and private recreation destinations. These features are shown on the maps at the end of the chapter.

The newly named Loyalsock State Forest includes state forest lands Sullivan, Lycoming, and Bradford Counties. This forest includes tracts formerly managed by the Tiadaghton, Tioga, and Wyoming Districts. Three state forest tracts are located Albany, Asylum, and Monroe Townships in the southern portion of the County. Together these areas constitute approximately 4,500 acres. Hiking, fishing and hunting are popular throughout the year and these activities do occur on lands in the county.

The only public snowmobile trail system in the county is located in the Tioga State Forest on Armenia Mountain. This eastern portion of the Tioga State Forest offers designated snowmobile trails just across the county line in Tioga County. Joint use trails are available on Loyalsock State Forest roads in Bradford County, as well as in the Tioga State Forest.

Other state forests in the Northern Tier and Endless Mountains regions include the Tiadaghton State Forest in Lycoming County, where additional public snowmobile trails are available. The Sullivan County and Eastern Lycoming County Snowmobile Trail travels through the eastern section of the Tiadaghton State Forest in Lycoming County and into the Loyalsock State Forest in Sullivan County. There are also snowmobile trails in World End State Park. These trails are predominantly shared-use trails that are marked on state forest and state park roadways. Parking and rest facilities are available along these routes.

Mount Pisgah State Park⁶ is located in West Burlington Township adjacent to the county's Mount Pisgah Park. The land for this 1,302-acre park was obtained in 1969 and dedicated in 1979. Stephen Foster Lake, constructed in 1977 by an earth and rockfill dam on Mill Creek, has one of the best bass and panfish fisheries in the Pennsylvania state park system and contains perch, bluegill, and crappie as well. Lake regulations allow both non-motor and electric motor boats. The 75-acre lake has a boat-launching ramp, courtesy dock, restroom and parking on the northern shore. Mooring spaces can be rented on a seasonal basis. Adjacent to the causeway, boat rentals are available during the summer season from a concessionaire. Ice skating is permitted on Stephen Foster Lake; safety precautions are advised.

Passive recreation activities at the state park include hiking trails around the lake, through wooded areas, old fields, open farmland or rugged terrain, **as well as signed trails for snowmobilers (9 miles), trails for cross-country skiers and snowshoers.**

About 1,100 acres are open to hunting, trapping and the training of dogs during established seasons. Common game species are deer, turkey, rabbit, grouse, pheasant and squirrel. Hunting is permitted on adjacent State Game Land 289.

The park also offers free swimming at the pool, a concession stand, and a day use building with restrooms, dressing rooms, showers, first-aid and lifeguard quarters. The main picnic area, located adjacent to the pool, includes barbecue grills and benches. Active recreation sites are provided for horseshoes and volleyball.

The **Environmental Interpretive Center** displays artifacts related to early farm life and the wildlife. A butterfly garden outside the center attracts the attention of winged and human visitors. The park offers

⁶ DCNR, Mount Pisgah State Park webpage.

interpretive programs such as guided nature walks, night hikes and slide programs on various environmental topics, including bears, snakes and owls, as well as day camps and environmental education classes for local school children and youth.

Other state parks in the Northern Tier and Endless Mountains regions include:

- World's End State Park in Sullivan County,
- Salt Springs State Park in Susquehanna County, and
- Colton Point, Hills Creek and Leonard Harrison State Parks in Tioga County.
- Ricketts Glen State Park in Luzerne County is also a popular destination with residents.

Ten **State Game Lands** tracts are located throughout the County: 12, 36, 123, 142, 172, 219, 237, 239, 250 and 289. The tracts are collectively managed as part of the Pennsylvania Game Commission's Northeast Region. The largest tract is SGL 12 located on Barclay Mountain; the smallest is SGL 237, a Susquehanna River island. Ten additional game lands tracts are managed in adjacent counties in the Endless Mountains region.

SGL 12 contains an unusual open land (meadow) habitat area. This area was once strip-mined and is in the natural process of recovery and reforestation. The open area provides unique habitat within the otherwise woodland environment of SGL 12.

The management of state game lands is both utilitarian and recreational. Many people who hunt on the state game lands do so for the meat they acquire; others simply hunt for sport. Table 2-5 notes game species common to each of the state game lands tracts in the county.

Table 2-5 Game Lands and Game Species

#	Location	Game Species
12	Canton	Bear, Deer, Turkey
123	Checkerville	Grouse, Rabbit, Waterfowl
142	New Albany	Deer, Grouse, Rabbit
172	Wyalusing	Deer, Grouse, Rabbit
219	Warren Center	Deer, Grouse, Rabbit
237	Rummerfield	Waterfowl, Woodcock
239	Green's Landing	Rabbit, Waterfowl
250	Wyalusing	Rabbit, Waterfowl
289	Burlington	Deer, Grouse, Squirrel, Turkey
36	Monroeton	Bear, Deer, Turkey

Source: Bradford County

But the game lands are also open to many passive recreation activities. Hiking is permitted throughout the game lands. Horseback riding and biking are permitted on designated trails through the game lands; six designated trails totaling 24.2 miles are located on four game lands tracts in Bradford County:

SGL 12

- A 7-mile route from SR 0154, near Wheelerville, east to a gate/parking area near Laquin.
- A 3-mile route, in a semicircular route from a gate/parking area off of Township Route 419, just west of Camp Brule to a gate/parking area along the Quinlaintown Road.

SGL 36

- Approximately 4 miles, from the gate/parking area on Hatch Hill north to where the designated route ends prior to the game lands boundary line near Satterlee Run.
- Approximately 7 miles, from the gate/parking area along Weston Road, over the Long Valley Road to the Cash Pond Road to a gate/parking area along the Schrader Creek.

SGL 219

- Approximately 1.5 miles, from a parking area along the Montrose Turnpike to a parking area along the Dewing Road.

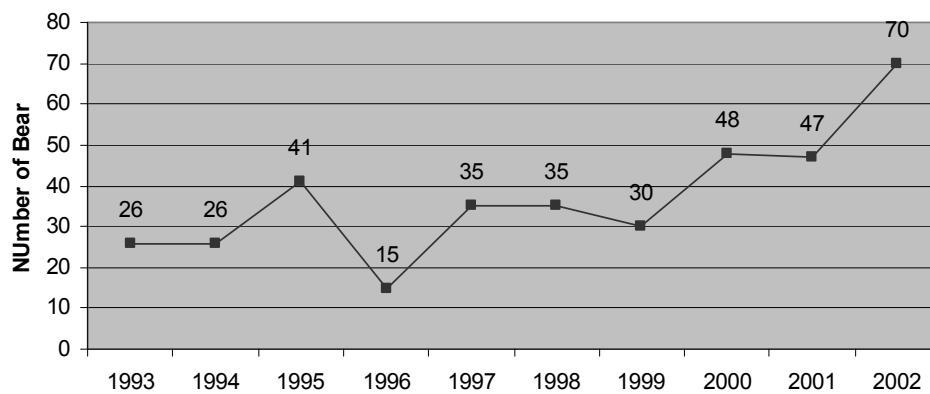
SGL 289

- Approximately 2 miles, from a gate/parking area along the Berwick Turnpike west to a gate/parking area along the Steam Hollow Road.

Game hunting for bear, deer, squirrel, turkey, grouse, waterfowl, and woodcock is popular with residents and visitors on state and private lands in the respective seasons. Statistics from the Pennsylvania Game Commission indicate that more bear have been taken or harvested in recent years. Total deer harvests have also witnessed an increase, attributable to the increase in antlerless deer taken from 2000-2002.

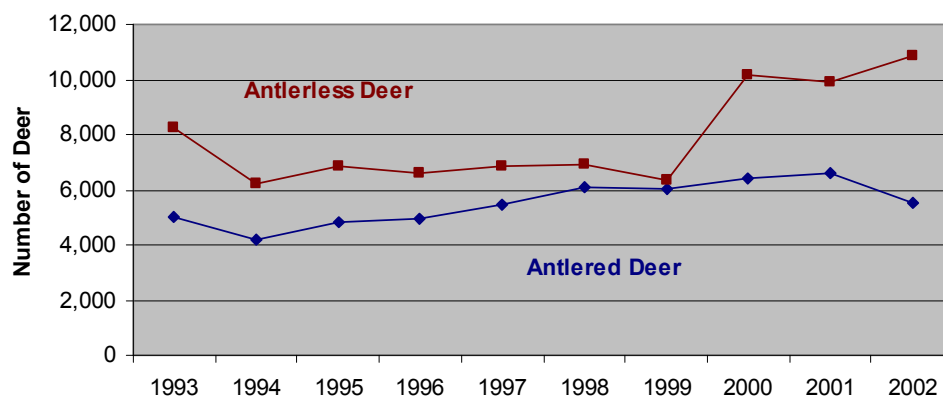
There are no public shooting ranges in Bradford County or the region, though there are several sportsmen's clubs with private practice ranges throughout the county.

Figure 2-1 Bear Harvest in Bradford County, 1993-2002



Source: Pennsylvania Game Commission

Figure 2-2 Deer Harvest in Bradford County, 1993-2002



Source: Pennsylvania Game Commission

Bradford County owns and operates three county parks that highlight the natural environment. The primary purpose of the parks is to provide county residents and tourists with reasonable rates and a pleasant atmosphere for camping.

- **Larnard-Hornbrook Park** is located along the Susquehanna River in Sheshequin Township. The park serves as a way station for river travelers and road-based travelers due to its proximity to US 6 and US 220.
- **Mount Pisgah Park** is located adjacent to the Mount Pisgah State Park among the County's western uplands in West Burlington Township. Campers tend to stay longest at Mount Pisgah Park and tend to be "regulars."⁷
- **Sunfish Pond** is a remote park located within SGL 12 on Barclay Mountain in Leroy Township. The pond is trout-stocked and offers great fishing.

The parks are maintained by the county park director under the public works department. Maintenance work is primarily a task (mowing and painting buildings), employing three part-time employees who receive on-the-job training. Funding for park maintenance comes from the county budget and has been steady in recent years.

There is no master plan for the county parks. Improvements are made periodically, as recommended by the parks director and approved by the Commissioners. Unofficial improvement plans include upgrades to rest rooms at the three parks and a grant has been awarded for a new boat launch at Hornbrook Park.

The county parks have no on-site staff or security. On-site camp managers/concessionaires provide informal monitoring of park use. While some vandalism has occurred, it has been of a relatively minor nature.

The campsites generate revenue from camping fees and pavilion rentals. Concessions are open during the day to take reservations and collect fees. Rates are quite reasonable: \$14/day, \$66/wk, \$200/month and \$450/4-month period with electric hookup; pavilion rental is \$25/day (all 2004).

The county also owns the Marie Antoinette Overlook, which it leases to French Azilum.

There are three environmental education centers in the county:

- the Environmental Interpretive Center at Mount Pisgah State Park,
- the Satterlee Environmental Center at the Litchfield Elementary School, and
- the Wilbur Beers Family Wetland Education Center and Nature Area, in Wysox Township.

⁷ Phone conversation with Parks Director, 2004.

Water Access Sites for Fishing and Boating

The PA Fish and Boat Commission owns and operates three (3) boat access points in the county, as listed in Table 2-6. Additional access points are owned by local and county government.

- All sites allow shore fishing; only one river access site, Riverfront Park in Wysox Township offers pier fishing. An ADA-accessible dock is also available at Sunfish Pond.
- No access fees are charged at any of the access sites
- All sites, except the site at French Azilum, have parking and boat ramps.
- All sites, except French Azilum, allow motorized boats without engine size limits.

Table 2-6 Waterway Access Locations

Number/ Name	Location	Facilities					Owned By
		HP	FP	SF	P	LR	
776 - Sayre Access	SR 1043 (Riverside Drive) Litchfield Township	UL		Y	L	Y	PA Fish and Boat Comm. & Athens Township
777 - Riverfront Access	Route 1043 - Riverfront Park Sayre Borough	UL		Y	L	Y	Local Government
778 - Ulster Access	Route 220 North of Ulster village, Ulster Township	UL		Y	L	Y	Local Government
779 -SR 6 Bridge	Route 6, Towanda Borough	UL		Y	L	Y	Local Government
780 - Wysox Access	Off Rt. 187, at end of River Bridge, Wysox Township	UL		Y	L	Y	Local Government
781 -Wysox Township Access	SR 2023, Behind Masonite Plant, Wysox Township	UL		Y	L	Y	PA Fish and Boat Comm.
782 - Terrytown Access	East of SR 187, north of Terrytown village, Terry Township	UL		Y	L	Y	PA Fish and Boat Comm.
881 - Tozier's Landing / Chemung River Access	Athens Road, South Waverly, Athens Township	UL		Y	L	Y	Local Government
Hornbrook Park	Sheshequin Township	UL		Y	L	Y	County Government
French Azilum Historic Site	Asylum Township	NO		Y	S		Local Government
Riverfront Park	East Towanda, Wysox Township	UL	Y	Y	L	Y	Local Government
HP - Horse power (UL - Unlimited)		P - Parking (L- Large Area, 10 vehicles or more; S - Small Area)					
FP - Fishing Pier		LR - Launching Ramp					
SF -Shore Fishing							

Source: North Branch Susquehanna River Rivers Conservation Plan (Adapted from the PA Fish and Boat Commission's Fishing and Boating Map (1999) Commonwealth of PA, Department of General Services)

Camping

Campsites are available in all regions of the county, as shown in Table 2-7, including at all three of the county parks. These public campsites can accommodate both tent and RV-based campers.

Six private campgrounds are also available throughout the county, many with their own private water feature (a lake or pond) or access to the river. These campgrounds also offer a range of camp environments from tent sites to RV- hook-ups to cabins and cottages. Most provide toilets and showers. Many of these facilities offer additional recreational amenities such as ballfields, volleyball courts, swimming pools, and horseshoe pits.

Other private campgrounds in the Northern Tier and Endless Mountains regions include:

- Almost Heaven Campground, Forksville, Sullivan County
- April Valley Campsites/RV Park, Gibson, Susquehanna County
- Buttermilk Falls, Shunk, Sullivan County
- The Camp AS East Lake, New Milford, Susueqhanna County
- Day's End Campground, Rushboro, Wyoming County

- Pioneer Campground, Laporte, Sullivan County
- Shady Rest Campground, South Gibson, Susquehanna County
- Shore Forest Campground, Hop Bottom, Wyoming County
- Slumber Valley Campground, Meshoppen, Wyoming County
- Sunrise Lake Family Campground, Nicholson, Wyoming County

Table 2-7 Camping Facilities

Campground	Location	Facilities
Alpine Meadow Lakes Campground	Lake Road, Stevensville	Large lake, fishing, swimming, scenic area, 2 cottages, farmhouse, trailers
Armenia Mountain Campground	Mountain Avenue, Armenia Mountain	Showers, dump station, electric, trails, tent camping, on-site trailers
Jones RV Park	Rte. 220, Ulster	12 RV sites that include water, electric, sewer, laundry facilities, restrooms, and showers
Lake Bonin Campground	Bonin Road, Orwell	Fishing, skating rink, swimming
Larnard-Hornbrook Park (County Park)	Hornbrook Park Road, Route 1045 North Towanda	Picnicking, pavilions, playground, boat launch, volleyball and horseshoes, fishing, restrooms, showers, electric/water sites, wooded and open field sites
Mount Pisgah Park (County Park)	SR 4015: Just past Mount Pisgah State Park	Scenic views, trails, primitive camping, pavilion rentals, restrooms
Pine Cradle Lake Campground	Shoemaker Road, Rome	60 acres (partially wooded), 100 sites, 18-acre lake, fishing, boating, heated swimming pool, mini golf, store, game room, playground, laundry, electric, water, sewer, tent sites, restrooms, showers, cabins
Riverside Acres Campground	Asylum Township	Boat rentals, private boat launch, store, fishing, swimming, canoes, one rustic cabin rental
Sunfish Pond (County Park)	US Route 3010 off US Route 414, Leroy	Boating, fishing, ADA dock, pavilions, dump station, bathrooms, camp store, designated ball playing and horseshoe pits

Source: Bradford County; Wyalusing Borough Comprehensive Plan, 1992.

Trails

The Carantouan Greenway extends into Sayre from New York along the Susquehanna River. The portion of the trail in Sayre is a quarter-mile loop trail of packed gravel. There are no current plans for extension of the greenway and trail, although the greenway organization may consider opportunities in the future.

Other trails in the Northern Tier and Endless Mountains regions are listed below.

- The 37-mile **Delaware and Hudson Rail Trail (D & H Rail Trail)** connects the Simpson Viaduct at Route 171 north through Lanesboro to the New York State border through Susquehanna County. The trail is open to walkers, bikers/mountain bikers, snowmobilers, cross-country skiers, and equestrian riders.
- The **Ontario and Western Rail Trail (O&W Rail Trail)** travels 34 miles from Simpson to Hancock, NY and the Delaware River, paralleling the D&H rail trail for eight miles through Susquehanna, Lackawanna and Wayne Counties. The Lackawanna River often runs in between the two trails.
- The **Endless Mountain Riding Trail** connects Alford to Montrose over a 14-mile route in Susquehanna County. The trail permits walking, horseback riding, snowmobiles, cross-country skiing, and mountain biking.
- The **Loyalsock Trail** travels nearly 60 miles through Lycoming and Sullivan Counties. The route roughly parallels PA 87 and open to hikers.

Other ski trails in the Northern Tier and Endless Mountains regions are located at

- Calendar's Cross Country Ski, Thompson, Susquehanna County, and
- Elk Mountain Ski Resort Inc, Union Dale, Susquehanna County.

Scenic Observation

There are many scenic natural and cultural landscapes throughout Bradford County. Some are connected by corridors of history such as Route 6 and the Berwick Turnpike, and others are best viewed from designated vistas. Although the lands that are included in the vistas are privately owned, most of the overlooks are publicly owned and open to the public.

- As one of the most scenic highways in the country, **US 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.
- **Berwick Turnpike** - This north-south corridor through central Bradford County follows a historic travel route of early settlers along portions of US 220 and other state routes. The turnpike connected Berwick, PA, with Elmira, NY, enabling river merchants and travelers to return to the headwaters over a more direct land-based route rather than following the winding river.
- **Lamb's Lookout** offers views of the Canton area from Loyalsock State Forest on Armenia Mountain.
- The **Marie Antoinette Overlook**, currently owned by Bradford County, has a breathtaking view of the river, adjacent farmland in Asylum Township, and the French Azilum historic site from US 6 just west of Wyalusing; these lands seen from the overlook are privately owned. French Azilum is the site where French refugees built a colony in the late 1700s, and where there are plans to develop a regional visitor center.
- **Mount Pisgah County Park** has several view points to watch sunrises and sunsets over the farms and forests of the countryside. A spectacular view of fall foliage is another reason to visit the Park.
- **Round Top Park** and **Tioga Point Lookout** offer views of the Susquehanna River and the Valley community.
- **Tioga Point Overlook** offers a spectacular view of the confluence of the Chemung and Susquehanna Rivers.
- Privately owned **Spanish Hill**, in the northern part of the county near Sayre, also affords some spectacular vistas, when permitted by the landowner.
- Bradford County has non-stop scenic vistas along the **Susquehanna River**.
- **Wyalusing Rocks** has a spectacular view of the Susquehanna River, rolling farmlands in Terry Township, 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.
- **SR 4014 from Columbia Cross Roads to East Smithfield** was also noted as a particularly scenic corridor with vista just west of East Smithfield.

Other regional vistas include:

- Canyon Vista, from which to view Loyalsock Creek Gorge and World End's State Park
- High Knob Overlook south of Hills Grove, with views of seven counties
- Wright's View, just south of Laporte along US 220, with views that skim the mountains and peak into the rolling valleys

Facility-based Recreation

Parks and recreation sites are shown on the **Parks and Recreation Map** at the end of the chapter.

There are 38 municipal parks in communities of all sizes in Bradford County. Table 2-8 presents the name, location, facilities, size and type of each municipal park. These are parks owned by municipalities. The larger communities tend to have multiple facilities (Towanda area and the Valley), while smaller communities have a single facility.

There is a total of 698.30 acres of municipal parkland in the county. The parks range in size from 645 acres (Round Top Park) to 0.21 acres (Triangle Park, Sayre). The average park size is 31.97 acres. The median park size is 5.39 acres.

These parks serve a variety of recreational purposes:

- 13 neighborhood parks; these are intended to serve small neighborhood populations
- 14 community parks; these are designed to serve multiple neighborhoods with additional facilities
- 7 special use parks – four ballfields and three river access parks
- 3 community greens – one in Athens and two in Sayre
- 1 mini park, the North Towanda playground.

A new park is planned for Asylum Township. Asylum Township plans to develop a 2-acre mill site across from Home's Ferry for boat access and recreation.

Table 2-8 Municipal Parks

Municipal Park	Location	Facilities	Size (acres)	Type
Alba Community Park	Alba	Pavilion, basketball court, restroom, grills, open field	1.21	Neighborhood Park
Alparon Community Park	Route 14, Troy	Swimming pool, tennis courts, roller skating rink, horseshoe pits, horse riding rings, football field, baseball fields, community events, track	73.78	Community Park
Asylum Township Park	Old Gun Club Road, Asylum Township	Boat access with parking space, picnicking	42.85	Special Use – River Access
Athens Borough Park	Satterlee & River St., Athens	Valley Playland, tennis courts, softball fields, fireman's pavilion, picnic facilities	9.85	Community Park
Ball Park	School Street, LeRaysville	Baseball field	4.14	Special Use – Ballfield(s)
Canton Fireman's Field	Canton	Community events	6.46	Community Park
Downtown Teaoga Square	Main St., Athens	Pavilion (used for summer concerts), brick-paved plaza, ice cream business	1.24	Community Green
East Side Park	North Higgins Ave., Sayre	Playground equipment, basketball courts	1.26	Neighborhood Park
Eastside Riverfront Park	Main St., Wysox	Boat launch, picnic tables, pavilion (by reservation)	38.53	Special Use – River Access
Fourth Ward Park	Maple St., Sayre	Playground equipment, basketball courts	0.63	Neighborhood Park
Glen Clark Playground	Herrick Ave Athens Township	Playground	0.5	Community Park
Howard Elmer Park	Packer Ave., Sayre	Town square, bandstand, spring concerts	2.02	Community Green
Jim King Community Park	Athens Township		3.8	Community Park
John Desisti Park	Cayuta St., Sayre	Playground equipment, basketball courts	0.50	Neighborhood Park
Monroe Borough Building	College Ave., Monroeton	Playground equipment, baseball field	1.56	Neighborhood Park
Monroeton Baseball Field	Monroeton	Community events, can also be used at anytime by public	14.39	Special Use – Ballfield(s)
Neball Baseball Field	LeRaysville Road SR 1049	Community events, can also be used at anytime by public	15.04	Special Use – Ballfield(s)
New Albany Park	Rte. 220 (Follow signs by the library New Albany)	Playground, gazebo, pavilions, bathrooms, areas for bikes or skateboards, basketball ½ court	5.04	Neighborhood Park
North Towanda Playground	Old Mills Road, North Towanda	Playground equipment	1.89	Mini Park
Ridgebury Township Community Park	Bentley Creek	Baseball field	5.45	Neighborhood Park
Rome Borough Park	West St., Rome	Ball fields, pavilion	4.69	Neighborhood Park
Round Top Park	Round Top Road (Green's Landing Area), Athens	Playground, 10 pavilions, scenic views, walking/biking/cross-country skiing trails, model airplane flying field, pond with benches, hunting and fishing	645.00	Community Park
Sayre Riverside Park	Thomas Ave., Sayre	Athletic fields, picnic areas, boat launch, playground, walking trails	27.92	Community Park

Table 2-8 Municipal Parks (continued)

Municipal Park	Location	Facilities	Size (acres)	Type
South Creek Community Building	Rte. 14, Gillette	Baseball field, playground	4.71	Neighborhood Park
South Waverly Borough Field	PA Ave., South Waverly	Athletic field, bandstand for concerts, pavilion	2.33	Community Park
Sylvania Baseball Field	Sylvania	Community Events (community baseball games), can also be used by public anytime	174.02	Special Use – Ballfield(s)
Third Ward Playground	York Ave., Towanda	Playground, basketball courts	0.87	Neighborhood Park
Tom Jack Park	Main Street, East Smithfield	45 Acres of wooded and non wooded area including Tom Jack Creek, picnicking pavilion, horse shoe pits, baseball field, walking trail	46.19	Community Park
Totem Park	Ulster (Across from Bishop's Restaurant)	Picnic areas, barbeque pit, basketball courts, swings, monkey bars, slide, bathrooms, community events	1.10	Community Park
Towanda Borough Park	Towanda Borough		3.65	Community Park
Towanda Memorial Park	Memorial Park Road, Towanda	Baseball and football fields, playground, picnic pavilion	15.93	Neighborhood Park
Triangle Park	Corner of Keystone St. and Hayden St., Sayre	Relaxing sitting area	0.21	Community Green
War Memorial Pool	2 nd St., Canton	Swimming pool, basketball courts, tennis courts, baseball field, volleyball sand court, playground, pavilion	1.23	Community Park
Warren Township Community Park	School Rd., Warren Center	Pavilions, ball field, restrooms, playground	11.00	Neighborhood Park
Wells Township Park	Coryland Road (at the township building)	Tennis courts, basketball courts, playground, baseball and softball fields, pavilions, sledding, skating	8.99	Community Park
Wyalusing Fireman's Field	Chestnut St., Wyalusing	Pavilion, field, playground equipment	6.40	Neighborhood Park
Wysox Riverfront Memorial Park	Rte. 187 next to the bridge	Pavilion, picnicking, boat launch	5.33	Special Use – River Access
Wysox Volunteer Fire Company	Lake Hill Road, Wysox	Baseball field, volleyball court, horseshoe pits, tennis court, building	10.75	Community Park
Total			1200.46	

Source: Bradford County

Table 2-9 Other Facility-Based Recreation Sites

Facility	Location	Type
Caddyshack Mini Golf	Rte 6 Wysox, PA (behind Country Cottage)	Miniature golf course
Cedar Ledge Service	Rte. 14 Just out of Canton, PA	Mountain boards, paintball
Pine Cradle Lake Miniature Golf	Shoemaker Rd. Rome, PA	Miniature golf course
Pinecroft Golf & Recreation	Centerville Rd. Ridgebury Township	Golf course
Rocky's Bicycle Shop	Rte. 414 Monroeton, PA	Skate park, bmx track, paintball, bike shop, bike rentals, guided tours
Towanda Country Club	Rte. 6 Wysox, PA	Golf course
Tozer's Landing	Athens Township	River access, picnic area

Source: Bradford County

Other facility-based recreation is available to residents and visitors through the private market. These include the Towanda Country Club, miniature golf courses, a skate and bike park, and a drive-in theatre, as shown in Table 2-9.

Other facility-based recreation in the Northern Tier and Endless Mountains regions includes golf courses, a riding stable, and a resort.

- Deer Run Championship Golf Course, Great Bend, Susquehanna County
- Mountain Maples Public Golf, Springville, Susquehanna County
- Shadowbrook Inn and Resort, Tunhannock, Wyoming County
- Spotted Horse Riding Stable, between Dushore and Forksville, Sullivan County
- Stonehenge Golf Course, Tunhannock, Wyoming County

Cultural Resources

Cultural resources are the features of a community that make it socially and historically distinct from other communities. Such resources can foster a sense of unique identity, pride and connection within the community; they can also be a core resource for local tourism. Cultural resources typically include historic sites (and the people, stories and artifacts associated with them), museums, and community events, such as fairs and festivals. The cultural resources inventoried here are illustrated on the **Arts, History and Culture Map** at the end of the chapter.

Historic Sites

Bradford County is home to fourteen sites listed on the National Register of Historic Places, as shown in Table 2-10. An additional 31 sites are eligible for listing. The majority of these sites became eligible during the 1990s. Listed and eligible sites range from churches, a covered bridge, railroad stations, and homes to two post offices, a park and a library. These sites are predominantly located in the boroughs, though fifteen townships also represent significant history among the rural communities of the county.

Table 2-10 Listed and Eligible Properties of the National Register of Historic Places

Historic Name	Municipality	Status	Status Date
(Unnamed Property)	Towanda Borough	Eligible	3/11/1994
Athens Historic District	Athens Borough	Listed	6/18/2004
Athens U.S. Post Office	Athens Borough	Eligible	4/17/2000
Athens United Methodist Church	Athens Borough	Eligible	6/29/1998
Bradford County Courthouse	Towanda Borough	Listed	1/6/1987
Bridge in Athens Township	Athens Borough	Listed	6/22/1988
Canton Historic District	Canton Borough	Eligible	3/12/2000
Charles S. Means House	Standing Stone Township	Eligible	4/13/1994
Citizens Bank	Towanda Borough	Eligible	8/5/1987
Col. Means House	Towanda Borough	Eligible	5/9/1983
Ellen & Charles F. Welles House	Wyalusing Borough	Listed	5/20/1999
Ellen & Charles F. Welles House Boundary Increase	Wyalusing Borough	Listed	11/15/2003
First Ward School	Towanda Borough	Eligible	11/1/1994
George Ryan Property	Towanda Borough	Eligible	2/28/1995
Gregory-Parson House	Troy Borough	Eligible	5/17/1996
Howard Elmer Park	Sayre Borough	Eligible	2/20/1985
James MacFarlane House	Towanda Borough	Eligible	8/5/1987
Jeremiah Taylor House	Granville Township	Eligible	2/24/1982
Joseph Conklin House	Wysox Township	Eligible	6/6/1994
Joseph F. Cooper Property	Warren Township	Eligible	12/15/1994
Knapp's Covered Bridge	Burlington Township	Listed	7/24/1980
Lehigh Valley Railroad Right-Of-Way	Ulster Township	Eligible	6/12/2001
Lehigh Valley Railroad Station, Sayre	Sayre Borough	Eligible	10/8/2003
Methodist Episcopal Church of Burlington	West Burlington Township	Listed	1/4/1990
Our Lady of Perpetual Help	Ridgebury Township	Eligible	6/10/1986
Padget Property	North Towanda Township	Eligible	2/28/1995
Philip P. Bliss House	Rome Borough	Listed	4/24/1986
Protection of the Flag Monument	Athens Borough	Listed	6/8/2001
Quentin Chaffee House	Wysox Township	Eligible	1/26/1983
Saint James Episcopal Church	Canton Borough	Eligible	4/27/1992
Sayre Historic District	Sayre Borough	Eligible	7/9/1990
Sayre U.S. Post Office	Sayre Borough	Eligible	8/2/1983
Spalding Memorial Library/Tioga Point Museum	Athens Borough	Listed	2/18/2000
T-790 Bridge over Southwick Creek	Pike Township	Eligible	7/22/1998
Towanda Historic District	Towanda Borough	Listed	5/7/1992
Troy Elementary & High School	Troy Borough	Listed	2/20/2002
Troy Historic District	Troy Borough	Eligible	12/14/1994
Towanda Creek Bridge	Towanda Borough	Eligible	6/2/1997

Table continued

Table 2-10 Listed and Eligible Properties of the National Register of Historic Places (cont'd)

Historic Name	Municipality	Status	Stat Date
Ulster Bridge	Sheshequin Township	Eligible	6/23/1999
Ulster Bridge	Ulster Township	Eligible	6/23/1999
Universalists Meetinghouse	Sheshequin Township	Eligible	12/3/1981
Van Dyne Civic Building	Troy Borough	Listed	1/21/1974
Wilbur House	Sayre Borough	Eligible	10/23/2000
William Camp Property	Wyalusing Borough	Eligible	5/7/1996
Wyalusing Creek Bridge	Stevens Township	Eligible	10/14/1999
Wyalusing Historic District	Wyalusing Borough	Listed	9/15/2003

Source: Pennsylvania Historical Museum Commission Bureau for Historic Preservation, 2004.

The Athens, Towanda and Wyalusing Historic Districts are listed on the National Register. Eligible historic districts include Canton, Sayre and Troy. Walking tours are being developed for the Towanda historic district.⁸ Second historical district are being considered in Athens and in Sayre.

Bradford County is also home to several national historical figures, memorialized through historic homes and state historic markers. Towanda native *David Wilmot* (1814 - 1886), is the author of the Wilmot Proviso, suggesting no slavery in the lands seized from Mexico. *Stephen Foster* was a songwriter who brought fame to the region in the Tioga Waltz and Gwine to Run All Night (Camptown Races), a song which celebrates a race from Camptown to Wyalusing. Hymn writer *Philip P. Bliss* (1838-1876) wrote and published such songs as Let the Lower Lights Be Burning. *Lester Frank Ward* is credited as the father of American sociology.

There are 38 Pennsylvania Historical Markers located throughout Bradford County. The markers commemorate significant people and events in county, state and national history. As shown in Table 2-11, most markers are located at the roadside of the county's major transportation corridors, predominantly US 6 and US 220. Confrontations with Native Americans, including Sullivan's March, the establishment and naming of Bradford County, and the rural electrification program are among the markers' topics. The vast majority were dedicated shortly after the program was established in 1946. Only four have been dedicated more recently.

There are 43 sites of local historical significance in the county, as shown in Table 2-12. Of these, French Azilum, a Pennsylvania Historic and Museum Commission property, is perhaps the most well known. A group of French exiles settled here along the banks of 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 revolutionary leaders. 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. Restoration of the LaPorte House has been in progress. Residents would like to see further development of the site for tourism.

⁸ North Branch Susquehanna River Conservation Plan, 2003.

Table 2-11 Historical Markers

Historical Marker Name	Date of Dedication	Location
Athens	5/12/1947	PA 199 Athens
Azilum	5/12/1947	US 6, 4.5 miles N of Wyalusing at lookout
Azilum	5/12/1947	Junction US 6 & PA 187
Azilum	5/12/1947	US 6 & 309 West of Rummerfield
Bradford County	7/10/1982	County Courthouse, Main St., Towanda
Camptown	5/15/1969	Junction PA 706 & 409 at Camptown
Camptown Races	5/12/1949	Junction US 6 & PA 409, 4.2 miles N of Wyalusing
Carrying Path	9/6/1948	PA 199 at Chemung River Bridge into Athens
Colonel John Franklin	9/23/1946	SR 1043, 1.2 miles SE of Athens at cemetery
David Wilmot	5/12/1947	William St. at Riverside Cemetery Towanda
David Wilmot	5/12/1947	US 6 (York Ave.) above Barstow St. Towanda
Fort Sullivan	5/12/1947	PA 199 in southern Athens
Friedenshutten	7/22/1948	US 6 & US 309, 1.3 miles SE of Wyalusing
Indian Hill	5/12/1947	US 6, 4.6 miles E of Wyalusing
Lester Frank Ward	1/30/1967	PA 187 at Myersburg
Lime Hill	5/12/1947	US 6 at Limehill, 3.7 miles N of Wyalusing
Pennsylvania	6/10/1948	PA 14, 0.2 miles from state line
Pennsylvania	9/27/1949	US 220 & 309, 0.3 miles from state line
Philip P. Bliss	5/12/1947	PA 187 in Rome at Cemetery
Pine Plains	5/12/1947	PA 199 (Keystone Ave.), South Waverly borough line, Sayre
Queen Esther's Town	1948	US 220 (E. side), 0.3 miles N of Milan
Rural Electrification	10/24/1986	US 6, 3.2 miles E of Wysox
Sheshequin Path # 1	9/6/1948	US 220, 3.1 miles NW of Towanda
Sheshequin Path # 2	3/16/1949	PA 414 near Leroy, 5.6 miles SW of West Franklin
Stephen Foster	5/12/1947	PA 199 in Athens
Stephen Foster	5/12/1947	US 6 (Main St.) near State St., Towanda
Stephen Foster	5/12/1947	PA 199 (old US 220), Athens
First Christian Church (Disciples of Christ)	3/15/1949	US 220, 1.3 miles N of Ulster
Sayre Christian Church Disciples of Christ	5/12/1947	US 6, 1.4 miles SE of Wyalusing
Sullivan's March	5/12/1947	SR 1043, Ulster
Sullivan's March	5/12/1947	US 6, 7.2 miles NW of Wyalusing
Sullivan's March	3/15/1949	US 220, 1.3 miles N of Ulster
Teaoga	9/6/1948	PA 199, S end Chemung River Bridge into Athens
Teaoga & Queen Esther's Tomb	1948	US 220 (E side), 0.3 miles N of Milan
Warriors Path	3/15/1949	US 6, 1.3 miles N of Wyalusing
Wyalusing	3/15/1949	US 6 at Wyalusing
Wyalusing	3/15/1949	US 6 & 309 N. at Wyalusing
Wyalusing Rocks	8/30/1948	US 6 & US 309, 1.3 miles N of Wyalusing at lookout

Source: Bradford County

Table 2-12 Sites of Local Significance

Site of Local Significance	Location	Significance
Academy Building	Corner of Fourth and State St., Towanda	Stephen Foster attended Athens Academy, 1840 – 1841, and wrote his first piece, “Tioga Waltz,” while a student there.
Bradford County Courthouse	Main St., Towanda	Atop the building is one of only 5 known Lady of Justice Statues in Pennsylvania that wear no blindfold.
Stewart’s Family Restaurant	US Route 6 (Golden Mile), Wysox	This popular restaurant still has "car hop" service
Carrying Path	Chemung Street, Sayre	Historical Marker; Indian voyagers down the Chemung portaged 190 yards across Tioga Point to the Susquehanna River
Citizen's and Northern Bank	Main Street, Towanda	Mural of Valley painted by Louis Gore
Claverack Rural Electrical Cooperative	Route 6, 3.5 miles east of Wysox at intersection of River Road	Rural electrical cooperative that brought electric power to rural areas, circa 1937
Ellen and Charles F. Welles House	East side of Rte. 187, Terrytown	(1806) Built by Jonathan Terry, the first permanent settler and founder of Terrytown
Foster Hall	100 River Street, Towanda	Italianate and Greek Revival two story brick house occupied by William Foster 1850-1852 while he was engineer for North Branch Canal construction project
General Sullivan’s March	1.3 Miles North of Ulster on US 220	Encampment
General Sullivan’s March	1.4 miles east of Wyalusing on US 6	Camped here August 5 – 7, 1799
General Sullivan's March Historical Marker	US Route 2016 (river Road at intersection of Fisher Road (on grounds of Standing Stone Community Vesper Church)	Sullivan's March encampment
General Sullivan's March Historical Marker	US Route 6, North of Towanda	Encampment; sign needs repair
George A. Perkins House	South Main St., Athens	Early settler, and part of Underground Railroad Network
Gillette House	214 York Ave, Towanda	(1911) Gillette House Queen Anne free classic
Hawes House	363 York Ave, Towanda	(1891) Queen Anne Victorian eight-sided tower with conical roof, 3-story bay with hipped roof and a projecting attic gable
Homet’s Ferry	Asylum Township (Old Gun Club Rd)	Remnants of Ferry Crossing to Homet's Mill on opposite river bank, in Azilum Twp.
Homet’s Mill	Across the river from Homet's Ferry	Built by descendants of French Refugees
Ingham Mill	Off PA Route 187 in Village of Sugar Run, Wilmot Township	Early 1800's Grist mill
J. Morgan Brown House	107 Gaylord St., Wyalusing	Neo-Colonial with 3-story porches
Masonic Hall Association	Corner of Main St. and Pine St., Towanda	Eclectic architectural style

Table continued

Table 2-12 Sites of Local Significance (continued)

Site of Local Significance	Location	Significance
Moravian Indian Town Monument	East of Wyalusing on US Route 6 at Monument Rd.	Notes the nearby monument erected to commemorate the Moravian settlement of Friedenshutzen (1763-1771)
Oddfellow's Lodge	SR 187 at Macedonia, Asylum Township	Established in the late 19th century; and still active as a community center and IOOF
Old Canal System	In back of Valley Stockyard, Athens	Remnants of North Branch Canal system that ran along the west side of the river to Towanda
Old Mill Pond	US Route 6, south of Wyalusing	Historic mill
Old North Branch Canal	Towanda	Remnants of North Branch Canal system that ran along the west side of the river to Towanda
Oscolui Site	Old Mills Road, North Towanda	Three successive Indian villages, the last of which was destroyed by Sullivan expedition in 1779
Overton House	305 York Ave, Towanda	(1873) Italianate style scrolled brackets under gabled eaves; highly embellished porch and square cupola
Parson's House	304 York Ave, Towanda	(1869) Italian Villa Style
Piolett Mansion (now a convenience store)	US Route 6, Wysox	Built by Victor Piolett, as prominent businessman and politician
Scoville House	113 Main St., Towanda	Dr. Daniel Scoville house (1842-1889) Civil War soldiers received physicals here
Spanish Hill	US 220, South Waverly	A glacial remnant hill and site of native American villages
Spaulding-Mix House	1 York Ave., Towanda	(1812) Identified as the oldest house in Towanda
The Crest	US Route 220 at Hemlock Run, just north of the intersection of US Route	Boulder and tablet marking a six-mile view of Sullivan's expedition route
The Standing Stone	South of Wysox in the Susquehanna River	Glacial rock pillar rising out of river - visible only from river
The Train Station	Washington St., Towanda	Depot for two of Towanda's early railroad lines
Thomas L. Brown House	Wyalusing Township	Circa 1795. Claimed to have been the first frame house erected in the township
Tracy House	101 York Ave, Towanda	(1847) stone, brick, various woods eclectic Queen Ann Style
VanDyne Civic Building	CNN Bank building, Troy	Originally a "half-shire" courthouse and later courthouse annex for Bradford County
Victorian Guest House (or, Decker House)	118 York Ave., Towanda	(1897) Queen Anne free classic style - guest house since the 1930s
Village of Sugar Run	PA Route 187, Wilmot Township	First concrete road in Bradford County
William Means House	110 Bridge St. Towanda	Greek Revival built in 1816 by town's founder; originally on Main St. and moved in 1890s
Wyalusing Hotel	111 Main St. , Wyalusing	Frame house with brick veneer; front gable and parapet façade
Wyalusing School Offices	115 Main St., Wyalusing	Steel front mercantile building manufactured by Mesker Brothers of St. Louis billboard on side wall restored in 1990

Source: Bradford County

Many sites of local significance represent the county's outstanding collection of late 19th and early 20th century architecture. This abundance of Victorian architecture is due to wealthy residents who invested their money in elaborate homes. This asset can be attractive to tourists, as well as to specific small business operations.

There are over 120 churches or houses of worship in the county. While churches are typically considered a quasi-public organization, they readily contribute to the identity of the county. Their sheer number and distribution suggest that community life in the county has been focused around its small independent communities. Of these churches, ten have particular historical significance and are presented in Table 2-13.

Table 2-13 Churches of Historic Significance

Church	Location	Significance
Athens United Methodist Church	Athens Borough	National Register – Eligible
Christ Episcopal Church	Main Street, Towanda Borough	(1867-1885) 3-story with two towers. Romanesque Revival style.
French Azilum Methodist Church	Asylum Township	(1867) Regarded as one of the outstanding churches in PA. Original Interior has been preserved. Land on which church was built was owned by F.X. Homet, one of the descendants of French settlers at Azilum
Methodist Episcopal Church	Lockhart Street, Sayre Borough	(1880) Greek Temple style
Methodist Episcopal Church of Burlington	West Burlington Township	National Register – Listed
Our Lady of Perpetual Help	Ridgebury Township	National Register – Eligible
Saint James Episcopal Church	Canton Borough	National Register – Eligible
Standing Stone Community Vesper Church	Standing Stone Village, Standing Stone Township	(1858) Large mosaic depicting the ascension of Christ donated in 1919
Universalists' Meeting House	Sheshequin Street, Sheshequin Township	National Register Listed and Eligible
Wysox Presbyterian Church	PA Route 187, Wysox Township	(1828) 100,000 locally made bricks were used in construction. Also known as Wysox Brick Meeting House

Source: Bradford County

There are 20 cemeteries of historic significance in the county. All of these are located in communities along the Susquehanna River Corridor. Most commemorate early settlers, though a few include the burial places of historic individuals. Locations and description is provided in Table 2-14.

List on the National Register of Historic Places and recently rehabilitated, **Knapp's Covered Bridge** is the only covered bridge in Bradford County and is said to be the highest above water in Pennsylvania. There are additional **covered bridges in the Northern Tier and Endless Mountains regions** in Forksville, Hillsgrove, New Milford, and Sonestown.

There are 36 Century Farms in Bradford County, representing the County's long-standing agricultural history. Small clusters or concentrations of century farms are located in Troy (6), Canton (3), Columbia Cross Roads (3), New Albany (3), Ulster(3) and Wyalusing (3). Farm names and community locations are shown in Table 2-15.

Table 2-14 Cemeteries

Cemetery	Location	Significance
(name of) Cemetery	River Road at intersection, Standing Stone Township	Early settlers
Athens (Riverside) Cemetery	South Main St. at Edwards St., Athens Borough	Early settlers
Epiphany Cemetery	130 North Keystone Ave., Sayre Borough	Early settlers
Franklin / Flowers Burial Plot	River Road, Athens Township	Burial place of John Franklin, who wanted to declare a separate state of Westmoreland - his descendants mapped Bradford County
Gore-Gellett Cemetery	SR 1043, Sheshequin Township	Early settlers
Hornbrook Cemetery	PA Route 1045, Sheshequin Township	Early settlers
Immaculate Conception Cemetery	SR 4044, Ulster Township	Early settlers
Macedonia Cemetery	SR 181 at Macedonia, Asylum Township	Early settlers
Milan Cemetery	Rt. 220, 1 mile south of East Smithfield Road, Ulster Township	Early settlers
Oak Hill Cemetery	Oak Street, Towanda Borough	Early settlers
Park Cemetery or State Line Cemetery	River Road, Athens Township	Early settlers
Quick's Bend Cemetery	SR 2002 and River Road, Wilmot Township	Early settlers
Rest Cemetery	PA Route 199/ Bradford St., Sayre Borough	Early settlers
Riverside Cemetery	Williams St. South of Locust Ave, Towanda Borough	Early settlers, including David Wilmot
Tioga Point Cemetery	North Main St., Athens at Sayre Borough line, Athens Borough	Early settlers; (1706) Some burials are above ground
Ulster Village Cemetery	Off SR 220, Ulster Township	
Universalists Church Cemetery	Sheshequin St., Sheshequin Township	Burial place of 14 Revolutionary War soldiers, four of whom survived the Wyoming Massacre in July 1778
Wyalusing Cemetery	Wyalusing Borough	Early settlers and 2 soldiers from the Sullivan Expedition in 1779
Wysox Presbyterian Church Cemetery	Wysox Township	Early settlers

Source: Bradford County

Table 2-15 Century Farms

Century Farm	Location	Century Farm	Location
Barrett Century Farm	Towanda	Manchester Farm	Rome
Culver Brotzman Farm	Laceyville	Miller Farm	Ulster
Willard-Brown Farm	Troy	Norconk Farm	New Albany
Burke Farm	Sugar Run	Packard Farm	Troy
Burt Farm	Gillett	Rogers Farm	Rome
Clark Farm	Troy	Saxton Farm	Granville Summit
Crawford-Allen Farm	New Albany	Smith Farm	Columbia Cross Roads
Conrad-Barnes Farm	Wysox	Sullivan Farm	New Albany
Davis Farm	LeRaysville	Titchen Farm	Wyalusing
Farm	Warren Center	Tomlinson Farm	Canton
Develle-Eastabrook Farm	Wyalusing	Tyler Farm	Columbia Cross Roads
Fisk Farm	Wyalusing	Updike Farm	Gillett
Halstead Brothers Dairy	Gillett	Ward Farm	Troy
Hulslander Farm	Troy	Warren Farm	Canton
Keir's Acres	Ulster	Watkins Farm	Columbia Cross Roads
Kinsman Farm	Troy	Williams Farm	Warren Center
Krise Farm	Canton	Wolfe Farm	Troy
Loomis Farm	Troy	Wrisley Farm	Ulster

Source: Bradford County

Other themes among the local sites of significance include early settlement and colonization, and transportation history, as illustrated by the markers commemorating Sullivan's March, Homet's Ferry and Mill, the North Branch Canal, and the Towanda Train Station.

There are eight monuments commemorating people and events, as shown in Table 2-16. Most of the monuments commemorate military service and all are located in public spaces or on church grounds. With the exception of the Smithfield Monument, all are located in communities along the Susquehanna River corridor.

Other notable monuments in the Northern Tier and Endless Mountains regions include the Pennsylvania Anthracite Coal Miners Memorial in Forest City, Susquehanna County.

Table 2-16 Monuments

Monument	Location	Significance
Bradford County Soldiers and Sailors Monument	Bradford County Courthouse, Main Street Towanda Borough	Dedicated November 26, 1901; represents four branches of military service in existence in 1901 (artillery, cavalry, infantry and navy) and honors civil war veterans
French Azilum Boulder and Monument	Queen's Road off SR 2014, Asylum Township	Monument erected to commemorate the settlement of Azilum by French Royalist refugees
Friedenshutten Monument	Monument Road, 1/10 mi off US Route 6, Wyalusing Township	Monument erected to commemorate the settlement of Friedenshutten (1763), a Moravian missionary settlement established to evangelize Delaware Indians
Madill Monument	Wysox Presbyterian Church Cemetery Wysox Township	Dedicated August 29, 1906 to honor Major Henry J. Madill, Commander of 141st Regiment during Civil War
Protection of the Flag Monument	South Main Street Athens Borough	Veterans memorial dedicated on June 14, 1902; a National Register Listed Property
Smithfield Monument	Public Square East Smithfield	Dedicated on September 14, 1871; 54 names of Smithfield's sons recognized (Civil War)
Ulster Monument	Ulster Village Cemetery Ulster Township	Dedicated May 14, 1898; monument for Civil War veterans
Ulster Totem Pole	US Route 220, at Town Park Ulster Township	A Washington State Cedar Gift to Dr. Edward Mills

Source: Bradford County

Other Cultural Facilities and Events

There are 9 museums in the county, as shown in Table 2-17. The museums offer educational and interpretive experiences for residents and tourists. They preserve the artifacts of the county's history and educate visitors about historic county events and lifestyles.

Other **museums of regional significance** include the Lehigh Valley Railroad Passenger Station (1881), recently purchased by Sayre Borough⁹, and the Endless Mountains War Memorial Museum in Sonestown, Sullivan County. In addition, upon completion of the renovation, a museum will be housed in the former Lehigh Railroad Depot at Noxen in Wyoming County.

Canton, Sayre and Towanda each have a historic theatre that is still in use.

- **The Keystone Theatre** was formerly the Hale Opera House (1886) and is a modern movie theater today (Towanda).
- **The Rialto Theatre** is used for community events (Canton).
- **The Sayre Theatre** was renovated by the Bradford County Arts Council.

⁹ North Branch Susquehanna River Conservation Plan, 2003.

Table 2-17 Museums

Museum	Location
Bradford County Historical Society and Museum (former Bradford County Jail)	109 Pine St. Towanda, PA
Bradford County Heritage Museum Farm Museum at Alparon Park; Gregory Mitchell House/Inn; and Sugar House	US Route 14 N; just out of Troy, PA
French Azilum	US Route 187 South: left on SR 2014; 3.5 miles to site
Home Textile Tool Museum	SR 1036 Orwell, PA (off Rte. 187 N from Wysox)
PP Bliss Gospel Songwriters Museum	US Route 187 Rome, PA
Sayre Historical Society and Museum in the Lehigh Valley Passenger Station	Sayre
Tee-To-Tum (privately owned)	US Route 6 East of Wysox, PA
Tioga Point Museum	South Main St. Athens, PA (above Spalding Memorial Library)
Wyalusing Valley Museum	Grovedale Lane Wyalusing, PA

Source: Bradford County

A number of **cultural events** are held in Bradford County each year to promote community heritage and contemporary products and culture. Many of these are held at Alparon Park in Troy, as shown in Table 2-18. Of course, all of these events offer food and entertainment to residents and visitors.

Table 2-18 Annual Cultural Events

Event	Location	Description
Annual Renaissance Faire	Alparon Park, Route 14 north, Troy	Benefits the Rainbow Riders in maintaining therapeutic riding program for disabled adults and children.
Arts in the Park	Riverfront Park, S. Thomas Ave., Sayre,	Many traditional and unique vendors and demonstrators. Continuous entertainment including Kirby Band and Ross Park Zoomobile. Kids Corner, Litchfield Township Volunteer Fire Company Chicken BBQ
Bluegrass by the Lake	Pine Cradle Lake Campground, Rome	Traditional bluegrass music, food, fun.
Maple Festival	Alparon Park, Route 14 North, Troy	Continuous pancake breakfast, maple syrup demos, flea market, craft show, children's activities including pedal tractor pull; coincides with season opening of Heritage Museum
North Branch Arts Festival	Wyalusing	Street fair, juried arts and crafts, food, and all-day entertainment.
Pennsylvania Apple and Cheese Festival	Manley-Bohlayer Farm, Canton	Crafts, food, entertainment, photo contest, dancers, traders and craftsmen, traditional drumming and dancing, food.
Riverfest 2005	Held along the banks of the Susquehanna River, J.B. Merrill Parkway, Towanda	Live entertainment, carnival rides, boat rides, and food and craft vendors.
Troy Fair	Alparon Park, US Route 14 north, Troy	Features livestock and agriculture
Winterfest	Alparon Park, US Route 14 north, Troy	Billed as Pennsylvania's premier snowmobile event--snowmobile races, wood carving competition, snowmobile vendors, ice sculpting show.
Wyalusing Valley Wine Festival	Wyalusing Valley Museum Barn, across from Wyalusing High School	Five PA wineries, food, displays, live entertainment

Source: Bradford County

Other annual cultural events in the Northern Tier and Endless Mountains regions include:

- Kiwanis Endless Mountains Sled Dog Race and Winter Fest, Estella, Sullivan County
- Sullivan County Winter Sleigh Rally, Forksville, Sullivan County
- Native American Pow Wow, Forksville, Sullivan County
- Laceyville Community Day, Laceyville, Wyoming County
- Eagles Mere Summer Antique Market, Eagles Mere, Sullivan County
- Eagles Mere Arts and Crafts Festival, Eagles Mere, Sullivan County
- Sullivan County Fair, Forksville, Sullivan County
- Kiwanis Wyoming County Fair, Meshoppen, Wyoming County
- Eagles Mere Fall Antique Market, Eagles Mere, Sullivan County
- Pennsylvania Bowhunter's Festival, Forksville, Sullivan County
- Flaming Foliage Show and Sale, Forksville, Sullivan County
- Fall Festival and Woodsmen's Competition, Forksville, Sullivan County
- Fall Festival Antique Tour and Open House, Susquehanna County

Community Resources

In addition to the natural and man-made resources available in Bradford County, many other community features contribute popular destinations and linkages with neighborhoods and community centers. Schools and libraries are the educational hubs of a community. The transportation network is the current system serving pedestrian and vehicular travel. These resources are inventoried here for their potential integration with an open space and recreation network in Bradford County.

Schools

Many school facilities provide outdoor athletic facilities, some of which are available for public use. A listing of schools with notable recreation facilities is presented in Table 2-19. Elementary schools typically have only playground equipment, although there are two notable exceptions:

- The Litchfield Elementary School property includes an environmental center (Satterlee Creek Environmental Center), a pavilion and nature trails on-site.
- The Lynch Bustin Elementary School in Athens is the site of a family fitness center.

Ballfields and tennis courts are more commonly found at secondary facilities.

The total acreage of school properties with significant recreational facilities is 446.09 acres. Additional athletic and playground facilities are available at the 10 non-public school sites throughout the county, as shown in Table 2-20.

Table 2-19 Recreation Opportunities at School Sites

School	Location	Facilities/Equipment	Size (acres)
Athens High School	Athens	Football/soccer field, baseball field, softball field, Little League field, track, gymnasium, natatorium	26.76
Canton Schools	Canton	Baseball field, playground equipment, football field	65.89
Gladys Burnham Elementary	Ridgebury Township	Playground equipment	5.65
Harriet Child Elementary	East Smithfield	Playground equipment	27.62
J. Andrew Morrow Elementary	101 North Fourth St. Towanda	Playground equipment	7.26
Litchfield Elementary	Cotton Hollow Road Litchfield	Playground, nature trails, pavilion, Satterlee Environmental Center	91.94
Lynch Bustin Elementary	Athens PA Avenue	Playground equipment family fitness center	32.35
Monroe Franklin Elementary*	Rte. 414 Monroeton	Playground equipment, open fields	7.83
Mosherville Elementary	Mosherville	Playground equipment	5.06
Mulberry Street Elementary*	4 Mulberry St. Towanda	Playground equipment	n/a
Northeast Bradford Schools	Rte. 467 Near LeRaysville	Tennis courts, baseball field, track, playground, fitness center	64.15
Sheshequin-Ulster Elementary	Ulster	Playground equipment	7.06
Springfield Elementary	Springfield	Playground equipment	5.19
T.E.C.E. Elementary*	Leona Rd. East Troy	Playground equipment, soccer fields, baseball fields	23.33
Towanda Area Middle	State St. and Western Ave. Towanda	Track, tennis courts, open recreation fields	48.57
Towanda Area High		Indoor swimming pool	n/a
Troy Middle	King St. Troy	Basketball court, playground equipment, trails	2.85
W.R. Croman Elementary	Rte. 14 Troy	Playground equipment	10.24
Wyalusing Elementary	5th St. Wyalusing	Wooden gym	8.57
Wyalusing Valley Jr/Sr High	RR 2, Box 7 Wyalusing, PA	Outdoor track	n/a
Wysox Elementary*	Rte. 187 Wysox	Playground equipment	5.77
Total			446.09
* The Towanda Area school district has proposed closing these elementary schools. The future of use and accessibility of recreation facilities at these sites is uncertain. Total w/o 4 Towanda Area elementary schools			406.16

Source: Bradford County

Table 2-20 Non-public School Facilities

Name	City	Religious Affiliation
Bradford Co Action Inc	Towanda	Not applicable
Bradford Co Day Care Program	Towanda	Not applicable
Canton Country School	Canton	Amish
Epiphany School	Sayre	Roman Catholic
His Majesty Christian Academy	Athens	Christian
North Rome Christian School	Ulster	Christian
Son Shine Christian School	Canton	Christian
St Agnes Elementary School	Towanda	Roman Catholic
Union Valley Christian School	Ulster	Mennonite
Valley View Amish School	LeRaysville	Amish

Source: PA Department of Education, <http://www.pde.state.pa.us/>

Libraries

Bradford County has 10 public libraries. There is a library in each of the county's major communities, as well as in New Albany, Monroeton, and Ulster. The County library, located along Route 6 in West Burlington Township, is the hub for tourist information.

Table 2-21 Libraries

Library	Location
Allen F. Pierce Free Library	115 Center Street, Troy
Bradford County Library	US Route 6, West Burlington
Green Free Library	14 N Center St., Canton
Mather Memorial Library	Main St., Ulster
Monroeton Public Library	College Ave., Monroeton
New Albany Community Library	Front St., New Albany
Sayre Public Library	122 S Elmer Ave., Sayre
Spalding Memorial Library	724 S Main St., Athens
Towanda Public Library	104 Main St., Towanda
Wyalusing Public Library	202 Church St., Wyalusing

Source: Bradford County

Travel Linkages

The road network in Bradford County totals over 1,695 miles. PENNDOT maintains 902 miles of state roads in the county while local municipal roads comprise another 1,593 miles of the public road network.

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 Company operates a rail freight line that runs from New York State to Wyoming County where it connects with the Reading Blue Mountain and Northern Railroad.

Both rail lines are expected to continue commercial operations for the foreseeable future. Planners in the Northern Tier and Endless Mountains regions have noted that in the event that one of the lines is prepared for sale or abandonment, a regional rail authority could be established to protect the rail right-of-way for future rail access or conversion to a rail trail.¹⁰

Currently no rail passenger transportation facilities exist in Bradford County.

The Bradford County Airport operates as a business class airport. The airport continues to be up-graded to attract additional business and accommodate larger planes. Some recreational flying originates here.

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 and shared ride services, as well as special services for community events.

EMTA offers scheduled service for four routes with Bradford County¹¹

- Route 10 - Sayre/Towanda via US 220.
- Route 20 - Towanda/Troy/Canton via US 6.
- Route 25 - Wyalusing/Camptown/Wysox/Towanda via US 6; at YMCA in Towanda on request.
- Route 35 - LeRaysville/Rome/Wysox/Towanda/Athens;

as well as four routes that connect Bradford County to adjacent communities,

- Route 15 - Dushore/New Albany/Wysox/Towanda/Sayre via US 220 - Monday through Friday.
- Route 40 - Towanda/Sayre to Arnot Mall (New York) - Saturday only.
- Route 50 - Lycoming Mall via US 220 - Tuesday and Friday only.
- Route 60 - Valley Loop - Athens, Sayre, South Waverly and Waverly - Saturday only.

Stops may be made anywhere it is safe for passenger boarding and exiting.

The **riverwalk in Towanda** is a recent addition to this community. The riverwalk was constructed as part of the River Street project, which reconnected the north and south sides of River Street under the Route 6 bridge in Towanda. The river walk is approximately 1.5 miles long and parallels River Street from the bridge north to the Osram-Sylvania site in North Towanda Township.

There are many sidewalk systems in the county's major communities and small towns. These systems are community assets for the travel connections they provide to local parks and other community destinations. Some communities have used Community Development Block Grant Funds to create a revolving loan fund to pay for sidewalks in residential neighborhoods such as in Athens Borough, Towanda Borough, Troy Borough, and Wyalusing Borough.

¹⁰ Athens Borough Comprehensive Plan, date.

¹¹ Endless Mountain Transportation Authority. <http://www.emtatransit.com>.

Bradford County Open Space, Greenways and Outdoor Recreation Plan

The Athens Borough Comprehensive Plan specifically recognizes its sidewalk system as an asset to the community. Noting that many sidewalks were in need of repair or replacement, the borough established a maintenance program to maintain the system through borough projects and mini-grants to homeowners to repair and replace sidewalks on private properties.

Bicycle PA – Route J will travel through Bradford County once route design and construction/improvements are complete. The route will travel from the Tioga County line near Canton to the New York state line in South Waverly 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

The Northern Tier Bicycle and Pedestrian Transportation Plan identified the following action items for Bradford County to enhance and improve its bicycle and pedestrian systems. These action items were included in the Northern Tier Long Range Transportation Plan, which programs projects for all modes of transportation in the Northern Tier and Endless Mountains regions:

1. Development of off-road trail mapping
2. Development of off-road trail systems/greenways
3. Shoulder improvements on PA 414 between Canton and Monroeton
4. Development of a rail trail between Elmira and Williamsport (including bicycle and pedestrian improvements in Canton Borough)
5. Shoulder improvements on US 6
6. Develop a trail/lodging promotional brochure.

PENNDOT's Transportation Enhancement Program has been actively used in Bradford County. In recent years, grants under this program have funded the following projects:

- **Endless Mountains Overlook** – construction of a scenic overlook at Wyalusing Rocks in Wyalusing Township.
- **South Waverly Bike Trail** – construction of a portion of trail in Athens Township scheduled for construction in late 2003.
- **Rehabilitation of the 1881 Lehigh Valley Railroad Station** – rehabilitation of an historic station located in the heart of downtown Sayre in 2004.
- **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 2006/2007. There are plans to develop a regional visitor's center for the Endless Mountains Region. The overlook vista is County-owned and leased to French Azilum.

Public parking is primarily provided as on-street parking in the major downtown areas. **A few select off street lots are associated with public facilities such as the county courthouse.**

Figure 2-3 Natural Features Map

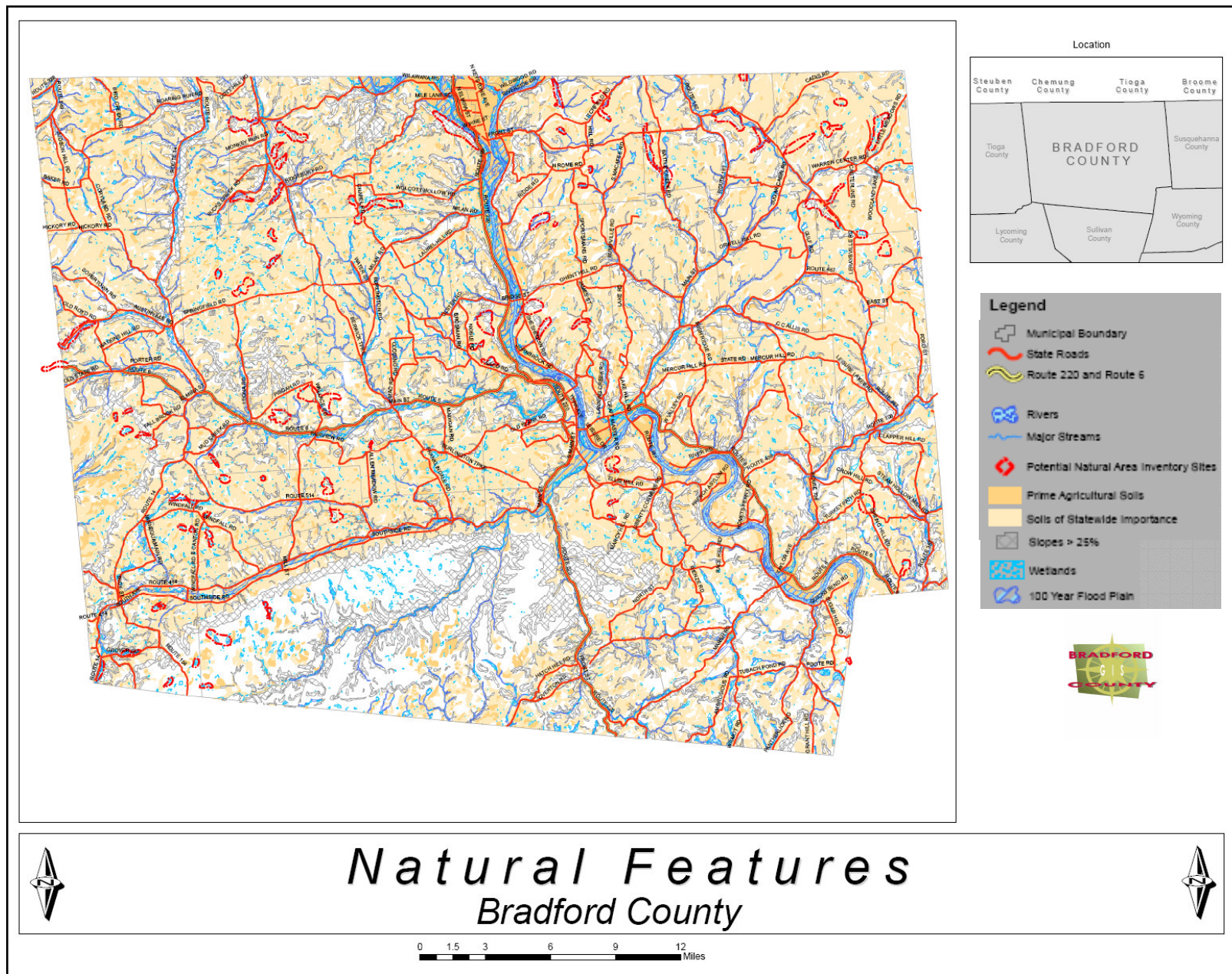


Figure 2-4 Open Space Map

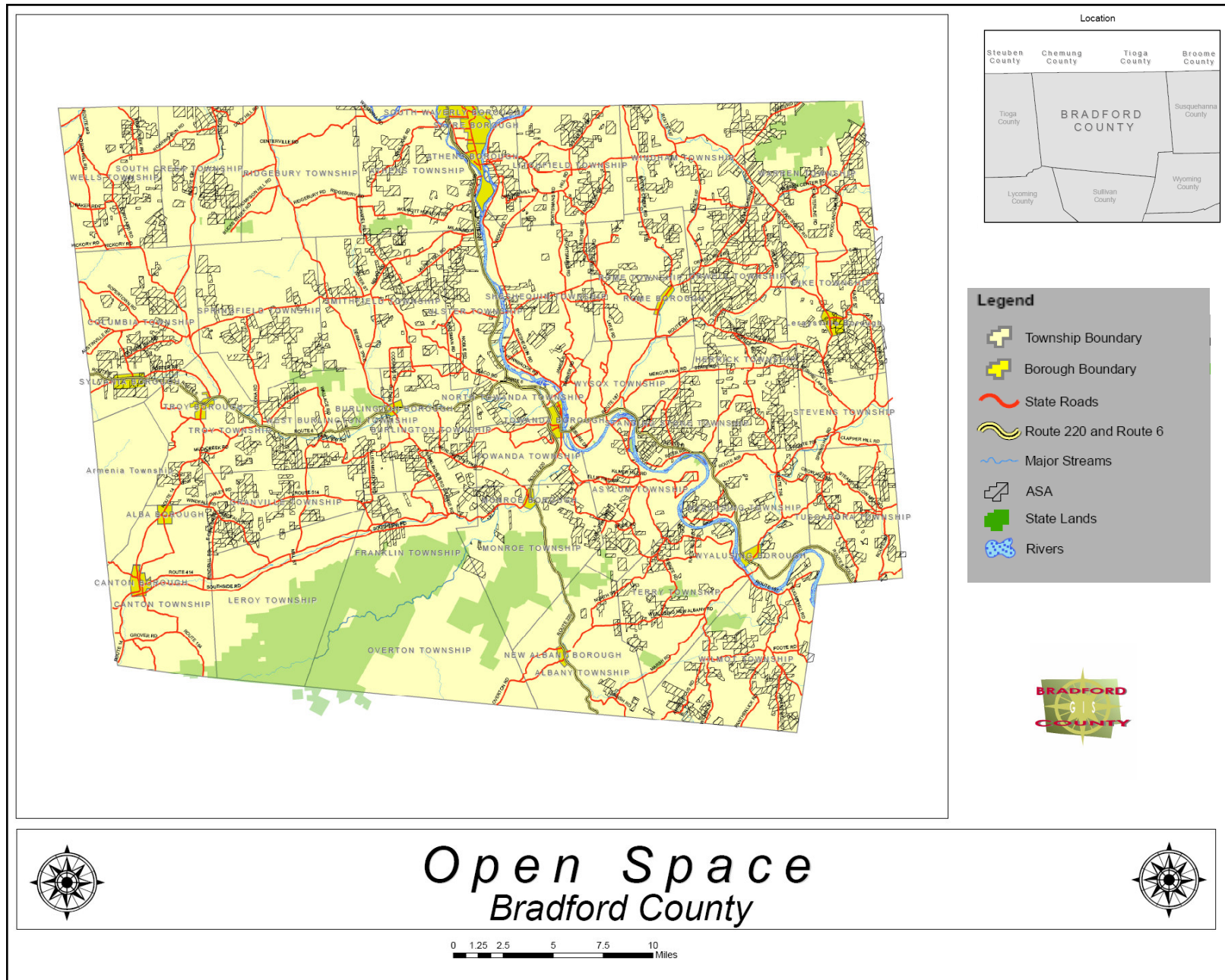


Figure 2-5 Parks and Recreation Map

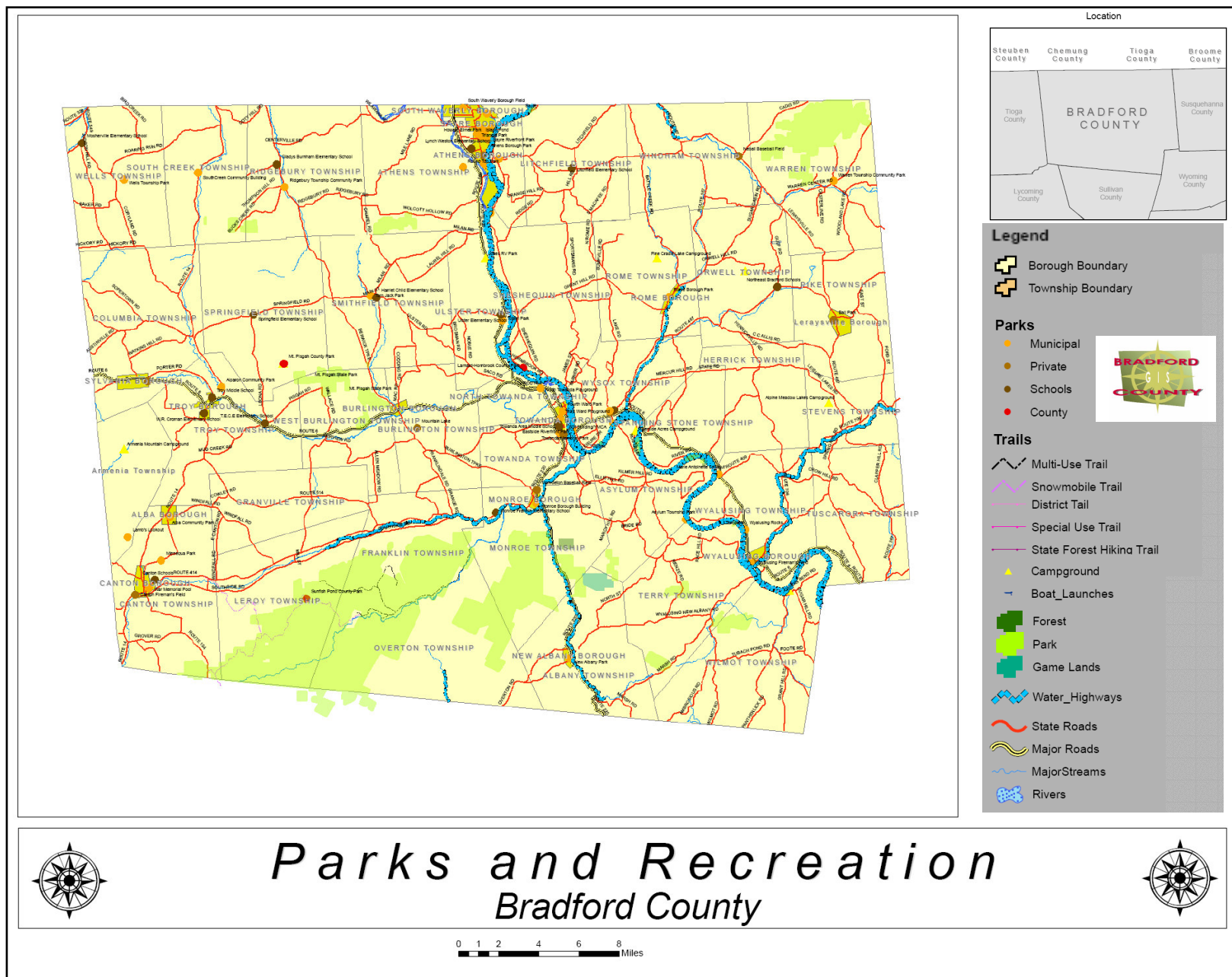
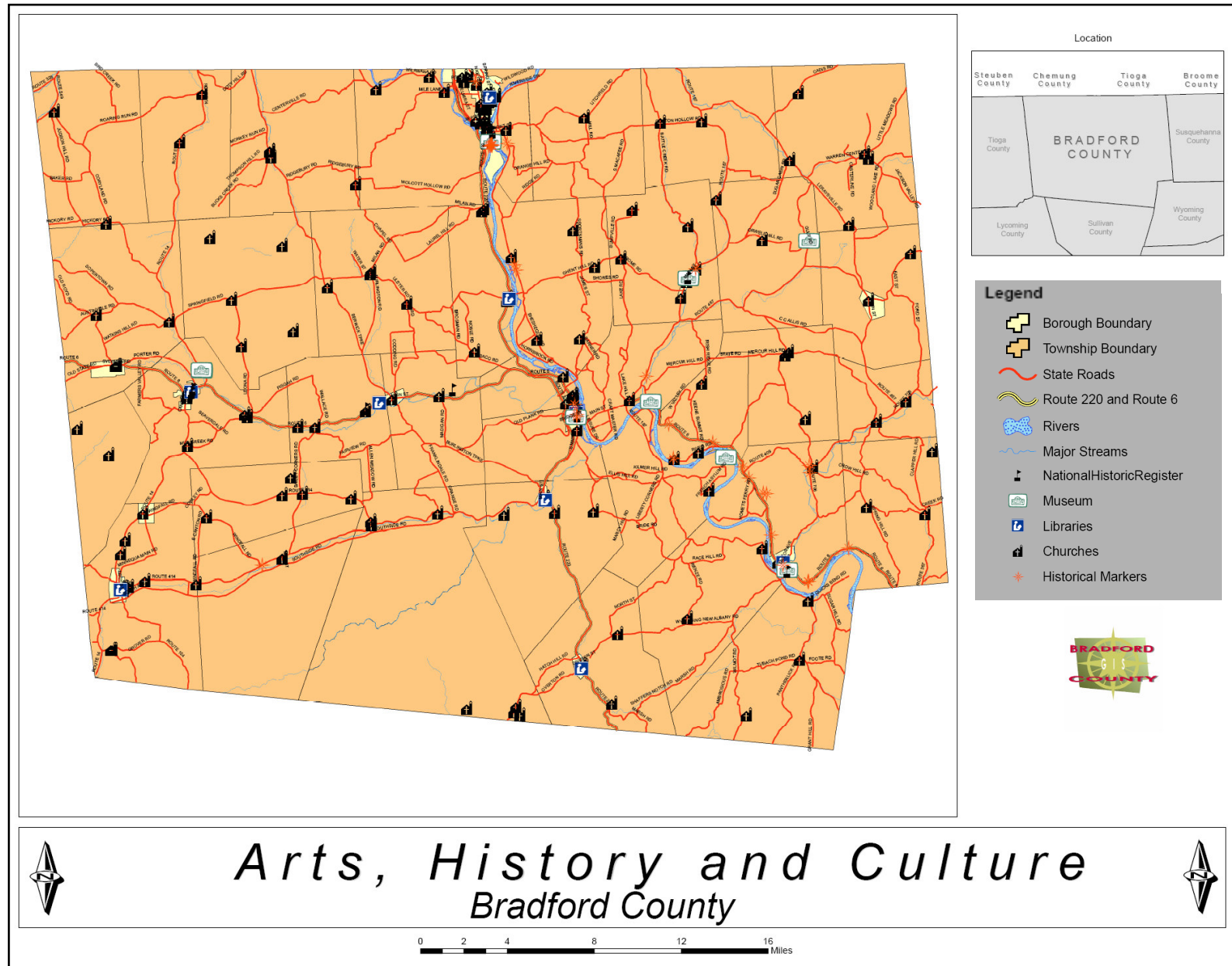


Figure 2-6 Arts, History, and Culture Map



Chapter 3

An Index of Organizations and Initiatives

Organizations and initiatives are really about people with purpose – people working together to provide services, to sustain their livelihoods, to protect and restore resources, and to educate and entertain others with their knowledge and skills. They work together as public agencies, private for-profit and non-profit organizations, and public-private partnerships.

The organizations in this index are ones that already are working in Bradford County or perhaps have an interest in working in the county in the future. They are identified here as active partners in protecting and managing open space and providing recreational opportunities for residents. Their projects or initiatives provide the foundation for this plan.

These people sustain, and in some cases are sustained by, the open space and recreation opportunities in Bradford County.



Local Government and Organizations

Local organizations often best reflect the interests of residents. From local government in the public sector to watershed organizations in the private sector, the following organizations local to Bradford County demonstrate an appreciation for the quality and productivity of the natural resources that yield economic and recreational benefits and promote continuity with their heritage.

Public Sector

Municipal governments in Bradford County have a tremendous impact on open space and recreation. As the primary authorities for land development, they have established the land use policies that outline where and how development can occur and where open space should remain for the health, safety, and welfare of the community. Seventeen municipalities have established land use policies through municipal comprehensive plans; thirteen have municipal zoning ordinances.

The stronger of these two is the zoning ordinance, which specifies the uses that may take place on any given property. Yet zoning ordinances are only as strong as their enforcement. In communities where development is slow to moderate, community leaders may “accommodate” prospective developers with exceptions to their own land use regulations. For planning efforts to be effective—in other words, to guide the development of the communities toward the community it wants to become-- community leaders need to follow their plans and regulations carefully. Such careful enforcement may require professional services from a trained code enforcement officer and solicitor. The cost of these professional services may be the limiting factor to good planning and community development in small communities.

Municipal officials have also established recreation committees, boards, and commissions to oversee recreation programs and facilities. These have been established in five municipalities: Towanda Borough, Athens Township, Smithfield Township, Ridgebury Township and Wells Township.

Furthermore, local officials can require land donation, or accept fees-in-lieu of land donation, as a component of the land development process. The authority to establish and enforce this requirement is given in the Pennsylvania Municipalities Planning Code and recognizes that people need outdoor space for recreation and leisure activities within their communities. An adopted recreation plan is required under the MPC to implement a mandatory dedication of land ordinance. Currently no communities have land dedication provisions.

Finally, municipal officials are eligible for many funding programs from state and federal agencies. These programs make money available to communities where the need for community or environmental improvements is demonstrated. Communities in Bradford County have received funding from Pennsylvania’s Growing Greener program, Heritage Parks program, Hometown Streets/ Safe Routes to School program, as well as the federal Community Development Block Grant (CDBG), TEA-21 programs, and DCNR Community Conservation Partnership Program and Rivers Conservation Program.

Municipal officials are also working regionally to better serve residents with cost effective government services. Officials in the Towanda region are working together to develop a multi-municipal or regional comprehensive plan. Towanda Borough, Towanda Township and North Towanda Township expect to develop a regional plan by late 2006. Other joint planning efforts are occurring in Canton Township, Canton Borough, and Granville Township and in Troy Borough and Troy Township. These regional planning efforts not only consolidate the cost of planning efforts and services, but also enable partner municipalities to share the requirements for land use.

Officials are using **councils of government** (COG) to coordinate purchasing and services in the eastern and western regions of the county. Forty-five of the 51 municipalities participate in the two COGs described below.

- The Eastern Bradford County COG comprises the townships of Albany, Asylum, Herrick, Litchfield, Orwell, Pike, Rome, Standing Stone, Stevens, Terry, Tuscarora, Warren, Windham, Wilmot, Wyalusing and Wysox, and the boroughs of New Albany, Rome, South Waverly and Wyalusing.
- The Western Bradford County COG includes the townships of Armenia, Athens, Burlington, Canton, Columbia, Franklin, Granville, LeRoy, Monroe, North Towanda, Ridgebury, South Creek, Smithfield, Springfield, Towanda, Troy, Wells, West Burlington, and Ulster, and the boroughs of Alba, Burlington, Canton, Monroe, Sylvania, and Troy.

COG projects to date have focused on public safety and regional enforcement of the Pennsylvania Uniform Construction Code. There is regional enforcement of the PA UCC. The COG process is still relatively new in Bradford County and municipalities are “getting their feet wet” with these initial topics of common concern. Additional responsibilities can be given to the COGs at the direction of the member municipalities.

In addition to local government, the **Bradford County school districts** are active local partners, as educators of young residents as well as land managers of their facilities. Many of the districts program environmental education activities both in and out of the classroom. These programs expose students to the natural features and systems in the county and introduce them to resource management techniques. These programs are investments in the knowledge of future land owners and property managers, whether future farmers, forest landowners, or simply resident landowners.

While many districts utilize municipal and state park facilities for field study and outdoor laboratories, the Northeast Bradford School District has its own environmental center linked with Wysox Creek Watershed Association--the Wilbur Beers Wetland Education Center. This site includes a constructed wetland, a stream restoration site that applied the principles of fluvial geomorphology in its design, a series of naturalized gardens with trails, and an arboretum.

Private Sector

Watershed Organizations

There are nine watershed associations working in Bradford County. Their age, organizational structure, activities and projects are outlined below. Overall, the associations are young – all less than ten years old and some very new. Science-based watershed assessments and restoration plans have been a focus of these groups, as they seek to establish credibility and integrity in their communities and in the natural environment.

The **Penn York Bentley Creek Watershed Association** has approximately 200 members and has received perhaps the most attention of any of the watersheds in the county. The creek is a classic example of a glacial region stream, characterized by irregular flow, abundant gravel, and sheer embankments. The association was awarded a federal grant from the US Fish and Wildlife Service to address these dramatic conditions. Anxious to improve in-stream habitat, the association constructed cross veins and J-hooks, following natural channel design principles. Unfortunately, these devices failed to provide lasting improvement in this highly unique glacial region. With a focus on long-term management, the association has pursued an independent evaluation of the in-stream structures and established a science-based planning and management process. The Bradford County Conservation District has received a \$500,000 Growing Greener grant and Ridgebury Township, a \$350,000 grant, to address stream issues. The USDA NRCS is also developing a small watersheds proposal (PL 566) to work collaboratively toward

improving water quality and protecting the resource base. The PL 566 program offers funding for specific practices geared toward erosion control, sediment reduction and water quality improvement.

The **Laning Creek Watershed Association** focuses on this central Bradford tributary to the Susquehanna River. The watershed stretches from Sheshequin Township into Wysox Township. Wysox Township has been the sponsor municipality for this association. The association has received Growing Greener funding for a site restoration project.

The **Satterlee Creek Watershed Association** is sponsored by Athens Township. The association's primary concern is gravel deposits in the stream in downtown Athens that contribute to flooding during storm events. The association received a Growing Greener grant for its Satterlee Creek Watershed Restoration Detailed Hydrologic/Hydraulic/Sediment Transport Analysis, to address bank erosion and stream channel migration. Once the creek is assessed and the restoration plan completed, a half mile reach will be selected for a demonstration project of natural stream restoration.

The **Schrader Creek Watershed Association** focuses on this high quality tributary to the Towanda Creek. The association is responsible for the vertical flow Acid Mine Discharge passive treatment system, constructed in 1997, that has helped improve water quality in Long Valley Run.

The **Seeley Creek Watershed Association** is an informal group of interested citizens, elected officials and government agencies working together in New York and Pennsylvania to improve water quality reduce flooding and conserve the natural resources of the Seeley Creek watershed. The association has 25 members across the two-state region.

The **Sugar Creek Watershed Association** is roughly two years old and began with a cultural history report of the watershed, funded by the Canaan Valley Institute. The association's primary interests are improving fish habitat, enhancing outdoor recreation and promoting a better understanding of the environment by the general public. Its outreach efforts include a newsletter and displays at community fairs. The association also partners with the Conservation District to conduct environmental fields days where students rotate through various environmental experiments and activities.

The Conservation District has completed a draft watershed assessment of all first order streams in the Sugar Creek watershed; a revised draft including 2nd order and higher streams is underway. The assessment includes data from four automated rainfall and stream flow stations and 20 cross-section stations. The association is focused on developing a watershed management plan based on the science of aquatic habitat.

Mill Creek feeds Stephen Foster Lake in Mount Pisgah State Park and flows into Sugar Creek just west of Burlington. The lake receives excessive nutrients for its size from the surrounding and upstream farms. As a result, the lake is no longer approved for swimming. A few years ago, the Conservation District obtained funding to develop conservation plans and implement best management practices (BMPs) on several of the contributing properties. Water quality in the creek improved quickly: nitrogen and phosphorus levels fell and sediment loading declined. Water quality in the lake did not improve as dramatically and additional options are being evaluated by the Conservation District.

The **Towanda Creek Watershed Association** began meeting in 1996 and was formally organized in 1998. Today it has approximately 75 members. The association is an active partner with the Canton Chapter of Future Farmers of America (FFA) in environmental studies and displays for the PA Farm Show, Troy Fair, and other similar events.

The association has received two Growing Greener grants from the PA DEP. The first was used to organize the association, to develop an initial marketing strategy, and to conduct a general inventory of

erosion potential sites. The second grant funded a more detailed assessment of these sites by the Conservation District. This assessment concluded that hundred of sites were in need of mitigation; three were prioritized. The South Branch site was addressed in 2004; the North Branch and main stem sites have not yet been addressed.

The **Wyalusing Creek Watershed Association** is sponsored by Wyalusing Borough, though efforts led by the Endless Mountains Resource Conservation and Development Program (RC&D), are underway to broaden support across the watershed. The association has the cooperative support of the business community. The association has received funding from the Commonwealth's Growing Greener program to restore sites in the Borough impacted by abrasion.

The **Wysox Creek Watershed Association** has also received Growing Greener funding to develop a Wysox Creek Restoration Plan. The plan includes a watershed assessment and restoration or protection plan for 2,700 feet of stream at Northeast Bradford School, using the principals of natural channel design. The Wysox Creek Watershed Association is currently working with citizens in the watershed and the Northeast School District on educational projects aimed at developing a better understanding of physical and biological processes in their watershed.¹

Member and volunteer recruitment, fundraising and dealing with the multi-municipal aspects of watershed geography are challenges common to all of the associations. Memberships are small, and the numbers of truly active members, given the current stage of organizational development, are even fewer. Additional residents have expressed interest in participation in hand-on activities, such as clean-ups, field assessments, and project construction; they are not keenly interested in attending the interim plan development and decision-making meetings.

The Growing Greener program has funded several association start-ups and projects; however, competition for program grants has increased. The associations are recognizing the need to look to additional funding sources with the help of the Conservation District (described later in the chapter). Moreover, the concepts of what a watershed is and what land area a given watershed encompasses are challenges for education and outreach efforts conducted by all watershed associations.

The associations' recreational interests center on water-based activities, such as improved fishing and swimming, but also include streamside trails, specifically after streambanks are stabilized. Representatives of the watershed associations meet together annually as a council to share news, activities, opportunities, and progress.

Other private conservation and recreation organizations

The **Satterlee Creek Environmental Center** is located in Litchfield Township and hosts programs and events that include demonstrations and guided hikes. The center hosts a 6th grade outdoor education experience for the local school districts.

The **Sheshequin-Ulster Community Center** was organized in 1958 by a group of citizens from Sheshequin and Ulster Townships "to provide social, recreational, and educational facilities." The center is located in a former school building on James Street in Ulster. The building includes a gym and stage and is handicap accessible.

Currently, the center offers Friday night skating during the school year, a summer/fall recreation program. Friday night skates draw people. The fall soccer program averages 75 children and youth.

¹ PA DEP, Directory of Funded Growing Greener Watershed Grant Projects, www.dep.pa.state.us.

The building is also available for rental by the public for holding social, civic and recreational meetings and entertainments and other uses pertaining to the welfare of the community; municipal residents receive preferential scheduling and rates. The center has also offered basketball, volleyball, soccer, and dances, when volunteers are available to host such events.

The Center relies heavily on volunteers to carry out its program offerings. Seasonal full- and part-time staff lead summer programs. The Center is formally led by a 7-9 member board of directors, who meet quarterly, or monthly, as needed.

The center funded through revenue from Friday night skating, some building rental, and municipal support. The Center does not currently have 501(c)(3) status, which could qualify the organizations for additional funding programs.

The **Scenic Mountain Snow Riders (SMSR) Snowmobile Club²** was organized in 1995 to promote family participation in snowmobiling. The club is based in Towanda, Bradford County. SMSR's goal is to open and create trails to make snowmobiling safer and more enjoyable in the Bradford County region. SMSR is in the process of mapping trails around the Bradford/ Sullivan border. The organization also works with state and local government on surveying and designing trails; participates in public meetings and review of governmental proposals; monitors legislation; and conducts safety and maintenance clinics.

The following private and community organizations have many interests related to natural resource and recreation planning. These organizations should continue to be considered planning partners for these topics.

- the YMCA for recreation and leisure programs that may take place among the county's recreational facilities
- local historical societies for historical and archeological sites, artifacts, and interpretive programs
- youth and student organizations for outdoor events and programs
- the Wellness Center at Memorial Hospital for fitness and well-being programs that take advantage of outdoor environments, and
- TV, radio, and newspaper media for publicity of events, programs and initiatives.

County

Officials, employees, and advocates in county level agencies and organizations also have a strong sense of local values and priorities. They are often residents themselves of the county or region, who share directly in the benefits of their conservation and recreation work.

Private partners can assist in open space and recreation initiatives through several means. They may be willing to help promote the initiatives by distributing information to their members through newsletters, meetings, and other membership services. They may take interest in sponsoring a special event, activity, or project. Private partners can also be sources of technical assistance, including speakers who can share their knowledge and experience. And finally, these partners may be sources of local match monies for public grants or independent grant applicants for segmented portions of large projects.

² Scenic Mountain Snow Riders, <http://www.scenicmnt.com/>.

Public Sector

The **Bradford County Board of Commissioners** is a three-member board of elected officials who direct the public services and facilities provided by the county. The county's primary facilities include the County Manor Nursing Home, the county airport, and the county library, as well as the three county parks. The Board's recent initiatives include adoption of the Bradford County Comprehensive Plan in 2004 and the appointment of an implementation team to advance the priority initiatives outlined in the comprehensive plan.

In terms of support for open space protection and recreation facilities, the Commissioners face two primary challenges: residents' value for private property rights and funding. Many residents take great pride in their independent and self-sufficient nature and their ability to manage their property for their own purposes. Community projects and initiatives that don't benefit all residents equitably are generally opposed. Funding for current county services and programs has been challenging in recent years and new initiatives can further challenge the financial decision-making. Fortunately, the Comprehensive Plan includes open space protection and the consideration of additional recreation facilities among its priority initiatives.

The **Bradford County Office of Community Planning and Grants** provides professional planning services for the county and administers community development block grants to municipalities and other eligible partners that qualify for such grants. The planning office works with the Bradford County Planning Commission, a nine-member board, to enforce the county subdivision and land development ordinance in 45 of its 51 municipalities, review sewage planning documents, develop transportation priorities, prepare stormwater management plans, and assist municipalities with local planning and ordinance development. The planning office also facilitates the two councils of governments—the Eastern and Western Bradford County COGs. The planning office was also the lead agency for the Natural Areas Inventory, completed in 2005.

In terms of its ability to support open space and recreation planning and development initiatives, the planning office is well-positioned to assist with grant assistance and GIS mapping and analysis. The planning office staff comprises primarily community planners; none are specialized in recreation planning and services.

The **Bradford County Agricultural Land Preservation Board and Program** was started in 2002. The Program is administered by a seven-member Board and operated day-to-day by the Conservation District. The Board has the authority to purchase development rights from landowners to preserve the land use in its current condition, namely and predominantly farmland. By preserving farmland, the Board aims to ensure that farming can continue as a viable industry for County residents. The result also preserves open space and protects the County's rural character. Twenty-seven farmers applied to the program when it was started in 2002.

The development rights to 952.73 acres on five parcels have been purchased. The purchase of easement on another 558.93 acres over three parcels is pending. The board works closely with the Conservation District, the North Branch Land Trust and the Endless Mountains Heritage Region on other initiatives related to open space protection.

Table 3-1 Agricultural Conservation Easements in Bradford County

Owner	Acreage	Municipality	Status	Date
Elwood and Leatrice Braund	116.26	Smithfield Twp.	Settled	8.18.04
Donald and Linda Brown	17.90	Orwell Twp.	Settled	8.18.04
Donald and Linda Brown	476.67	Orwell Twp.	Settled	8.18.04
Michael and Shirley Bride	254.94	Asylum Twp.	Settled	12.09.05
Gerald Bride	86.958	Asylum Twp.	Settled	03.05.05
TOTAL SETTLED	952.728			
Gypsy Hill Farm Inc.	219.48	Orwell Twp.	Pending	-----
Rodney and Shelly Ford	0.84	Orwell Twp.	Pending	-----
Rodney and Shelly Ford	211.61	Orwell Twp.	Pending	-----
Adam and Monica Russell	127.00	Orwell Twp.	Pending	-----
TOTAL PENDING	558.93			

Source: Bradford County Conservation District

Bradford County has begun to explore the possibility of establishing a **Forest Legacy Area** as part of the **Forest Legacy Program**. The Forest Legacy Program (FLP), a federal program in partnership with states, supports state efforts to protect environmentally sensitive forest lands. Designed to encourage the protection of privately owned forest lands, FLP is an entirely voluntary program. To maximize the public benefits, the program focuses on the acquisition of partial interests in privately owned forest lands. FLP helps the states develop and carry out their forest conservation plans. It encourages and supports acquisition of conservation easements, legally binding agreements transferring a negotiated set of property rights from one party to another, without removing the property from private ownership. Most FLP conservation easements restrict development, require sustainable forestry practices, and protect other values.³

The USDA Forest Service administers the FLP in cooperation with state foresters and directly supports property acquisition and donated conservation easements. As a part of the Forest Stewardship Program, the FLP provides grants to participating states for assistance with these acquisition and easement purchases. Pennsylvania's program is focused primarily on conserving forests for ongoing forest management to emphasize the sustainable production of timber. It is targeted to areas of the state where forestland is particularly susceptible to land development pressures.⁴

Bradford County Parks is a small department within the county's public works department. The sole full-time position is the parks director, who is assisted seasonally by three part-time employees. Maintenance priorities are recommended by the parks director and approved by the Commissioners. Funding for park maintenance comes out of the county budget. Funding levels, which have remained steady in recent years, have been adequate to maintain the parks in their current condition. However, the level of funding has not allowed the department to do long term planning or to implement major improvements or upgrades.

The **Bradford County Conservation District** is led by a seven-member board of directors and served by a 17-member professional and administrative staff. Seven technical committees, identified below, provide additional assistance and outreach to the Conservation District's efforts.

- Erosion & Sedimentation Pollution Control
- Watersheds, Waterways & Wetlands
- Education & Youth
- Chesapeake Bay & Nutrient Management

³ USDA Forest Service website, <http://www.fs.fed.us/spf/coop/programs/loa/flp.shtml>.

⁴ Report of Forestry Task Force Pursuant to House Resolution 13 of 1999, June 2001, Joint Conservation Committee, <http://jcc.legis.state.pa.us>.

- Dirt & Gravel Roads Program
- Wetland Acquisition & Development
- Bio-Solids Management

Specific to water resources, the Conservation District provides surface water resource monitoring information, education, and technical assistance to landowners, schools, and municipal officials, as well as the various watershed associations. The district is also the lead agency for the preparation of a Rivers Conservation Plan for the Sugar and Towanda Creek Watersheds, which will cover over one-third of the county.

The Conservation District works diligently to provide professional environmental services to Bradford County. The district is well-respected and already makes a significant contribution to open space protection and management through its agricultural, forestry, and water resources programs and its partnerships with other community and environmental organizations. The district's outreach to land owners is another strength. The district has no plans for significant staff expansion but can certainly contribute to the open space initiative through continued sharing of its expertise and coordination.

Private Sector

The **Bradford/Sullivan Farm Bureau** is the local arm of the Pennsylvania Farm Bureau. The Bradford/Sullivan Farm Bureau is guided by a 16-member board of directors. The Farm Bureau supports the agricultural community with financial and business assistance, legislative reports, and promotional and educational programs and scholarships. The Farm Bureau is based in Towanda.

The **Bradford-Sullivan Forest Landowners' Association** is an organization of local forest landowners and individuals interested in forest management from many perspectives. Its mission is to serve as an intersection where woodland owners, the general public, industry, government and educators can exchange information on the best management practices for our forests. The BSFLA's 100 plus members own and manage nearly 15,000 forested acres.

BSFLA is the oldest of the 23 regional Woodland Owners' Organizations in the state; the year 2005 marks the beginning of its 24th year. The association is governed by a board of nine elected directors, and is supported by an Executive Director and by 4 advisors: a Penn State Cooperative Extension Forester, a DCNR Bureau of Forestry Service Forester, a retired DCNR Bureau of Forestry Service Forester, and an Educational Specialist from the Bradford County Conservation District.

The organization partners with additional PSU, Cornell, DCNR, Pa Game Commission and Conservation District personnel and with private partners including consulting foresters to bring educational programs related to forest management to local and regional audiences. It has received grants for education on the interface between forests and watersheds from the Canaan Valley Institute, the PA Bureau of Forestry, the Northern Tier Hardwood Association and the Pa Association of Conservation Districts among others.

The Bradford-Sullivan Forest Landowners' Association
P.O. Box 473
Wysox, PA 18854
570-363-2388
thebsfla@yahoo.com

The **Bradford County Lake/Pond Management Organization** is a group of 400 private landowners who share information on lake and pond management. The organization hosts education a meetings and

workshops several times a year and publish information through a member newsletter. The organization also owns water monitoring equipment and a resource library available for member use.

The **Bradford County Historical Society** is located at the Bradford County Museum, the former county jail. The museum contains the Historical Society's collection of historic and prehistoric artifacts as well as the Historical Society Research Center and Genealogical Library, which contains valuable public and private records that establish, maintain and develop the identity of Bradford County and are available to the public. The Historical Society is guided by a 15-member Board of Trustees and served by a 3-member staff. The Historical Society publishes a quarterly newsletter.

Northeast Pennsylvania Region

Public Sector

The **Endless Mountains Heritage Region (EMHR)** is one of 12 designated "state heritage parks." The region encompasses Bradford, Sullivan, Susquehanna and Wyoming Counties. Designated in 1998, EMHR is organized around an agricultural theme, aimed at attracting visitors interested in Native American culture, early settlers, agricultural themes and rural activities. EMHR strives to fund projects that build regional partnerships conserving and promoting cultural, natural, recreational and scenic resources unique to the region. EMHR is now recognized by DCNR as the lead agency in implementing projects along the Susquehanna Greenway.

State Heritage Parks are large geographic regions or corridors of the Commonwealth that span two or more counties. These areas contain a multitude of cultural, historic, recreational, natural and scenic resources of state and national significance that collectively exemplify the industrial heritage of Pennsylvania. Through regional partnerships and public grassroots planning strategies, these resources are identified, protected, enhanced and promoted to strengthen regional economies through increased tourism, creation of new jobs and stimulation of public and private partnerships for new investment opportunities. This holistic and bottoms-up approach to planning ensures that the industrial legacy of a region - and the cultural, educational and recreational values inherent to it - are preserved for future generations.

--DCNR Pennsylvania Heritage Parks Program Manual

Pennsylvania Heritage Parks Program grants require matching funds, which can be a mix of private, local and federal dollars. These matching funds demonstrate local support for the candidate projects and increase the economic impact of the award to the Endless Mountains Region.

Since 1998, EMHR has funneled \$2,000,000 into the four-county region through seven grant cycles. Project partners receiving funding have included regional art and cultural organizations, historic societies, museums and other 501c3 (tax-exempt public interest) organizations. EMHR has funded over 70 projects throughout the Endless Mountains Region.

Projects within Bradford County have included the following:

- Renovation of the Mitchell House/Inn in Troy Township
- Renovation of Towanda Borough Hall
- Renovation and restoration of the LeRoy Community Building
- Restoration of the Wyalusing Community Building
- Restoration of the Lehigh Valley Railroad Station in Sayre Borough, in conjunction with a TEA-21 grant

Other EMHR projects, outside the county, but within the Endless Mountains Heritage Region, have included the following:

- Upgrade of the facilities of the Laporte Community Hall, Sullivan County
- Documentation of the Forksville Folk Festival, Sullivan County
- Restoration of the Wheaton House Environmental Education Center at Salt Springs State Park, Susquehanna County
- Restoration of the Silver Lake Bank Building in Montrose, Susquehanna County
- Restoration of the chapel in Evergreen Cemetery in Factoryville
- A study of future uses of both the Susquehanna County Historical Society's Museum/Library building, and the Old Susquehanna County jail, Susquehanna County
- Development of Endless Mountains land-based protection guides (regional)
- Development of the Endless Mountains Heritage Trail – a series of driving routes and destinations, highlighting agriculture, natural resources, communities, and handmade crafts
- Development of the North Branch Susquehanna Water Trail – a joint project of EMHR and the Pennsylvania Environmental Council. The water trail will enable people to trail between the river communities of the North Branch and to the south, following interpretive signs and publications.

The EMHR office is located on Washington Street in Towanda. Board members are drawn from member counties, representing heritage organizations, local government, tourism, agriculture, business and industry, and other groups. Day-to-day operations are conducted by the executive director and part-time staff. If the EMHR were to take on additional responsibilities, additional office space and staff may be needed. EMHR's funding of community projects is limited to what it can raise through membership contributions and Pennsylvania Heritage Parks Program grant awards.

The **Endless Mountains Visitors Bureau** is the tourist promotion agency for Bradford, Sullivan, Susquehanna, and Wyoming Counties. The **Visitors Bureau** provides information through its website, printed visitors guide, and state tourism publications. Currently based in Tunkhannock, Wyoming County, the **Visitors Bureau** is helping to plan a visitors center and administrative facilities at the Marie Antoinette Overlook along Route 6 in Bradford County.

The **Northern Tier Regional Planning and Development Commission (Northern Tier)** is a Local Development District (LDD) of the Appalachian Regional Commission, as well as the Rural Planning Organization (RPO) for regional transportation planning. Northern Tier RPDC offers economic and community development services to businesses and communities in its five-county planning area – Bradford, Sullivan, Susquehanna, Tioga and Wyoming Counties. Services include transportation planning studies, business development assistance, technology training, and project funding assistance (grant and loan applications).

Northern Tier RPDC is guided by a Board of Directors and served by a professional and administrative staff of 24. It is funded primarily through grants from the state and federal government. Due to Northern Tier RPDC's reputation for quality services and regional leadership, the agency has been discussed as a potential host agency for various regional initiatives.

The **Northern Tier Rural Planning Organization (NTRPO)**, formerly known as the Rural Transportation Advisory Committee, is the transportation arm of the Northern Tier. The Transportation Advisory Committee brings together regional transportation and community planners, county officials, and PennDOT staff to program transportation projects in the region.

Private Sector

The **Northern Tier Hardwood Association (NTHA)**,⁵ a non-profit organization, was created to foster and promote the forestry industry in the Northern Tier Region. The NTHA involves itself in legislative review and oversight, job training programs, educational and safety workshops and trade show sponsorship. It also offers business development assistance and publishes a newsletter, *Hard Copy*, for its members. Membership is open to organizations and individuals from wood manufacturers and related service businesses, utility companies, economic development agencies, professional foresters, government officials, landowners and others committed to furthering the growth of the hardwood industry.

The **North Branch Land Trust**⁶, founded in 1994, works in partnership with landowners and their communities to preserve the beauty and open landscapes that sustain them. NBLT is a private 501(c)(3) non-profit organization, working to conserve open space in Luzerne, Wyoming and Susquehanna Counties and in the eastern regions of Bradford and Sullivan Counties. The organization is guided by a 13-member board of directors and a 2-person professional staff. With a naturalist on staff, NBLT educates students and the general public on many aspects of the natural world and conservation. To date, the North Branch Land Trust has preserved more than 5,400 acres on 20 properties in northeastern Pennsylvania. In Bradford County, NBLT has a conservation easement on 38 acres in the Tuscarora Creek watershed. NBLT is currently renovating the former the Lehigh Valley Railroad Depot at Noxen in Wyoming County as a community meeting place and museum. NBLT is based in Trucksville, PA.

The **Northcentral Pennsylvania Conservancy** works to conserve land and other resources in the western portion of Bradford County and throughout northcentral Pennsylvania. The conservancy is guided by a 15-member Board of Directors and served day-to-day by a three-person professional staff. The conservancy provides for the long-term stewardship of natural and historic resources by the conserving and preserving forests and woodlands, watersheds and waterways, wildlife habitat, agricultural lands, open space, and significant historic sites and structures. One of the strengths of the organization is its ability to provide resource protection through acquiring and managing real property and interests in real property. In Bradford County, the conservancy maintains totaling 439.76 acres.

Elsewhere in the region, **Countryside Conservancy** is a 501(c)(3) nonprofit organization established in 1994 working to conserve lands and waters in and near the Tunkhannock Creek Watershed within Lackawanna, Susquehanna and Wyoming Counties in northeastern Pennsylvania.

The **Rail-Trail Council of Northeastern Pennsylvania**⁷ is a 501(c)(3) non-profit corporation based in Forest City. In its short history, the Council has acquired 38 miles of the historic Delaware & Hudson (D&H) rail bed, and has an easement to use eight miles of the parallel Ontario & Western (O&W) rail bed as a recreational trail. Both trails are located in eastern Susquehanna County. Numerous grants have been awarded to design and engineer trail improvements, restore bridges, landscape trailheads, and provide trail amenities such as signage, picnic tables, and benches. Recently, a one million dollar Transportation Enhancement grant was awarded to begin trail stabilization and resurfacing on the D&H trail. The Rail-Trail Council publishes a quarterly newsletter containing progress reports on acquisition of the trails, upcoming events (such as organized walks, bike rides, clean-ups on the trail, benefit dinners), and monthly meeting schedule and offers Rail-Trail speaking engagements to interested organizations.

⁵ http://www.ntha.ws/dir_ndx.html

⁶ www.nblt.org

⁷ www.nepa-rail-trails.org

The **Northeast Pennsylvania's Sno Trail Association**⁸ operates a private snowmobile trail system for its members. The Association is based in Forest City (Susquehanna County) and sells trail passes at numerous commercial businesses throughout Lackawanna, Susquehanna and Wayne Counties. In addition to the private trail system, the Northeast PA SnoTrails grooms the O & W trail system in winter, opens additional linking trails, and regulates snowmobilers.

The **Highland Lake Snowmobile and Outdoor Recreation Club, Inc.** was formed in 2005 to develop an interconnected series of joint use and connector trails throughout southern Bradford, Sullivan, northern Lycoming, northern Columbia, northwestern Luzerne and western Wyoming Counties. The Club intends to interconnect established trails and the road networks of state forest and game lands in this region for use by snowmobilers, horseback riders, cross-country skiers, mountain bikers, ATV-riders, and hikers and aims to bring public and private sector entities together in this effort.

The **PA Route 6 Tourist Association** promotes the history and attractions along the 440-mile length of PA Route 6 from Pike County to Erie County. The association is led by a ten-member Board of Directors with representation from Crawford, Erie, Lackawanna, McKean, Potter and Tioga County visitors/vacation bureaus, Northern Alleghenies and Pocono Mountains visitors/vacation bureaus, as well as Bradford and Wyoming Counties represented by the Endless Mountains Visitors Bureau.

The **Watershed Assistance Center of the Western Pennsylvania Conservancy** serves watershed organizations statewide. The twelve-member staff of WAC provides technical assistance in the areas of science, legal issues, education and outreach, and project identification and prioritization, as well as administrative support. WAC is located in Blairsville, PA.

The **Eastern PA Coalition for Abandoned Mine Reclamation (EPCAMR)** encourages the reclamation and redevelopment of land affected by past mining practices. EPCAMR works to reduce hazards to health and safety, eliminate soil erosion, improve water quality affected by acid mine drainage (AMD), and return land affected by AMD to productive uses. EPCAMR is based at the Luzerne Conservation District in Shavertown, PA.

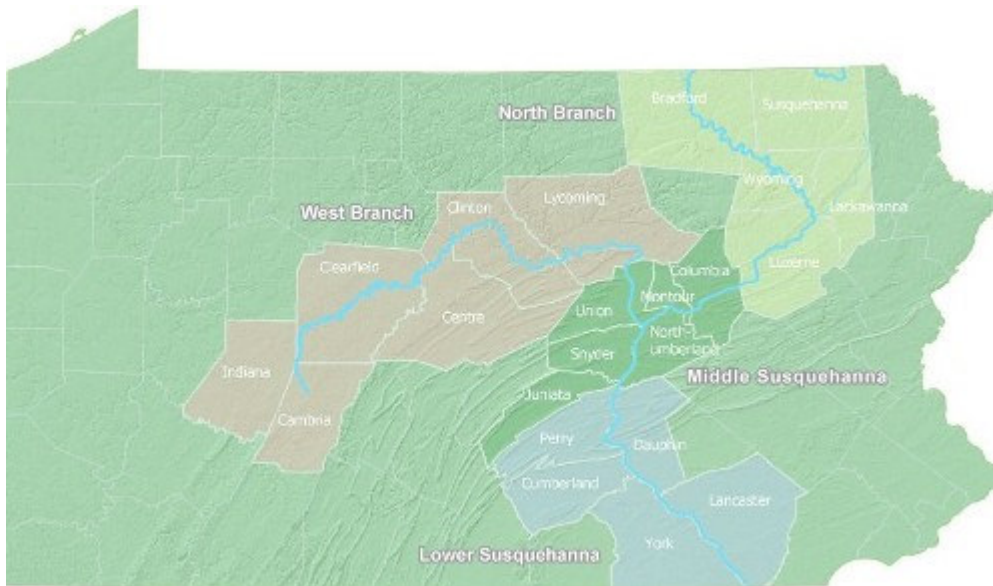
Central Pennsylvania Region

The **Susquehanna Greenway** is an initiative of the **Susquehanna Greenway Partnership**, a network of public and private interests formed to guide planning for the Susquehanna Greenway – one of 34 major greenways identified by *Pennsylvania's Greenways* – and to foster public involvement and community action in the development of the Greenway. The concept behind the greenway is to link natural, cultural, historic, and recreational resources along the 500-mile corridor of the Susquehanna River in Pennsylvania. Through a three-phase planning process, the partnership aims to create a basin-wide organization for resource management and community conservation.

Phase I - Susquehanna Greenway: Vision and Values organized the corridor into six reaches, established local representatives as reach advisory committees, and began to inform the public about the Susquehanna Greenway and invite its participation in greenway planning. This first phase of greenway planning defined a vision for what the greenway should become, identified seven concepts that express the current use and value of the lands and waters in the greenway corridor, and five themes for future planning and greenway projects. For planning purposes, the Susquehanna River had been segmented into six "Planning Reaches". The "Planning Reaches" have evolved to four "Planning Regions" as depicted on the Figure 3-1.

⁸ <http://www.nepsnotrails.org/>

Figure 3-1 Planning Reaches of the Susquehanna Greenway



Source: Susquehanna Greenway Partnership, www.seda-cog.org/greenway.

The Vision for the Susquehanna Greenway

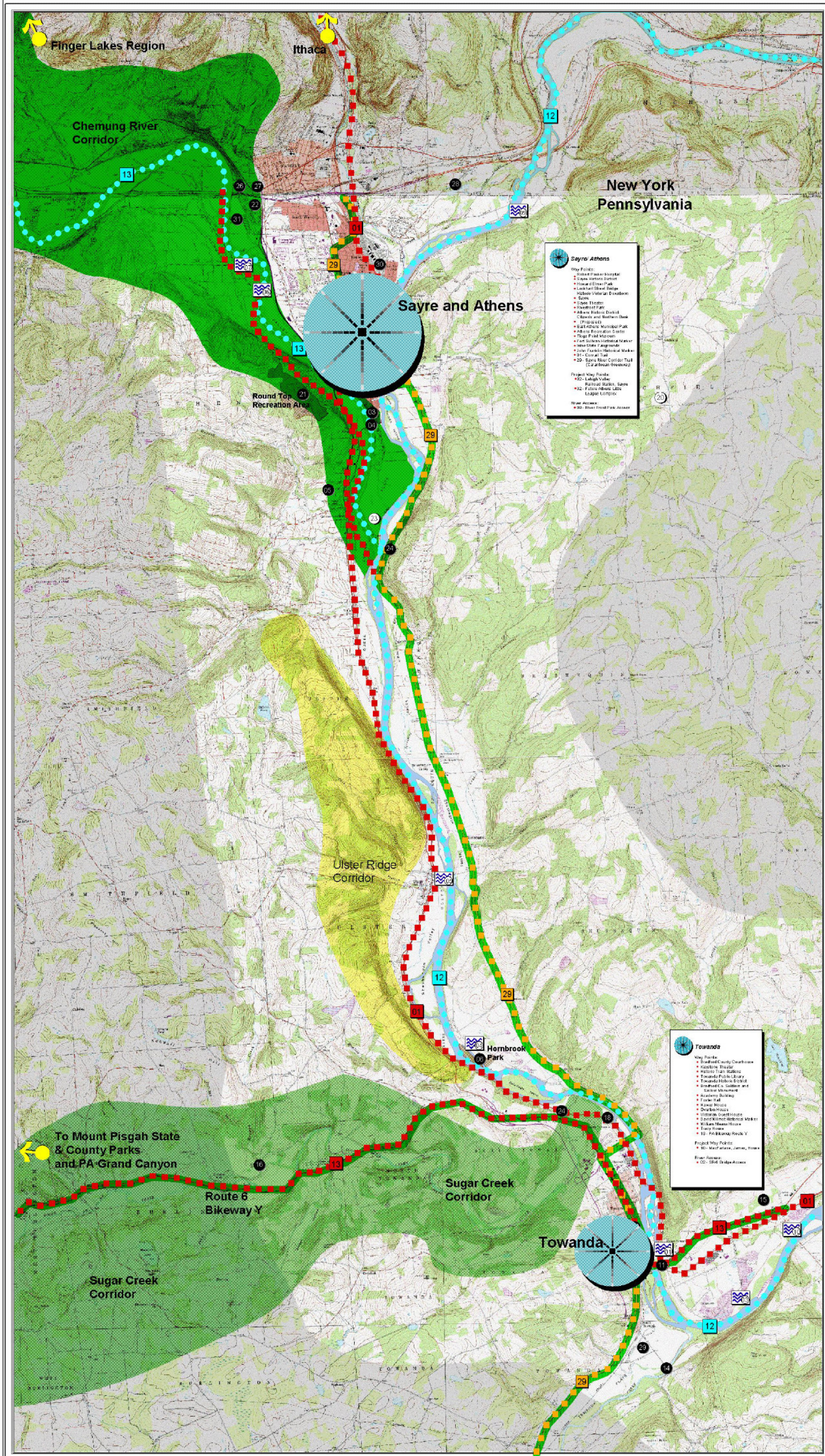
The Susquehanna Greenway is a place and a journey that connects people and communities to the Susquehanna River and to its enduring story. It unveils the spirit of the River -- renewing awareness of its distinctive scenery, its natural and cultural heritage. It is a destination shaped by diverse people and the pursuit of their dreams.

The Susquehanna Greenway balances the needs of generations today and tomorrow; conserves the environment for all living things; and creates healthy and successful communities, wide ranging recreation, and economic prosperity. The Greenway celebrates the Susquehanna River as a place of timeless value, shared memories and experiences, – a place to use and enjoy, and to treasure always.

Corridor-Wide Concepts

1. The Susquehanna River corridor is an asset that needs to be fully realized and valued.
2. The Susquehanna River and adjacent lands are used for many purposes by local businesses and industry, individuals and communities, recreation and sports groups, historians, conservation and preservation groups, and wildlife itself.
3. Because of the high ratio of drainage area to surface water within the Chesapeake Bay Watershed, land use in and around the Susquehanna River is directly, and significantly, related to water quality.
4. Development and growth within the corridor should fit with the regional context and include a balance of uses.
5. To gain the interest and involvement of local citizens, successful local projects need to be implemented.
6. Linkages need to be made between projects, people, natural places, and built places throughout the corridor.
7. The Susquehanna Greenway Partnership is viewed as an entity that has a specific role in public awareness, developing connectivity, aiding with technical and financial assistance, and generally being a key River resource.





- Way Points**
- 01 existing
 - 01 concept
 - 03 Protection of the Flag Monument
 - 04 Spaulding Memorial Library & Museum
 - 05 Owens Landing
 - 06 Hornbrook County Park
 - 10 MacFarlane, James, House
 - 11 Charles, Querry, House
 - 14 Towanda Creek Bridge
 - 17 30 yrs. old, very important to early transportation grid in Towanda
 - 18 Bears Family Nature Center
 - 19 Kings Covered Bridge
 - 20 Canal Lock Restoration (PA of Lock)
 - 20 Nature Center & Interpretive Trails (Garre School District)
 - 21 Round Top
 - 22 Sparten Hill
 - 23 Toga Point Campsite
 - 24 Scenic Overlook (Old View)
 - 25 Sugar Creek Bridge (LVPB bridge from 1975)
 - 26 Old River Road Trail (Carabonban Greenway)
 - 27 Faradon Trail (Carabonban Greenway)
 - 28 Viewwood Nature Preserve Trail (Carabonban Greenway)
 - 29 Bradford County County Airport
 - 30 Sayre (C.O.) Brownfield Site
 - 31 Valley Youth Soccer Complex
 - 32 Future Athens Little League Complex

- River Access**
- 01 Roundtop Park Access
 - 02 SR-6 Bridge Access
 - 03 Vernon River Access
 - 04 Hornbrook Park Access
 - 05 Ulster Access
 - 06 River Access
 - 07 Athens Township Boat Ramp River Access
 - 08 Cades Landing
 - 09 River Front Park Access
 - 10 Sayre River Access
 - 10 Vernon Township Boat Access

- Linkages**
- 01 existing/planned
 - 01 concept
 - 01 Corral Trail
 - 13 PA Route 6 Bikeway Route Y Corral Trail
 - 29 PA Bikeway Route J
 - 01 existing/planned
 - 01 concept
 - 12 North Branch Susquehanna River Water Trail
 - 13 Chemung River Confluence Water Trail

Endless Mountain Heritage Region



Downtown Towanda



Sayre Park

DRAFT
1/26/04



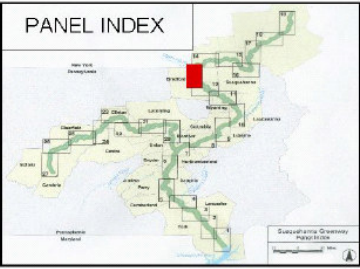
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PANEL #13



Bloss Associates
1805 Liberty Lake Road
Shrewsbury, PA 16990
(517) 362-6364
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"HUB" COMPONENTS		"GREENWAYS" COMPONENTS		OPEN SPACE FRAMEWORK	
	Network Hub		River Access		Public Preserved
	Journey Point		Portal		Private Preserved
	Waypoint (existing/planned)		Satellite Hub		Important Natural Areas
	Waypoint (concept)				



Corridor-Wide Themes

1. Community – Cooperation and involvement, building partnerships, and sharing interests will enhance existing River communities and improve local social climates.
2. Economy – Future downtown revitalization of river towns and enhancement of existing businesses, through a changing focus towards the River, will further benefit local economies.
3. Recreation – Accessibility to the River and its resources is valued, and it is crucial that use be balanced throughout the River in a manner that is fitting with local opportunities, needs, and issues.
4. Environment – The River corridor plays an environmental role in the quality and quantity of water, the health of wildlife communities, the overall health of adjacent lands, and the general impact of humans on the natural component of the River.
5. Education – [Educational] information should be directed towards a range of audiences in a way that presents the River's importance to the environment, economy, and community.

Phase I concluded that within Reach 1, the Upper North Branch that meanders through the Endless Mountains, priorities include protection of the rich natural and cultural heritage resources through preservation, cooperation, improvement of local community quality of life, and enhancement of existing economic tourism efforts.

Phase II - Susquehanna Greenway: The Plan developed a conceptual design of the Susquehanna Greenway. The conceptual design was illustrated on topographic base maps, shown as Figure 3-2 and Figure 3-3 (panels 12 and 13) on the previous pages. This phase also included workshops with the public to imagine and visualize greenway features, such as parks, trails, signage, and economic development themes.

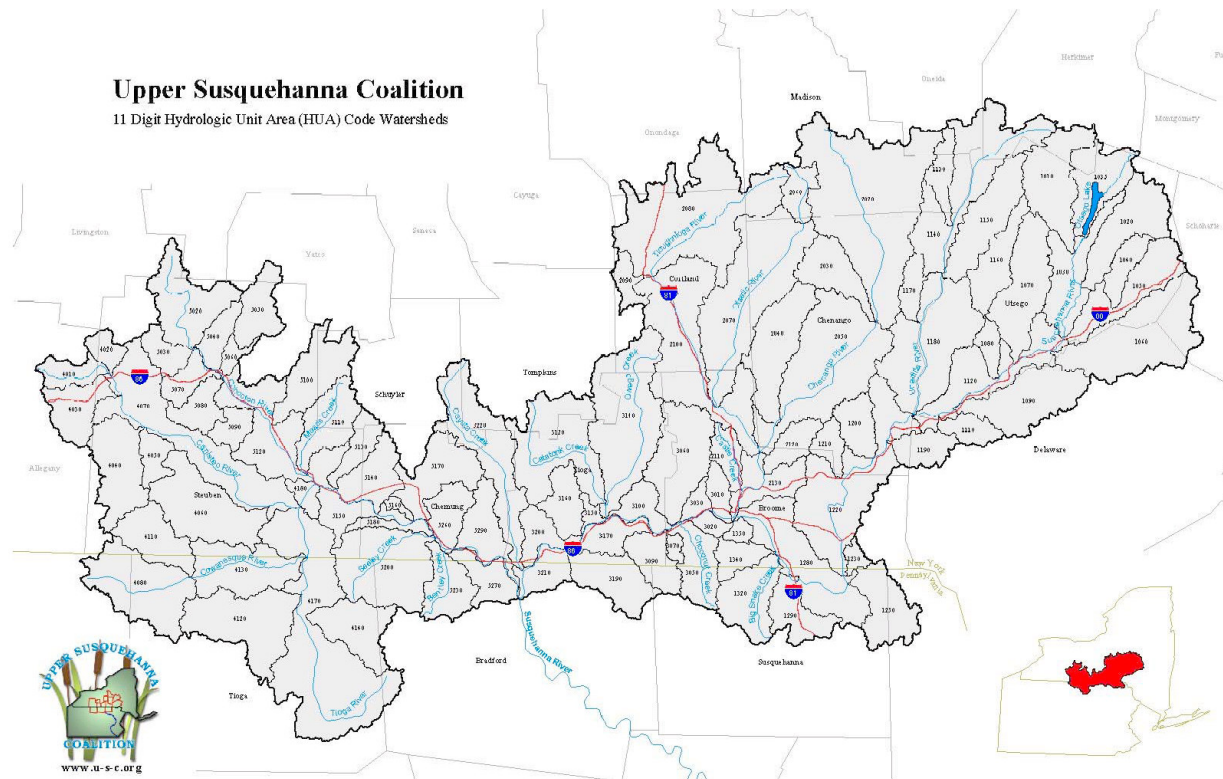
Phase III - Susquehanna Greenway: A Call to Action fully developed the policy and project priorities for the Susquehanna Greenway. The Susquehanna Greenway Partnership is in the process of implementing the plan. A 501(c)(3) organization is being formed and funding obtained to assist with the first several years of operation. A Board of Directors and a professional staff will guide the Partnership.

In order to ensure the continued input of regional representatives for project identification and development of the Susquehanna Greenway Partnership is working in Bradford County with the Endless Mountains Heritage Region to gain consensus on projects and shepherd them forward. The Endless Mountains Heritage Region is already on the Susquehanna Greenway Partnership Planning Team, and worked to develop a demonstration project at French Azilum.

Marketing and promotion recommendations in the strategic action plan focus on coordinated and cooperative efforts to market the experience of the greenway through a live, explore, and learn theme. In the Northern Susquehanna Region, the Endless Mountains Visitors Bureau, the Northeast PA Convention and Visitors Bureau and the Luzerne County Convention and Visitors Bureau are the key entities for marketing and promotion coordination.

The **Upper Susquehanna Coalition (USC)**, established in 1992, is a network of county natural resource professionals who develop strategies, partnerships, programs and projects to protect the headwaters of the Susquehanna River and Chesapeake Bay watersheds from non-point source pollution. The USC is comprised of representatives from 11 counties in New York and three in Pennsylvania--Tioga, Bradford, and Susquehanna Counties. The USC has partnered with local, regional, state, federal, academic and non-governmental organizations to conduct projects on varying watershed scales. Through its county members the USC networks with local watershed organizations, town and county public works and planning officials, farmers and other watershed stakeholders. The Upper Susquehanna Coalition is based in Burdett, NY.

Figure 3-4 Watershed of the Upper Susquehanna Coalition



Source: Upper Susquehanna Coalition (<http://www.u-s-c.org/html/>)

State Agencies and Organizations

The following agencies are listed to acknowledge their purpose and priorities for managing public lands and supporting sound community development throughout Pennsylvania's local communities. To the extent that these agencies offer technical and financial assistance to communities, the state agencies' priorities are portals to technical and financial assistance programs. When local project sponsors can demonstrate that their projects would implement or advance these priorities, funding is more likely to be awarded.

Public Sector

The **Pennsylvania Department of Conservation and Natural Resources (DCNR)** is charged with maintaining and preserving the 116 state parks; managing the 2.1 million acres of state forest land; providing information on the state's ecological and geologic resources; and establishing community conservation partnerships with grants and technical assistance to benefit rivers, trails, greenways, local parks and recreation, regional heritage parks, open space and natural areas.⁹ DCNR recognizes that its conservation mission extends well beyond the boundaries of public lands and seeks the assistance of advocates in the public and private sectors to foster stewardship among local communities, sister state agencies, non-profit conservation organizations, and private landowners. DCNR is also the lead agency

⁹ Pennsylvania's Recreation Plan 2004-2008, April 2004.

advancing the State Greenway Plan and the Susquehanna Greenway. The Bureau of Recreation and Conservation and the Bureau of Forestry, and the Bureau of Topographic and Geologic Survey are the primary outreach divisions of DCNR that interface with local government and the private sector.

The DCNR's **Bureau of Recreation and Conservation** is responsible for fostering, facilitating and nurturing the great majority of these partnerships through technical assistance and grant funding from the Community Conservation Partnerships Program (C2P2). A priority goal of the bureau is to develop and sustain partnerships with communities, non-profits and other organizations for recreation and conservation projects and purposes.

To carry out its mission of ensuring the long-term health, viability and productive of the Commonwealth's forests and conserving native wild plants, the **Bureau of Forestry** employs a Service Forester in the county. The Service Forester gives professional guidance and technical assistance to private landowners, assists community organizations with urban forestry and assists schools with forestry education programs. The Service Forester implements the Forest Stewardship Program. The program provides information, education and technical assistance to encourage, help and recognize private forest landowners who keep their lands and natural resources productive and healthy. The program includes a written management plan and provides cost-share money to pay help for the preparation of such a plan.

The **Bureau of Topographic and Geologic Survey** is tasked with collecting, preserving, and disseminating impartial information on the Commonwealth's geology, geologic resources, and topography in order to contribute to the understanding, wise use, and conservation of its land and included resources. The Bureau maintains information on groundwater, sinkholes, karst hazards, energy and mineral resources, and aerial photography.

DCNR also acknowledges that recreation planning is an increasingly complex responsibility for local communities, as demands for recreation services increase, as communities age, and as developers and environmentalists debate land values and purposes. In the midst of these challenges, "recreation offers real hope in the face of society's real problems — that it can have a substantial role in improving health and fitness, reducing substance abuse, stimulating tourism and economic growth and, in general, making life better for Pennsylvania citizens."¹⁰ DCNR has researched and published white papers on several major issues to help communities understand and deal with these issues. These papers can be accessed at <http://www.dcnr.state.pa.us/info/shapefuture/whitepapers.aspx>.

To address these challenges, DCNR has focused its support for local parks and recreation on creating healthy and livable communities that include open space, linkage of public space, and recreation facilities.

The **Pennsylvania Department of Environmental Protection (DEP)** is the state agency largely responsible for administering Pennsylvania's environmental laws and regulations. Its responsibilities include reducing air pollution; making sure our drinking water is safe; protecting water quality in our rivers and streams; making sure waste is handled properly; managing the Commonwealth's recycling programs; and helping citizens prevent pollution and comply with the Commonwealth's environmental regulations. DEP's priority open space initiative is Growing Greener, described below under "Joint Initiatives."

DEP also coordinates the **Citizens' Volunteer Monitoring Program** through its Bureau of Watershed Management. The program offers organizational and technical assistance to citizens interested in environmental monitoring. Various publications address protocols, monitoring programs, quality

¹⁰ Ibid.

assurance; the program also offers training sessions and conferences. Data collected by citizen volunteer monitors is compiled and posted DEP's website.

Since 1999, the **Governor's Center for Local Government Services**, within the Department of Community and Economic Development's¹¹ has served as the principal state entity responsible for land use assistance and monitoring. The center encourages communities to plan wisely for future growth and development while preserving and protecting the environment and natural resources. The Governor's Center promotes the preservation of open space and the provision of recreational opportunities as important components of sound community planning, as established by the provisions of the Municipalities Planning Code and the cooperative technical and financial assistance of DCNR.

The Center offers educational programs through the Pennsylvania State Association of Boroughs and the Pennsylvania State Association of Township Supervisors to local government officials and staff, as well as technical assistance with land use management techniques. The Shared Municipal Services program and Land Use Planning and Technical Assistance Program are the center's financial assistance services that promote cooperative service agreements and planning, respectively.

The Center's priorities include its partnerships with its sister state agencies to fund cooperative initiatives to support sound land use planning and promote recreation, greenway, and open space planning to local governments.

- Funding to the Natural Lands Trust to promote the integration of conservation by design concepts into local plans and regulations.
- Funding to The Conservation Fund to develop a Pennsylvania-based "Better Models for Development" book.
- Funding to assist counties in completing Natural Resources Inventories.

Pennsylvania's Department of Transportation (PennDOT) is responsible for meeting the transportation needs of the Commonwealth. While the public's perception of PennDOT is often focused on highways, PennDOT also provides transportation programs and funding for bicyclists and pedestrians, as well as transit riders. With this multi-modal responsibility, PennDOT was one of the sponsor agencies for Pennsylvania's greenway initiative.

PennDOT's current priorities include its Home Town Streets/Safe Routes to School program, which reimburses communities for sidewalk and trail improvements, and context sensitive solutions, which promotes the design of transportation facilities that meet travel needs and support other community development goals, such as visual character and pedestrian mobility.

The **Pennsylvania Fish and Boat Commission (PFBC)** is the sole agency responsible for the protection, propagation, and distribution of game fish, fish bait, bait fish, amphibians, reptiles, and aquatic organisms. The Commission is also responsible for managing recreational boating in the Commonwealth.¹² While other agencies focus on land-based linkages and recreational experiences, PFBC focuses on the water-based environment.

PFBC launched the water trail program in response to increased demand for information on fishing and boating opportunities and the need for associated boating safety information to boaters. The water trail program is a co-sponsored program, described below under "Joint Initiatives."

¹¹ Ibid.

¹² Pennsylvania's Recreation Plan 2004-2008, 2004.

In July 2005, the PFBC initiated the Boating Facilities Grant Program to fund local projects to develop, improve, or rehabilitate public recreational boat launches and encouraged eligible public entities to apply for a second round of funding through the Boating Facilities Grant Program.

A sister agency to the PFBC, the **PA Game Commission (PGC)** is responsible for non-game mammals and birds and well as game species. All endangered, threatened, and species of special concern that are mammals or birds come under their jurisdiction.

The PGC has recently adopted a new management approach. Wildlife management units (WMUs) are now the geographic basis for management techniques and decisions by the Game Commission. Bradford County lies within WMUs 3A, 3B and 3C. The Game Commission monitors the habitat and harvest of bear, antlered and antlerless deer, and various small game in Bradford County and across the state. Statistics for recent bear and deer harvest can be found in Chapter 2.

In 2005, the PA Game Commission in cooperation with the Pennsylvania Fish and Boat Commission began a new program to help landowners manage their lands for non-game species. PGC established a Wildlife Diversity Biologist position in each of its six regions. These biologists provide technical assistance to landowners and help develop habitat management plans related to landowner objectives and species of greatest concern. They are also able to conduct workshops on and facilitate conservation easements.

The northeast regional office of the Game Commission serves Bradford, Carbon, Columbia, Lackawanna, Luzerne, Monroe, Montour, Northumberland, Pike, Sullivan, Susquehanna, Wayne, and Wyoming Counties and is located in Dallas, PA.

Joint Initiatives

The state agencies have partnered together on several statewide initiatives, including some led by the private sector.

The **Coldwater Heritage Partnership (CHP)**, based in Bellefonte, Centre County, is a collaborative effort between the PFBC, DCNR, Western Pennsylvania Watershed Protection Program and Pennsylvania Trout. The Coldwater Heritage Partnership provides coordination, technical assistance, and funding support specifically for the evaluation, conservation and protection of Pennsylvania's coldwater streams and watersheds. Organization start-up, planning studies, restoration/mitigation, and educational projects are eligible for Partnership funding.

Growing Greener ties together economic and community development with environmental initiatives. Established by Governor Ridge and continued by Governor Rendell, the Growing Greener program funds projects that return contaminated industrial sites and other polluted sites to productive use; protects farmland and open space from development; cleans up polluted streams and reclaims abandoned mines; and improves state and community parks and green infrastructure for fish and wildlife. This statewide initiative has funded the start-up of local watershed associations and their initial data collection efforts in Bradford County. Growing Greener is also the source of state farmland preservation funds allocated to counties for agricultural conservation easements.

Growing Greener: Conservation By Design™ is a state-wide program that builds conservation principles into the development process. Based on the approach developed by Randell Arendt at the Natural Lands Trust, this program targets the community development designers (developers) and decision-makers (municipal officials). Municipal officials can amend the process into their development regulations and developers can apply the approach to their design process.

The program's four components:

1. Enable participants to envision the built-out condition of their communities under current regulations and assess the potential for private conservation efforts to conserve open space and valued resources.
2. Encourage communities to identify preferred open space lands geographically in their comprehensive plans.
3. Promote reasonable zoning regulations that provide options rather than prescriptions for development.
4. Provide municipal officials and developers with a subdivision process that conserves open space and allows economic growth.

The program is recognized for its non-confrontational approach that protects a portion of each traditionally defined parcel, "builds" open space into new development, and requires little to no land acquisition or easement costs.

Growing Greener is a collaborative program of the Pennsylvania Department of Conservation and Natural Resources (DCNR), the Governor's Center for Local Government Services and Natural Lands Trust, with additional direction provided by state and local agencies including the Pennsylvania Environmental Council, the Pennsylvania State University Cooperative Extension, and the private sector.

The **Pennsylvania Urban and Community Forestry Council**¹³ is a nonprofit organization made up of all kinds of people who want to improve our community forests and green spaces. The Council guides a statewide program that provides technical and financial assistance for communities and volunteer groups. The Council provides financial assistance to communities through America the Beautiful grants and other grants. Council also supports the Penn State Extension Urban Forestry Program, which provides technical assistance to communities. Information on the various grant programs is available in the Pennsylvania Urban and Community Forestry Council website, <http://www.dcnr.state.pa.us/forestry/pucfc/index.html>. Urban & Community Forestry Grant applications are due on March 15 of each year for spring plantings or pruning in the following year, and October 15 for a fall planting or pruning in the following year.

The **Important Bird Area (IBA)** program aims to help combat threats to bird populations and the habitats we often share with them, by conserving the most essential and vulnerable areas with voluntary management efforts. Eighty-one (81) IBA sites have been designated in Pennsylvania; none of these are in Bradford County. The program is open to additional site nominations. Details about the nomination process can be found in the online IBA Book: A Guide to Critical Bird Habitat in PA¹⁴. Audubon Pennsylvania, a private, non-profit organization, is the lead organizations for this program.

Agency grants and private donations are used to develop an IBA database, write conservation plans, implement conservation actions, develop volunteer training for monitoring programs, and engage local communities in conservation activities.

The **Important Mammal Areas Project (IMAP)** aims to ensure the future of Pennsylvania's wild mammals, both game and non-game species, through voluntary habitat management. IMAP is being carried out by the IMAP Partnership—a broad based alliance of sportsmen, conservation organizations,

¹³ Pennsylvania Urban and Community Forestry Council website, <http://www.dcnr.state.pa.us/forestry/pucfc/index.html>.

¹⁴ http://pa.audubon.org/iba/facts_info_site_book.html

wildlife professionals, and scientists. The PA Game Commission passes wildlife funding to the alliance to maintain IMAP.

DCNR supports and advances this project by awarding additional rating points to IMAP-designated sites when scoring grant applications, thus increasing the likelihood of a grant award.

LandSavers is a partnership of Heritage Conservancy, DEP, GreenWorks, and DCNR. This public-private partnership presents information on the benefits of open space, the costs of development and land preservation, and funding options for open space programs, among other related topics. LandSavers can be accessed online at www.greentreks.org/landsavers.

Pennsylvania Water Trails Program is a joint initiative of DCNR, the Fish and Boat Commission, and the Pennsylvania Environmental Council (PEC) to encourage tourism and economic revenues to local communities, to provide water-based recreation, and to foster environmental stewardship among paddlers.¹⁵ The program provides guidelines to communities and organizations that want to develop a designated water trail, technical assistance in the development process, and marketing of designated water trails through Paddle Pennsylvania, a print and online publication.

Pennsylvania Advocates for Nutrition and Activity (PANA) is composed of more than 500 public, private, academic, professional, and volunteer groups that are working to promote policies and environments that support healthy eating and activity. This organization began operating in 2003 as a facilitator for the implementation of Pennsylvania's Nutrition and Physical Activity Plan to Prevent Obesity and Related Chronic Diseases. Its mission is to build state-wide capacity for developing an environment to support and promote active lifestyles and healthy food choices through collaboration and coordinated communication. The organization has three goals: to serve as a communication clearinghouse and statewide nutrition and activity resource; to facilitate the implementation of Pennsylvania's Nutrition & Physical Activity Plan; and to assess the effects of statewide PANA-related activities.

The **Pennsylvania Biodiversity Partnership**¹⁶ works to conserve biodiversity statewide by promoting communication and cooperation among a broad spectrum of stakeholders. Partnership members represent conservation and environmental organizations, government agencies, business and industry, scientists and academic institutions, sportsmen, and private landowners. The partnership is in the midst of a multi-year process to formulate the Pennsylvania Biodiversity Conservation Plan (BCP) that identifies gaps in scientific knowledge, establishes criteria for measuring Pennsylvania's biodiversity, and consolidates and completes recommendations for the protection of Pennsylvania's biodiversity. One of the plan's goals is to establish informed priorities for inventory, monitoring, and conservation at a statewide level. The partnership is led by a 22-member board of directors, including representatives from several state agencies; its two-person staff is based in Pittsburgh.

Other cooperative agency initiatives include the development of a Pennsylvania-based "**Better Models for Development**" book, led by The Conservation Fund, and **Natural Resource Inventories** for every county in the state.

Penn State Cooperative Extension in Bradford County gives local residents easy access to the resources and expertise of the Pennsylvania State University.¹⁷ The Cooperative Extension offers research-based information through educational programs, publications, and events. Rooted in the College of Agricultural Sciences, many of the Cooperative Extension programs focus on the home and business

¹⁵ <http://www.pecwest.org/watertrails.dwt>.

¹⁶ <http://www.pabiodiversity.org>

¹⁷ <http://bradford.extension.psu.edu>

aspects of agricultural and rural communities. Programs are intended to build the knowledge base and leadership capacity of rural citizens in the areas of horticulture and gardening, forest stewardship, community and economic development. The Cooperative Extension also helps families with information on food and nutrition, child care, and offers youth enrichment programs such as the 4-H program.

Much like the Conservation District, the Cooperative Extension works closely with landowners and community organizations. Its outreach programs, particularly the annual Ag Expo, are popular with farmers, forest landowners, and their families.

Private Sector

The **Keystone Watershed Monitoring Network** is an umbrella organization for environmental monitoring across Pennsylvania. The Keystone Watershed Monitoring Network, coordinated by POWR (See page 26), is a statewide association of citizen monitors, agencies and organizations established to promote volunteer monitoring to improve the health of Pennsylvania's watersheds. The Network began as the Volunteer Environmental Monitoring Panel in 1998, headed by the Department of Environmental Protection (DEP). The Network comprises non-profit organizations, county, state and federal agencies, and watershed volunteers. POWR has secured funding to begin the development of a data system that will allow monitors to view data, both volunteer- and agency-collected, from watersheds across the State. Development of this data system is expected to be completed by Fall of 2005, with a final version to be released soon thereafter.

Volunteer regional delegates to act as liaisons between the eleven watershed-based service regions and Steering Committee. Bradford County lies in the Upper Susquehanna Region. Volunteer monitors of the Upper Susquehanna are interested in learning more about study design, data to action, strategic planning, and regional impaired waters. They would also like to hear about case studies and would like assistance with project administration. Plans are currently underway for facilitating a regional meeting to help address some of these needs.

In addition to the IBA program, **Audubon Pennsylvania** has also developed **The Susquehanna River Birding and Wildlife Trail Guide** to lead wildlife observers to locations that afford ample opportunity to view birds and other wildlife. The guide is available in print or online formats.

PA Cleanways, Inc. is a non-profit organization dedicated to the fight against illegal dumping and littering in Pennsylvania's communities. The organization programs site and community cleanups, site adoptions and education events and activities. Site adoptions enable grassroots organizations to adopt responsibility for keeping a designated area trash-free. Local roads, parks, greenways, waterways and trails are common adoptees.

The **Pennsylvania Environmental Council (PEC)**¹⁸ is a non-profit advocacy organization dedicated to sound environmental policy and decision-making by state government. The council provides critiques of proposed legislation by testifying and publishing its findings for members. PEC was a strong advocate for the passage of the 2000 amendments to the Municipalities Planning Code. PEC's work in the northeastern region of Pennsylvania has focused primarily on statewide initiatives such as the Susquehanna Greenway and the Pennsylvania Water Trail program, though it has also promoted the reuse of brownfields and grayfields in Luzerne and Lackawanna Counties and partnered with DCNR and the Susquehanna River Basin Commission (SRBC) to prepare a Rivers Conservation Plan for a two-mile wide corridor along the North Branch of the Susquehanna River.

¹⁸ <http://www.pecpa.org/>

The **North Branch of the Susquehanna, Rivers Conservation Plan** (2003) was funded by DCNR and the Center for Rural Pennsylvania. The study corridor extends from Jenkins Township and Wyoming Borough in Luzerne County to the New York border and includes the Great Bend area in Susquehanna County.

Through its inventory, analysis and recommendations, the Rivers Conservation Plan highlights the following aspects of the river corridor:

- the lack of recreational amenities, both land- and water-based, including state parkland along the river for residents and tourists
- the need for functional connectivity of ecological and recreational systems throughout the corridor, specifically in terms of study, recommendations, and implementation
- the opportunities to conserve local heritage alongside natural features
- the need for publicity and education on the array of opportunities available along the corridor.

These opinions are consistent with those heard during the development of the Bradford County comprehensive plan in 2002/2003.

Development of the River Conservation Plan also included a survey of municipal officials. Recreation Opportunities and Habitat Protection and Enhancement were the highest ranked important land and water protection issues. Stormwater/Flooding received the third highest ranking. Cultural Resources, Farmland Protection, Land Ownership, Management and Stewardship, State and Federal Regulation/Funding and Stream Water Quality and Quantity were tied at the fourth highest rank.

In order to move from issues to action, the River Conservation Plan developed a vision for the North Branch of the Susquehanna River toward which state, county, and local partners from the public and private sector can begin to work.

Visioning meetings were conducted throughout the corridor. Six meetings were held in various locations throughout Bradford County and attended by members of the Bradford County subcommittee. Throughout the visioning meetings in Bradford County, concern was expressed for the future of the river. The committee members agreed that the river is the county's outstanding feature, and should be protected in some way, such as through a scenic river designation. The committee discussed:

- the potential development of gas-fired power plants to generate electricity on the river at Lounsberry, NY (North of Bradford County) and at Wysox (Bradford County) that could affect the river in terms of turbulence, sediment and water use
- the introduction of non-native species and the disappearance of pan fish, grass and clams
- the amount and quality of recreational resources, noting that while they enhance a community, rural areas often struggle to keep recreational areas maintained and safe
- conflicting recreational uses, such as ATV users on trails also used by hikers
- a lack of enforcement of fishing and boating rules for current river users
- erosion and sediment build-up, particularly at the mouth of Satterlee Creek in Athens
- a lack of knowledge by landowners around the river
- a lack of timely state cooperation and support, with a slow and complicated grant process
- an interest in developing relationships with New York State communities to further benefit the river

Concerns and interests for the river corridor in adjacent counties identified other issues for the plan to address. Discussion in Susquehanna County focused primarily on economic and community development opportunities, e.g. tourism and revitalization, followed by environmental concerns (flooding and sedimentation) and recreational use and appreciation. The Wyoming County subcommittee highlighted the lack of state land (park, forest, game land or river access point) in the county, a continuing commitment to riverside park and trail projects and concern for agricultural runoff

The final vision incorporates the input from each of the visioning meetings and describes the corridor as residents and partners would like to see the corridor developed and conserved for future use and benefit.

Vision for the North Branch of the Susquehanna River

1. Recreation and Public Access

- River corridor abounds with quality recreational opportunities that are realized or created, heavily promoted and utilized. Local citizens are satisfied with available recreational facilities and have the ability to access them.
- Recreation carefully managed to protect environmental resources and needs of landowners.

2. Ecological/Environmental

- Corridor is renowned for pristine and scenic natural areas and wildlife.
- Sustainable land and water use has achieved a balance between economic development and conservation.
- Water resources support the needs of pristine natural areas and wildlife and community needs for quality drinking water, quantity of water and recreation.

3. Historical and Cultural

- River corridor's history and cultural heritage has been recorded, promoted, made accessible and utilized.

4. Economic and Tourism Development

- Traditional and cottage industries (farming, forestry, gravel and blue stone mining) continue to play a key role in the local economy.
- River related "green" industries/resources exist and are used to attract new business and industry to the region.
- Community has achieved/ developed economic/job opportunities that are attuned to conservation needs.
- An environment has been created that will attract citizens to live and work in the corridor.

5. Partnerships Outside of Study Corridor

- River conservation efforts are coordinated with partners up and down stream.

6. Information/Education

- Educational efforts have informed the local residents and tourists of the values of the river to the region and conserving the river corridor.
- Citizens, communities, tourists, business and industry are good stewards and are acting to both achieve and maintain our (steering committee) vision.

The action plan and management options chapter of the Rivers Conservation Plan follows the vision statement with recommendations, many of which have been suggested through the plan's development. The recommendations state that

- local communities need to develop new recreational facilities for use by local residents, and to enhance eco-tourism opportunities.
- continued development of watershed organizations, creation of storm water management plans, and comprehensive plans are needed to prevent, mitigate and manage ecological and environmental sensitivities
- though the corridor is rural in character, communities need to proactively address open space protection and growth management to avoid urban sprawl
- communities pursue walking tours of historical areas, designation of new historic districts and restoration and preservation of a variety of historic buildings as for their direct value toward conserving local heritage as well as the indirect economic benefits from tourism
- “eco-tourism opportunities abound,” and projects should be pursued for individual sites and throughout the corridor
- coordination and cooperation with agencies, non-profits, and municipalities in both New York and Pennsylvania are needed to comprehensively address the river
- public information and education projects, including special events, are needed to enhance the public’s understanding and appreciation for the river corridor.

The Pennsylvania Organization for Watershed & Rivers (POWR)¹⁹ advocates for the protection, restoration and enjoyment of water resources and conducts programs that foster stewardship, communication, leadership, and action. The organization promotes watershed awareness and education and operates the Keystone Watershed Monitoring Network, which contains water quality data, network contact information, training information, volunteer information, funding information, and service providers. POWR is based in Harrisburg.

The **Pennsylvania B.A.S.S. Federation**²⁰ is a nonprofit organization made up of seven districts with 102 bass fishing clubs and 1,518 members. This organization represents all the interests of local bass clubs and districts within the state. Pennsylvania B.A.S.S. Federation promotes district conservation efforts and youth fishing, “Casting Kids.” PA B.A.S.S. is based in Mercer, PA. While there are no affiliated local clubs in Bradford County, the organization supports conservation of natural resources throughout the state.

The **Pennsylvania Recreation & Park Society** was founded in 1935 and is the principal organization for promoting quality recreation and park opportunities to Pennsylvania residents through education, training, technical assistance, and other support to local, county, state, and federal recreation and park providers. Its mission statement is to unite recreation and park professionals and interested citizens to enhance their leadership in meeting the recreational needs of Pennsylvanians. The Society offers information about branches & programs, education & training, library & resources, public policy & legislation, awards & scholarships, and grants & funding. PRPS is based in State College, PA.

The **Pennsylvania State Snowmobile Association (PSSA)**²¹ is a partnership of individuals, businesses, and sporting clubs promoting the safe recreational use of snowmobiles. The Association works to establish local clubs, such as the Northeast PA SnoTrails Association, and sponsors annual safety classes.

¹⁹ POWR website, www.powr.org.

²⁰ **Pennsylvania B.A.S.S. Federation** website, <http://www.pabass.com>

²¹ <http://www.pasnow.org/>

Interstate and National Agencies and Organizations

The **Chesapeake Bay Program (CBP)** is a regional public partnership of Maryland, Pennsylvania, Virginia, the District of Columbia, the Chesapeake Bay Commission and the U.S. Environmental Protection Agency (EPA) to restore and protect the Chesapeake Bay by supporting local projects and actions. CBP provides a variety of grant programs and publications to assist local partners in restoring and protecting waterways and the watershed. CBP funds best management practices on farm and non-farm properties; the program also funds an engineer and two technicians through the Bradford County Conservation District.

The Chesapeake Bay Small Watershed Grants Program provides grants to organizations working on a local level to protect and improve watersheds in the Chesapeake Bay basin, while building citizen-based resource stewardship. The purpose of the grants program is to address the water quality and living resource needs of the Chesapeake Bay ecosystem. The Bradford County Conservation District has received Chesapeake Bay Small Watershed Grants for stream habitat enhancement projects.

The **Alliance for the Chesapeake Bay, Inc.**,²² is a regional public-private partnership that works to build partnerships and foster consensus to protect and restore the Bay. The Alliance creates capacity and opportunity for citizens to participate constructively and proactively in policy-making and restoration activities throughout the Bay watershed. To this end, the Alliance provides analysis, information and evaluation of Bay policies, proposals, and institutions; mobilizes decision-makers, stakeholders and other citizens to participate in discussions on Bay issues; and develops methods and training tools to help citizens participate in watershed restoration activities.

The **Chesapeake Bay Foundation**,²³ founded in 1967 as a non-profit organization, has a mission to sustain and restore the Chesapeake Bay's ecosystem by substantially improving the water quality and productivity of the watershed, with respect to water clarity, resilience of the system and diversity and abundance of living resources. With a listed membership of 81,000, the Chesapeake Bay Foundation is the largest conservation organization dedicated solely to preserving the Chesapeake Bay. The Foundation has three focuses: protecting natural resources, restoring habitats, and inspiring and engaging volunteers. The Chesapeake Bay Foundation is striving to build a watershed-wide environmental ethic in the classroom and in the field. The Foundation is actively involved with landowners in Bradford County, providing technical and financial assistance for riparian protection, including fencing, tree planning, easements, and trees to watershed organizations.

American Rivers is a national non-profit conservation organization founded in 1973 and dedicated to protecting and restoring healthy natural rivers that sustain people, fish, and wildlife. The organization focuses on America's most endangered rivers, clean water, dam removal, hydropower dam reform, wild rivers, sprawl, water scarcity and instream flow, endangered species, the rivers of Lewis and Clark, community watersheds, Army Corps reform, river science, and the rivers of Puget Sound. *A Citizens' Agenda for Rivers*, which creates a unified vision for improving national river health, was developed by collaborating partners of American Rivers. The plan has three priorities: water quality, water quantity, and well planned development.

The **American Canoe Association (ACA)**, founded in 1880, has a stated mission to promote the health, social and personal benefits of canoeing, kayaking, and rafting and to serve the needs of paddlers for safe, enjoyable and quality paddling opportunities. The Association attempts to communicate the benefits of canoeing, kayaking, and rafting as lifetime recreation and keeps participants informed about paddlesport

²² <http://www.alliancechesbay.org>

²³ <http://www.savethebay.cbf.org>

opportunities and activities. In the fields of paddlesport instruction and education, ACA is the nation's recognized leader. The Association also has a conservation and public policy department that helps to ensure clean, accessible recreational waterways for mutual enjoyment of paddlers and other recreational users. The ACA is one of the leading organizations that aid in the enforcement of the Clean Water Act. The ACA is based in Springfield, VA.

The **National Park Service**, an agency within the U.S. Department of the Interior, is focused on four areas: parks and recreation, history and culture, nature and science, and interpretation and education. The National Park Service works with communities to preserve and care for neighborhood treasures through grants, tax credits, and other assistance; works with teachers to create unique learning opportunities in science and history; and helps plan personal adventures with National Register of Historic Places travel itineraries.

The **Rails-to-Trails Conservancy (RTC)** works to enrich America's communities and countryside by networking public trails from former rail lines and developing new trail corridors. RTC promotes state and national policies that enable trail development and it works to protect trail-supporting funding programs. RTC also provides consulting services for trail development.

RTC is a 501(c)(3) nonprofit organization with more than 100,000 members and supporters. Founded in 1986, Rails-to-Trails Conservancy is located in Washington, D.C. and six regional offices nationwide, including one in Harrisburg.

The **Susquehanna River Basin Commission (SRBC)** is an interstate partnership established by Congress and the Pennsylvania, Maryland, and New York legislatures to enhance public welfare through comprehensive planning, water supply allocation, and management of the water resources of the Susquehanna River Basin. The Commission's Comprehensive Plan, originally adopted on December 13, 1973 and currently in the update process, provides a basin-wide strategy for water resource management. The Commission conducts projects on floodplain management, water supply and water quality, wetland protection, and related wildlife and cultural resources. In addition, SRBC offers educational presentations on a variety of environmental conservation topics.

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Chapter 4

An Analysis of Open Space and Recreation Needs

Planning for the future of any natural resource or man-made feature must contain an analysis of current conditions in order to draw relevant conclusions for the future. Beyond an inventory, an analysis compares the feature's location and condition to its function and service to the community. In some instances, comparing certain conditions to accepted standards and community values can help call attention to deficiencies in the feature's quantity, quality, and function. An assessment of the operations and management of these facilities can also acknowledge good management and identify areas for improvement. This chapter compares the needs of Bradford County residents, identified through interviews, focus group and advisory committee discussions and survey results, to the natural resources and built features available in the county.



Standards and Approaches

Recreation and open space analyses compare the available facilities and services with the needs of local residents. The analysis can address the number, type and distribution of facilities, the land area required for these facilities, as well as open space lands needed for nature-based or passive recreation. Analyses may also reference accepted standards as a measure of services or lands provided. The result is a determination of what additional or expanded facilities and land areas are needed to meet the identified needs.

Historically, these analyses were based on rigid numeric standards for total land acreage. But today, recreation planners are spending more time exploring the specific wants and needs of residents to program recreation *and open space* investments in ways that residents will appreciate and utilize and that will sustain or improve their quality of life. Land acreage is still important but now as a measure of progress over time rather than as the golden rule. In other words, recreational analyses are increasingly needs-based, facilities-driven and land-measured.

Standards

What's come to be known as the municipal park standard—10 acres per 1,000 residents—was initially intended as a guide or reference for the amount of public recreation land a local community should provide. It originally included a second component that addressed open space as well, by recommending an equal area (10 acres) in parkways, large parks (regional, county, state, or national), and forests within or adjacent to the community. Unfortunately, this second component lost emphasis over time and the simple ratio of 10 to 1,000 became a quick and easy measure of recreation service without much consideration for the unique factors of communities—population density and distribution, the presence of natural resources in the community, and access to state and federal parks, forests, and game lands. These characteristics strongly influence a community's needs for different types of recreational facilities. Today, many recreational planners still reference the historical “standards” as a measure of comparison to similar kinds of communities, but they place greater emphasis on meeting the unique needs of residents for both active and passive (nature-based) recreation through various approaches.

Approaches

A **formula-based approach** is the most general approach to recreational analysis and still relies on ratios to determine a suggested total acreage. Some communities still use the well-known and easy-to-remember 10 acres per 1,000 residents ratio, with or without provisions for regional parkways, large parks and forests. Other communities have increased or decreased the value of the ratio based on their residents' level of interest in public recreational lands. Still other communities have defined an acreage range per 1,000 residents, such as 8-14 acres per 1,000 residents, to give themselves flexibility in meeting their goals. Regardless of the number or range selected, the formula-based approach should result in a suggested ratio that can be modified based on the community location, growth patterns, and other factors.

A **facilities or service-based approach** focuses on what kinds of facilities are desired and how many are needed to serve the current and projected populations. This approach requires detailed data on facility locations, user trends and population change to identify and project trends in residents' recreational activities. Open space can be addressed in this approach, but again the emphasis is on function of the open space (intensive recreation, leisure/passive recreation, resource management, water supply/quality, etc.), not simply its total land area. Separate guidelines or standards for facility design are applied once the needed facilities are identified.

A **systems approach** integrates recreational sites and corridors into the overall community development pattern. This approach enables communities to minimize duplicate facilities, if desired, and emphasize bicycle and pedestrian linkages for fitness and travel. These linkages enable residents to walk, bicycle, skate, or otherwise travel between recreational sites and other community destinations, such as neighborhoods, schools, and libraries. The systems approach marries well with growth management techniques as it reduces the amount of recreational land needed by interconnecting recreational sites with bicycle-pedestrian routes, and sustaining natural resource corridors with linear open spaces (greenways). In some communities, the recreation network links sites of cultural and historical interest as well, supporting both tourism and recreation initiatives.

A **values-based approach** was also suggested during the planning process. This approach would establish measurable objectives for environmental and recreation indicators that reflect community values. For example, if the community values clean surface water, then establishing riparian buffers is a goal with a short term objective to buffer 10 miles of stream with 35'-100' of riparian forest. Values for wildlife might suggest that greenway corridors be conserved to interconnect habitats. And values for recreation and fitness could suggest objectives for developing 5 miles of trail extensions or new trails for walking, biking and hiking each year.

Regardless of which approach is used to analyze recreational open space lands, the context of the type of community should be considered. For example, urban residents living in dense neighborhoods tend to rely on public parks as the outdoor place to play sports, exercise, relax and socialize with neighbors. On the other hand, rural residents may have space and opportunities to do these kinds of activities on their own property. As a result the type, number and size of recreational facilities can vary widely from community to community, as shown in table 4-1.

Table 4-1 Relative Differences in Facilities in Urban and Rural Communities

Facility Type	Urban		Rural	
	Relative # of facilities	Size of facility	Relative # of facilities	Size of facility
Pocket or Mini Park	Many	1 ac	Few to Several	1 ac
Neighborhood Park	Many	5 ac	None	Not applicable
Community Park	Several	25 ac	1	5 ac
Athletic Complex	1 or none	50+ ac	1 or none	10-15 ac

The National Recreation and Park Association (NRPA) has traditionally published recreation guidelines as well as facility classifications, as shown in Table 4-2. These classifications can be used to characterize the kinds of parks, recreation and open space lands a community already has, and to identify the kinds of additional facilities that are desired.

Table 4-2 Parks, Open Space and Pathways Classifications

<i>Parks and Open Space Classifications</i>				
Classification	General Description / Function	Location Criteria	Size Criteria	Application of Level of Service (LOS)
Mini-Park	Used to address limited, isolated or unique recreational needs	Less than ¼ mile distance in residential setting	Between 2500 sf and one acre	Yes
Neighborhood Park	The basic unit of the park system; serves as the recreational and social focus of the neighborhood; focus on informal active and passive recreation activities	¼ to ½ mile distance and uninterrupted by non-residential roads and other physical barriers	5 acres (minimum); 5-10 is optimal	Yes
School Park	Facilities located on school property and available to the public	Determined by the location of school district properties	Variable	Yes – but should not count school only uses
Community Park	Serves as the recreational and social focus of the community; focus on formal or organized active and passive recreation activities, as well as preserving unique landscapes and open spaces	Based upon site features/limitations; usually serves two or more neighborhoods and a ½ to 3 mile distance	Variable to accommodate desired uses; usually between 30 and 50 acres	Yes
Large Urban Park	Serves broader purposes than a community park in an urban setting; provides large gathering space for a significant portion of the community	Variable, based on site features / limitations	Variable to accommodate desired uses; usually 50 acres (minimum); 75 or more is optimal	Yes
Natural Resource Area	Land set aside for preservation of significant natural resources, remnant landscapes, open space and visual aesthetics or buffering	Based on resource availability and opportunity	Variable	No
Greenways See also <i>Greenway Classifications</i> below	Links the components of the park system together to form a continuous park environment	Based on resource availability and opportunity	Variable	No
Sports Complex	Consolidates heavily programmed athletic fields and associated facilities into fewer; larger sites strategically located throughout the community	Strategically located based on site suitability, access, land use plan, etc.	Variable based on facilities provided; usually 25 acres (minimum); 40 to 80 acres is optimal	Yes
Special Use	Specialized or single-purpose facilities	Variable based on use	Variable	Depends on type of use
Private Park/Recreation Facility	Facilities that are privately owned yet contribute to the public park and recreation system	Variable	Variable	Depends on type of use

Table 4-2 Parks, Open Space and Pathways Classifications (continued)

Greenway Classifications		
Classification	General Description / Function	Description by Type
Conservation Greenway	Protects ecological functions, by interconnecting natural systems, namely wildlife habitat	Riparian Buffer: serves to protect ecological functions, namely wildlife habitat Landscape Corridor: linear or non-linear area managed for specific conservation objectives
Recreational Greenway	Provides informal, low impact recreation uses; most commonly as trails, but also for hunting, fishing, wildlife watching and cultural/historic site interpretation	N/A
Greenbelt	Interconnects conservation lands that wrap around a community	N/A
Pathway Classifications		
Classification	General Description / Function	Description by Type
Park Trail	Multi-purpose trail located within greenways, park, and natural resources areas	Type I: Separate/single-purpose hard-surfaced trail for pedestrian or bicyclists/in-line skaters Type II: Multi-purpose hard-surfaced trails for pedestrians, bicyclists, and in-line skaters Type III: Nature trails for pedestrians; may be hard or soft-surfaced
Connector Trails	Multi-purpose trail that emphasizes safe travel for pedestrians to and from parks and around the community; serves both transportation and recreation functions	Type I: Separate/single-purpose hard-surfaced trail for pedestrians or bicyclists/in-line skaters located in an independent right of way, e.g. old railroad bed Type II: Separate/single-purpose hard-surfaced trail for pedestrian or bicyclists/in-line skaters located within a public road right of way
On-Street Bikeways	Paved segments of roadways that safely separate bicyclists from vehicular traffic	Bike Route: Designated portions of the roadway for the preferential or exclusive use of bicyclists Bike Lane: Shared portion of the roadway that provides separation between motor vehicles and bicyclists, such as paved shoulder
All-Terrain Bike Trail	Off-road trail for all-terrain (mountain) bikes	Single-purpose loop trail usually located in larger parks and natural resource areas
Cross-County Ski Trail	Trail for traditional and skate-style cross-country skiing	Loop trails usually located in larger parks and natural resources areas
Equestrian Trail	Trails developed for hardback riding	Loop trails usually located in larger parks and natural resources areas; sometimes developed as multi-purpose trails with hiking and all-terrain biking where conflicts can be controlled

Source: Park, Recreation, Open Space and Greenway Guidelines, 1996; Creating Connections: The Pennsylvania Greenways and Trail How-To Manual, 1998.

Applied Approaches to Open Space and Recreational Lands

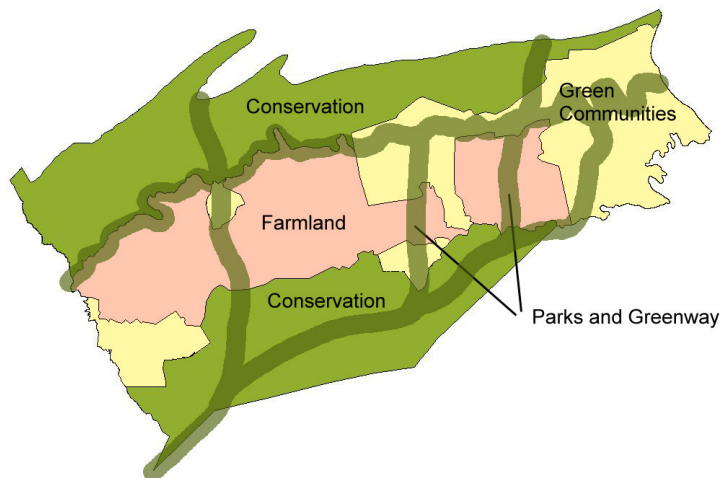
As stated above, every community looks at recreation and open space differently. Pennsylvania's open space and recreation initiative is gaining ground across the state. A handful of counties have completed and adopted some form of open space and recreation plan, and many others are in progress. Below are a few of the approaches being proposed and implemented across the state.

Monroe County adopted its Open Space Plan in 2001. The plan's primary goal for open space is to protect 50% of what was open space in 2001, and for parkland, to acquire an aggressive 20 acres of parkland per 1,000 residents by 2020. The county's approach to accomplishing these goals includes countywide and multi-municipal efforts in five defined regions. Each 20 acres of parkland is conceived as comprising 10 acres of county land and 10 acres of municipal/regional land. The county is to provide one 200+ acre county park featuring passive or nature-based recreation activities such as fishing, boating, and hiking, and one sports complex in each of the five multi-municipal regions.

Lackawanna and Luzerne Counties developed a two-county Open Space, Greenways, and Outdoor Recreation Master Plan in 2004. The plan aims to conserve agrarian lands, greenways, highlands, and natural areas. It prioritizes lands for conservation action, based resource presence, ecological index (ecological value), resource size and connectivity.

Cumberland County's Open Space Plan is nearly complete. This plan integrates strong support for private land management with targeted county investment in open space preservation and planning assistance to multi-municipal partnerships to accomplish its ultimate goals in each of the four designated regions: 75% of mountain ridges and hillsides from development through voluntary management and select regulation in the Conservation region, 50% of the Farmland region, designation of 5% of developed community areas as greenspace in the Green Communities region, and 100% protection of the Parks and Greenways network. The county is finalizing its action plan to focus investment for the next 20 years.

Figure 4-3 Cumberland County Open Space Preservation Concept



Lycoming County is in the process of developing a greenway, open space and recreation plan. In its draft state, the plan acknowledges the vast open space that exists in Lycoming County as the Tiadaghton State Forest. It places emphasis on connecting existing parks to the open spaces with land and water trails and greenways.

Facility-based Recreation Analysis in Bradford County

Bradford County residents have access to more than 61,000 acres of park and open space lands. The more than 1,000 acres of locally-owned public parkland in the county is comprised of nearly 200 acres of county parkland and nearly 700 acres of municipal and community parkland. The vast majority of the public open space lands are state park, forest and game lands, totaling 59,616 acres. An additional 148 acres of privately-owned parkland and 462 acres of open space is also accessible to the public.

Using the formula-based approach to compare these figures with the county's estimated 2004 population (62,596) demonstrates that for every 1,000 residents in the county, there are

- 19.18 acres of municipal and community parkland
- 3.15 acres of county parkland
- 952.39 acres of state land
- 9.75 acres of other parkland and scenic vistas open to public access

for a total of 984.47 acres of public park and open space lands per 1,000 residents. Based simply on these numbers, the availability of public park and open space land is quite high in Bradford County.

Table 4-3 Parks and Public Open Space Acreage

Parks and Public Open Space	Acreage	Acres per 1,000 residents*
Public Parks		
Municipal/Community Parks	1,200.46	19.18
County/Regional Parks	197.02	3.15
Total	1,397.48	22.33
State Open Space		
State Park	1,302.00	
State Forest	4,500.00	
State Game Lands	53,814.00	
Total	59,616.00	952.39
Privately-Owned Parks and Open Space		
Private Parks	148.38	
Scenic Vistas	462.20	
Total	610.58	9.75
GRAND TOTAL	61,624.04	984.47

Source: Bradford County

* Based on an estimated 2004 population of 62,596 residents

In the future, the need for municipal parkland may increase. Bradford County's population is expected to grow slowly in the coming years, as indicated by the comprehensive plan. This growth will not occur evenly across the county but rather is expected to occur primarily along the US 220 and Route 6 corridors. Some of this growth will result from new residents moving into the county and natural growth (births), but a portion will likely result from current residents re-locating within the county. These factors may bring new demands for recreation to the communities of Bradford County. Furthermore, the needs and desires of residents may change. The amount of recreation residents "do" may change, and their interests in select activities may change. The 2002 DCNR Resident Recreational Needs Survey found that overall

resident participation in outdoor recreation can be expected to increase by about 9 percent in the next five years.

County Parks

Table 4-4 presents projected population figures and county parkland needed to maintain the current rate of 3.15 acres per 1,000 residents. With slow to moderate growth projected, the county will need another 6.3 acres by 2010 and an additional 5.9 acres by 2020 to sustain its current parkland to resident ratio.

Table 4-4 Projected County Parkland Need, 2004-2020

Municipality	Current Local Park / Open Space Acreage	2004			2010			2020		
		Estimated Population	Park Acreage Need*	Park Acreage Surplus / Deficiency	Projected Population	Park Acreage Need	Projected Park Acreage Surplus / Deficiency (2000-2010)	Projected Population	Park Acreage Need	Projected Park Acreage Surplus / Deficiency (2010-2020)
Bradford County at 3.15 acres / 1,000 residents	197.02	62,596	197.18	-0.16	64,545	203.32	-6.30	66,428	209.25	-12.23

Source: U.S. Census Bureau; Bondata Services

County parks in Bradford County provide residents and tourists alike with recreation facilities that have a pleasant atmosphere for camping at reasonable rates. Campers have few complaints about the county park system and believe that the parks are adequately maintained. Responses from the 2002 DCNR Resident Recreation Survey indicate that residents are in fact more satisfied with county parks than municipal parks in Bradford County. But residents did suggest that the county parks could be improved with more facilities in unserved locations to increase convenience and more activity options within the parks.

Currently there is no master plan to evaluate or address either of these needs. While the parks, like most campgrounds, are rural in character, these public facilities should continue to evolve as the communities they serve change and grow. The new boat launch at Hornbrook Park is an example of the kinds of small improvements that can help to sustain public satisfaction.

Based on this analysis, the primary need regarding county parks is an expansion of the county park mission and a master plan to support physical and service improvements, including parkland, facilities, and activities.

Municipal Parks

A more refined analysis at the municipal level reveals that the distribution of park and recreation land varies greatly across the county. Several communities have extensive recreational lands (roughly 100 acres or more) available in a single park or property: Armenia, Athens, Burlington, and Columbia Townships. Other communities have multiple small parks: Athens Borough, Canton Borough, Sayre Borough, Towanda Borough, Wyalusing Township, and Wysox Township. And 22 of the 51 municipalities have no municipal or community parkland.

Table 4-5 Municipal Parks and Accessible Open Spaces

Municipality	Facility	Facility Size (in acres)	Total Municipal Park Acreage (in acres)
Alba Borough	Alba Community Park	1.21	
Armenia Township	Lamb's Lookout (privately owned)	350.72	
Asylum Township	Asylum Township Park	42.85	
Athens Borough	Athens Borough Park	9.85	25.94
	Downtown Teoga Square	1.24	
	IR Clubhouse	4.77	
	Valley Playland	10.08	
Athens Township	Round Top Park	645.00	752.04
	Glen Clark Playground	0.5	
	Jim Kong Community Park	3.8	
	Tioga Point Look Out	103.10	
Burlington Township	Mountain Lake	96.71	
Canton Borough	Canton Fireman's Field	6.46	7.68
	War Memorial Pool	1.23	
Canton Township	Minnequa Park	15.88	
Columbia Township	Sylvania Baseball Field	174.02	
LeRaysville Borough	Ball Park	4.14	
Monroe Borough	Monroe Borough Community Hall	1.56	
Monroe Borough/Monroe Township	Mountaineer Park	14.39	
New Albany Borough	New Albany Park	5.04	
North Towanda Township	North Towanda Playground	1.89	
Ridgebury Township	Ridgebury Township Community Park	5.45	
Rome Borough	Rome Borough Park	4.69	
Sayre Borough	East Side Park	1.26	37.32
	Fourth Ward Park	0.63	
	Howard Elmer Park	2.02	
	Island Pond	4.78	
	John DeSisti Park	0.50	
	Sayre Riverfront Park	27.92	
	Triangle Park	0.21	
Smithfield Township	Tom Jack Park	46.19	
South Creek Township	South Creek Community Building	4.71	
South Waverly Borough	South Waverly Community Park	2.33	
Towanda Borough	SCI Building	4.76	25.21
	Towanda Borough 4th Ward Park	0.87	
	Towanda Borough Park	3.65	
	Towanda Memorial Park	15.93	
Troy Township	Alparon Park	73.78	
Ulster Township	Totem Park	1.10	
Warren Township	Warren Community Park	11.00	
Wells Township	Wells Township Park	8.99	
Windham Township	Neball Baseball Field	15.04	
Wyalusing Borough	Wyalusing Fireman's Field	6.40	
Wyalusing Township	Marie Antoinette Lookout	2.76	8.37
	Wyalusing Rocks	5.62	
Wysox Township	East Side Riverfront Park	38.53	55.25
	Wilbur Beers Family Nature Area/Wysox Volunteer Fire Company	11.39	
	Wysox Boat Launch and Park	5.33	
Subtotal		1795.98	

A lack of municipal or community parkland in every community has not been an extreme burden to residents' quality of life. Many residents spend their leisure time walking, biking, hunting, or otherwise playing on their own properties and have little need for public parks. Those that do visit public parks are generally able to use any of the municipal parks regardless of the municipality in which they live. Others who want to take advantage of the state park, forest and game lands can fulfill their outdoor recreational needs within a few minutes drive.

Maintenance of existing recreational facilities is becoming an issue, according to residents. Responses to the 2002 DCNR Resident Recreation Survey indicated that maintenance of existing facilities is a higher priority than park improvements and expansion. Residents are concerned that equipment is becoming unsafe due to age and heavy use. Local officials are largely unaware of safety standards, but also lack the funds needed to bring playground and other recreation facilities up-to-date. Residents are concerned that the general cleanliness of parks could be improved.

Insight to the changing needs and desires of current residents can be found in other responses to DCNR's survey. Residents' support for improvements to existing facilities and investment in new facilities suggests that the municipalities, perhaps with the assistance or partnership of the county, should consider the following:

- The feasibility of winter activity expansion, specifically to determine whether the trend of seeking winter recreation outside the County is a matter of availability or preference.
- New or improved facilities with the following features, or improve marketing and publicity of existing facilities that offer these features:
 - Walking paths
 - Jogging and fitness trails
 - Hiking and backpacking trails
 - Bicycle paths
 - Ice skating areas
 - Environmental education areas
 - Heritage parks/historical sites
 - Scenic drives
 - Skateboarding and rollerblading areas
 - Sledding areas
 - Campgrounds with hook-ups
 - Cabin rentals
- Maintenance strategies, including regular inspection and periodic enhancement for existing trails and municipal parks.
- The designation or development of accessible walking routes within or near existing towns and villages, as well as in township parks
- Recreational facilities sized to accommodate small groups and families. For example, trails should be wide enough for at least two persons to walk or bike side by side and rest areas should accommodate multiple small groups.

Table 4-5 presents projected parkland needs by municipality based on 10 acres per 1,000 residents. Collectively, the municipalities of Bradford County have enough parkland to meet projected needs through 2020. Even at the current rate of 11.16 acres of municipal parkland per 1,000 residents, the municipalities would have more than 550 surplus acres. However, the bulk of existing municipal parkland is located in very rural areas, not near the population centers of the county.

Table 4-6 Projected Municipal Park Land Need, 2000-2020

Municipality	Current Local Park / Open Space Acreage	2000			2010			2020		
		Population	Total Park Acreage Need*	Park Acreage Surplus / Deficiency	Population	Total Park Acreage Need	Projected Park Acreage Surplus / Deficiency (2000-2010)	Population	Total Park Acreage Need	Projected Park Acreage Surplus / Deficiency (2010-2020)
BRADFORD COUNTY (municipal total)	1,302.43	62,761	627.61	674.82	64,545	645.45	656.98	66,428	664.28	635.15
Alba Borough	1.21	186	1.86	-0.65	198	1.98	-0.77	211	2.11	-0.90
Albany Township	0	927	9.27	-9.27	925	9.25	-9.25	922	9.22	-9.22
Armenia Township	350.72	166	1.66	349.06	201	2.01	348.71	238	2.38	348.34
Asylum Township	42.85	1,097	10.97	31.88	1,216	12.16	30.69	1,340	13.40	29.45
Athens Borough	25.94	3,415	34.15	-8.21	3,352	33.52	-7.58	3,283	32.83	-6.89
Athens Township	752.04	5,058	50.58	701.82	5,362	53.62	698.78	5,673	56.73	695.67
Burlington Borough	0	182	1.82	-1.82	192	1.92	-1.92	203	2.03	-2.03
Burlington Township	96.71	799	7.99	88.72	896	8.96	87.75	999	9.99	86.72
Canton Borough	7.68	1,807	18.07	-10.39	1,642	16.42	-8.74	1,474	14.74	-7.06
Canton Township	15.88	2,084	20.84	-4.96	2,063	20.63	-4.75	2,039	20.39	-4.51
Columbia Township	174.02	1,162	11.62	162.40	1,247	12.47	161.55	1,335	13.35	160.67
Franklin Township	0	698	6.98	-6.98	849	8.49	-8.49	1,015	10.15	-10.15
Granville Township	0	873	8.73	-8.73	908	9.08	-9.08	944	9.44	-9.44
Herrick Township	0	676	6.76	-6.76	704	7.04	-7.04	733	7.33	-7.33
LeRaysville Borough	4.14	318	3.18	0.96	298	2.98	1.16	278	2.78	1.36
Leroy Township	0	627	6.27	-6.27	643	6.43	-6.43	658	6.58	-6.58
Litchfield Township	0	1,307	13.07	-13.07	1,315	13.15	-13.15	1,321	13.21	-13.21
Monroe Borough	1.56	514	5.14	-3.58	486	4.86	-3.30	457	4.57	-3.02
Monroe Township	14.39	1,271	12.71	1.68	1,305	13.05	1.34	1,338	13.38	1.01
New Albany Borough	5.04	306	3.06	1.98	306	3.06	1.98	305	3.05	1.99
North Towanda Township	1.89	927	9.27	-7.38	943	9.43	-7.54	959	9.59	-7.70
Orwell Township	0	1,097	10.97	-10.97	1,083	10.83	-10.83	1,068	10.68	-10.68
Overton Township	0	187	1.87	-1.87	219	2.19	-2.19	253	2.53	-2.53
Pike Township	0	657	6.57	-6.57	628	6.28	-6.28	597	5.97	-5.97
Ridgebury Township	5.45	1,982	19.82	-14.37	1,932	19.32	-13.87	1,878	18.78	-13.33
Rome Borough	4.69	382	3.82	0.87	290	2.90	1.79	198	1.98	2.71

Bradford County Open Space, Greenways and Outdoor Recreation Plan

Municipality	Current Local Park / Open Space Acreage	2000			2010			2020		
		Population	Total Park Acreage Need*	Park Acreage Surplus / Deficiency	Population	Total Park Acreage Need	Projected Park Acreage Surplus / Deficiency (2000-2010)	Population	Total Park Acreage Need	Projected Park Acreage Surplus / Deficiency (2010-2020)
Rome Township	0	1,221	12.21	-12.21	1,407	14.07	-14.07	1,605	16.05	-16.05
Sayre Borough	37.32	5,813	58.13	-20.81	5,820	58.20	-20.88	5,819	58.19	-20.87
Sheshequin Township	0	1,300	13	-13.00	1,389	13.89	-13.89	1,481	14.81	-14.81
Smithfield Township	46.19	1,538	15.38	30.81	1,553	15.53	30.66	1,566	15.66	30.53
South Creek Township	4.71	1,261	12.61	-7.90	1,290	12.90	-8.20	1,319	13.19	-8.49
South Waverly Borough	2.33	987	9.87	-7.54	921	9.21	-6.88	853	8.53	-6.20
Springfield Township	0	1,167	11.67	-11.67	1,214	12.14	-12.14	1,262	12.62	-12.62
Standing Stone Township	0	596	5.96	-5.96	773	7.73	-7.73	972	9.72	-9.72
Stevens Township	0	414	4.14	-4.14	426	4.26	-4.26	438	4.38	-4.38
Sylvania Borough	0	200	2	-2.00	197	1.97	-1.97	193	1.93	-1.93
Terry Township	0	942	9.42	-9.42	1,014	10.14	-10.14	1,088	10.88	-10.88
Towanda Borough	25.21	3,024	30.24	-5.03	2,796	27.96	-2.75	2,562	25.62	-0.41
Towanda Township	0	1,131	11.31	-11.31	1,126	11.26	-11.26	1,119	11.19	-11.19
Troy Borough	0	1,508	15.08	-15.08	1,768	17.68	-17.68	2,047	20.47	-20.47
Troy Township	73.78	1,645	16.45	57.33	1,487	14.87	58.91	1,327	13.27	60.51
Tuscarora Township	0	1,072	10.72	-10.72	1,148	11.48	-11.48	1,226	12.26	-12.26
Ulster Township	1.10	1,340	13.4	-12.30	1,383	13.83	-12.73	1,426	14.26	-13.15
Warren Township	11.00	1,025	10.25	0.75	1,126	11.26	-0.26	1,231	12.31	-1.31
Wells Township	8.99	1,278	12.78	-3.79	1,557	15.57	-6.58	1,862	18.62	-9.63
West Burlington Township	0	782	7.82	-7.82	841	8.41	-8.41	901	9.01	-9.01
Wilmot Township	0	1,177	11.77	-11.77	1,300	13.00	-13.00	1,428	14.28	-14.28
Windham Township	15.04	967	9.67	5.37	1,076	10.76	4.29	1,189	11.89	3.15
Wyalusing Borough	6.40	564	5.64	0.76	443	4.43	1.97	322	3.22	3.18
Wyalusing Township	8.37	1,341	13.41	-5.04	1,448	14.48	-6.11	1,559	15.59	-7.22
Wysox Township	55.25	1,763	17.63	37.62	1,839	18.39	36.86	1,915	19.15	36.10

* Based on a standard rate of 10 acres per 1,000 residents

Source: U.S. Census Bureau; Bondata Services

Municipal Recreation Programming and Marketing

Recreational programs are provided by municipalities and the private sector, and are primarily organized as athletic programs for children and youth. Examples of these programs are Little League Baseball and youth soccer leagues. Marketing for these programs occurs through community news venues and school announcements. Participation is high, particularly for soccer in recent years, and is limited by the number and location of athletic fields available for these seasonal programs. There are few athletic or fitness programs for adults and seniors, and few non-athletic programs for any age group.

Residents expressed interest in more diverse recreational and leisure programs through the DCNR survey and public participation events. Their support was highest for teen programs and additional children's activities to expand current program offerings beyond the traditional youth athletics. Recreational and leisure activities for all age groups and specific programs for seniors were also noted as needs.

Recreation Partnerships

Partnerships for recreation facilities and programs have been used successfully in Bradford County. Some focus solely on recreation, while others integrate both recreation and education in the outdoor environment. These partnerships include the following:

1. Municipalities in the Valley work together on recreational programs through the Valley Regional Recreation Committee. The boroughs of Athens, Sayre, and South Waverly along with Athens Township provide athletic programs to Valley residents. A Peer Study was conducted among the Valley municipalities to explore the possibility of funding a Valley Parks and Recreation Coordinator; the position had general support, however the financial cost of such a position was too great and no position was created.
2. The Conservation District and the school districts have worked collaboratively on environmental education facilities and programs. This partnership has designed and constructed an environmental education center that includes wetlands and interpretive trails.
3. The Carantouan Greenway organization partnered with the Conservation District, Susquehanna River Basin Commission, and scouts to address volunteer training, wetland design/construction and trail maintenance along the greenway. This partnership brought together the technical knowledge and volunteer manpower needed for the project. Furthermore, it illustrates how local and regional agencies from the public and private sectors can work together.

These partnership have fostered broad awareness, support, and use of partners' programs and facilities. Partnerships like these share their resources and skills in accomplishing projects of common interest, recognizing that common interest is the first step.

State Lands

Table 4-3 shows that state lands in Bradford County are abundant. The Recreation Map further illustrates that the state lands are distributed throughout the county. Collectively, the state lands support a wide variety of recreational activities for individuals and small and large groups.

Trail use within the state game lands was the only issue raised during the planning process. Some residents would like greater trail access throughout the year rather than seasonally.

Nature-based Recreation

Water-based Recreation – Fishing and Boating

Water-based recreation on the Susquehanna River, its major tributaries, and the larger lakes and ponds throughout the county is popular with residents. Through the public involvement activities, residents voiced support for better access to public waterways, especially the Susquehanna River.

Access to the river is good but could be enhanced and systematically improved. There are several access points, however many are generally rural and do not have easy access to food, rest areas, and supplies needed by travelers and typically found in major community centers.

Access to the tributaries is limited. While they are much smaller in size (width and depth) compared to the river, they still offer great locations for fishing and paddling. Two of the tributaries are navigable – Wyalusing and Sugar Creeks. These creeks have areas of white water but do not have boat access for canoes and other types of water craft.

Other tributaries that could provide water-based recreation include the Towanda and Wysox Creeks.

Investment in water-based recreation within the county should focus on improvements such as:

- Designating and developing public access points for boating and fishing along the Wyalusing and Sugar Creeks;
- Improving fishing and swimming areas;
- Developing water and streamside trails, specifically after streambanks are stabilized; and
- Developing trail maps that include the location of rest and service facilities, as well as nearby attractions.

Camping

Camping is becoming the affordable “summer home,” whereby campers establish campsites and use them regularly throughout the season. While camping can still be as simple as pitching a tent in the woods, today most campers prefer at least a few basic facilities. Potable water, restrooms and showers are now fairly standard for campgrounds; electricity is standard on most recreational vehicle hook-ups. Athletic fields, hiking trails, and even swimming pools are common recreational amenities. And many facilities provide laundry facilities for seasonal or extended stay campers.

Campers in the 21st century increasingly want to leave their work behind and bring the entertainment and leisure aspects of their daily lives with them. Over the past few years, campers at Bradford County parks have requested cable and satellite TV connections and internet access. These services have not been considered crucial to the camp experience. Nonetheless the county parks, functioning as campgrounds, should be aware of trends in contemporary camping. As part of the master planning process, Bradford County may want to identify these trends in more detail and determine which of them to address through park planned enhancements and improvements.

Trails

There are many types of trail users in Bradford County. There are hikers, off-road bikers, ATV-riders, and snowmobilers of all ages and abilities. Each trail user has specific preferences and needs.

As for hikers, there are primarily two types – serious hikers and occasional hikers. Serious hikers prefer longer trails or a series of connected trails of varied difficulty and need support services, such as water, food, and lodging/camping, for multi-day trips. On the other hand, occasional leisure hikers need easy to moderate trails that can be accomplished in a few hours and need few support services.

Hiking trails in Bradford County are primarily day hike trails that are relatively short and easy to moderate in skill level; they serve the occasional hiker. They are not linked, connected, or otherwise networked to provide additional challenge for more avid hikers. There are no longer or more difficult trails for serious hikers in the county, though there are several multi-mile trails in the Endless Mountains Region.

Regarding the condition of existing hiking trails, residents have indicated that maintenance is a priority for existing trails. Maintenance efforts should include regular inspection for damage from storms and heavy use, associated repairs and periodic improvement. Expanding and connecting trails is also desirable but of a second priority. Two opportunities for future trail development include a rail trail along Schrader Creek and an extension of the river trail from NY southward into Bradford County. Furthermore, additional trail development could be accomplished within and between the state lands.

Motorized recreational vehicles, such as snowmobiles and all-terrain-vehicles (ATVs), continue to gain popularity and their riders are increasingly interested in trail routes. Many snowmobilers and ATV riders ride on their own personal or family property. The size and topography of the property thus limits the challenge of the ride. When snowmobilers want a longer journey or perhaps just a change of scenery, they can ride designated trails in the state game lands. Through the private sector, riders have joined clubs that provide access to private trail systems. When ATV riders want a change, they have no public land alternatives in the county. ATV-trails are designated on state forest lands in Clinton, Lycoming and Potter Counties but not in the Endless Mountains Region.

Currently, snowmobile trails are concentrated in the southwestern portion of the County. Many users have not pursued the development of public trails but have chosen to develop private trails and multi-mile trail networks. Because most of the trails are on private land, support facilities, such as rest facilities, parking, and places to stop for food and water, are few. Trail maintenance on these private networks sometimes lags, as the landowners are the maintenance providers; snowmobile associations are not typically responsible for the trail maintenance themselves.

In addition to trail access, residents expressed concern for trail user conflicts. Conflicts between motorized and non-motorized users can arise due to the differences in speed of travel, even between two types of motorized vehicles such as snowmobilers and ATV-riders. Separation of motorized and non-motorized user groups helps to minimize the possibility of injury. Such separation can be accomplished through separate trails and trail networks or through multi-use trails with specific use times or seasons for user groups.

Scenic Observation

Bradford County offers dramatic views of the natural and cultural landscape. Scenic sites are located throughout the county and feature views of the river, the fertile floodplains and valleys, and the mountain tops. Most are readily accessible from the public right-of-way and provide parking areas. They are generally well maintained. The interpretive sign at Wyalusing Rocks is an example of the kind of

educational enhancement that can improve residents' and visitors' understanding of the views' significance to the county and the region.

Recreation on Private Lands

Many families who own large tracts of land for farming and forestry predominantly use their own lands for recreation. Walking, hunting, wildlife observation, and even snowmobiling and ATV-riding have little to no impact on fields or forest from individuals, families and friends who respect the property and its owners. However, landowners have concerns for property damage and their personal liability when people drive motorized recreational vehicles (snowmobiles and ATVs) on their property without permission.

Open Space Analysis in Bradford County

This discussion of natural resources focuses on the use, management and quality of the resources. The analysis integrates data from Chapter 2 with the values and perspectives of residents who participated in the planning process. Furthermore, it illustrates the interrelationships of the resources, as the management of one resource affects the quality of another.

Land Resources for Farming and Forestry

Bradford County residents are deeply connected to the natural landscape through their values for agricultural and forest production, love of animals, wildlife habitat, stewardship and conservation, and the working lifestyle. These values are based in their family and community heritage and connect residents to past generations.

While these values remain steady, their influence on farm and forest operations changes over time and in relation to other community factors.

Recent trends reported by the agricultural censuses report that the total land farmed in Bradford County is decreasing at an approximate rate of 4,000 acres per decade. The census also shows that the number of farms is declining while farm size is increasing. In other words, fewer farmers are raising larger livestock herds and farming more acreage on average to retain viable operations. These trends are a result of fewer career farmers in the county, community policy toward agriculture and development, and the sheer economic challenges of farming today, including proximity to agri-business and support services and the availability of farming assistance and conservation programs.

Career Farming

Historically, farming in Bradford County has been a family operation with farms passing through generations of a single family. Today, young people in farming families are less interested in following in their parents footsteps. The seven-day workweek and moderate earnings are discouraging factors for many young people, when other trades and professions offer more financial security and more leisure time.

Education about farming and forestry in Bradford County remains an important initiative throughout the community. Vocational agriculture programs, animal showings such as those at the Troy Fair and chapters of the Future Farmers of America reflect an interest in the future in farming. These programs highlight the skills, resource, and technologies tomorrow's farmers and foresters need to be successful.

Fortunately and additionally, farmers from outside the county are purchasing existing farms and continuing agricultural production. Many of these new residents have come from southeastern Pennsylvania and New Jersey where land has become more valuable for development than for agricultural production. Overall, farming residents in Bradford County would like to see farming continue on existing farmlands.

Community Policy

When farms are not kept in the family or transferred to new farming owners, they are often sold whole or in part for development. The development itself may not be problematic, but conflicts can arise between the new residential neighbors and adjacent agricultural operations, especially when the farm produces dairy, poultry, pork, or beef products. Residents lacking an understanding of farming operations complain of “nuisances” and pressure farmers to change customary practices. When pressures for change result in additional restrictions or regulations, the profitability and sustainability of the farming operation and the industry as a whole is impacted. Likewise, the subdivision of woodland tracts makes it more difficult to sustain high quality timber and wildlife habitat on those and adjacent parcels.

Bradford County has taken steps to strengthen its policies to support the agricultural industry. The Agricultural Land Preservation Program is purchasing the agricultural easements on farms throughout the county. Five easements have been purchased and four more are pending approval. There is additional interest from farmers in the county, but some are concerned about the long-term impacts of the easements and the vulnerability of the easements to legal challenge if development pressure rises.

The county’s 2004 comprehensive plan also outlined enhanced policy in support of agriculture and forestry. Its land use plan designated expansive rural resource production areas for farming, forestry, and other open space industries. It introduced the transfer of development rights concept as a possible future program to aid in expanding existing communities, retaining the open countryside, and sharing the value and costs of new development between the two.

Economic Factors

Several economic factors influence the viability of farming forestry and their respective management decisions. Proximity to local supporting businesses such as equipment supply and repair, feed mills, and veterinary and stud services, impacts their travel time and their bottom line. Struggling farmers have little capital for new business start-ups and expansion that could diversify their income and strengthen their future. The availability of land for lease, which enables farmers to expand production without the burden of ownership and increased property tax, can be a deciding factor in a farmer’s future. Economic pressures on the forest resources industry are not as severe and the industry is strong and growing. Ultimately, the overall health and diversity of the agricultural and forestry marketplace, including both large and small operations, is critical to the future of these rural industries in Bradford County.

Landowners’ lack of knowledge and use of conservation programs can also hinder their operation. Many know of the tax relief programs, e.g. Clean and Green, for agriculture but not for forestry. In addition, it’s not widely known that resource management plans can open doors to funding opportunities, especially for conservation activities. Furthermore, many farmers and forest land owners are concerned that these programs and tools may be challenged and not have the lasting positive impacts that were intended.

Conservation and Preservation Programs

The **Bradford County Agricultural Land Preservation Program** purchases the development rights from landowners to preserve the land in open space uses, namely farmland. This is known as an agricultural easement. The development rights to four farms (five parcels) totaling almost 953 acres have been purchased in the county; purchase of the development rights to four additional parcels (approximately 560 acres) is pending.

The **Clean and Green Program** 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.¹ 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. If 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.

The **Agricultural Security Area Program** 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. 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 Challenges facing Forests and their Landowners in the county are somewhat different than those facing farmers.²

- **High Grading:** Pennsylvania's hardwood forests are primarily even-aged forests, that is, they are all approximately 80 to 100 years of age, having regrown from the extensive clear-cutting at the beginning of the last century. The temptation for landowners is to cut large diameter trees in the belief that the smaller remaining trees will then grow to replace them. These smaller trees, however, are the same age as the larger trees but genetically inferior and will not grow to produce a sustainable forest. The landowner's best insurance for a sustainable cut is a management plan and a consulting forester.
- **Pests and Disease:** Since the last Bradford County Comprehensive Plan, the county forests have experienced epidemics of both native and non-native pests and invasive species. Gypsy Moth, Forest Tent Caterpillar, Elm Spanworm and Hemlock Woolly Adelgid have affected the health of the county's woodland; Multiflora Rose, Russian/ Autumn Olive and other non-native plants are very difficult to eradicate. Perhaps the greatest challenge facing forest regeneration at the present time is a deer population greater than the carrying capacity; without control of the deer population, Bradford County's forests and the industry dependent on them cannot be expected to remain productive in the future.
- **Fragmentation and Parcelization:** With increasing development in forested areas there is the danger of increasing land use conflicts between forestry uses and housing developments. This development also leads to forested tracts being broken into smaller sizes. Small properties are difficult to manage for profitable timber production and effective wildlife habitat. Careful land

¹ <http://www.co.centre.pa.us/planning/cleanandgreen/cleanandgreensummary.pdf>

² Bradford/Sullivan Forest Landowners Association

use planning can help minimize conflicts and facilitate the preservation of forestland in sizes that make it possible to practice sustainable forestry.

- **Long-term Management of the Forests:** Forests are typically harvested in rotations of 80 years or more, longer than the human lifespan. Managing a sustainable forest involves thinking beyond a single human lifespan and transferring the care of a forest from one generation to another. Supporting education on estate and tax planning, conservation easements and forest legacy programs is an important way to maintain the continuity of management.

Bradford County recognizes the agricultural and forest industries as economic and cultural assets. As land uses, they require few government services for the tax revenue they generate. Within the economy, they support secondary services, related to equipment, harvesting, and resource management. And culturally, they keep people connected to the land and their heritage. Therefore it's critically important to sustain them.

Agricultural and forest landowners need cooperation and assistance from the county and its partners to achieve their goals, sustain the industries and be good stewards of land and other resources. They believe they would benefit from:

- Residents who understand basic farming and forest practices
- Knowledge of new and expanded markets to distribute their products
- Knowledge of funding sources for new and expanding operations
- Farmer to farmer land sales for sustained agricultural uses.
- Continued emphasis on vocational agriculture and forestry programs to foster new generations of farmers
- Greater emphasis on the environment in youth education
- Continued outreach related to conservation programs
- Continued land preservation by the Agricultural Preservation Board and land conservancies and trusts
- Educated landowners and developers who would consider open space protection tools and land preservation techniques

Water Resources

More important than their use for recreation, water resources in Bradford County are critical to providing drinking water and other household and industrial uses for communities and water for wildlife habitat.

The county has abundant surface water features. The rivers and streams are public waterways and therefore managed and regulated by the state, while the lakes and ponds are generally managed by private landowners. The volume of water in these surface features varies seasonally, and draws resident concern when flows in the major reaches of streams disappear amid the sediment and gravel of the streambed. These low flows can occur long in advance of true drought conditions, and are caused by severe sedimentation and complicated by the glaciated character of the region.

In terms of surface water quality, residents have few concerns. While none of the surface waters meet all of the DEP-designated uses, most meet at least some. The quality of surface waters is heavily influenced by the current and historic use and management of adjacent lands, such as impervious surfaces and acid mine drainage from historic mining, as well as by other sources. As rainfall moves across the land surface as run-off, whether flowing across the surface or piped into surface water, it carries physical (sediment) and chemical pollutants that reduce water quality into streams and rivers. Filtration is needed to remove these pollutants before they reach the water bodies on which communities and wildlife rely. DEP's TMDL process is working to address such water quality issues.

As a habitat for fisheries, the surface waters provide abundant warm water reaches. Residents report better fishing years ago. This may be due in part to sedimentation and warming waters that alter the habitat and thus the number and type of fish present in the stream.

Like surface waters, groundwater is abundant and easily withdrawn by public and private wells. Its continued availability is dependent in part on open space lands that absorb, filter and direct rainwater to the underground aquifer. The natural quality of groundwater is good to excellent, requiring minimal treatment to make it potable.³ There is concern, however, for groundwater contamination. Residents recognize that certain land uses pose risks to groundwater quality. Leaks from road salt storage facilities, industrial sites, landfills, hazardous waste sites, and mineral and gas mines can pollute waters and contaminate soils. If contamination were to occur, it can be very difficult and expensive to restore the water to an acceptable quality, especially when it is located in an aquifer that stretches for miles underground. The areas around wells, or wellheads, are particularly sensitive to contamination, as the pipes that draw the water from the aquifer to the surface can readily transmit pollutants to the aquifer along their exterior surfaces.

Fortunately, Bradford County has not had any serious water contamination, but precautions are needed to ensure good water quality for current and future generations. Watershed associations are working to improve the awareness and understanding of water resource conditions among residents and local officials and to improve such conditions through conservation activities. The associations are conducting environmental assessments to better understand their watersheds and preparing plans and constructing projects to restore degraded conditions, where possible.

Watershed associations and other environmental stewardship groups believe environmental quality would benefit from coordinated assistance from the county and its partners, including:

- Guidance for improved stormwater and land use regulations, as well as on-lot septic system management;
- Education on topics such as groundwater supply, recharge, and quality;
- Education on the benefits of natural vegetation, including riparian buffers; and
- Support for continued participation in PennDOT's dirt and gravel road program.

Riparian Resources

Riparian resources are the intersection between the land and water environments. And while both land and water features may seem stationary and independent at a macro scale, ecological processes are constantly changing the location and quality. This constant state of change makes certain built conditions difficult, if not impossible, to sustain. Buildings constructed in the floodplain are damaged or destroyed by floodwaters, and those built on hydric soils may settle unevenly as the water content of the soils rises and falls. Yet, these areas are crucial areas for resource management for the health, safety and welfare of residents.

Riparian areas are valuable and indeed useful as natural areas for groundwater recharge, wildlife habitat, low-impact recreation and managed agriculture and forest production. These uses maintain vegetative cover and pervious surface conditions that enable infiltration, filtration, and recharge of streams and groundwaters. They require and risk relatively little capital investment and are generally unoccupied during storm events when flooding occurs.

The edge where the water meets the land is the most sensitive area. It is the edge where the flow of the water can erode the soil, slowly moving large volumes of soil into the waterway, clouding the water and

³ Bradford County Comprehensive Plan, 2004.

settling on the stream bottom. As a result, soils are relocated and water quality and aquatic habitat decline. Vegetation in riparian areas, known as riparian buffers, helps to reduce erosion, filter pollutants, and shade the water from the sun's warming rays.

Riparian resources in Bradford County are primarily managed by private landowners; riverside and streamside parks are an exception. Most of these private lands are maintained in agriculture, woodland, and residential uses. While these uses are compatible with the rural, resource-based community, their management techniques may or may not conserve the function and integrity of riparian areas.

The Bradford County Conservation District, USDA Natural Resources Conservation Service, US Forest Service and other resource management agencies work with these private landowners to achieve short term production and profit goals for the landowners while sustaining the quality of natural resources for the long term. This approach has worked well, addressing individual management objectives as well as ecological benefits. Of course, not all landowners are willing to participate in conservation programs, especially those administered by state and federal government agencies, but the local staff of these various agencies enjoys a relatively positive reputation in working with private landowners.

The existing public lands in riparian areas are primarily park and recreation lands. To date, the development and maintenance of these sites has focused almost exclusively on the recreation objective. In efforts to provide clean, safe parks and recreation areas, native vegetation has largely been replaced by lawn, and floodplain forests have been cleared to open views and access to the waterway.

These sites offer opportunities to demonstrate resource management techniques and integrate environmental education within existing recreation sites. Park visitors, whether residents or tourists, could enjoy trail-based recreation and learn about the natural environment of the county simultaneously. Coordination among public landowners, recreation providers and resource specialists would be needed to enrich these sites with meaningful interpretive signage, trail routes and special programs.

Riparian areas need special protection. These areas form the critical lifelines between the land, water, vegetation and wildlife of the natural environment and should be protected from destruction and degradation. Such protection could come through the designation of greenways – linear corridors of undeveloped, open space critical to the ecological function of the natural environment we rely on for water supply, recreation, and inherent natural value.

Most of the privately owned riparian areas should remain private; the environmental benefits they offer to the community at large do not require public access. These private or passive greenways should focus on ecological functions.

However, some riparian areas would have great value as public land. Public or active greenways would enable greenway visitors to see resource conservation in action and learn about its benefits and techniques through interpretive signage as they hike, bike, and walk through public lands.

Throughout the planning process, residents of the county supported the following ideas related to riparian areas and greenways:

- Identify greenways and designate them as either public greenways or private greenways to distinguish between those that allow public access and those that do not.
- Recommend that open space protection efforts be directed toward specific greenways and the expansion of existing protected areas.
- Encourage the protection and conservation of natural features, particularly those in identified greenway corridors.
- Utilize the Scenic Byways designation as a tool for calling attention to specific corridors that have unique features.

- Encourage the protection and conservation of historic features, particularly those in public greenway corridors where public access and interpretation can be accomplished.
- Support the explanation of county policy on greenways and open space to all residents, including students, as a demonstration of the county's goals for the future of the environment.

Vegetation and Wildlife Resources

Bradford County's native forest cover is predominantly hemlock-northern hardwoods type on the uplands with fingers of oak- hickory type along the Susquehanna River hills. Residents have used these forests for economic gain since the county was settled in the late 1700s. Today, second and younger growth forests cover 59% of the county. The forest lands in the county are capable of producing high quality hardwood timber if they are properly managed but high-grading, invasive plants, pests and diseases, lack of estate planning, and forest fragmentation and/or parcelization all pose challenges to a quality forest resource in the county. Landowner education is a critical component of maintaining a viable forest resource.

Residents appreciate native wildlife for their recreation value. They enjoy hunting, fishing, and observing the natural beauty of wildlife species in the open spaces of the county. The health and abundance of wildlife are directly related to the availability and quality of habitat. The native forest wildlife is also threatened by forest fragmentation through subdivision, which increases the number of landowners and management preferences, and land development, which clears the land and maintains non-forest vegetation. This fragmentation occurs because many residents lack an understanding of how their individual decisions about landscape management affect the quality of the forest as a production resource and as habitat. Residents are moving farther into rural areas and as a result have had more encounters with wild animals and have increasingly been filing nuisance complaints. Education is needed to inform residents of the risk of wildlife encounters in rural areas.

The Natural Areas Inventory (NAI) identifies the most unique natural habitats of the county's landscape remaining in 2005. The value of the NAI lies in its implementation – the carrying out of its recommendations. Again, resource agencies are working with landowners to define and accomplish landowners' management objectives in concert with conservation.

But many of the NAI's recommendations for resource stewardship are also applicable to other sites throughout the county. The NAI sites are indeed unique but land, water, flora and fauna would all benefit from the following, as discussed among residents throughout the planning process:

- Conservation and management of the diverse habitats for wildlife species, including upland forest, riparian (riverside) forest, meadow, and wetlands;
- Protected forest linkages between large tracts of forest to enable wildlife to travel between habitat areas;
- Application of best management practices (BMPs);
- Conservation of natural landscapes (more meadows, fewer manicured lawns); and
- Environmental clean-ups of polluted or "dump" sites.

In instances of nature-based recreation, management techniques will need to balance environmental and recreational goals. It is important to consider that too many trails and too many users of trails could impact the function of the forests for habitat. Trail users and residents alike ultimately need to be educated about the habitat in order to maintain the longevity of nature-based recreation sites.

Cultural Resources

Historic Sites

While tourism is often considered a component of economic development, it also relates to open space and recreation. Current tourism initiatives in Bradford County are based primarily on the county's farming heritage and scenic natural beauty. The protection and management of both historic sites and natural features will, in part, determine the quality of tourism opportunities in Bradford County's future.

Bradford County tourism attractions range from the Route 6 corridor (a year-round destination) to museums, retailers and special events, e.g. the Apple-Cheese Festival. Route 6 has a strong marketing approach, coordinated across the region. The museums and retailers highlight the people, events, crafts, and industries, however they are not operated on consistent schedules, which poses challenges to marketing and promotion efforts. Tourism is also limited by the fact that hotels and other lodging establishments in the county are unable to accommodate tour groups, though this may create a niche for family and small group tours. Marketing of both historical and recreational experiences is one of the critical areas in need of additional emphasis and focus in the county.

Community Resources

Schools

The public school districts in the county have made good partners for meeting student and community recreation and education needs. In terms of facilities, the schools are conveniently located and provide the needed support facilities for recreational programs, i.e. rest rooms, parking and trash/recycling. The schools have regularly made their outdoor fields available to community recreation programs as their schedules permit. In terms of curriculum, school administration and faculty have been instrumental in developing environmental centers and outdoor classrooms for student and community use.

DCNR recognizes the connection between schools and community recreation and supports improvements with funding. DCNR funding has not been used to date for such improvements in the county, but is available.

Libraries

Libraries are public facilities used by residents of all ages. Within the major population centers, local libraries are interconnected with neighborhoods through streets and sidewalks, and therefore accessible by car, bike, or on foot. Streetscape and sidewalk improvements, discussed below, would improve safety and mobility within these population centers.

Libraries across the county are interconnected by the roadway network and limited transit service. The county library located in West Burlington is the only library not located in a major population center. The library is geographically centralized, but its access is more limited than the local libraries in Bradford County.

Travel Linkages

Roadways

The roadway network in Bradford County supports recreation by providing access to most public recreation facilities. Road conditions are good, particularly for travelers in passenger and commercial vehicles, but could be improved for bicyclists.

Transit

EMTA's transit service provides access to few of the county's recreational destinations through its scheduled routes. Scheduled service passes by or near local parks and trails and school facilities in the major communities of Towanda, the Valley, Troy, Canton, Wyalusing, and Wysox. The fact that buses may stop wherever it is safe for passengers to board and exit enables greater access than at fixed stops alone.

Some transit agencies have made bicycle racks available on the front of buses to enable bicyclists to ride from one major hub to another. This service is not currently available from EMTA in its service region, but could be considered as a potential enhancement to bicycle travel in the future.

Sidewalks and Pedestrian Trails

Like any piece of built infrastructure, sidewalks need maintenance. Some community sidewalk systems have been well maintained; others have not, and as a result, have begun to deteriorate. Exposed aggregate, uplifted edges, and moss-covered surfaces are small but not insignificant safety hazards, discouraging use by pedestrians and particularly those who walk with wheeled carts or strollers or who travel by wheelchair.

Bike Routes

Like trail hikers, there are casual bicyclists and serious ones. The existing and planned Bicycle PA routes in Bradford County are intended to serve the serious bicyclist but don't provide a safe environment for learning to bicycle and learning "the rules of road."

The *Northern Tier Bicycle and Pedestrian Transportation Plan* identified the following action items for Bradford County to enhance and improve its bicycle and pedestrian systems. These action items were included in the *Northern Tier Long Range Transportation Plan*, which programs projects for all modes of transportation in the Northern Tier and Endless Mountains regions:

1. Development of off-road trail mapping
2. Development of off-road trail systems/greenways
3. Shoulder improvements on PA 414 between Canton and Monroeton
4. Development of a rail trail between Elmira and Williamsport (including bicycle and pedestrian improvements in Canton Borough)
5. Shoulder improvements on US 6
6. Develop a trail/lodging promotional brochure.

These planning documents support development of off-road trail systems, associated maps and marketing materials, primarily as opportunities within the Northern Tier arise.

Quality of Life

Growth Management

Bradford County residents clearly associate the county's rural setting with their quality of life. They appreciate its scenic beauty, defined by a distinct town and country landscape. They value neighborhoods and business districts physically interconnected by street patterns and sidewalks, as well as the vast open spaces of fields and forest. The relative low cost of living and the lack of mass traffic congestion are other factors that make life in the county pleasant and attractive.

While growth is expected to continue, in part from residents relocating and in part from new residents moving in, it need not change the overall character of the county. New development next to established towns and villages can help to retain the distinct town and country landscape that residents associate with their good living. Sidewalk connections from these new neighborhoods can integrate residents physically and socially with their adjacent business districts and existing neighborhoods. New development in rural areas can mimic historic villages, clustering homes, stores and services in close proximity to one another.

Agricultural and forest lands can continue to be viable given the support and flexibility needed to adjust to the changing demands of the market.

A few places in Bradford County are so unique or sensitive that they should be adequately protected from development and its impacts. The county and its partners should be aware of the tools available to protect such places.

Youth and Seniors among Bradford County Residents

Young people in Bradford County appreciate the natural landscape in which they live. The fields and woodlands of their family properties provide near-to-home environments for hiking, hunting, and ATV-riding. Their favorite natural landscape destinations include the Susquehanna River, "the Haystacks" (Sullivan County), Barclay Mountain, and the State Game Lands, as well as campgrounds and state parks in Pennsylvania and New York. Hiking, hunting, fishing, boating, camping, wildlife observation and peaceful self-reflection are popular activities at these locations. Church and private camps provide alternative outdoor environments for nature-based recreation.

Young people are also active in athletics and outdoor sports. They enjoy team sports such as football, softball, volleyball, basketball, and tennis and participate and practice these primarily at school facilities across the county. They also enjoy activities that combine individual effort in a social group, including rollerblading, biking, walking, swimming, skiing, kayaking, horseback riding, and sledding.

Young people seem to think that Bradford County lacks "its place on the map." The young people interviewed for the project were interested in large-scale destinations and unique adventure opportunities that currently don't exist in the county. They expressed interest in creating regional destinations for specific activities, such as seasonal resorts, amusement parks, zoos/aquariums, and high quality facilities for contemporary and extreme sports. They also mentioned places that would function as nodes of high social activity, such as teen clubs, "places to hang out," and mini-sport parks (golf, go-kart, etc.).

Young residents expect Bradford County to become more developed in the coming years, which will influence their decision whether or not to remain residents. They imagine bigger schools, busier lifestyles,

more businesses and more development. For some, these evolving conditions will encourage them to stay, seek jobs and establish themselves among the communities. For others, desires to explore the world, seek other educational and job opportunities, find more diverse communities, and find more rural areas will be reasons to leave. While recreation is not among their primary factors in making this decision, young people do believe that more and more diverse recreational opportunities are needed to make the county more livable and attractive.

Senior residents value the natural environment, too, and tend to associate it with personal and family values. For farmers and woodland owners, their lives have connected the land and its resources. These residents may have particular interest in sustaining the productivity of these lands for future generations.

Recreational and leisure opportunities for senior residents are fairly limited in Bradford County. While there is a senior center that provides entertainment and social events, it does little to engage the physical and mental abilities of this portion of the community. Trails, park enhancements and recreational programs for seniors are needed, particularly in locations accessible to those with disabilities.

Chapter 5

Vision and Goals for Open Space and Recreation in Bradford County

Without a clear, defined vision of what a community wants to achieve, there is no significant probability that it will achieve the desired results. Defining a vision enables the community to imagine that its quality of life can be different and even better than they are today. Setting goals is the first step in achieving those results.



A Vision for Open Space, Greenways and Outdoor Recreation in Bradford County

Residents of Bradford County clearly value the abundant natural resources and the current recreational opportunities available in the county. They also believe that more could be done to protect and manage resources more effectively, to enhance the quality and diversity of recreation, and to coordinate public and private sector efforts in these areas.

These beliefs begin to describe how residents would like the future to be different, and in fact better, than the present. Residents are looking for assurance that the county's rural character will not change dramatically and may, in fact, be enhanced in terms of the quality of the natural environment. Due to this emphasis on values for the natural environment, and the functional quality of natural systems, systems- and values-based approaches were integrated into the vision, goals, and action plan.

These values form the basis of a vision for an even better quality of life for residents in the future. It is of the utmost importance for residents to agree on what they ultimately want to accomplish for themselves and for future generations. A vision statement serves this purpose. It defines the desired outcome of this planning effort.

By 2025, Bradford County will be a community, where

... open space is recognized as a vital part of the county's rural character.

The farms and forests of the county employ best management practices, balancing short term economic benefits with long term productivity and resource health for future generations, and growth and development occur in locations and patterns that maintain the distinct landscapes of town and country.

...greenways interconnect communities with the natural environment that supports them and the cultural environment that connects them to their past and their future.

Residents and visitors alike can see and travel designated active greenways to experience the county's historic, cultural, and recreational amenities and its natural beauty, and passive greenways protect the sensitive natural systems critical to the biodiversity of the county.

... residents and visitors experience the many facets of the natural environment through outdoor recreation opportunities.

Public and private parkland supports recreational activities for sport, fitness, and well-being, and sidewalks, trails and active greenways enable people to travel by bike or on foot within and between the local communities of the county.

...public and private partners work together to protect open space, manage natural resources, and meet recreation needs.

Public and private decision-making by officials and landowners takes into account the function and benefits of natural resources for current and future generations, and partners pool and leverage technical skill and financial resources to accomplish these common goals.

There are multitudes of ways that people can begin to work toward this vision. As individual and organizations perform their daily work, the vision statement can be a reference or guide to their decisions and activities.

It is important to share these visions with those who can provide assistance and those who will benefit from the results. Promoting the vision communicates the importance of working together to achieve the common goal and the beneficial results. In addition, the vision should be shared with those who might not readily accept the plan's ideas, in order to identify the points of disagreement, resolve them, and begin working together.

Five Goals

With a clear understanding of the desired outcome, the process or strategy for achieving the vision can be outlined. The strategy begins with goals that identify broad topics for enhancement or improvement, and supports these goals with objectives that further direct action to specific areas of need.

The five goals for the open space, greenways, and outdoor recreation plan reflect the broadest level of action that Bradford County and its partners should take to fulfill the resource and recreation related needs of residents.

The Open Space Goal

Promote the protection of sensitive environmental systems and the managed use of open space lands.

Residents of Bradford County rely on the presence and quality of environmental systems and open space lands for their livelihood and their quality of life. Most rely on these resources for water--the water the lands absorb, filter, and make available as groundwater in underground aquifers. Some rely on these resources for the agricultural crops and livestock and forest products they produce. Some rely on these resources for the public and private environments they provide for outdoor recreation. And nearly all residents appreciate the scenic seasonal beauty that these lands offer.

While the functions and benefits of these systems and open space lands are enjoyed by all members of the public, to at least some degree, the ownership and management of such lands lies in the hands of various public agencies and numerous private landowners.

Many of the working lands of the county, those that are actively engaged in agriculture and forestry, are adequately managed in the hands of private landowners. Some landowners have been caring for and cultivating the landscape throughout their family history, and have learned and passed management techniques through generations. Their ability to cultivate or nurture valuable, marketable products for local and regional markets provides a sustainable component to the economy and should be recognized.

Yet, working lands owners continue to need support and assistance to identify and incorporate new technologies that can help to improve the efficiency of their operations and effectiveness of management techniques. This is true for those landowners who already manage their properties sustainably, as well as those who have not yet adopted such a long term management approach.

Other site-specific resources are so important to the overall health of the community that their management should exclude significant physical development. Floodplains are one example. These resources can remain under the ownership of private landowners, primarily as open space uses, and with management assistance and limitations provided by public or public-interest agencies.

Finally, there are a few resources that are so critical to the community that public agencies hold ownership in order to protect the lands from nearly all development and its impacts.

While the various landowners may have different perspectives on who benefits from their lands, management practice and products, they need not conflict in terms of protecting the health and well-being of the community at-large. This goal advocates that the most sensitive resources receive protection from development and its impacts and that open space lands be managed with recognition that they influence the quality of the overall environment. The county should promote these principles among public, private, and public-private partnerships involved in resource ownership and management.

The Greenways Goal

Promote the management and interpretation of natural systems and cultural, historic, and scenic resources through designated corridors.

The functions of natural systems, the splendor of large natural features, and the stories of county heritage can be understood from single sites or locations, but a full appreciation of these threads of the community requires a larger view – a view that demonstrates the relationship of one site to another.

Greenways are a means to physically link these individual sites and show and call attention to the relationship between our natural and man-made communities. Active greenways can provide public access to those sites that residents and visitors would like to observe, explore and experience in person, while passive greenways are intended to conserve the benefits of environmental systems under the management of private landowners.

Both types of greenways have a place in Bradford County. The Susquehanna River corridor is a candidate for an active greenway, where people can travel the corridor on land and water trails to experience its natural and cultural significance. Smaller corridors in the county are candidates for passive greenways, where plant and animal species can find rare habitats for the biological health and diversity of wildlife.

Outdoor Recreation

Foster and promote recreation opportunities that reflect the County's diverse resources.

The Bradford County landscape offers residents and visitors diverse natural settings for outdoor recreation. The river and streams, mountains and forests can support hiking, biking, camping, boating, fishing and hunting, as well as other recreational pursuits. The municipal and private parklands further support outdoor recreation with facilities for athletics, fitness and leisure programs.

As the county population continues to grow and as residents' interests change, recreational facilities need to be maintained, modified, diversified and even expanded to make them more accessible and useful to residents. The county should foster and promote these efforts at the county, municipal, and regional levels, working to ensure that the recreational needs of residents are met.

Community Growth and Development

Foster sound growth and development that respects open space and integrates recreational amenities.

Residents' appreciation for traditional settlement patterns may be somewhat sentimental. But those patterns also fostered a strong sense of place and community identity. This is evident in the "cookie-cutter" residential development that has taken place in the mid to late 20th century but also in other types

of development. Large parcels are subdivided and developed en masse, fragmenting and replacing woodlands, fields and pastures with development that fits neither town nor countryside settings.

In some communities, farmland and woodlands are viewed as lands awaiting development. That is not the case in Bradford County, where farmland and woodlands are actively engaged in the economy. These open space uses receive moderate support for their function as viable land uses, but more should be done to support their continued presence and value to the community.

When new development does occur, it should locate residential subdivision as new neighborhoods of existing communities or as first neighborhoods of new communities; provide connections into the community center; and provide public space for community gathering in ways that are feasible and functional for the local community.



Education

Promote a thorough understanding of the functions and benefits of open space, greenways, outdoor recreation, and community development to residents.

Interwoven throughout the above listed goals is the need for a more through understanding of both built and natural environments among current and future residents and officials. While it could have been addressed as an objective for each goal, education was thought to be of such great significance that it warranted an independent goal and required specific and coordinated action. And while the goal focuses on the understanding of the natural and built environments, it is also intended to foster stewardship by those residents who have and develop this understanding.

The Bradford County Greenscapes Map

The **Greenscapes Map, Figure 5-1**, is a planning map for the future. Much like the Future Land Use Map of the Bradford County Comprehensive Plan designates areas and the policies that should apply within those areas, the Greenscapes Map designates areas for continued and future resource protection and stewardship as well as proposed recreational projects by general location and type. Each designation is described below.

Symbol	Description
	Active Greenway with Land-based Trail – Active greenways are corridors of natural, cultural and recreational features linked by land-based trails to experience its natural and cultural significance. This may include expansion of existing trails as well as the development of new trails. These lands should be considered priority candidates for public acquisition or easement, with the agreement of the landowner, and for trail development and expansion. The county should work with partners to develop greenway/trail master plans. Each master plan should address a single greenway corridor, and should more specifically define the type (active/passive) and location/alignment of that greenway.
	Passive Greenway - Passive greenways are intended to conserve the benefits of environmental systems under the management of private landowners. They generally do not permit public access, though seasonal

access for hunting and fishing may be encouraged by partners but only in agreement with landowners.



On-Road Bike Trail – These suggested trails are locations for regional bike loops and spurs. The recommended Pisgah Trail would provide a spur from, and returning to, BicyclePA Route Y along US Route 6. The regional loop trails conceptually link the villages and major communities to the schools, cultural sites, and public lands of each region. The county and its partners should work together to determine the feasibility of each trail and to develop master trail plans that would more specifically locate the trail route and plan for supporting facilities, such as trailheads, signage, and access to rest areas.



Water-based Trail - Water trails are defined by the waterbody they occupy but they also include specific points of access. Water trails often have published maps or guides that illustrate points of access and interest; directions to nearby rest areas and locations for supplies; and rules and regulations about boating on public waterways.



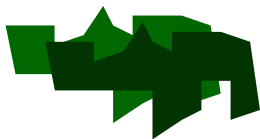
Scenic Driving Route - Scenic Driving Routes are road-based routes that lead the traveler through some of the most scenic open spaces of the county. They should also be considered candidates for scenic byways designation, a designation that begins with municipal interest and approval.



Scenic Vista – The views from these vistas include some of the county's most scenic landscapes. Development policy and proposals in these areas should be carefully reviewed and enhanced, as needed, to identify the potential impacts of such development. These lands should be considered priority candidates for agricultural or other public easement, with the agreement of the landowner.



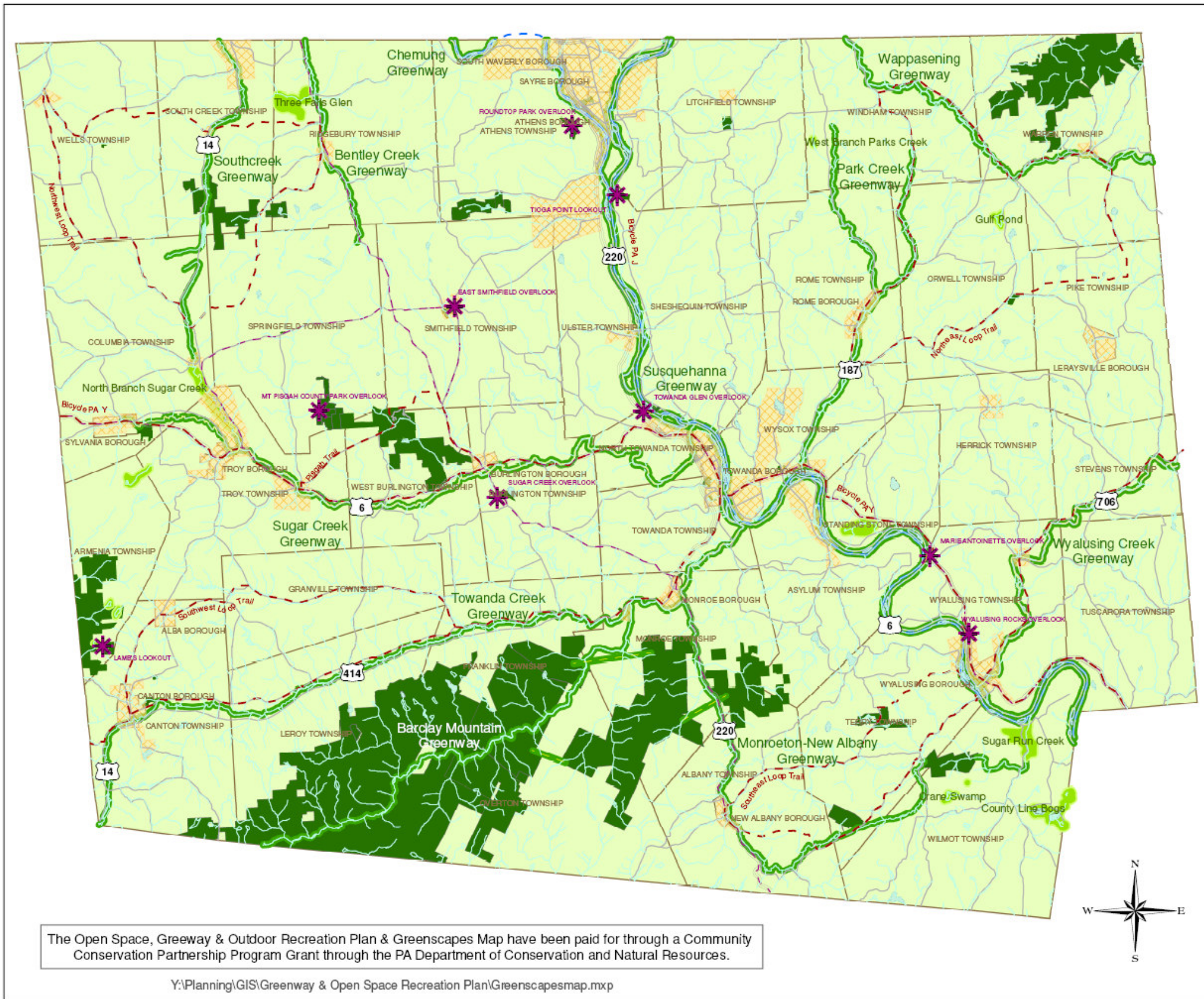
Priority Protection Site - These lands represent the most sensitive natural features of the county. They include the high priority sites from the Bradford County Natural Area Inventory. They should be considered priority candidates for public acquisition or easement, with the agreement of the landowner.



State and County Lands – These lands are already in public ownership and managed by the state for the general welfare of state residents.

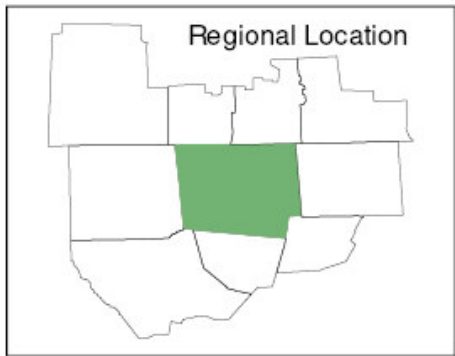


Resource Stewardship Area – Resource Stewardship Areas encompass lands in the county that have multiple value resources. Education and outreach to landowners in these areas should be coordinated and strengthened. Development policies and proposals in these areas should be carefully reviewed and enhanced, as appropriate; the policy review task should be prioritized in the Resource Stewardship Areas over other areas of the county, while the proposal review can begin immediately.



The Greenscapes Map

A Proposal for Open Space, Greenways and Recreation in Bradford County, PA



Legend

- Vistas
- Active Greenway
- Land Based Trail
- On Road Bike Trail
- Water Based Trail
- Scenic Driving Routes
- Priority Protection Sites
- Town, Village & Growth Areas
- Greenways
- State and County Parks
- Landowner Stewardship Area

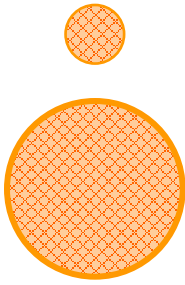


5 2.5 0 5 Miles

May 26, 2006

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Back of Greenscapes Map



Villages and Major Communities and Towns – Most of these communities already have sidewalk and/or bikeway systems in place. The county and its partners should work to establish on-going maintenance programs to fund or otherwise assist with sidewalk, crosswalk, and pedestrian path maintenance and improvements, and to encourage new development to provide extensions to the existing sidewalk network.

From Goals to Action Plans

These goals, like the vision statement, can be a reference to which individuals, agencies and local government compare their current activities and decisions. Will this action promote the protection of sensitive environmental sites? Will this approval foster sound growth and development in our community? Will this new park help to reflect the available natural resources to park visitors? If the answer is yes, these people should feel confident in advancing their actions and approvals. If the answer is no, they should consider what alternatives could better support these goals.

These goals also begin to outline the more specific areas of need – what needs to change, what should be emphasized, and what new ideas need to find support in Bradford County; these are the plan's objectives. The vision and goals also raised the question of how progress will be measured. As these points were discussed, five action plans evolved to facilitate programs and investment in the areas of:

1. Resource Protection
2. Recreation
3. Partnerships
4. Growth and Development
5. Promotion and Outreach

These action plans are presented in Chapter 6.

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Chapter 6

Action Plans

For Bradford County to achieve its vision of open space, greenways, and outdoor recreation that are fully integrated with the natural and cultural environments and physical development of the county, new, continued and expanded efforts by the county and its many partners are needed. Together, they must answer this question: "How can we change what we do today in order to become the community we want to be?"

The Action Plans outline recommendations that answer this question. They build on the goals outlined in Chapter 5, designating objectives with measurable indicators, and recommending coordinated policies, programs, and tasks toward the goals.

There are five Action Plans:

Resource Protection Action Plan

Recreation Action Plan

Partnerships Action Plan

Growth and Development Action Plan

Promotion and Outreach Action Plan

Each recommendation includes a list of partners responsible for implementing or at least initiating each item, as well as other administrative and technical resources. (Descriptions of technical and financial assistance programs are located in Appendix B.) A series of indicators are associated with the action plans to clearly measure progress over time. These indicators are summarized in the Bradford County Greenscapes Report Card.

Resource Protection Action Plan

- I. **Designate active and passive greenways.** Greenways are active when they allow public access for low impact, nature-based recreation. Greenways are passive when they limit public access and manage resources for ecological benefits.

Methods

- A. Enhance and extend existing greenways, such as the Carantouan Greenway and the Susquehanna Greenway. As a first priority, enhance existing greenways with trails, wayfinding and interpretive signage, and resource management demonstration sites, implementing concept and master plans, where possible. Extend greenways in length and with spurs that reach into local natural and man-made communities. Work with landowners to prepare resource stewardship plans in passive greenway areas. Acquire easements, right-of-way, or parcels in active greenway areas, then follow with trail design and construction, signage installation, or other appropriate greenway development.



Table 6-1 Susquehanna Greenway

Greenway	Municipal and County Connections	Approximate Length	Significant Features
Susquehanna Greenway	Tioga County (NY), riverfront municipalities in Bradford County, Wyoming County	47.59 miles (Bradford County)	<ul style="list-style-type: none">Major towns and villagesSusquehanna RiverVarious NAI SitesSGL #237Five scenic vistas/viewshedsSusquehanna Water TrailVarious schools

- B. Designate and establish new greenways. Develop master plans to define the limits of designated greenways. Work with partners to determine whether greenways should be active or passive. Utilize the maps to raise public awareness for the designation and for the partners' intent to pursue specific management objectives (active or passive). The following proposed new greenways are illustrated on the Greenscapes Map.

Table 6-2 Other Greenways

Greenway	Municipal and County Connections	Approximate Length	Significant Features
Chemung Greenway	Chemung County (NY), Bradford County	11.25 miles	<ul style="list-style-type: none"> Chemung River Water Trail Roundtop Park Overlook
Bentley Creek Greenway	Ridgebury Twp, Springfield Twp, Tioga County (NY)	8.19 miles	<p>The idea of a greenway along Bentley Creek has already been discussed among township officials and watershed residents.</p> <ul style="list-style-type: none"> Bentley Creek Village of Bentley Creek Ridgebury Township Community Park Three Falls Glen
South Creek Spur	Columbia Twp, South Creek Twp, Chemung County (NY)	10.29 miles	<ul style="list-style-type: none"> South Creek Village of Fassett SGL #123 Potential connection to Towanda Creek Watershed
Sugar Creek Greenway	Columbia Twp, Troy Twp, Troy Borough, West Burlington Twp, Burlington Borough, Burlington Twp, North Towanda Twp	30.63 miles	<ul style="list-style-type: none"> Village of Columbia Cross Road, Troy Borough, Villages of East Troy and West Burlington, Burlington Borough BicyclePA Route Y SGL #289 County Library North Branch Sugar Creek Rookery
Sylvania/Troy Spur	Sylvania Borough, Troy Borough	6.22 miles	<ul style="list-style-type: none"> West of Sugar Creek Greenway
Towanda (Creek) Greenway	Canton Twp, Canton Borough, Leroy Twp, Franklin Twp, Monroe Twp, Monroe Borough	22.90 miles	<ul style="list-style-type: none"> Towanda Creek Canton Borough, Villages of Woodruff Corners, West Franklin, and Franklindale, Monroeton Borough, Towanda Borough Canton schools
Barclay Mountain Greenway	Leroy Twp, Overton Twp, Franklin Twp, Monroe Twp, Monroe Borough, Towanda Twp	19.14 miles	<ul style="list-style-type: none"> Schrader Creek SGL #12 and 36 Village of Laquin

Table 6-2 Other Greenways (continued)

Greenway	Municipal and County Connections	Approximate Length	Significant Features
Monroeton-New Albany Greenway	Albany Twp, New Albany Borough, Monroe Twp, Monroe Borough	4.47 miles	<ul style="list-style-type: none">■ Monroeton and New Albany Boroughs■ Loyalsock (formerly Tioga) State Forest■ SGL #142
Wyalusing Creek Greenway	Susquehanna County, Stevens Twp, Tuscarora Twp, Wyalusing Twp, Wyalusing Borough	15.39 miles	<ul style="list-style-type: none">■ Wyalusing Creek■ Wyalusing Borough■ Wyalusing Fireman's Field■ Wyalusing Historic District and other historic sites■ Wyalusing schools
Wappasening Greenway	Susquehanna County, Warren Twp, Orwell Twp, Windham Twp, Tioga County (NY)	16.03 miles	<ul style="list-style-type: none">■ Wappasening Creek■ Village of Warren Center■ SGL #219
Park Creek Spur	Rome Borough, Rome Twp, Windham Twp	7.38 miles	<ul style="list-style-type: none">■ Park Creek/West Branch Parks Creek - NAI Site■ Rome Borough
Park Creek (Eastern Spur)	Rome Township, Windham Township, Orwell Township	6.26 miles	
Park Creek (Southern Spur)	Wysox Township, Rome Borough, Rome Township	6.98 miles	

- C. Continue to develop greenways data in the Bradford County GIS database. Include conceptual alignments and update with more detailed alignments when master plans are completed.

Partners

1. Planning Advisory Committee and other representatives of natural resource agencies, historical societies, recreation managers and boards/commissions working in Bradford County as outreach advocates to landowners
2. Local landowners for site specific stewardship plans, as well as easements, rights-of-way, or whole parcel donations and sales
3. Local government for preparation and development of municipal greenway spurs
4. Community, watershed and environmental groups
5. County, regional and state government as co-sponsors of grant applications

*Funding Sources*

1. DCNR Community Conservation Partnership Program to fund purchase of rights-of-way, or whole parcels, municipal plan development, and future county plan updates

- II. Protect and manage sensitive natural features and diverse habitats, particularly those in designated greenway corridors.** Due to the abundance of sensitive natural features, it may seem that protection is recommended across the county; however, priority should be placed on the most sensitive natural features, and where multiple features are present, higher priority should be given toward achieving protection. Sensitive natural features include:
- Natural Areas Inventory sites
 - Rivers, streams, lakes, and ponds that provide water features and aquatic habitat
 - Prime farmland and hydric soils that provide pervious lands
 - Tracts and linkages of forest and other uncultivated vegetation that provide pervious lands and terrestrial habitat
 - Wetlands, waterway edges that provide riparian habitats with both land and water features
 - Rivers, streams and forests that provide valuable corridors that connect habitats that are identified as valuable and isolated

Methods

- A. Identify and prioritize areas for open space protection. An initial identification and prioritization illustrated on the Greenscapes Map. The following criteria were used in the prioritization process:
- Location within a designated greenway
 - Proximity to existing protected areas.
 - Number of sensitive natural features on the site: Natural Areas Inventory
 - Use of resource management or stewardship plan

The Greenscapes Map should be reviewed and revised periodically to update existing protected areas, gradually increasing the prioritizing for surrounding areas.

- B. Identify where volunteer landowner stewardship from private landowners is desired and where public land management or land transfer is preferred. This method is part of an on going process of cultivating resource stewards among current and future landowners.
 - i. Landowner stewardship - Work with landowners to determine their land management objectives. Assist in the preparation of land management plans and implementation of best management practices.
 - ii. Public or non-profit management - Acquire easements through donation or purchase. Prepare land management plans and implement best management practices.
 - iii. Public or non-profit ownership and management - Acquire land through donation or purchase. Prepare land management plans and implement best management practices.
- C. Implement best management practices (BMPs) consistent with the landowner's management objectives.
- D. Continue to enforce the County's stormwater ordinance and existing open space provisions for land development. Consider a county or model municipal riparian buffer ordinance to specify protection for waterways.
- E. Preserve and manage forest and vegetation linkages. Such linkages may exist between farm fields, along property boundaries, and along waterways among other locations.
- F. Establish and manage vegetated buffers along waterways and wetlands where they do not already exist.
- G. Establish and maintain agricultural BMPs. Those practices include, but are not limited to conservation tillage, crop rotation, soil testing, manure testing, stormwater management practices and nutrient application techniques.
- H. Avoid land disturbance, such as the construction of roads, residences, and drainageways, particularly along waterways.
- I. Avoid disruption of waterways, i.e. dams.
- J. Monitor for and remove invasive species.
- K. Use native species when planting future forests.
- L. Avoid herbicide and pesticide use particularly in areas adjacent to waterways.
- M. Conduct ground surveys for species of special concern.
- N. Address the specific habitat requirements of species of special concern. Under this



recommendation, the Game Commission should be encouraged to maintain the open area within SGL 12 for the unique habitat it offers.

- O. Consult the Bradford County Conservation District and other appropriately identified agencies for additional BMPs.

Partners

1. Landowners as volunteer stewards of resources
2. Conservation District and Cooperative Extension for outreach and technical assistance in management planning and BMP implementation, and as a parallel funding applicant
3. Land trusts and conservancies for receiving land easements and donations and as a parallel funding applicant
4. Local watershed organizations for outreach, BMP implementation, and as a parallel funding applicant
5. Bradford/Sullivan Farm Bureau for outreach to the farm community
6. Bradford/Sullivan Forest Landowners Association for outreach to forest community
7. DCNR Bureau of Forestry for technical assistance in management planning and BMP implementation for forest resources
8. Susquehanna River Basin Commission for technical assistance in planning and management related to water resources
9. Chesapeake Bay Foundation, Alliance for the Chesapeake Bay, and other Chesapeake Bay organizations for technical and financial assistance related to best management practices and water resource restoration
10. USDA Natural Resources Conservation Service

Funding Programs

1. Local contribution in cash and/or services
2. State - DCNR Community Conservation Partnership Program, Heritage Parks Program, Rivers Conservation Program; DEP funding to conservation district, Chesapeake Bay Program Financial Assistance Funding Program, Environmental Stewardship and Watershed Protection Grant; PennDOT Transportation Enhancement Greenways Partnership Program
3. Federal - U.S. Department of Agriculture Watershed Protection and Flood Prevention Program, Environmental Quality Incentives Program (EQIP), Forestry Incentives Program; USDA NRCS Wetlands Reserve Program and CREP; US Environmental Protection Agency Chesapeake Bay Small Watersheds Grant Program, Sustainable Development Challenge Grants, Capitalization Grants for Clean Water State Revolving Funds; U.S. Department of the Interior North American Wetlands Conservation Act Grants, Partners for Fish and Wildlife Habitat Restoration Program

Indicators

1. Number of acres protected by easements
2. Number of acres under management plans
3. Miles of riparian buffer (or use acreage for an area-based indicator)

III. Conserve and interpret historic features, particularly those in active greenway corridors.

Methods

- A. Identify and prioritize historic features (sites, districts, or other features). Prioritize efforts based on owner interest, significance, proximity to other historic features (conserved and not conserved), proximity to greenway, and proximity to roadway. The Northcentral Pennsylvania Conservancy has developed a prioritization process that could be tailored to Bradford County. A copy of the project review worksheet is included in the appendix.
- B. Determine the preferred type of conservation. Options include but are not limited to private owner management, public or quasi-public easement, or state/federal designation.
- C. Determine the preferred type of interpretation. Options include but are not limited to signage, on-site interpretive programs, and story connection to the larger community.
- D. Provide guidance for future maintenance, enhancement and/or improvement of conserved historic features. A list of publications and qualified local contractors for maintenance, rehabilitation/renovation, and demolition would be particularly helpful.
- E. Assist in implementing conservation and interpretation.



Partners

1. County historical society, local historical societies and local historians as sources of information for inventory and prioritization
2. Endless Mountains Heritage Region and Endless Mountains Visitors Bureau - as a parallel funding applicant
3. Land trusts and conservancies for receiving land easements and donations and as a parallel funding applicant
4. Pennsylvania Historic and Museum Commission (PHMC) for technical assistance and the Pennsylvania Department of Community and Economic Development (DCED) Historic Preservation Specialist with the Center for Community Building (717-720-1441, Pamela Reilly) for technical assistance, historic preservation projects, local history, museum projects, general operating support, historical markers.
5. Public TV/other media for publicity of resource significance and interpretive opportunities
6. PA Game Commission/PA Fish and Boat Commission for technical assistance in management planning for species of special concern

Funding Programs

1. Local contribution in cash and/or services
2. State – PHMC Historic Preservation Grants, History & Museum Grants Program; DCNR Community Conservation Partnership Program, Heritage Parks Program
3. Federal – National Register of Historic Places

Indicators

1. Number and acres of sites protected by easements
2. Number of historic districts
3. Number of historic markers (local, state or federal)
4. Number of media spotlights (e.g. articles, news spots) on historic sites
5. Number of visitors/attendees
6. Miles of designated corridors
7. Number and acres protected open space (habitats) connected through corridors

IV. Maintain working open space lands for agricultural, forestry and other resource-based uses. Focus first on strengthening and sustaining farms and woodlands in active production; second on conservation through easements.

Methods

- A. Actively publicize the organizations who provide agricultural and forestry support and protection. Identify organizations by name and contact person; characterize programs and benefits. Conduct outreach to landowners individually and through target audience events, e.g. display at annual Ag Expo, Troy Fair, etc; special speakers at meetings.
- B. Explore the feasibility of a future farm community coalition(s) to achieve a collective voice at home in Bradford County and in the market.
- C. Continue to recognize the Bradford-Sullivan Forest Landowners Association and the Northern Tier Hardwood Association as partners in support of strengthening the resource-based economy in the region and the their roles in conserving open space.
- D. Develop a strategy to enhance the quality of agriculture and forestry in Bradford County. Continue to advocate best management practices, retain and attract supporting businesses, educate farmers and forest landowners on value-adding technology, and coordinate with state and federal agencies on production and wildlife management practices.
- E. Match available farms with new farmers and available forest land with new forest owners to sustain the respective uses and management objectives, where possible.
- F. Encourage landowners to enroll agricultural land in the Agricultural Security Area (ASA) Program. Direct special outreach toward property owners adjacent to existing ASAs.
- G. Encourage landowners to enroll forest lands in forest stewardship programs.
- H. Support the Forest Legacy Program and purchase of forest easements.
- I. Support the Agricultural Preservation Board and the purchase of agricultural easements. Easement purchases are prioritized based on the following criteria:
 - i. *Be located entirely within an official and dually recorded Agricultural Security Area consisting of 500 acres or more.*
 - ii. *Contain contiguous acreage of at least 50 acres in size unless the tract is at least 10 acres in size and is either utilized for a crop unique to the area, generating an annual gross profit of \$2,000.00, or is contiguous to a property which has a perpetual conservation easement in place which is held by a "qualified conservation organization," as defined by Internal Revenue Code.*



- iii. *Have at least 50% of its soils available for agricultural production in Land Capability Classes I-IV.*
- iv. *Have at least 50% of the property's total acreage in current use as harvested cropland, pasture, or grazing land.*
- J. Continue the vocational agriculture program to foster new generations of farmers and provide them with skills to compete in the agricultural industry. Explore a similar vocational program for young foresters and future forest landowners. Current efforts include Career Days at local high schools that identify "green" careers and job opportunities.
- K. Where parcels contain multiple sensitive resources, coordinate protection of the parcel through sub-parcel easements to distribute the cost and increase the range of programs from which funding may be available.

Partners

1. Landowners as volunteer stewards of resources
2. Conservation District, Cooperative Extension, and USDA for outreach and technical assistance in management planning and BMP implementation, and as a parallel funding applicant
3. DCNR Bureau of Forestry for and technical assistance in management planning and BMP implementation
4. Agriculture and Forestry coalitions as collective advocates for resource production and management, including the Bradford/Sullivan Farm Bureau and the Bradford/Sullivan Forest Landowners Association
5. Agricultural Preservation Board for easement purchasing and receiving

Funding Programs

1. Local contribution in cash and/or services
2. State – DEP funding to Conservation District; PA Department of Agriculture Forestry Stewardship Program; Forest Land Enhancement Program
3. Federal – US Department of Agriculture Value-Added Producer Grants (VAPG), Conservation Reserve Program (CRP), Environmental Quality Incentives Program (EQIP) , Forestry Incentives Program; US Environmental Protection Agency Chesapeake Bay Small Watersheds Grant Program, Environmental Education Grants Program

Indicators

1. Number of farm management plans and forest management plans
2. Organization to match sellers with buyers, such as Farm Link and local organizations
3. Acres of farm and forest maintained in use through new ownership
4. Acres of farm and forest converted to other use through new ownership
5. Number of municipal comprehensive plans that reflect agricultural and forestry values and planned use

V. Conserve scenic viewsheds and corridors. What each of us considers scenic is based in our cultural and personal values for the natural and cultivated landscape. As such, scenic views are subjective and their value is challenging to quantify. Scenic value is therefore not considered a primary foundation for protection but can be a supporting and well-supported objective for open space management.

There are accepted methods of rating scenic value, including those utilized by the US Department of Interior Bureau of Land Management. These methods can be explored as independent and supporting studies for future plan updates. Such projects could be conducted by local volunteers, high school and/or college students with guidance from professional consultants.

Methods

- A. Identify and prioritize viewsheds. Prioritize viewsheds based on criteria, such as:
 - ecological sensitivity
 - land management
 - historic value
 - scenic quality
 - number of vistas
 - vista access
 - viewshed proximity to a designated greenway
- B. Develop management objectives specific to the viewshed and related to resource in the view.
- C. Designate scenic corridors.
- D. Berwick Turnpike – This north-south corridor through central Bradford County follows a historic travel route of early settlers along portions of US 220 and other state routes. The turnpike connected Berwick, PA, with Elmira, NY, enabling river merchants and travelers to return to the headwaters over a more direct land-based route rather than following the winding river.
- E. PA Route 414 – This corridor has some potential to be considered as part of a scenic byway. (Lycoming County is currently working through its comprehensive planning process to designate its portion of the PA 414 corridor as a scenic byway.) Major natural features include large acreages of state game lands, Sunfish Pond, Holcomb Pond and Tioga State Forest. Portions of the PA 414 roadway are used during the annual bicycle race known as the "Tour de Shunk."¹
- F. PA Route 6 – This transcontinental highway has been recognized for its scenic, as well as strategic value. In 1995, Congress designated the roadway as part of its National Highway System (NHS), while PennDOT has designated the route as part of its network of cross-state bicycle facilities (BicyclePA Route Y). The route is designed to accommodate the cross-state bicyclist. Stakeholders have repeated their desire to see US 6 remain as a scenic corridor with respect to traffic speeds, roadway design and highway signage. The route provides an important connection to out-of-



¹ Northern Tier Long Range Transportation Plan (2004).

county, off-road trail facilities such as the Iroquois Trail in Wyoming County and the Pine Creek Trail in Tioga County.²

- G. Utilize management tools, such as the scenic byways designation to manage, and if desired to promote, specific roadway corridors. Local, state, and federal scenic byway designations are available. State and federal programs require sign limitations along designated corridors and may promote the byway on tourism maps. Local programs are locally designed. Lycoming County is considering a county designation program. This project was one of several projects funded by PennDOT as model county byway programs.

Partners

1. Landowners as volunteer stewards of scenic resources
2. Local officials as managers of community development through planning and ordinances
3. Conservation District and Cooperative Extension for outreach and technical assistance in management planning and BMP implementation, and as a parallel funding applicant
4. Land trusts and conservancies for receiving land easements and donations and as a parallel funding applicant
5. Agricultural Preservation Board for easement purchasing and receiving
6. DCNR Bureau of Forestry for technical assistance in management planning and BMP implementation
7. Northern Tier Regional Planning and Development Commission for scenic byways (transportation) planning
8. PA Route 6 Tourist Association for experience in scenic byway planning and organization
9. Northern Tier Rural Transportation Advisory Committee for scenic byways designation and improvements
10. PennDOT for vista access via right-of-way

Funding Programs

1. Local contribution in cash and/or services
2. State – PennDOT Scenic Byways Program; Tourism Promotion Matching Fund, DCNR Heritage Parks Program, Rivers Conservation Program; DEP funding to conservation district; PHMC Historic Preservation Grants, History & Museum Grants Program
3. Federal – National Scenic Byways Program (FHWA), US Department of Agriculture Conservation Reserve Program (CRP), Environmental Quality Incentives Program (EQIP); USDA NRCS Wetlands Reserve Program; US Environmental Protection Agency Chesapeake Bay Small Watersheds Grant Program

Indicators

1. Number of designated vistas
2. Miles of designated scenic byways
3. Number of designated viewsheds
4. Percent of viewshed acres managed or otherwise / publicly protected

² Ibid.

Recreation Action Plan

VI. Maintain safe outdoor recreational facilities.

Methods

- A. Make reasonable safety standards available to recreation facility owners and managers. If compliance with national standards would create excessive burdens on the facility owners, develop local standards consistent with an acceptable level of risk. Invite a certified recreation safety inspector to Bradford County to meet with local officials and recreation providers and provide educational workshops on safety issues. Request a presentation on safety standards and time for a field view of several park and recreation facilities. The safety specialist may be able make recommendations on general safety improvements for the various parks in the field view, as well as site-specific recommendations, if time allows. This workshop could be held annually to address parks and recreation sites in various regions of the county, or the Northern Tier/Endless Mountains Region, and to provide up-to-date safety information to new personnel.
- B. Assist in acquiring funding for prompt safety improvements.
- C. Promote regular inspection of recreation equipment and site facilities by qualified inspectors to identify safety hazards.
- D. Encourage volunteer groups to assist in the general maintenance and cleanliness of recreation areas, greenways, waterways and trails. For example, the Great PA Cleanup is a statewide effort to rid highways, neighborhoods, trails, parks and open spaces of litter. Two project locations in Bradford County were registered in 2005: Thompson Hill and the Berwick Turnpike. The interagency sponsorship uses the event to promote civic responsibility toward keeping Pennsylvania beautiful. This event could be the cornerstone of local volunteer cleanup efforts in the County.
- E. Develop and post appropriate rules for responsible recreation behavior in recreation areas and encourage local and community enforcement.
- F. Publicize and post the recreation activities permitted and prohibited on state lands.



Partners

1. Local officials for proactive assessment of recreation facilities
2. Northern Tier Regional Planning and Development Commission for coordination of countywide, and perhaps regional, recreation assistance
3. "RECTAP" (training program) for technical assistance in reviewing safety studies, evaluating facilities and recommending safety improvements
4. State Park Manager for posting, enforcement, and safety improvements
5. Local Law Enforcement for enforcement of safety rules for county and municipal recreation lands
6. State legislature for legislation enabling local enforcement of recreation safety on state lands

7. Local recreation committees, boards, and commissions for facility assessment and safety recommendations
8. DCNR- Bureau of Recreation and Conservation
9. PA Cleanways

Funding Programs

1. Local contribution in cash and/or services
2. State – DCNR Community Conservation Partnership Program; DCED Community Development Block Grant (CDBG) Program, Community Revitalization Program



Indicators

1. Number of safety improvements and enhancements
2. Customer satisfaction rating
3. Miles of waterways, trails, etc. maintained by an identified group (i.e. adopt-a-road/stream programs)
4. Number of certified recreation safety inspections
5. Number of certified recreation safety inspectors

VII. Expand the functions and quality of public recreation areas.

Methods

A. Develop and implement a County Parks Master Plan.

1. Consider the role of the county park as a destination within a broader recreation network. Many county parks in Pennsylvania function as regional parks, where people come to spend a half or full day in recreation and leisure activities and where a variety of active and passive activities are available. They also fulfill recreation needs that cannot feasibly be met at the local level. For example, a county park might offer a skatepark.
2. Consider the role of county parks in conserving and interpreting natural and cultural resources.
3. Identify desirable short and long range improvements and enhancements. Evaluate the need to update facilities. Explore the feasibility of these and other improvement ideas: update the bathhouse facilities, provide cabins at one or more of the County parks, provide additional campsites with electric and water hook-ups, and upgrade the County parks to serve “high-tech” campers.
4. Develop a Forest Stewardship Plan for the county park to address sustainable forestry issues. Develop Forest Education areas within the parks.



- B. Assist in local recreation planning and park improvements through local park, recreation and open space plans. These plans should assess the recreation needs of residents and identify and prioritize projects to meet such needs. Continue to work with active municipal planning efforts or partnerships, e.g. the Central Bradford region, to expand local understanding and planning for recreation and open space.
 - 1. Assess the recreation needs of residents every 5-10 years at a municipal level. Test “recreation customer satisfaction” through surveys or comment cards. This method could be carried out through comment cards and drop boxes at entrances/exits to recreation areas or through a more formalized phone or mail survey of recreation area users and recreation program participants. Questions about recreation area satisfaction could also be incorporated into a broader recreation needs assessment survey (described later).
 - 2. Assess the recreational and interpretive potential of local municipal parks and parkland and develop a corresponding inventory and feasibility plan for each.
 - 3. Explore the feasibility of expanding winter activities at public recreation areas. The DCNR resident survey indicates that residents tend to travel outside of Bradford County for winter recreation activities. The County may want to determine whether this condition is a matter of service availability or preference. Ice skating and sledding were identified in the DCNR resident survey as winter activities of interest. Cross-county skiing, snow tubing, and other activities may be desired as well. Mount Pisgah State Park is the only site for winter recreation activities and is limited by the size of the facility. Certain winter activities may not be suitable or feasible for Bradford County’s topography, e.g. downhill skiing, however more focused study would be needed to reach an informed conclusion.
- C. Assist in acquiring funding for recreation enhancements and improvements. Such assistance could occur in the form of assisting with grant applications, grant administration, and contribution of in-kind services.
- D. Design and construct recreation facilities and services appropriate to the size and need of the community. Specifically consider the following in the design process:
 - 1. access to the recreation area from neighborhoods by pedestrians, bicyclists, or motor vehicles
 - 2. function and amenities of the facility (tot lot, playground, neighborhood park, or community park) to meet local needs
 - 3. size of the facility in relation to the site features
 - 4. size of site features in relation to the number of users and size of user groups. For example, trails should be wide enough for two persons to walk or bike side-by-side and rest areas, e.g. benches, tables, and pavilions, should accommodate multiple small groups. Residents in Bradford County reported that most of their recreation activity takes place in small groups of two to three individuals. Facilities should easily accommodate this small group preference.
- E. Improve public transit access to Mount Pisgah State Park.

Partners

1. Landowners for voluntary support of active greenways (trails) and passive greenways to create a recreation network.
2. Local officials and local recreation boards/committees for recreation needs assessment and planning
3. Bradford County Office of Community Planning and Grants for assistance in needs assessment and planning
4. Mount Pisgah State Park for publicity, planning and management of state park lands
5. Bradford County Parks Director for county parks assessments and improvements
6. PA Game Commission and PA Fish and Boat Commission for coordination of public recreation on state lands
7. Scenic viewshed owned by DCNR Lamb's Vista (west edge of county)
8. DCNR, Bureau of Recreation and Conservation and Bureau of Forestry for technical assistance with Forest Stewardship Program

Funding Programs

1. Local contribution in cash and/or services;
2. Recreation and greenways coordinator for assistance in needs assessment and planning, grant applications and administration
3. State - DCNR Community Conservation Partnership Program; DCED Community Development Block Grant (CDBG) Program, Community Revitalization Program; DCNR Recreation Grants; DCNR Forest Stewardship Program
4. Federal - U.S. Department of Agriculture Watershed Protection and Flood Prevention Program; National Park Service Chesapeake Gateways Program

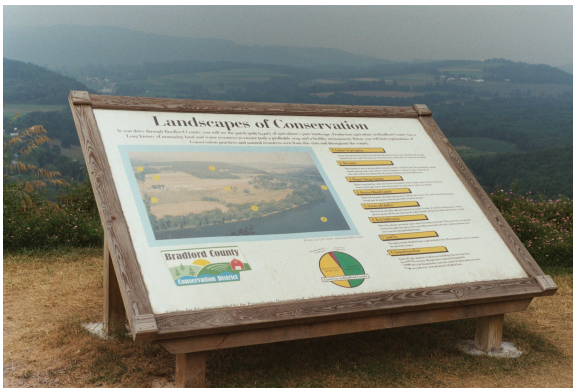
Indicators

1. Annual number of visitors to a public recreation area
2. Number of improvements and enhancements
3. Number of special events
4. Financial status
5. Customer satisfaction
6. Number of local and county park plans
7. Number of plan implementations

VIII. Develop Bradford County's segment of the Susquehanna River corridor as a model for river conservation and outdoor recreation. Apply the model to other County and local greenways. Look to other river communities, e.g. Ithaca, NY, for ideas on integrating recreation and waterside conservation.

Methods

- A. Publish and distribute a water trail guide that includes a map of the river corridor and notes the location of rest and service facilities, as well as nearby attractions. This practice is spreading rapidly throughout Pennsylvania as a means to connect people with waterways. A water trail guide is currently being prepared by the Endless Mountains Heritage Region and is expected to be ready for distribution in 2006. It is important to complete and distribute this guide locally and regionally. Spending time on the river is one way to cultivate an appreciation for the river's beauty, health and functions. A guide has been developed for the Chemung River in New York, and may serve as a guide for future trail guides and updates
- B. Utilize the Susquehanna Greenway Concept Plans (Chapter 3) as a guide for project identification and development. Coordinate, where possible, with the Endless Mountains Heritage Region on implementation of the French Azilum Visitors' Center. Expand or modify additional concept ideas to fit local support.
- C. Extend, interconnect, and develop walking/bicycling trails along the river/greenway.
- D. Make recreation network and trail maps available at riverside/greenway parks.
- E. Encourage river-based/greenway-based recreation and leisure programs. Make sure that local recreation and community organizations know that public facilities are available for their use.
- F. Design and construct interpretive sites along the river/greenway and at public access points.
- G. Construct boat access points along Wyalusing and Sugar Creeks and other waterways. Begin by acquiring site access; design and construct improvements, e.g. signage and parking, as needed.



Partners

1. Landowners for voluntary support of active greenways (trails) and passive greenways to create a recreation network.
2. Recreation organizations and program coordinators for local outreach and publicity of recreation objectives and for trail-based programming.
3. Recreation and greenways coordinator for map preparation and distribution.
4. Conservation District and Cooperative Extensions for assistance in environmental education and interpretation.
5. Endless Mountains Heritage Region and Endless Mountains Visitors Bureau for promotion of river recreation and conservation
6. Alliance for the Chesapeake Bay for promotion and technical assistance for river conservation
7. Local government for land development and land use regulations and for recreation programming
8. Recreation outfitters for assistance in developing and distributing trail guides and in recommending and even designing river access points
9. Susquehanna River Basin Commission

Funding Programs

1. Local contribution in cash and/or services
2. State – DCNR Community Conservation Partnership Program, Rivers Conservation Program (recreation grants); DEP funding to conservation district, Chesapeake Bay Program Financial Assistance Funding Program; DCED Community Development Block Grant (CDBG) Program; PennDOT Transportation Enhancement Greenways Partnership Program; PA Fish and Boat Commission
3. Federal – U.S. Department of Agriculture Watershed Protection and Flood Prevention Program, US EPA Environmental Education Grants Program

*Indicators*

1. Number of river trips, number of stream miles traveled
2. Number of riverside special events
3. Number of water trail guides distributed
4. Miles of protected river frontage
5. Miles of riverside trail
6. Number of access points
7. Number of interpretive sites developed

IX. Design, construct and maintain trails for leisure walking and bicycling and for hiking and backpacking.

Methods

- A. Develop trail extensions and interconnections to existing trails. For example, the riverwalk in Towanda could be connected with Hornbrook Park, and ultimately to the Valley, through a multi-phase approach:

Table 6-3 Trail Extensions

Trails (and Potential Phases/Segments)	Municipal and County Connections	Approximate Length	Significant Features
Susquehanna Riverwalk	Tioga County (NY), riverfront municipalities in Bradford County, Wyoming County	47.59 miles	<ul style="list-style-type: none"> Feature of the Susquehanna Greenway Concept Plan Towanda Riverwalk Susquehanna River – Three-section NAI Site
Susquehanna Riverwalk northward from the Towanda Riverwalk			
<ul style="list-style-type: none"> Towanda Riverwalk to James Street 	Towanda Borough, North Towanda Twp	1.92 miles	<ul style="list-style-type: none"> 3rd and 4th Ward Playgrounds Towanda Historic District Route 6 Scenic Heritage Corridor Bicycle PA Routes J and Y Boat Access #779 Towanda Public Library Proximate to various National Register listed / eligible properties and other historic sites
<ul style="list-style-type: none"> James Street bridge to Hornbrook Park 	North Towanda Twp, Wysox Twp, Sheshequin Twp	2.85 miles	<ul style="list-style-type: none"> County Boat Access in Hornbrook Park
<ul style="list-style-type: none"> Hornbrook Park to Ulster 	Sheshequin Twp, Twp, Ulster Twp	3.57 miles	<ul style="list-style-type: none"> Luster Elementary School Totem Park North Rome Christian School Sheshequin-Ulster Community Center
<ul style="list-style-type: none"> Ulster to East Athens 	Sheshequin Twp, Athens Twp	8.03 miles	<ul style="list-style-type: none"> Tioga Point Overlook
<ul style="list-style-type: none"> East Athens to the bridge at Sayre/ Carantounan Greenway 	Athens Twp, Sayre Borough, South Waverly, Tioga County (NY)	2.79 miles	<ul style="list-style-type: none"> Carantouan Greenway Boat Access #776 and #777 Bicycle PA Route J Proximate to public parks, National Register listed/eligible, sites of local significance, historical markers, potential historic district, sites, schools, Sayre Public Library

Trails (and Potential Phases/Segments)	Municipal and County Connections	Approximate Length	Significant Features
Susquehanna Riverwalk southward from the Towanda Riverwalk			
<ul style="list-style-type: none"> Towanda Riverwalk to Franklin St/Route 6 bridge to river front park in Wysox Twp 	Towanda Borough, Wysox Twp	1 mile	<ul style="list-style-type: none"> Riverfront Park Riverfront Park Boat Access Route 6 Scenic Heritage Corridor
<ul style="list-style-type: none"> Other southward segments per the Susquehanna Greenway Concept Plan 	Riverfront municipalities in Bradford County, Wyoming County	21.40 miles	<ul style="list-style-type: none"> French Azilum Standing Stone Marsh and Sugar Run Creek - NAI Sites Marie Antoinette Overlook and Wyalusing Rocks Overlook Proximate to various public parks, potential historic district, sites listed or eligible for the National Register, sites of local significance, and historical markers, schools, and Library in Wyalusing

Trail extensions and interconnections should be further studied and evaluated through trail master plans.

- B. Develop new trails. New on-road trails could include spurs and loops from existing trails, e.g. the Bicycle PA routes. New off-road trails could be coordinated with the master planning of designated active greenways. Each new trail, even a loop trail, begins with a starter segment that can be extended in future phases.

A number of regional loop trails are recommended on the Greenscapes Map:

Table 6-4 New Trails

Trails	Municipal Connections	Approximate Length	Significant Features
Northeast Loop Trail	Rome Twp, Orwell Twp, Windham Twp, Warren Twp, Pike Twp	38.02 miles	<ul style="list-style-type: none"> Northeast School District Complex Warren Township Community Park Neball Baseball Field Wappasening Creek Home Textile Tool Museum Proximate to PP Bliss Gospel Songwriters Museum in Rome Proximate to Cooks Pond - NAI Site

Trails	Municipal Connections	Approximate Length	Significant Features
Northwest Loop Trail	Wells Twp, South Creek Twp, Ridgebury Twp, Springfield Twp, Columbia Twp	34.25 miles	<ul style="list-style-type: none">■ SGL #123■ Mosherville Elementary School■ Wells Township Park■ South Creek Community Building■ Gladys Burham Elementary School■ Three Falls Glen – NAI Site■ South Creek Floodplain at Dunning – NAI Site■ South Creek■ Bentley Creek■ Berwick Turnpike
Southeast Loop Trail	New Albany Borough, Albany Twp, Terry Twp, Wilmot Twp	24.73 miles	<ul style="list-style-type: none">■ SGL #142, #172, and #250■ Crane Swamp – NAI Site■ New Albany Park■ Century Farms■ New Albany Community Library
Southwest Loop Trail	Canton Borough, Canton Twp, Alba Borough, Granville Twp, Franklin Twp, Leroy Twp	28.73 miles	<ul style="list-style-type: none">■ Canton Fireman’s Field■ War Memorial Pool■ Canton Area School District Complex■ Minnequa Park■ Alba Community Park■ Green Free Library in Canton■ Canton Historic District■ Saint James Episcopal Church - National Register – Eligible■ The Rialto Theatre■ Pennsylvania Apple and Cheese Festival at the Manley-Bohlayer Farm■ Private schools - Canton Country School and Son Shine Christian School■ North Branch Towanda Creek – NAI Site

In addition, a “bike trail-bypass” would connect Route 6/Bicycle PA Route Y with public lands, as shown on the Greenscapes Map:

Table 6-5 Bike Trail Bypass

Trails	Municipal Connections	Approximate Length	Significant Features
Pisgah Trail	Troy Twp, West Burlington Twp, Burlington Borough	17.35 miles	<ul style="list-style-type: none"> ■ Mount Pisgah State Park ■ Mount Pisgah County Park (Park and Vista) ■ Route 6 Scenic Heritage Corridor ■ Bicycle PA Route Y ■ Bradford County Library

- C. Interconnect county parks with hiker/backpacker trails. This would create a hiking network for serious resident and tourist hikers. Hikers would begin at one park, hike to another where they would camp overnight, and continue to the next park, finally returning to their origin. This recommendation should be evaluated and coordinated with the preparation of the county parks master plan.
- D. Interconnect state forest, state park, and state game lands with recreation trails. Under this recommendation, partners are encouraged to re-open the trail along Schrader Creek with appropriate consideration for environmental impacts.
- E. Consider multi-use motorized trails where appropriate rather than address independent snowmobile trails.

Partners

1. Landowners for voluntary support of active greenways (trails) and passive greenways to create a recreation network.
2. Recreation and greenways coordinator for recreation planning objectives
3. Tioga Trails Association for experience in trail planning, design, construction and maintenance
4. Interstate environment and recreation organizations for coordination of trail development across state lines
5. Northern Tier Regional Planning and Development Commission for bicycle/pedestrian (transportation-related) planning
6. Watershed organizations for trail design, construction, landowner coordination, and interpretation, and as a parallel funding applicant
7. Health advocates, such as the Wellness Center at Memorial Hospital, for promotion of trail use.
8. DCNR, Bureau of Recreation and Conservation and Bureau of Forestry for technical assistance with Northeast PA Urban and Community Forestry Program
9. Northeast Pennsylvania Urban And Community Forestry Program

Funding Programs

1. Local contribution in cash and/or services
2. State – DCNR Community Conservation Partnership Program (recreation grants), Heritage Parks Program; DCED Community Development Block Grant (CDBG) Program, Community

Revitalization Program; PennDOT Transportation Enhancement Greenways Partnership Program; DEP Environmental Stewardship and Watershed Protection Grant; Northeast Pennsylvania Urban and Community Forestry Grants

3. Federal – U.S. Department of Agriculture Watershed Protection and Flood Prevention Program

Indicators

1. Number of trail miles traveled
2. Number of trail-based special events
3. Number of trail guides distributed
4. Miles of developed trail
5. Miles of planned trail
6. Number of trail organizations
7. Miles of accessible trails

X. Expand recreational programs to include recreational and leisure activities for all age groups.

Methods

- A. Expand teen programs and children's activities. Evaluation and development of teen programs should specifically include teen input. Students in the youth focus group from the Bradford-Sullivan Counties Youth Leadership Program listed activities they enjoy. This list, included in the appendix, may be a resource for initial programming ideas and further discussion with youth.
- B. Expand activities for adults and seniors. Begin with an assessment of adult and senior interests, as well as accessibility concerns. Ask for new program ideas and test interest in unconventional programs. Explore interest in intergenerational programs, such as between youth and seniors, as well.
- C. Develop programs that promote the use of parks and trails. The Keystone Active Zone campaign, a partnership of The Pennsylvania Advocates for Nutrition and Activity (PANA), is a state-coordinated program to encourage people to visit parks and trails in their own communities and in other communities. PANA's Passport Program encourages young people to track their park visits activities through a passport booklet. Counties can also post their recreation attractions in a searchable database on PANA's website.
- D. Expand program locations to take advantage of local, county, and state recreation lands. Incorporate the journey to the event location into the program. Travel by bike and trail to reduce parking demand and to familiarize users with the trail location and conditions. Alternatively, explore special arrangements with EMTA to familiarize users with the transit system in the region.



Keystone Active Zone Passport Program

The passport program provides a way to encourage people to visit parks and trails during the summer months. Participating communities are also encouraged to promote existing recreation and health based education programs or events as “passport” stops. Schools participating in PANA’s **Keystone Healthy Zone** campaign will be encouraged to use the passport program to promote physical activity during the summer months. Students will be asked to return passports to their Physical Education teachers at the start of the following school year. Passport participation will be linked to incentives to support the school’s physical education program in teaching lifetime recreation activities. In addition, the passports can be used for work-site wellness programs, summer camps and other community organizations. American Association of Retired People (AARP) is working with PANA to pilot the passport program with AARP chapters in Franklin and Allegheny Counties. Note: Passports will be available to download from the Keystone Active Zone web-site.

Source: <http://www.panaonline.org/programs/khz/kaz/>

Partners

1. Residents for assessment of recreation and leisure program needs and desires
2. Recreation organizations for recreation and leisure programming
3. Recreation and greenways coordinator for recreation planning objectives
4. Senior Center for coordination of senior and intergenerational programs
5. YMCA for recreation and leisure programs for all ages
6. School Districts for access to facilities for program locations
7. Youth organizations such as Scouts, Boys and Girls Club, and student organizations for program participation and development
8. Local health advocates, such as the Wellness Center at Memorial Hospital, for promotion of recreation and leisure programs for physical and mental health
9. Pennsylvania Advocates for Nutrition and Activity (PANA), <http://www.panaonline.org/>, for program ideas and participation in Department of Health outreach.

Funding Programs

1. Local contribution in cash and/or services
2. State – DCNR; Department of Health
3. Private foundations making contribution for healthy schools

Indicators

1. Number of participants in children’s programs
2. Number of participants in teen programs
3. Number of participants in adult programs
4. Number of participants in senior programs
5. Types of programs athletic, craft, social/leisure, other skilled programs
6. Number of intergenerational programs

Partnerships Action Plan

XI. Create and fund a position for a full-time recreation and greenway coordinator.

Methods

- A. Establish a recreation and greenways coordinator position within Bradford County or in partnership with other counties in the region. The intended result of such a position is the increased ability of local officials to more efficiently and effectively meet their recreation, park, trail and/or conservation needs.³

The recreation and greenways coordinator should have many of the following qualifications:

1. Certified Leisure Professional preferred; graduation from an accredited college or university with a bachelor's degree in recreation and parks, physical education, business or public administration, behavioral or health sciences, education, or a closely related field required.
2. Experience in supervising a wide variety of organized recreation activities in a small community setting.
3. Skill in developing, organizing and directing diversified recreational activities; planning and scheduling the use of buildings and other facilities; publicizing recreational activities; and maintaining recreational and park facilities.
4. Knowledge of the principles, practices, and theory of programming recreational and leisure activities; adaptive recreational programs; and the development and assessment of leisure activities for a community.
5. Ability to recruit, train and supervise subordinate recreation personnel, both salaried and volunteer.
6. Ability to suggest, organize and conduct fund-raising events.
7. Skill in preparing reports and documenting program activities.
8. Skill in sourcing, outlining, and developing grant proposals for funding projects and needs both to the public sector and to private foundations.
9. Knowledge of non-profit compliance issues including audits, Form 990 filings, fund accounting, and legal issues.
10. Ability to sell ideas and missions and recruit, organize, train, and motivate volunteer workers and Board members.
11. Ability to reach out to the general public as well as area business and industry to enlist support and participation in agency events and projects.
12. Excellent organizational and time management skills
13. Excellent verbal and written communication skills
14. Computer literacy
15. Strong budgeting and fiscal management skills

The county should explore DCNR's circuit rider program which provides financial assistance for regional organizations to hire a professional full-time staff person. The circuit rider's purpose must be to initiate new programs and services for municipalities and organizations that individually do not have the financial resources to hire a professional staff person. Three examples of the circuit rider program are:

³ DCNR Circuit Rider Projects General Information and Guidelines.

1. The Lewisburg Area Recreation Association (www.goLARA.org) is a regional effort of the municipalities of the Lewisburg Area School District. LARA provides technical program support and facility management for parks in the service area. This has included a \$2.5 million renovation of the St. Mary's Street Park as the Lewisburg Area Recreation Park. The school district also makes its facilities available for recreation programs.
2. The Stroud Region Open Space and Recreation Commission was established in 2003 to implement the Stroud Region Open Space and Recreation (2002). The commission is a partnership of three municipalities and two school districts. The executive director, Chuck Reid, is funded by a three-year circuit rider grant from DCNR. The region began this endeavor with a regional open space and recreation plan, followed by a regional greenway master plan and a peer-to-peer study to explore the feasibility of intermunicipal partnership.

The Stroud Region Open Space and Recreation Commission is dedicated "to creating a regional open space and park system that will encompass a wide array of conservation and recreation efforts." The commission builds support among civic associations, parks and recreation departments, law enforcement departments, city and local planning departments, Chambers of Commerce, elected officials, business associations, and managers of parks and forests to "enrich lives through quality open space, parks, and recreation."⁴

3. The Mercer County Regional Council of Governments Park and Recreation Specialist serves the 24 municipality COG with assistance in grant preparation, site programming and management, and facility planning and design.
- B. Establish an open space stewardship coordinator position within Bradford County or in partnership with other counties in the region. The intended result of such a position to enable local officials to efficiently and effectively meet their open space and resource management goals through grant preparation and administration, outreach to landowners, and coordination of various resource agency activities. (Such functions may already be the responsibility of various positions, though staff may lack the capacity to accomplish clear results. A designated position may be more effective.)

Depending on the level of effort required, this position may be combined with the recreation and greenway position listed above, in either the short or long term. This position would require similar skills with an emphasis on natural resource management in place of recreation:

1. Graduation from an accredited college or university with a bachelor's degree in agricultural, forest, or wildlife science, environmental management, education, or a closely related field preferred.
2. Knowledge of the principles, practices, and theory of environmental management and conservation programs.
3. Skill/experience in developing, organizing and directing diversified education/outreach activities.
4. Ability to recruit, train and supervise subordinate personnel, both salaried and volunteer.

⁴ Stroud Region Open Space and Recreation Commission, <http://www.srosrc.org>.

5. Ability to suggest, organize and conduct fund-raising events.
6. Skill in preparing reports and documenting program activities.
7. Skill in sourcing, outlining, and developing grant proposals for funding projects and needs both to the public sector and to private foundations.
8. Knowledge of non-profit compliance issues including audits, fund accounting, and legal issues.
9. Ability to sell ideas and missions and recruit, organize, train, and motivate volunteer workers and resource agency executives.
10. Ability to reach out to the general public as well as area business and industry to enlist support and participation in events and projects.
11. Excellent organizational and time management skills.
12. Excellent verbal and written communication skills.
13. Computer literacy.
14. Strong budgeting and fiscal management skills.

Partners

1. Local municipalities
2. Bradford County or Bradford County and regional counties
3. Northern Tier Regional Planning and Development Commission

Funding Programs

1. Local contribution in cash and/or services
2. State – DCNR Circuit Rider Program for funding and technical assistance in establishing a full time recruiter and greenways coordinator.

Indicators

1. Number of proactive contacts
2. Number of responsive contacts
3. Number of municipalities served
4. Number of residents served (municipal populations)

XII. Create and expand partnerships between school districts, municipalities and other community organizations to provide outdoor recreational facilities and services.

Methods

- A. Promote existing partnerships and their services, e.g. The Valley Regional Recreation Committee and the various school districts and the partnered efforts of the Conservation District to develop environmental education centers and interpretative trails.
- B. Continue to work cooperatively with state agencies to develop innovative environmental education initiatives, such as the countywide strategic plan for meeting environmental standards.
- C. Conduct an annual social event to publicize the stories of successful partnerships. Invitees would include:
 - recreation organizations,
 - health and wellness organizations,
 - the business community,
 - school districts, and
 - elected officials.
- D. Participate in and actively support the municipal comprehensive planning process and school district annual planning process to include expanded use of community recreational facilities.

Partners

1. Recreation organizations for recreation objectives
2. Health and wellness organizations for fitness and wellness objectives
3. The business community for quality of life objectives
4. School districts for health, safety and welfare of students
5. Local officials for community development objectives
6. Federal – US Department of the Interior National Park Service Rivers, Trails, and Conservation Assistance Program (technical assistance only)
7. DCNR- Bureau of Recreation and Conservation and Bureau of Forestry (technical assistance)
8. PSU Extension Forester (technical assistance)

Funding Programs

1. Local contribution in cash and/or services
2. State – DCED Shared Municipal Services Program; DCNR Heritage Parks Program; DCNR- Bureau of Recreation and Conservation
3. Northeast Pennsylvania Urban and Community Forestry Grant Program

Indicators

1. Number of co-sponsored projects
2. Number of organizations represented at annual partnership events
3. Number of school district programs that identify facilities for use in community recreation

XIII. Communicate objectives and coordinate efforts among public and non-governmental organizations working in the areas of conservation and recreation.

Methods

- A. Formally communicate objectives and efforts among an identified target group to assure activity awareness.
- B. Hold a Partners' Forum on a regular basis to coordinate education and outreach efforts.
- C. Encourage land trusts to prioritize their activities consistent with County policy.
- D. Partner with land trusts in funding programs and land easement acquisitions/donations.

Partners

1. Recreation and greenways coordinator for recreation planning objectives
2. Conservation District and Cooperative Extension for outreach and technical assistance in management planning and BMP implementation, and as a parallel funding applicant
3. Land trusts and conservancies for receiving land easements and donations and as a parallel funding applicant
4. Managers of state forest, state park, and state game lands for management objectives and practices
5. Federal – US Department of the Interior National Park Service Rivers, Trails, and Conservation Assistance Program (technical assistance only)

Funding Programs

1. Local contribution in cash and/or services
2. State – DCED Shared Municipal Services Program; DCNR Heritage Parks Program

Indicators

1. Number of proactive contacts
2. Number of responsive contacts
3. Number of participating organizations in partner forum
4. Survey of coordination effectiveness ("how well is it working?")

XIV. Encourage volunteer efforts to maintain and clean up the land, provide financial support, and demonstrate best management practices.

Methods

- A. Develop “Friends of” organizations to lead volunteer maintenance and management of select resources, e.g. Susquehanna River, (name) Greenway, (name) riverside park, etc.
- B. Develop a volunteer database to provide organizational assistance to special events requiring volunteer efforts.
- C. Encourage rural residential landowners to maintain their lands in a natural/non-mowed condition.
- D. Work with watershed organizations to expand their role in clean up and other activities consistent with this plan

Partners

1. Residents as volunteer stewards of resources
2. Partnerships as sources of volunteers
3. Land trusts and conservancies as landowners and managers of greenways
4. US Department of the Interior National Park Service Rivers, Trails, and Conservation Assistance Program (technical assistance only)
5. School Districts as coordinators of senior projects and other student projects
6. Local officials for plans and regulations that specifically outline land management techniques and other best management practices
7. Watershed associations for coordination of volunteers and clean up priorities
8. Penn State Cooperative Extensions for its Backyard Forestry program

Funding Programs

1. Local contribution in cash and/or services
2. Local business support via volunteer time and donated materials

Indicators

1. Number of volunteer hours
2. Amount of monetary donations
3. Number of persons in the volunteer database
4. Number of activities/projects achieved

Growth and Development Action Plan

XV. Encourage new development that extends, or is otherwise consistent with, traditional community development patterns in Bradford County to retain the distinct town and countryside patterns.

Methods

- A. Guide new development to locate next to existing towns or to cluster new properties in village patterns. Utilize service areas or growth areas in County and local infrastructure planning to designate preferred locations for future development.
- B. Provide strategies and models for developing safe, comfortable walking and biking routes within towns from neighborhoods to school facilities and parks. Encourage municipalities to use the Official Map as a tool to plan for future public road, right-of-way, and public facility (e.g. park) locations.
- C. Develop incentives for preferred or model development patterns.

Partners

1. Landowners for their vision of future land use and management on private property
2. Local officials for sound community development from planning to code enforcement to plan approvals and for infrastructure planning and investment to incentivize small town expansion
3. Private developers for sustaining distinct small town character through innovative development proposals
4. Pennsylvania State Association of Township Supervisors (PSATS) for training programs for elected officials
5. Bradford County Office Community Planning and Grants for technical assistance in local planning and for existing policy and guidance established in the 2004 Bradford County Comprehensive Plan
6. Northern Tier Regional Planning and Development Commission and the Central Bradford Progress Authority for siting of new and expanding businesses

Funding Programs

1. Local contribution in cash and/or services
2. State – PennDOT Home Town Streets/Safe Routes to Schools Program
3. Federal – US EPA Sustainable Development Challenge Grants

Indicators

1. Completed guide to strategies and models
2. Miles of new walkable routes (sidewalks, trails)
3. Number of municipalities using town and village growth areas as recommended in the Bradford County Comprehensive Plan
4. Percentage of development projects within town or village growth areas; number of new homes within town or village growth areas

XVI. Encourage the use of innovative designs for rural subdivisions.

Methods

- A. Permit the use of conservation design to conserve sensitive features and productivity and to cluster home sites on marginal or non-productive land. Changes to Clean and Green may help promote this.
- B. Develop incentives for preferred or model development patterns.

Partners

1. Landowners for their vision of future land use and management on private property
2. Local officials for sound community development from planning to code enforcement to plan approvals
3. Private developers for sustaining distinct rural character through innovative development proposals
4. Bradford County Office of Community Planning and Grants for review of subdivision and land development plans for consistency with designated greenways.
5. Builders for the Bay

Builders for the Bay (BFB) is a first-of-its-kind program aimed at reducing environmental impacts from residential and commercial construction within the Chesapeake Bay watershed. Under the leadership of the Alliance for the Chesapeake Bay, the Center for Watershed Protection and the National Association of Home Builders, Builders for the Bay will encourage the voluntary adoption of 22 better site design principles that reduce the environmental effects of residential and commercial development. Over the next two years, the organizations plan to expand Builders for the Bay into at least 12 local jurisdictions in the Bay watershed in Maryland, Pennsylvania and Virginia

-- Center for Watershed Protection, www.cwp.org/builders_for_bay.htm

Funding Programs

1. Local contribution in cash and/or services
2. State - DCNR - Community Conservation Partnership Program,
3. Federal - US EPA Sustainable Development Challenge Grants
4. Natural Lands Trust mini-grants

Indicators

1. Number of municipalities permitting alternatives to conventional subdivision by right
2. Number of municipalities permitting conventional subdivision as a conditional use
3. Number of innovative subdivisions planned and constructed

Promotion and Outreach Action Plan

XVII. Promote (and explain) the County's policy on greenways and open space.

Methods

- A. Designate an organization, i.e. task force or team, to lead the implementation of this plan. This organization would initially delegate tasks to the various partners. Once a recreation and greenways coordinator is established, the responsibilities of both the organization and the coordinator should be clarified; the organization could continue to work independently or move under the administration of the recreation and greenways office. Endless Mt. Heritage Region may be able to assist the County in organizing and establishing this task force.
- B. Develop an educational outreach plan to share information about local greenway benefits and publicize sources of additional information, including local coordinator(s) and internet links, to residents, educators, to greenway landowners.
- C. Work with municipalities to illustrate designated greenways on local maps and expand the greenway network with local greenway spurs. Consider municipalities with active planning efforts or partnerships, e.g. the Central Bradford region, as candidates for local greenways planning and implementation.
- D. Share greenway mapping data with recreation and tourism promoters for use in promotional brochures.
- E. Include designated greenways on County maps, including the County's Future Land Use Map. The GIS data that illustrates the Greenscapes Map will be available for use in preparing future maps and publications for planning, tourism, etc. The data will be reviewed and referenced in future updates to the Future Land Use Map.
- F. Continue to develop and refine the Greenscapes Map as new data becomes available.

Partners

1. Recreation and greenways coordinator for outreach and promotion
2. Bradford County Office of Community Planning and Grants for mapping and review of subdivision and land development plans for consistency with designated greenways.
3. Endless Mountains Heritage Region and Endless Mountains Visitors Bureau for promotion and as a parallel funding applicant
4. Local officials for coordination of County designated greenways and open space with local planning and decision making
5. School districts for education and outreach to students, faculty and administrative staff



6. Community organizations for promotion of the value of Bradford County's greenways and open space
7. Conservation District for outreach to landowners

Funding Programs

1. Local contribution in cash and/or services
2. State – DEP funding to conservation district, Environmental Stewardship and Watershed Protection Grant; DCNR Rivers Conservation Program; PennDOT Transportation Enhancement Greenways Partnership Program; PHMC Historic Preservation Grants, History & Museum Grants Program
3. Federal – US EPA Environmental Education Grants Program

Indicators

1. An updated County Future Land Use Map with the greenway network
2. A designated webhost and webpage with information about Bradford County greenways and links to additional information, e.g. the Pennsylvania Greenways website (www.pagreenways.org),
3. Number of municipalities with greenways planning efforts in comprehensive or other specific planning efforts

XVIII. Enhance marketing of recreation sites and corridors and cultural destinations.

Methods

- A. Encourage municipalities, community organizations, and the media to publish information about cultural and recreation facilities and programs.
 - 1. Via newsletter and/or newspaper for local and regional publicity.
 - 2. Via the internet for regional, state, national, and global publicity. Participate as a county or local regions in programs, such as PANA's Keystone Active Zone database of public recreation sites statewide. Print and distribute county maps of recreation sites and activities.
- B. Encourage municipalities, community organizations, and the media to share information about cultural and recreation facilities and programs with regional partners, such as a recreation and greenways coordinator, Endless Mountains Heritage Region, Endless Mountains Visitors Bureau, Northern Tier Regional Planning and Development Commission, and local chambers of commerce
- C. Encourage recreation organizations to collect data for trend analysis and marketing.
 - 1. Conduct a periodic survey of the "man on the street," asking what he knows about recreation and greenway opportunities, e.g. locations, activities, and sources of information, and what his recreation and leisure needs are.
 - 2. Establish a method to collect data. Designate a point of contact for data compilation, analysis, and distribution.
- D. Continue to develop recreation data for the Bradford County GIS database. Collect data as municipalities inventory resources for their parks, recreation and open space plans, comprehensive plans, or other planning efforts. Update the Greenscapes map to reflect new recreation features.

Keystone Active Zone Web-site

A web-site will provide a central portal for state, county, and local park and trail information. Users will be able to select their county and search for local parks and trails by types of activities and amenities. In addition, each park or trail description will include driving directions, contact information, hours of operation, and events.

Keystone Active Zone County Maps

Pocket size maps will be designed for all participating counties. The county maps will include park locations along with icons to denote available activities and amenities. Each county will receive a file of the map for local distribution (e.g. libraries and doctor's offices). The maps will also be available to print from the website.

Source: <http://www.panaonline.org/programs/khz/kaz/>

Partners

1. Municipalities and recreation organizations with recreation and/or cultural facilities and programs
2. Recreation and greenways coordinator for assistance in needs assessment and planning, grant applications and administration
3. Endless Mountains Heritage Region, Endless Mountains Visitors Bureau as source of existing marketing materials
4. Northern Tier Regional Planning and Development Commission and local chambers of commerce as collective business partners interested in recreational and cultural amenities
5. Media (the Daily Review and other local papers), TV and radio for publicity

Funding Programs

1. Local contribution in cash and/or services
2. State - DCED Shared Municipal Services Program, DCNR Community Conservation Partnership Program; PHMC Historic Preservation Grants, History & Museum Grants Program

Indicators

1. Number of municipal or organizational publications with a dedicated recreation/culture article or listing
2. Number of municipalities or organizations collecting data on facility use and program participation

Bradford County Greenscapes Report Card

The Greenscapes Report Card can be used to track the progress of the open space, greenways, and outdoor recreation plan through quantifiable indicators. These indicators represent the values that Bradford County residents have for the natural environment and recreation amenities.

As annual reports can be time consuming to compile, the Greenscapes Report Card is set up for biannual reporting, with 2010 identified as a year for special targets. The first Report Card would document statistics from 2004 as a baseline for measuring progress and help partners initially identify sources of these statistics. The Greenscapes Report Card would expand in subsequent years with the partners' efforts to collect and track additional categories and indicators. Additional columns for 2012, 2014, etc., and for the target year 2020 should be added in the future. This easy to understand record of progress will build support for investment and participation in facilities and programs.

Figure 6-1 Bradford County Greenscapes Report Card

BRADFORD COUNTY GREENSCAPES REPORT CARD					
Indicator	2004 Baseline Statistics	2006	2008	2010 Target	Needed to reach 2010 Target
Protection and Management of Sensitive Natural Features					
1. number of acres protected by easements					
2. number of acres under management plans					
3. miles of riparian buffer (or use acreage for an area-based indicator)					
Conservation and Interpretation of Historic Features					
1. number and acres of sites protected by easements					
2. number of historic districts					
3. number of historic markers (local, state or federal)					
4. use percent to get numbers					
5. how much PR is happening					
6. number of visitors/attendees					
7. miles of designated corridors					
8. number and acres protected open space (habitats) connected through corridors					
Maintenance of Working Open Space Lands					
1. number of farm management plans					
2. number forest stewardship plans					
3. organization to match sellers with buyers, such as Farm Link and local organizations					
4. acres of farm and forest maintained in use through new ownership					
5. acres of farm and forest converted to other use through new ownership					
6. number of municipal comprehensive plans that reflect agricultural and forestry values and planned use					

BRADFORD COUNTY GREENSCAPES REPORT CARD					
Indicator	2004 Baseline Statistics	2006	2008	2010 Target	Needed to reach 2010 Target
Conservation of Scenic Viewshed and Corridors					
1. number of designated vistas					
2. miles of designated scenic byways					
3. number of designated viewsheds					
4. percent of viewshed acres managed or otherwise /publicly protected					
Recreation Safety					
1. number of safety improvements and enhancements					
2. customer satisfaction rating					
3. expenditures for safety improvements					
4. number of recreation boards, commissions, and partnerships in the county					
5. miles of waterways, trails, etc. cleaned or under maintenance by an identified group (i.e. adopt-a-road/stream)					
Recreation Areas					
1. annual number of visitors to a public recreation area					
2. number of improvements and enhancements					
3. number of special events					
4. financial status (budget versus adhoc financial support)					
5. customer satisfaction rating					
6. number of local and county park plans					
7. number of plan implementations					
Greenway/Recreation Integration, specifically the Susquehanna River Corridor					
1. number of river trips, number of stream miles traveled					
2. number of riverside special events					
3. number of water trail guides distributed					
4. miles of protected river frontage					
5. miles of riverside trail					
6. number of access points					
7. number of interpretive sites developed					
Trails					
1. number of trail miles traveled, trail books or registers					
2. number of trail-based special events					
3. number of trail guides distributed					
4. miles of developed trail					
5. miles of planned trail					
6. number of trail organizations					
7. miles of accessible trails					

BRADFORD COUNTY GREENSCAPES REPORT CARD					
Indicator	2004 Baseline Statistics	2006	2008	2010 Target	Needed to reach 2010 Target
Recreation Services					
1. number of participants in children's programs					
2. number of participants in teen programs					
3. number of participants in adult programs					
4. number of participants in senior programs					
5. number of intergenerational programs					
6. unique types of programs (athletic, craft, social/leisure, other skill based programs)					
Recreation and Greenways Coordinator					
1. number of proactive contacts					
2. number of responsive contacts					
3. number of municipalities served					
4. number of residents served (municipal populations)					
Partnerships					
1. number of co-sponsored projects					
2. number of organizations represented at annual partnership events					
3. number of school district programs that identify facilities for use in community recreation					
Conservation/Recreation Coordination					
1. number of proactive contacts					
2. number of responsive contacts					
3. number of participating organizations in partner forum					
4. survey of coordination effectiveness ("how well is it working?")					
Volunteers					
1. number of volunteer hours/student hours (senior projects)					
2. amount of monetary donations					
3. number of persons in the volunteer database					
4. number of activities/projects achieved					
Town Growth and Development					
1. completed guide to strategies and models					
2. miles of new walkable routes (sidewalks, trails)					
3. number of municipalities using town and village growth areas					
4. percentage of development projects within town or village growth areas; number of new homes within town or village growth areas					
5. other indicators of the right kind of growth					

BRADFORD COUNTY GREENSCAPES REPORT CARD					
Indicator	2004 Baseline Statistics	2006	2008	2010 Target	Needed to reach 2010 Target
Rural Growth and Development					
1. number of municipalities permitting alternatives to conventional subdivision by right					
2. number of municipalities permitting conventional subdivision as a conditional use					
3. number of innovative subdivisions planned and constructed					
Promotion and Outreach					
1. an updated County Future Land Use Map with the greenway network					
2. a designated webhost and webpage with information about Bradford County greenways and links to additional information					
3. number of municipalities with greenways planning efforts in comprehensive or other specific planning efforts					
Local Marketing					
1. number of municipal or organizational publications with a dedicated recreation/culture article or listing in local media					
2. number of municipalities or organizations collecting data on facility use and program participation					

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Chapter 7

First Steps toward Implementation

The recommendations outlined in chapter 6 demonstrate that new and continued efforts are needed to achieve the county's goals for open space, greenways, and outdoor recreation. So where should the county and its partners begin? Which tasks can be undertaken to accomplish early success and benefits for residents?

This chapter presents the 15 recommendations that will bring meaningful enhancements to residents and build support for further implementation and investment. These first steps are organized under five headings representing the agency or partnership responsible for initiating the tasks listed. The five headings are:

Implementation by Bradford County

Implementation ...in partnership with local municipalities and community organizations

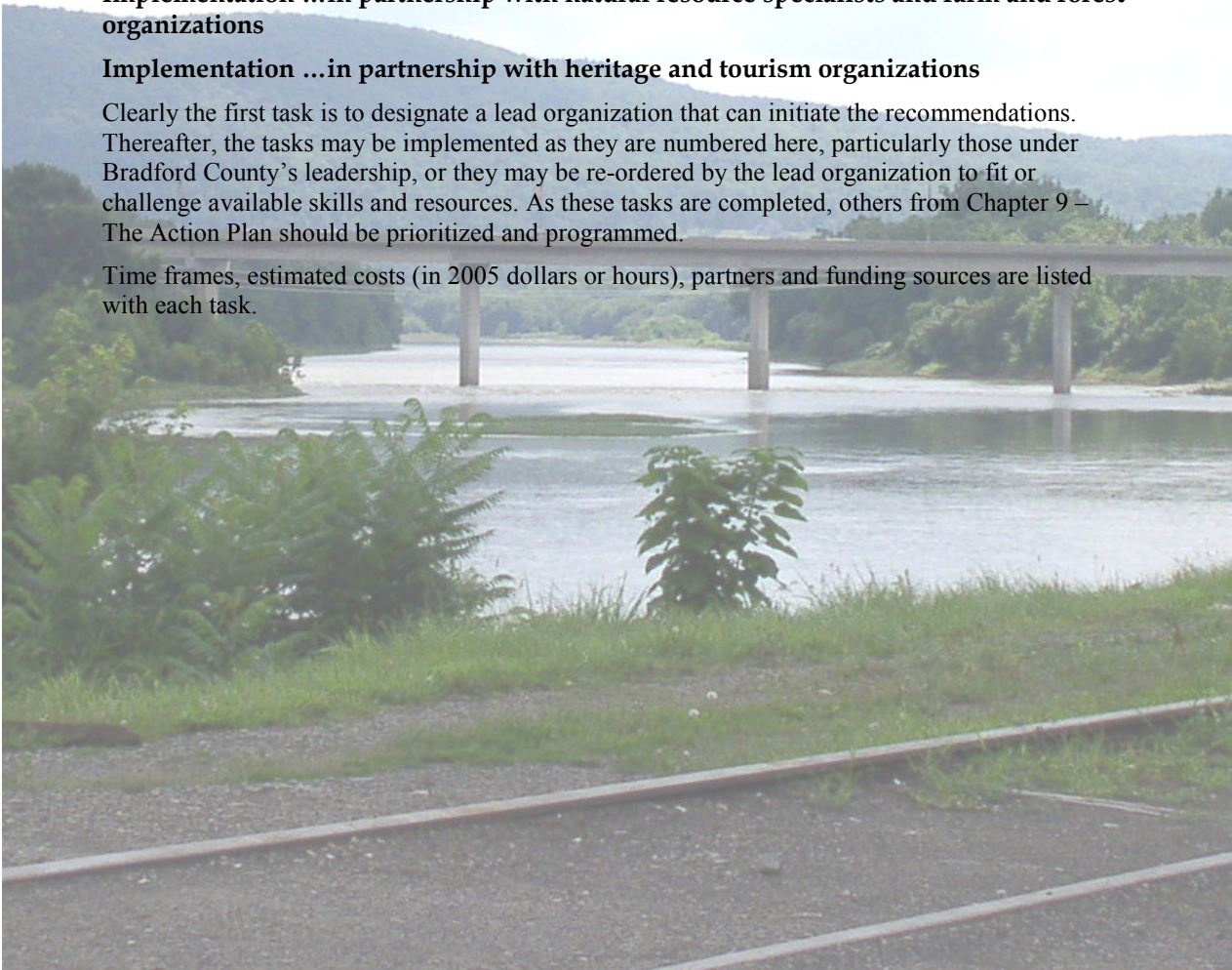
Implementation ...in partnership with natural resource specialists and land conservancies/trusts

Implementation ...in partnership with natural resource specialists and farm and forest organizations

Implementation ...in partnership with heritage and tourism organizations

Clearly the first task is to designate a lead organization that can initiate the recommendations. Thereafter, the tasks may be implemented as they are numbered here, particularly those under Bradford County's leadership, or they may be re-ordered by the lead organization to fit or challenge available skills and resources. As these tasks are completed, others from Chapter 9 – The Action Plan should be prioritized and programmed.

Time frames, estimated costs (in 2005 dollars or hours), partners and funding sources are listed with each task.



Implementation by Bradford County

1. **Designate a lead organization**, i.e. task force or team, to lead the implementation of this plan. This organization would initially delegate tasks to the various partners and monitor progress.

Timeframe – 2006-2007

Cost – administrative support for organizing a volunteer task force

Partners

- Planning Advisory Committee and other representatives of natural resource agencies, historical societies, recreation managers and boards/commissions working in Bradford County as outreach advocates to landowners

Funding Sources

- Local contribution in cash and/or services

2. **Establish a recreation/greenway coordinator position within Bradford County or in partnership with other counties in the region.** (Action Item XI.1.) Once a recreation and greenways coordinator is established, the responsibilities of both the organization and the coordinator should be clarified; the organization could continue to work independently or move under the administration of the recreation and greenways office. (Action Item XVII.1.)

Timeframe – 2006-2007

Cost – \$ 25,000-\$35,000 per year, depending on full to part time requirements, plus benefits

Partners

- Local municipalities
- Bradford County or Bradford County and regional counties
- Northern Tier Regional Planning and Development Commission

Funding Programs

- Local contribution in cash and/or services
- DCNR Circuit Rider program for funding and technical assistance in establishing a full time recreation/greenways coordinator. This four year program pays 100%, 75%, 50%, and 25% of the circuit rider salary in the four respective years of the program. DCNR also supports the position with continued training and professional development workshops.



3. **Develop an educational outreach program** to share information about local recreation/greenway benefits, organizations and partnerships, and publicize local recreation opportunities and greenways initiatives. (Action Item XII.1, Action Item XVII.2., and Action Item XVIII.1.) The educational outreach program would benefit from Action Item XIV.2., develop and maintain a volunteer database to provide organizational assistance to special events requiring volunteer efforts.

Timeframe – 2006-2007

Cost - \$ 15,000 for publicity, materials, special events, and administrative support; total cost may be supported by mini grants of \$1000-\$2500 for individual outreach efforts

Partners

- Recreation and greenways coordinator for outreach and promotion
- Bradford County Office of Community Planning and Grants for mapping and review of subdivision and land development plans for consistency with designated greenways.
- Local officials for coordination of County designated greenways and open space with local planning and decision making
- Recreation organizations for recreation benefits/objectives
- Health and wellness organizations for fitness and wellness benefits/objectives
- Recreation providers and outfitters for assistance in developing and distributing trail guides and in recommending and designing river access points
- School districts for education and outreach to students faculty and administrative staff
- Community organizations for promotion of the value of Bradford County's greenways and open space
- Conservation District for existing outreach efforts to landowners
- The business community for quality of life benefits/objectives
- Endless Mountains Heritage Region and Endless Mountains Visitors Bureau as source of existing marketing materials and as a parallel funding applicant
- Northern Tier Regional Planning and Development Commission and local chambers of commerce as collective business partners interested in recreational and cultural amenities
- Media (e.g. the Daily Review), TV and radio for publicity

Partners – for database development

- Residents as volunteer stewards of resources
- Partnerships as sources of volunteers
- Land trusts and conservancies as landowners and managers of greenways
- School Districts as coordinators of senior projects and other student projects
- Local officials for plans and regulations that specifically outline land management techniques and other best management practices
- Watershed associations for coordination of volunteers and clean up priorities
- Bradford-Sullivan Forest Landowners' Association for outreach to forest landowners

Funding Sources

The total outreach effort could be supported by multiple grants obtained by various partners based on their eligibility for different funding sources.

- Local contribution in cash and/or services
- Local business support via sponsorship, volunteer time and donated materials
- DCED Shared Municipal Services Program; DCNR Heritage Parks Program; DCNR-Bureau of Recreation and Conservation; DEP funding to conservation district, Environmental Stewardship and Watershed Protection Grant; DCNR Rivers Conservation Program; PennDOT Transportation Enhancement Greenways Partnership Program; PHMC Historic Preservation Grants, History & Museum Grants Program
- US EPA Environmental Education Grants Program

4. Hold an annual Partners' Forum to coordinate education and outreach efforts. (Action Item XIII.2.)

Timeframe – 2006-2007 (and on-going)

Cost – administrative costs for event planning (scheduling, notification, agenda/program development)

Partners

- Recreation and greenways coordinator for recreation planning objectives
- Conservation District, Penn State Cooperative Extension, DCNR Bureau of Forestry and PA Game Commission for outreach and technical assistance in management planning and BMP implementation, and as parallel funding applicants
- Land trusts and conservancies for receiving land easements and donations and as a parallel funding applicant
- Managers of state forest, state park, and state game lands for management objectives and practices
- US Department of the Interior National Park Service Rivers, Trails, and Conservation Assistance Program (technical assistance only)
- DCNR regional representative for regional perspectives on local initiatives

Funding Sources

- Local contribution in cash and/or services

5. Develop and implement a County Parks Master Plan. (Action Item VI.1.)

- Consider the role of the county park as a destination within a broader recreation network. In addition, consider Action Item IX.3.: Interconnect county parks with hiker/backpacker trails. This would create a hiking network for serious resident and tourist hikers. Hikers would begin at one park, hike to another where they would camp overnight, and continue to the next park, finally returning to their origin.
- Consider the role of the county parks in conserving and interpreting natural and cultural resources.
- Identify desirable short and long range improvements and enhancements. Evaluate the need to update facilities. Explore the feasibility of these and other improvement ideas: update the bathhouse facilities, provide cabins at one or more of the County parks, provide additional campsites with electric and water hook-ups, and upgrade the County parks to serve “high-tech” campers.
- Develop a Forest Stewardship Plan for the county park to address sustainable forestry issues. Develop Forest Education areas within the parks.



Timeframe – 2008-2010

Cost – \$ 60, 000 for the master plan; and \$ 2,000-10,000 for forest education areas (i.e. interpretive signage)

Partners

- Bradford County Parks Director for county parks assessments and improvements
- Bradford County Office of Community Planning and Grants for assistance in needs assessment and planning
- DCNR Bureau of Forestry for technical assistance with the Forest Stewardship Program

Funding Sources

- Local contribution in cash and/or services;
- Recreation and greenways coordinator for assistance in needs assessment and planning, grant applications and administration
- DCNR Community Conservation Partnership Program; DCED Community Development Block Grant (CDBG) Program; DCNR Forest Stewardship Program
- U.S. Department of Agriculture Watershed Protection and Flood Prevention Program; National Park Service Chesapeake Gateways Program

Implementation...in partnership with local municipalities and community organizations

6. **Make reasonable safety standards available to recreation facility owners and managers.** If compliance with national standards would create excessive burdens on the facility owners, develop local standards consistent with an acceptable level of risk. Invite a certified recreation safety inspector to Bradford County to meet with local officials and recreation providers and provide educational workshops on safety issues. Request a presentation on safety standards and time for a field view of several park and recreation facilities. The safety specialist may be able make recommendations on general safety improvements for the various parks in the field view, as well as site-specific recommendations, if time allows. This workshop could be held annually to address parks and recreation sites in various regions of the county, or the Northern Tier/Endless Mountains Region, and to provide up-to-date safety information to new personnel. (Action Item VI.1.)



Timeframe – 2008-2010

Cost - \$1500 for a one-day workshop and mini report, plus administrative costs for organization (scheduling, notification, coordination with safety specialist)

Partners

- Local officials for proactive assessment of recreation facilities
- DCNR “RECTAP” (training program) for technical assistance in reviewing safety studies, evaluating facilities and recommending safety improvements
- Local recreation committees, boards, and commissions for facility assessment and safety recommendations

Funding Sources

- Local contribution in cash and/or services
- DCNR Community Conservation Partnership Program; DCED Community Development Block Grant (CDBG) Program, Community Revitalization Program

7. **Expand teen programs and children's recreation and leisure activities.** Evaluation and development of teen programs should specifically include teen input. Students in the youth focus group from the Bradford-Sullivan Counties Youth Leadership Program listed activities they enjoy. This list may be a resource for initial programming ideas and further discussion with youth. (Action Item X.1.)

Timeframe - 2006-2007

Cost - \$12,000-\$15,000

Partners

- Residents for assessment of recreation and leisure program needs and desires
- Recreation organizations for recreation and leisure programming
- Recreation and greenways coordinator for recreation planning objectives
- YMCA for recreation and leisure programs for all ages
- School Districts for access to facilities for program locations
- Youth organizations such as Scouts, Boys and Girls Club, and student organizations for program participation and development
- Local health advocates, such as the Wellness Center at Memorial Hospital, for promotion of recreation and leisure programs for physical and mental health
- Pennsylvania Advocates for Nutrition and Activity (PANA), www.panaonline.org/, for program ideas and participation in Department of Health outreach.

Funding Sources

- Local contribution in cash and/or services
- DCNR; PANA mini grants
- Private foundations making contribution for healthy schools

8. **Provide strategies and models for developing safe, comfortable walking and biking routes within towns from neighborhoods to school facilities and parks.** This recommendation supports universal access to public services and programs, including recreation, for all residents. Encourage municipalities to use the Official Map as a tool to plan for future public road, right-of-way, and public facility (e.g. park) locations. Municipalities should also include existing and future recreation features in their comprehensive plans or recreation plans, to document existing conditions and intent for the future recreation development. (Action Item XV.2.)

Timeframe - 2008-2010

Cost - \$ 10,000-\$ 15,000 for village community; \$ 25,000- \$ 50,000 for town or multi-town community

Partners

- Landowners for their vision of future land use and management on private property
- Local officials for sound community development from planning to code enforcement to plan approvals and for infrastructure planning and investment to incentivize small town expansion

- Private developers for sustaining distinct small town character through innovative development proposals
- Pennsylvania State Association of Township Supervisors (PSATS) and Pennsylvania State Association of Boroughs (PSABS) training programs for elected officials
- Bradford County Office of Community Planning and Grants for technical assistance in local planning and for existing policy and guidance established in the 2004 Bradford County Comprehensive Plan
- DCNR Bureau of Forestry, the PA Game Commission and the PA Fish and Boat Commission for technical assistance in management planning and BMP implementation

Funding Sources

- Local contribution in cash and/or services
- PennDOT Home Town Streets/Safe Routes to Schools Program
- US EPA Sustainable Development Challenge Grants

9. Permit the use of conservation design to conserve sensitive features and productivity and to cluster home sites on marginal or non-productive land. (Action Item XV.1)

Timeframe - 2008-2010

Cost - \$ 5,000-\$ 15,000 for ordinance revision; \$15,000-\$20,000 for countywide handbook and model ordinance language

Partners

- Landowners for their vision of future land use and management on private property
- Local officials for sound community development from planning to code enforcement to plan approvals
- Private developers for sustaining distinct rural character through innovative development proposals
- Bradford County Office of Community Planning and Grants for review of subdivision and land development plans for consistency with designated greenways.
- Natural Lands Trust for technical assistance with regulatory review

Funding Sources

- Local contribution in cash and/or services
- DCNR – Community Conservation Partnership Program,
- US EPA Sustainable Development Challenge Grants
- Natural Lands Trust mini-grants



Mercer County Regional Planning and Development Commission developed a handbook for local officials. The handbook includes technical information on two styles of development that are typically unfamiliar but well-suited to the traditional development patterns of Mercer County. The handbook is available at www.mcrpc.com.

10. **Designate and conserve scenic corridors.** (Action Item V.3.) Consider new designation for the Berwick Turnpike and PA 414.

Timeframe – 2008-2010

Cost - \$ 25,000 to establish a county byways program; local planning assistance and administrative support for municipal outreach

Partners

- Landowners as volunteer stewards of scenic resources and volunteer field workers for scenic studies
- Local officials as managers of community development through planning and ordinances
- Northern Tier Regional Planning and Development Commission for scenic byways (transportation) planning
- PA Route 6 Tourist Association for experience in scenic byway planning and organization
- Northern Tier Rural Transportation Advisory Committee for scenic byways designation and improvements
- PennDOT for vista access via right-of-way

Funding Sources

- Local contribution in cash and/or services
- PennDOT Scenic Byways Program; Tourism Promotion Matching Fund, DCNR Heritage Parks Program, Rivers Conservation Program; DEP funding to conservation district; PHMC Historic Preservation Grants, History & Museum Grants Program
- National Scenic Byways Program (FHWA), US Department of Agriculture Conservation Reserve Program (CRP), Environmental Quality Incentives Program (EQIP); USDA NRCS Wetlands Reserve Program; US Environmental Protection Agency Chesapeake Bay Small Watersheds Grant Program

11. **Enhance and extend existing greenways**, such as the Carantouan Greenway and the Susquehanna Greenway. As a first priority, enhance existing greenways with trails, wayfinding and interpretive signage, and resource management demonstration sites, implementing concept and master plans, where possible. Extend greenways in length and with spurs that reach into local natural and man-made communities. Work with landowners to prepare resource stewardship plans in passive greenways areas. Acquire easements, right-of-way, or parcels in active greenways areas, then follow with trail design and construction, signage installation, or other appropriate greenway development. (Action Item I.1.)



Timeframe – 2006-2007

Cost - \$500-1500 per acre easement; \$ 2,000-\$10,000+ per acre acquisition (higher in urban/developed areas); \$ 5-\$20 per linear foot for design and construction; \$ 10,000 for design and construction of trail segment signage (more for large or interconnected trail system)

Partners

- Planning Advisory Committee and other representatives of natural resource agencies, historical societies, recreation managers and boards/commissions working in Bradford County as outreach advocates to landowners
- Local landowners for site specific stewardship plans, as well as easements, rights-of-way, or whole parcel donations and sales
- Local government for preparation and development of municipal greenways spurs
- County, regional and state government as co-sponsors of grant applications

Funding Sources

- DCNR Community Conservation Partnership Program to fund purchase of rights-of-way, or whole parcels, municipal plan development, and future county plan updates
- National Park Service Chesapeake Gateways Program

Implementation...in partnership with natural resource specialists and land conservancies/trusts

12. Identify where private stewardship and where public land management are preferred. This method is part of an on going process of cultivating resource stewards among current and future landowners. (Action Item II.2.)

- Landowner stewardship - Work with landowners to determine their land management objectives. Assist in the preparation of land management plans and implementation of best management practices.
- Public or non-profit management - Acquire easements through donation or purchase. Promote land management plans and best management practices.
- Public or non-profit ownership and management - Acquire land through donation or purchase. Prepare land management plans and implement best management practices.



Timeframe - 2006-2007 (and on-going)

Cost - \$500-1500 per acre easement; \$ 2,000-\$10,000+ per acre acquisition (higher in urban/developed areas)

Partners

- Landowners as volunteer stewards of resources
- Conservation District and Cooperative Extension for outreach and technical assistance in management planning and BMP implementation, and as a parallel funding applicant
- Land trusts and conservancies for receiving land easements and donations and as a parallel funding applicant
- Local watershed organizations for outreach, BMP implementation, and as a parallel funding applicant
- Bradford/Sullivan Farm Bureau for outreach to the farm community
- DCNR Bureau of Forestry for technical assistance in management planning and BMP implementation
- Susquehanna River Basin Commission for technical assistance in planning and management related to water resources
- Chesapeake Bay Foundation, Alliance for the Chesapeake Bay, and other Chesapeake Bay organizations for technical and financial assistance related to best management practices and water resource restoration
- USDA Natural Resources Conservation Service

Funding Sources

The task could be supported by multiple grants, leveraged together and obtained by various partners based on their eligibility for different funding sources and the specific criteria of the grant program.

- Local contribution in cash and/or services
- DCNR Community Conservation Partnership Program, Heritage Parks Program, Rivers Conservation Program; DCNR Forest Stewardship Program; DEP funding to conservation district, Chesapeake Bay Program Financial Assistance Funding Program, Environmental Stewardship and Watershed Protection Grant; PennDOT Transportation Enhancement Greenways Partnership Program
- U.S. Department of Agriculture Watershed Protection and Flood Prevention Program, Environmental Quality Incentives Program (EQIP), Forestry Incentives Program; USDA NRCS Wetlands Reserve Program; US Environmental Protection Agency Chesapeake Bay Small Watersheds Grant Program, Sustainable Development Challenge Grants, Capitalization Grants for Clean Water State Revolving Funds; U.S. Department of the Interior North American Wetlands Conservation Act Grants, Partners for Fish and Wildlife Habitat Restoration Program

Implementation...in partnership with natural resource specialists and farm and forest organizations

13. Develop a strategy to enhance the quality of agriculture and forestry in Bradford County. Continue to advocate best attract supporting businesses, educate farmers and forest landowners on value-adding technology, and coordinate with state and federal agencies on production and wildlife management practices. (Action Item IV.4.)



This strategy should evaluate current and future forces which threaten the sustainability of agriculture and forestry in this area. Specifically, the scope of the study and recommendations should include:

- Identification of Bradford County strengths and weaknesses and apparent threats.
- Assessment of global import/export trends in crop, livestock, and forestry industries and identification of implications upon local growers involving changing markets and consumer demands and associated impacts.
- Local production focus (needed changes in technology, commodities and/or markets)
- Effects on agricultural and forest land use and land value.
- Community planning initiatives and economic incentives to preserve the industries.
- Innovative marketing approaches.

Timeframe – 2008-2010

Cost - \$15,000-\$20,000; value may be higher depending on the scope of research and strategy development

Partners

- Landowners as volunteer stewards of resources

- Conservation District and Cooperative Extension for outreach and technical assistance in management planning and BMP implementation, and as a parallel funding applicant
- Land trusts and conservancies for receiving land easements and donations and as a parallel funding applicant
- Local watershed organizations for outreach, BMP implementation, and as a parallel funding applicant
- Bradford/Sullivan Farm Bureau for outreach to the farm community
- Bradford-Sullivan Forest Landowners' Association for outreach to forest landowners
- DCNR Bureau of Forestry for and technical assistance in management planning and BMP implementation
- Susquehanna River Basin Commission for technical assistance in planning and management related to water resources
- Chesapeake Bay Foundation, Alliance for the Chesapeake Bay, and other Chesapeake Bay organizations for technical and financial assistance related to best management practices and water resource restoration
- USDA Natural Resources Conservation Service

Funding Sources

This task could be supported by multiple grants, leveraged together and obtained by various partners based on their eligibility for different funding sources.

- Local contribution in cash and/or services
- Forest Legacy Program
- DCNR Community Conservation Partnership Program, Heritage Parks Program, Rivers Conservation Program; DEP funding to conservation district, Chesapeake Bay Program Financial Assistance Funding Program, Environmental Stewardship and Watershed Protection Grant; PennDOT Transportation Enhancement Greenways Partnership Program
- U.S. Department of Agriculture Watershed Protection and Flood Prevention Program, Environmental Quality Incentives Program (EQIP), Forestry Incentives Program; USDA NRCS Wetlands Reserve Program; US Environmental Protection Agency Chesapeake Bay Small Watersheds Grant Program, Sustainable Development Challenge Grants, Capitalization Grants for Clean Water State Revolving Funds; U.S. Department of the Interior North American Wetlands Conservation Act Grants, Partners for Fish and Wildlife Habitat Restoration Program

Implementation...in partnership with heritage and tourism organizations

14. **Publish and distribute a water trail guide** that includes a map of the river corridor and notes the location of rest and service facilities, as well as nearby attractions. This practice is spreading rapidly throughout Pennsylvania as a means to connect people with waterways. A water trail guide is currently being prepared by the Endless Mountains Heritage Region and is expected to be ready for distribution in 2006. It is important to complete and distribute this guide locally and regionally. Spending time on the river is one way to cultivate an appreciation for the river's beauty, health and functions. A guide has been developed for the Chemung River in New York. (Action Item VIII.1.)



Timeframe - Underway

Cost - N/A for design and initial production/printing

Partners

- Endless Mountains Visitors Bureau for promotion of river recreation and conservation
- Recreation outfitters for assistance in developing and distributing trail guides and in recommending and even designing river access points
- Recreation organizations and program coordinators for local outreach and publicity of recreation objectives and for trail-based programming.
- Recreation and greenways coordinator for map preparation and distribution.
- Landowners for voluntary support of active greenways (trails) and passive greenways to create a recreation network.

Funding Sources

- Local contribution in cash and/or services
- DCNR Community Conservation Partnership Program, Rivers Conservation Program (recreation grants); Heritage Parks Program

15. Identify and prioritize historic features countywide, e.g. sites, districts, or other features, working toward a plan for historic preservation. (Action Item III.1.)

1. Identify sites of potential significance.
2. Prioritize sites on specified criteria. Such criteria may include: owner interest, significance, proximity to other historic features (conserved and not conserved), proximity to greenway, and proximity to roadway. The Northcentral Pennsylvania Conservancy has developed a prioritization process that could be tailored to Bradford County. A copy of the project review worksheet is included in the appendix.
3. Pursue designation for top 3-5 sites, consistent with owner objectives.
4. Pursue preservation and interpretation, consistent with owner objectives.
5. Continually publicize designation, preservation efforts and achievements, and interpretive projects (signage, programs, etc.).



Timeframe – 2008-2010

Cost - \$ 60,000 for inventory and management action plan; various costs for publicity and preservation

Partners

- County historical society, local historical societies and local historians as sources of information for inventory and prioritization
- Endless Mountains Heritage Region and Endless Mountains Visitors Bureau - as a parallel funding applicant
- Land trusts and conservancies for receiving land easements and donations and as a parallel funding applicant
- PHMC for technical assistance and DCED Historic Preservation Specialist with the Center for Community Building (717-720-1441, Pamela Reilly) for technical assistance, historic preservation projects, local history, museum projects, general operating support, historical markers.
- Public TV/other media for publicity of resource significance and interpretive opportunities

Funding Sources

- Local contribution in cash and/or services
- PHMC Historic Preservation Grants, History & Museum Grants Program; DCNR Community Conservation Partnership Program, Heritage Parks Program
- National Register of Historic Places

Another View of First Steps

These first steps toward implementation can also be classified by their type of recommendation. The matrix on the following page shows how each task fits into the various classifications of:

- Criteria for Open Space Protection and Conservation (procedures for maintaining and updating the plan)
- Greenway and Recreation Sites, Networks and Linkages (projects for community enhancement and improvement)
- Land Acquisition Strategies
- Administration, Management, and Maintenance (organizational methods)
- Marketing and Communication (communications for publicity)
- Land Use Policies and Regulations (technical assistance methods)
- Future Studies

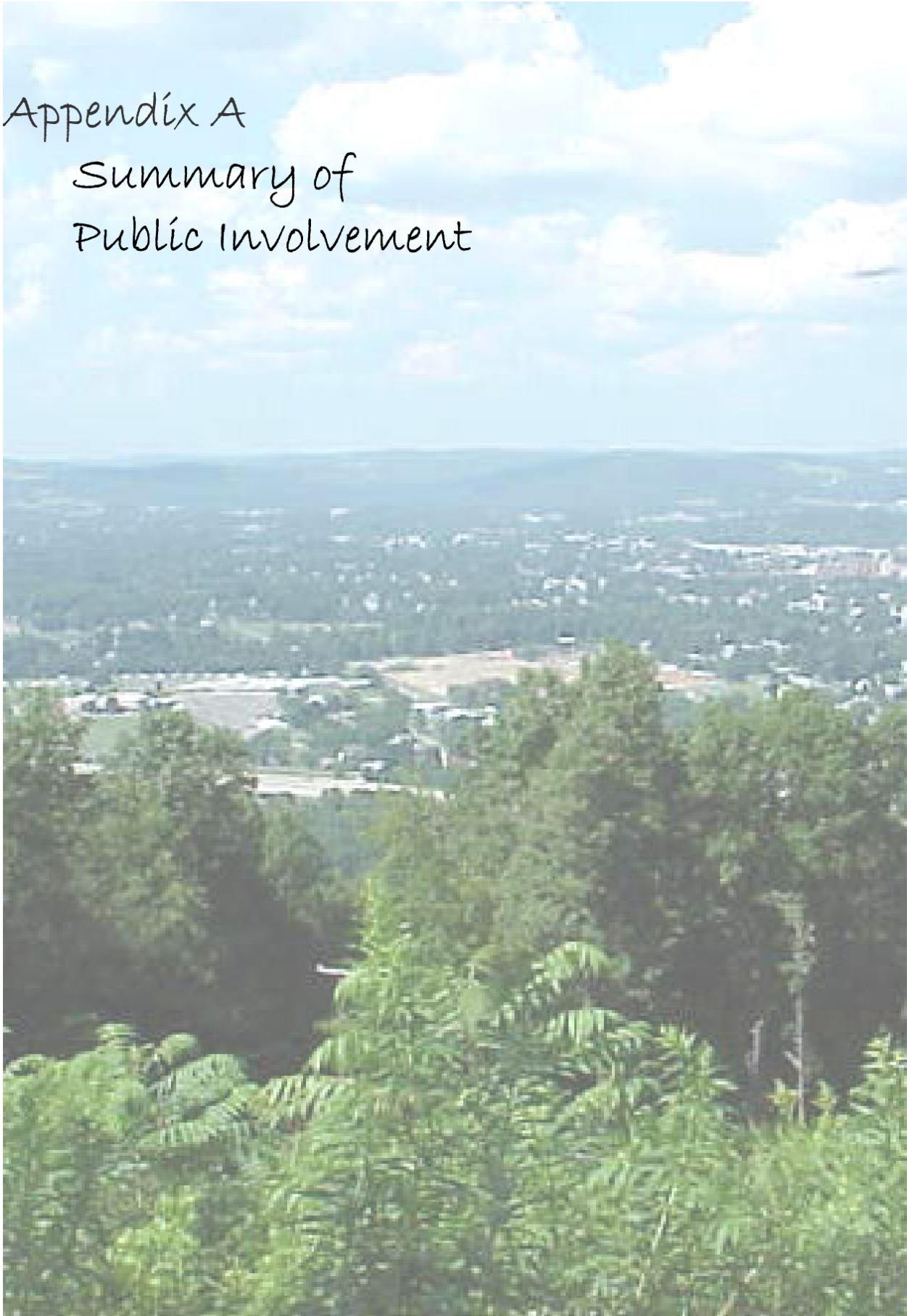
Table 7-1 First Steps Toward Implementation

	The Criteria for Open Space Protection and Conservation	Greenway and Recreation Sites, Networks and Linkages	Land Acquisition Strategies	Administration, Management, and Maintenance	Marketing and Communication	Land Use Policies and Regulations	Future Studies
Implementation by Bradford County							
1. Designate an organization, i.e. task force or team, to lead the implementation of this plan. This organization would initially delegate tasks to the various partners. (Action Item XVII.1.)				X			
2. Establish a recreation coordinator position within Bradford County or in partnership with other counties in the region. (Action Item XI.1.)				X			
3. Develop an educational outreach plan to share information about local greenway benefits. (Action Item XVII.2.)					X		
4. Hold a Partners' Forum on a regular basis to coordinate education and outreach efforts. (Action Item XIII.2.)	X		X				
5. Develop and implement a County Parks Master Plan. (Action Item VI.1.)		X					X
Implementation...in partnership with local municipalities and community organizations							
6. Make reasonable safety standards available to recreation facility owners and managers. (Action Item VI.1.)		X		X			
7. Expand teen programs and children's activities. (Action Item X.1.)				X			
8. Provide strategies and models for developing safe, comfortable walking and biking routes within towns from neighborhoods to school facilities and parks. (Action Item XV.2.)						X	
9. Permit the use of conservation design to conserve sensitive features and productivity and to cluster home sites on marginal or non-productive land. Changes to Clean and Green may help promote this. (Action Item XV.1)						X	
10. Designate scenic corridors. (Action Item V.3.) Consider new designation for the Berwick Turnpike and PA 414.		X					
11. Enhance and extend existing greenways, such as the Carantouan Greenway and the Susquehanna Greenway. (Action Item I.1.)		X					
Implementation...in partnership with natural resource specialists and land conservancies/trusts							
12. Identify where volunteer landowner stewardship from private landowners is desired and where public land management or land transfer is preferred. This method is part of an on going process of cultivating resource stewards among current and future landowners.	X		X				
Implementation...in partnership with natural resource specialists and farm and forest organizations							
13. Develop a strategy to enhance the quality of agriculture in Bradford County. (Action Item IV.4.)	X						
Implementation...in partnership with heritage and tourism organizations							
14. Publish and distribute a water trail guide that includes a map of the river corridor and notes the location of rest and service facilities, as well as nearby attractions. (Action Item VIII.1.)		X			X		
15. Identify and prioritize historic features (sites, districts, or other features), working toward a plan for historic preservation. (Action Item III.1.)		X	X	X	X	X	X

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Appendix





Appendix A
Summary of
Public Involvement

Planning Advisory Committee

The Planning Advisory Committee, or PAC, met regularly to contribute their knowledge and perspective to the analysis and findings of the project, as well as to the Plan's goals and recommendations. The committee was comprised of the following members:

David Rockwell WHGL WIGGLE 100	Donald Butler Towanda Area School District,
Shirley Lewis The Troy Gazette Register	J. Andrew Morrow School
Tim Birney The Evening Times	Douglas Ulkins Athens Area School District
John Shaffer Canton Independent-Sentinel	Robert Jannone Canton Area School District
Wes Skillings The Rocket-Courier	Thomas Neilson Northeast Area School District
Ronald W. Hosie The Daily Review	Michael Mahon Wyalusing Area School District
Anthony Ventello Central Bradford Progress Authority	John Palmer Carantouan Greenway
Robert Veleker Endless Mountains Heritage Region	Jeff Mitchell Hiking in the Endless Mountains
Kenneth Gwin Mt. Pisgah State Park	Thomas Fairchild Towanda Borough
Mike Lovegreen Bradford County Conservation District	Warren Knapp Gary Patterson Bradford County Maintenance Department
David Buck Endless Mountains Outfitters	Jeff Warner Wells Township Park Committee
Richard Biery Northern Tier Regional Planning & Development Commission	Richard J. Lupinsky, Sr. PA Game Commission
Ralph Saggiamo Brooks Eldrige-Martin Bradford County Regional Arts	Steve Sliwinski Granville Township Planning Commission
Laura Blain Sheshequin/Ulster Community Center	Dennis Smouse Scenic Mts. Snowmobile Club
Ted Keir Pennsylvania Fish Commission	Renee Carey Northcentral Pennsylvania Conservancy
Desiree Spencer Partners in Family & Community Development	Amy Gruzesky Endless Mountains Visitors Bureau
Judy Stevens Ridgebury Township Park Committee	Karen Graber-Wright Endless Mountains Transportation Authority
Tom Schill French Asylum, Inc.	Diane Kripas PA Department of Conservation and Natural Resources
Richard Bean Athens Township Park Committee	Dennis DeMara PA Department of Conservation and Natural Resources
Brian Harris Smithfield Township Park Committee	Nancy Baker Bradford/Sullivan Forest Landowners Association

Jeff Bower
Alparon Community Park
John George
Natural Resource Conservation Service
Anthony Ligouri
Bradford County Agricultural Land
Preservation Board
Jennifer Dibble
YMCA of Bradford County
Stacy Cromer
Endless Mountains Resource
Conservation and Development

Linda Thoma
Northbranch Land Trust
Mary Baker
Pennsylvania Bureau of Forestry
Ellen Ferretti
Pennsylvania Environmental Council
Gary Giantoner
Lorne Possinger
DCNR Bureau of Recreation and
Conservation
Steve Moore

PAC members received advance mailings of meeting materials and were prepared to discuss their perspectives at each meeting. Meeting summaries reflected the major points of discussion and were mailed to all PAC members. Several members of the PAC joined the planning team in an informal meeting with the Bradford County Board of Commissioners to discuss the value of the plan and advocate its adoption and implementation.

Interviews

Nearly two dozen local officials, farm and forest organizations, resource managers, recreation service providers, educators, and heritage and tourism agencies from the public and private sectors were interviewed to establish a broad understanding of conditions and trends in resources management and recreation. The general findings of these interviews were compiled as a draft list of conclusions and directions for the Bradford County Open Space, Greenways, and Outdoor Recreation Plan, which is listed on page A-5 to A-11. This list was discussed with the PAC and an early prioritization of these issues was made.

Three Focus Groups

Focus groups with landowners of working farms and forests, environmental stewards (watershed associations), and young residents of the county were conducted in the winter/spring of 2005. These groups of individuals and organizations were selected with input from the PAC to explore the specific perspectives and needs of those residents whose livelihood is connected to resource production, who are working to improve environmental quality, and whose future in the county is yet to be determined. The input of these groups is provided in Chapter 4, *An Analysis of Open Space and Recreation Needs*.

Bradford County Surveys Results

From Surveys associated with the Pennsylvania Statewide Recreation Plan

Among the recommendations of the *Pennsylvania Greenways: An Action Plan for Creating Connections* was an action item to complete a Statewide Outdoor Recreation Plan. Pennsylvania's Recreation Plan, a five-year prioritization of the Commonwealth's recreation needs that will be used to guide funding. Public involvement included two resident surveys, among other input events.

The first was an eight-page written survey, conducted by The Pennsylvania State University in the fall/winter of 2002/2003. A public opinion "needs" survey was conducted to solicit the population's views and opinions regarding the most pressing recreation resource needs that Pennsylvania is facing.

Over 21,000 surveys were sent to a random mailing list of Pennsylvania households. Because of increased emphasis on promoting planning at the county level, the random sample size of the survey was increased significantly to collect statistically reliable information at the county level.¹

The second was a telephone survey conducted by the Center for Opinion Research at Franklin and Marshall College. A random telephone survey was also conducted to determine current recreation participation trends. The 2003 Pennsylvania Outdoor Recreation Participation Survey was designed to closely resemble earlier outdoor recreation participation surveys with long-range planning in mind. The sample size for this survey was also increased to collect information at the county level. The 2003 Recreation Participation Survey was conducted between April and November of 2003 and included more than 7,100 Pennsylvania residents over the age of five.² DCNR has not yet made the county level data available from this survey.

Select questions and their associated responses were reviewed from Bradford County's subset of the written survey. The results of these questions are show on the subsequent pages, followed by the conclusions and directions drawn from these results and the findings from the interviews.

¹ Pennsylvania Recreation Plan 2004-2008.

² Ibid.

**Select Bradford County Results from the
Recreation Needs in Pennsylvania: Resident Survey
Conducted in Conjunction with the Pennsylvania State Recreation Plan
Developed by PA DCNR**

2. During an average week, how many hours do you usually spend on recreational activities away from your home?

Indoor 1.6 hours

Outdoor 4.76 hours

3a. What percentage of your recreational activities away from home take place at the following facilities?

Local 31%

State 21 %

Federal 13 %

Private/Commercial 43 %

Don't Know 27%

3b. With whom do you typically recreate away from home?

Alone 21%

Groups of 1 or 2 people 42 %

Groups of 3 or more people 23 %

4a. How many times have you or anyone in your household visited public recreation areas?

In PA in last three months 3.48 visits

Out of PA in last three months 1.85 visits

In PA in last twelve months 3.93 visits

Out of PA in last twelve months 4.54 visits

4b. How long does it take you to travel to the recreation area in Pennsylvania you visited most often?

Average/Mean Response 39.71 minutes

5. Over the next five years, do you think your recreational activity will increase, decrease, or remain about the same?

Indoor recreation

Increase 24%

Decrease 11%

About the same 56%

No Response 8%

Outdoor recreation

Increase 29%

Decrease 18%

About the same 51%

No Response 4%

6. The following problems often cause people not to recreate. Please check any that kept you or your family from participating in recreational activities in the past year:

- | | |
|--------------------------------------|---------------------------------------|
| ▪ Facilities too far away 31% | ▪ Fees and charges 16% |
| ▪ Facilities too crowded 18% | ▪ Not comfortable with other users 4% |
| ▪ Facilities poorly maintained 8 % | ▪ Personal health problems 15% |
| ▪ Lack of facilities 31 % | ▪ Not enough time 49% |
| ▪ Areas not safe 0% | ▪ Not enough money 26% |
| ▪ Lack of information 25% | ▪ Don't have the skills 5% |
| ▪ Lack of access for disabled people | ▪ No one to recreate with 13% |
| ▪ Insects or animal pests 14% | ▪ Other 10% |
| ▪ Pollution problems 2% | |

8a. How important is outdoor recreation to you?

3.67/5.00 Neutral-Agree / No Response 2%

8b. How important is indoor recreation to you?

3.04/5.00 Neutral-Agree /No Response 2%

8c. How important are public recreation areas and opportunities to you?

3.63/5.00 Neutral-Agree /No Response 2%

Bradford County Open Space, Greenways and Outdoor Recreation Plan

8d. How important were public recreation areas and opportunities in choosing where you live or work?

2.22/5.00 Disagree-Neutral / No Response 4%

9. From the following list of recreational areas, please check those near where you live that you think are adequate, should be increased, or should be improved:

	Adequate / Increased / Improved / No Response
<u>Trail/Street/Road Activities</u>	
Walking Paths (indoor and outdoor)	22% / 51% / 6% / 21%
Jogging and Fitness Trails	16% / 41% / 3% / 40%
Hiking and Backpacking Trails	18% / 45% / 3% / 34%
Equestrian Trails	22% / 16% / 1% / 61%
Bicycle Paths	14% / 35% / 4% / 47%
Mountain Bike Trails	21% / 20% / 2% / 57%
Off-Road Motorcycling Trails	21% / 15% / 1% / 64%
ATV Trails	20% / 15% / 2% / 64%
Four-Wheel Driving Trails	20% / 13% / 2% / 66%
Scenic Drives	27% / 35% / 4% / 34%
Greenways	20% / 16% / 8% / 56%
<u>Viewing/Learning Activities</u>	
Environmental Education Areas	25% / 33% / 6% / 36%
Heritage Parks/Historical Sites	26% / 43% / 6% / 26%
Outdoor Performance Areas	22% / 27% / 4% / 47%
Wildlife Areas	39% / 24% / 5% / 32%
Natural Areas	37% / 26% / 4% / 32%
Wilderness Areas	36% / 22% / 3% / 40%
<u>Group Sports</u>	
Baseball Fields	50% / 9% / 5% / 36%
Softball Fields	46% / 10% / 4% / 40%
Football Fields	53% / 3% / 1% / 43%
Soccer Fields	40% / 11% / 6% / 43%
Basketball Courts	43% / 9% / 6% / 42%
Volleyball Courts	42% / 9% / 1% / 48%
Lacrosse Fields	26% / 8% / 0% / 66%
<u>Individual Sports</u>	
Skateboarding and Rollerblading Areas	19% / 27% / 4% / 50%
Handball Courts	21% / 16% / 1% / 63%
Tennis Courts	34% / 14% / 10% / 43%
Archery Ranges	29% / 11% / 1% / 58%
Rifle and Handgun Ranges	26% / 25% / 5% / 44%
Horseshoe Pits	27% / 16% / 1% / 44%
Golf Courses	36% / 14% / 3% / 47%
Disc Golf Courses	17% / 7% / 0% / 76%
<u>Winter Sports</u>	
Downhill Skiing and Snowboarding Areas	25% / 20% / 0% / 55%
Sledding Areas	19% / 30% / 4% / 47%
Cross-Country Ski Areas	24% / 22% / 2% / 52%
Ice Skating Areas	15% / 34% / 5% / 46%
Ice Hockey Rinks	26% / 17% / 0% / 57%
Snowmobile Trails	25% / 10% / 4% / 61%
<u>Hunting% / Trapping Areas</u>	
Big Game	42% / 11% / 4% / 44%
Small Game	41% / 8% / 4% / 47%
Waterfowl	37% / 9% / 3% / 51%

Continued

Swimming

Indoor Pools	34% / 27% / 3% / 36%
Outdoor Pools	31% / 21% / 5% / 43%
Lake and Stream Swimming Areas	29% / 16% / 5% / 50%
Snorkeling and Scuba Areas	17% / 8% / 5% / 70%

Social Activities

Picnic Areas	2% / 10% / 19%
Playgrounds	38% / 21% / 6% / 34%
Sitting and Passive Areas	30% / 20% / 14% / 36%
Senior Centers	26% / 34% / 8% / 32%
Community Recreation Centers	11% / 44% / 6% / 38%
Dog Parks	22% / 16% / 3% / 59%
Open Play Areas	26% / 27% / 4% / 43%

Camping

Campgrounds (with hookups)	22% / 35% / 3% / 40%
Campgrounds (without hookups)	24% / 30% / 4% / 42%
Cabin Rentals	19% / 36% / 4% / 41%

Boating and Floating

Boating Areas (non-motorized)	34% / 13% / 1% / 52%
Boating Areas (limited horsepower)	34% / 13% / 1% / 52%
Boating Areas (unlimited horsepower)	31% / 11% / 2% / 55%
Canoe and Kayak River Access	35% / 18% / 3% / 45%
Water Trails	24% / 15% / 4% / 56%

Fishing Areas

Warmwater	39% / 9% / 1% / 51%
Coldwater	38% / 9% / 2% / 0% / 51%
Ice	29% / 7% / 2% / 62%
Anadromous (e.g., Shad, Salmon)	14% / 8% / 1% / 77%
Special Regulation Areas	21% / 4% / 1% / 74%

10. Please check those recreational programs which should be expanded in your area:

- | | |
|---|------------------------------------|
| ▪ Arts and Crafts/Hobbies 38% | ▪ Teen Programs 51% |
| ▪ Athletics/Sports (tennis, golf, soccer, basketball, etc.) 19% | ▪ Fairs/Ethnic Cultural Events 20% |
| ▪ Cultural Arts (theater, dance, music) 44% | ▪ Fitness Programs 31% |
| ▪ Environmental Education 33% | ▪ Adult Education 37% |
| ▪ Before and After School Programs 37% | ▪ Senior Programs 38% |
| | ▪ Preschool Programs 14% |

11. If you or someone you know is mentally or physically disabled, list the types of recreational resources near where you live that should be provided or expanded to meet their needs.

Facilities and equipment

Playgrounds	5.2%
More in General	4.2%
No Response	96%

Activities and programs

Handicap accessibility	1%
Cards, board games	2%
Sportsman activities, fish, hunt	1%
Education, computers	1%
No response	97%

Continued

12. If you or someone you know is a senior citizen, list the types of recreational resources near where you live that should be provided or expanded to meet their needs.

Facilities and equipment

YMCA, YWCA, Indoor recreation 1%

Bike trails 1%

Walking, hiking trails 7%

Fishing piers for wheelchairs, fishing areas 2%

Benches, rails on trails 2%

Picnic areas 1%

Indoor sports, swimming 2%

Supervised outdoor activities 1%

Sidewalks, steps 1%

Senior programs 2%

Bike trails 2%

Animal friendly parks 1%

Exercise, fitness 2%

No Response 82%

12. If you or someone you know is a senior citizen, list the types of recreational activities near where you live that should be provided or expanded to meet their needs.

Activities and programs

Bus trips 2%	Bird watching 1%
Indoor exercise, walk 2%	Other 2%
Sportsman activities, fish, hunt 1%	Cards, board games 2%
Bike trails 2%	Art 1%
Exercise program, nutrition 2%	Guided nature walks 1%
Cultural, historical activities 1%	No Response 87%

13a. How satisfied are you with the recreation areas and opportunities available to you in Pennsylvania?

Municipal parks and recreation areas	3.57/5.00 Neutral-Agree
County parks and recreation areas	3.62/5.00 Neutral-Agree
State Parks	3.73/5.00 Neutral-Agree
State Forests	4.39/5.00 Agree-Strongly Agree
State Game Lands	4.55/5.00 Agree-Strongly Agree
Federal parks, forests, and recreation areas	4.51/5.00 Agree-Strongly Agree
Private recreation areas	4.23/5.00 Agree-Strongly Agree

13b. If you are unsatisfied, please help us understand by telling us why:

Municipal 15% / No Response 85%	State Forests 10% / No Response 90%
Awkward access, travel	Awkward access, travel
None	Need more in general
Should be cleaned up, litter	Unsafe, unsupervised
More for kids	Allow ATV riding
Inadequate	None
Crowded	State Game Lands 10%/ No Response 90%
County 13% / No Response 87%	Awkward access, travel, hard to find
Access unavailable, not handicap accessible	Too much hunting
Need more in general	Need more in general
Inadequate in general	Need more in eastern PA
More motor vehicle inspection	Should allow ATV riding
more parking	More wildlife area
State Parks 12% / No Response 88%	Enforce loitering laws
Awkward access, travel	Federal 7% / No Response 93%
More in general	Awkward access, travel
More in general	Need more in general
No playground	Not well maintained
	Private 4% / No Response 96%
	Need more funding
	Need more in general
	Need more activities

14. Open space and Greenways

- Open space near where I live is threatened by development
2.37/5.00 Disagree-Neutral / No Response 16%
- There is enough protected open space near where I live
2.94/5.00 Disagree-Neutral / No Response 20%
- Public access to open space near where I live should be increased
2.77/5.00 Disagree-Neutral / No Response 20%

- d. Municipalities near where I live currently work together to protect and link park and open space resources
2.63 Disagree-Neutral /5.00 / No Response 26%
- e. It is important that greenways/trails connect neighborhoods and other elements of my community 3.28
Neutral-Agree /5.00 / No Response 20%
- f. It is important that greenways/trails connect municipalities and parks within Pennsylvania 3.32/5.00
Neutral-Agree / No Response 20%
- g. Streams and rivers are in good condition near where I live
3.27/5.00 Neutral-Agree / No Response 14%
- h. Streams and rivers are accessible near where I live
3.75/5.00 Neutral-Agree / No Response 16%

15. Public recreation quality

- a. Public recreation areas near where I live are well maintained
3.37/5.00 Neutral-Agree / No Response 12%
- b. Public recreation areas near where I live are adequately policed
3.13/5.00 Neutral-Agree / No Response 18%
- c. The environmental quality of public recreation areas near where I live is good
3.41 Neutral-Agree /5.00 / No Response 12%

16. Public recreation availability

- a. There are enough public recreation areas close to where I live
2.81/5.00 Disagree-Neutral / No Response 13%
- b. Public recreation areas near where I live are open at times convenient for me
3.22/5.00 Neutral-Agree / No Response 16%
- c. Public recreation areas and programs near where I live are accessible to people with physical and mental disabilities
3.07 /5.00 Neutral-Agree / No Response 15%
- d. Public transportation to recreation areas near where I live meets my needs
2.47/5.00 Disagree-Neutral / No Response 25%
- e. Maintaining the public recreation areas we now have is more important than adding new parks in Pennsylvania
3.36 Neutral-Agree /5.00 / No Response 13%
- f. Local government should do more to increase public awareness about the availability of recreation areas and opportunities
3.71 Neutral-Agree /5.00 / No Response 13%
- g. The Commonwealth of Pennsylvania should do more to increase awareness of recreation opportunities at State Parks and Forests
3.83/5.00 Neutral-Agree / No Response 17%
- h. Municipalities in my area should join together to form a park and recreation department
3.58/5.00 Neutral-Agree / No Response 15%
- i. The availability of local recreation programs reduces youth crime
3.69/5.00 Neutral-Agree / No Response 14%
- j. Parks and natural areas increase the value of nearby properties
4.01/5.00 Agree-Strongly Agree / No Response 12%
- k. Greenways and trails increase the value of nearby properties
3.90/5.00 Neutral-Agree / No Response 15%

18a. My municipality should have a permanent source of funding based on general tax revenues for park and recreation opportunities

3.08/5.00 Neutral-Agree / No Response 12%

18b. The State should increase its permanent source of funding based on general tax revenues for park and recreation opportunities

3.42/5.00 Neutral-Agree / No Response 12%

...

26. Do you use the internet?

63% Yes / 35% No / No Response 2%

27. Do you use the internet for information on your recreational pursuits?

48% Yes / 48% No / No Response 4.2%

Conclusions and Direction for the Plan

The following conclusions and directions for the BC Open Space, Greenways and Outdoor Recreation Plan were developed from the findings of the interviews and recent surveys. These initial issues and recommendations were used as the foundation for developing the goals, objectives and final recommendations of the plan.

With regard to **recreation and trails**, the BC Open Space, Greenways and Outdoor Recreation Plan should...

- Identify maintenance strategies, including regular inspection and periodic enhancement for existing trails and municipal parks.
- Encourage and present the benefits of partnerships between school districts, municipalities and other community organizations to maintain and improve school-owned outdoor recreational and support facilities. (School facilities should not be the sole recreational site in established towns but should be part of a multi-site recreation network.)
- Provide strategies for developing public/private partnerships.
- Suggest trail connections and identify potential trail extensions, as well as new trails (prioritized order).
- Consider multi-use motorized trails where appropriate rather than address independent snowmobile trails.
- Recommend the designation or development of accessible walking routes within or near existing towns and villages, as well as in township parks
- Encourage municipalities and partnerships to provide safe, comfortable walking and biking routes within towns *from neighborhoods to school facilities*.
- Recommend expansion of the County Parks' functions and activities.
- Encourage the designation and development of boat access points along Wyalusing and Sugar Creeks.
- Recommend the development of a river water trail map that includes the location of rest and service facilities, as well as nearby attractions. (*Already in progress?*)
- Recommend that recreational facilities, whether trails, parks or other, be sized to accommodate small groups. For example, trails should be wide enough for 2 persons to walk or bike side by side and rest areas (benches) should accommodate multiple small groups.

- Explore the feasibility of winter activity expansion, specifically to determine whether the trend of seeking winter recreation outside the County is a matter of availability or preference.
- Recommend that municipalities focus first on providing more information about available recreation facilities and second on providing more facilities.
- Suggest that new or improved facilities provide the following where appropriate:
 - Walking paths
 - Jogging and fitness trails
 - Hiking and backpacking trails
 - Bicycle paths
 - Ice Skating areas
 - Environmental Education areas
 - Heritage parks/historical sites
 - Scenic Drives
 - Skateboarding and Rollerblading areas
 - Sledding areas
 - Campgrounds with hook-ups
 - Cabin Rentals
- Recommend that recreational programs be expanded beyond traditional youth athletics to include recreational and leisure activities for all age groups. First efforts should be focused on teen programs and additional children's activities. Programming efforts should include teens. Options for additional athletics, career skills, creative expression (writing, crafts, etc.) should also be considered. Second efforts should address needs for seniors.
- Recommend enhanced marketing of destinations from recreation travel corridors.

With regard to **open space, greenways, and resource protection**, the BC Open Space, Greenways and Outdoor Recreation Plan should...

- Identify greenways and designate them as either public greenways or private greenways to distinguish between those that allow public access and those that do not.
- Recommend that open space protection efforts be directed toward specific greenways and the expansion of existing protected areas.
- Encourage the protection and conservation of natural features, particularly those in identified greenway corridors.
- Utilize the Scenic Byways designation as a tool for calling attention to specific corridors that have unique features.
- Encourage the protection and conservation of historic features, particularly those in public greenway corridors where public access and interpretation can be accomplished.

With regard to **stewardship**, the BC Open Space, Greenways and Outdoor Recreation Plan should...

- Support the explanation of County policy on greenways and open space to all residents, including students, as a demonstration of the County's goals for the future of the environment.
- Continue to encourage the sale of farmland for continued agricultural uses.

- Encourage the continuation of the Agricultural Preservation Board and the purchase of agricultural easements, as well as other similar land trust activities.
- Encourage landowners to enroll agricultural land in the Agricultural Security Area Program. Special outreach should be directed toward property owners adjacent to existing ASAs.
- Encourage the continuation of the vocational agriculture program to foster new generations of farmers and provide them with skills to compete in the agricultural industry.
- Encourage the conservation and management of the County's diverse habitats for wildlife species, including upland forest, riparian (riverside) forest, meadow, and wetlands.
- Encourage the protection of forested linkages *between* large tracts of forest to enable wildlife to travel between habitat areas.
- Encourage rural landowners to maintain their lands in a natural (non-cultivated) state.
- Encourage volunteer efforts to maintain and clean up the land, to provide financial donations, and to use best management practices.

With regard to **growth management**, the BC Open Space, Greenways and Outdoor Recreation Plan should...

- Encourage new development that extends, or is otherwise consistent with, traditional community development patterns.
- Discourage telecommunications infrastructure investment in active agriculture and forestry areas.
- Discourage the extensive subdivision of large tracts of land.
- Identify and protect special vistas and view sheds.

INTENTIONALLY BLANK



Appendix B

Financial and Technical Assistance Programs from State and Federal Agencies

Program	Description	Target Audience	Contact
Pennsylvania State Agencies			
Department of Conservation and Natural Resources – DCNR			
Bureau of Recreation and Conservation			
Community Conservation Partnership Program	Funding program for the acquisition, development, planning, implementation, and technical assistance projects from the Keystone Recreation, Park and Conservation (Keystone) Fund, the Growing Greener Fund, and the PA Recreational Trails Fund.	Local governments, community groups, non-profit conservation, watershed, greenway and trail organizations.	Bureau of Recreation and Conservation (717) 787-7672
Heritage Parks Program	Grant program promotes public-private partnerships to preserve and enhance natural, cultural, historic and recreational resources to stimulate economic development through heritage tourism.	Local governments, non-profits and federally designated commissions.	Chief Regional Service Division, Bureau of Recreation and Conservation (717) 783-0988
Rivers Conservation Program	Conserve and enhance river resources by offering planning grants, technical assistance, implementation grants, development grants, and acquisition grants.	Counties and Local Governments	(717) 787-2316
Circuit Rider Program	The Bureau of Recreation and Conservation provides financial assistance for regional organizations to hire a professional full-time staff person to initiate new programs and services for municipalities and organizations that do not have the financial resources to hire a professional staff person.	Two or more municipalities or organizations must cooperate in an intergovernmental or regional effort	Northeast Regional Office – Scranton 201 Samters Building 101 Penn Avenue Scranton, PA 18503-2025 Phone (570) 963-4157 Fax (570) 963-3439
Conservation Technical Assistance Program (TAP)	This program helps local governments and non-profit organizations provide park, recreation, and conservation programs, facilities and services to their community through: direct service, publications, and workshops.	Local government and non-profit organizations	Northeast Regional Office – Scranton 201 Samters Building 101 Penn Avenue Scranton, PA 18503-2025 Phone (507) 963-4157 Fax (570) 963-3439
Recreation Technical Assistance Program (RecTAP)	RecTAP members are experienced people who have extensive training, skills, and knowledge in providing public recreation and park services for Pennsylvania municipalities/agencies and are able to help individuals/companies/agencies that are in need of this service.	Organizations providing community recreation and park services	RecTAP Coordinator (814) 234-4272

Program	Description	Target Audience	Contact
Department of Conservation and Natural Resources – DCNR			
Bureau of Forestry			
Forest Stewardship Program	The program provides information, education and technical assistance to encourage, help and recognize private forest landowners who keep their lands and natural resources productive and healthy. The program includes a written management plan and provides cost-share money to pay help for the preparation of such a plan.	Private forest landowners	Bureau of Forestry Stoll Natural Resource Center R 5, Box 5030C, Towanda, PA 18848 570-265-9845
Forest Legacy Program	Forest Legacy complements private, federal and state programs focusing on conservation in two ways. First, FLP directly supports property acquisition. Additionally, FLP supports efforts to acquire donated conservation easements. FLP funded acquisitions serve public purposes identified by participating states and agreed to by the landowner. http://www.fs.fed.us/spf/coop/programs/loa/flp.shtml	Private forest landowners	USDA Forest Service Northeastern Area, (Region 9) Deirdre Raimo P.O. Box 640 271 Mast Road Durham, NH 03824 603-868-7695 (phone) 603-868-7604 (fax)
Northeast Pennsylvania Urban and Community Forestry Program	The Northeast Pennsylvania Urban and Community Forestry Program enhances community livability by improving the health of trees, forests, and green space. It integrates social and economic goals with natural resource improvements to promote investment in urban forests in a region scarred by mining and railroad activities. One of the program's major accomplishments has been the using nontraditional partners to complete on-the-ground improvements. Since 1995, the program has involved more than 2,450 partners, completed 207 projects on degraded mine lands, in parks, along streets and highways, trails, river corridors, in commercial and cultural districts and schools, and at tourist attractions throughout the region. The program has fostered community awareness and participation in stewardship-related activities in a region that encompasses three watersheds and supports 1.1 million residents.	Private forest landowners	Urban & Community Forestry Office One College Green, Keystone College PO Box 1636 La Plume, PA 18440-1099 or Wyoming Building, Regina Way Keystone College La Plume, PA 18440-1099 570-945-8099
Department of Environmental Protection - DEP			
Chesapeake Bay Program Financial Assistance Funding Program	Program #1: The purpose of this grant program is to improve water quality by reducing the amount of nitrogen and phosphorous in the Chesapeake Bay through nutrient management an associated erosion and water control. Landowners must have land in agricultural use before July 1, 1984 and apply to your county conservation district. Reimbursement is a maximum 80 percent from state and federal sources and a total of \$30,000 per landowner. Program #2: Stream Bank Fencing Program - Purpose is to improve water	Agricultural Land Owners	Larry Nygren, Division of Conservation Districts and Nutrient Management, Bureau of Water Management 717-772-5645

Bradford County Open Space, Greenways and Outdoor Recreation Plan

Program	Description	Target Audience	Contact
	quality by reducing stream erosion and nutrient deposition by livestock. (Landowners apply for grants)		
Environmental Stewardship and Watershed Protection Grant	The Environmental Stewardship and Watershed Protection Act authorizes the Department of Environmental Protection (DEP) to allocate nearly \$547 million in grants for acid mine drainage abatement, mine cleanup efforts, abandoned oil and gas well plugging and local watershed-based conservation projects. These projects can include: watershed assessments and development of watershed restoration or protection plans; implementation of watershed restoration or protection projects (stormwater management wetlands, riparian buffer fencing and planting, streambank restoration (especially FGM), agricultural BMPs); construction of mine drainage remediation systems; reclamation of previously mined lands; and demonstration/education projects and outreach activities. These grants are available to a variety of eligible applicants, including: counties, authorities and other municipalities; county conservation districts; watershed organizations; and other organizations involved in the restoration and protection of Pennsylvania's environment. These grants will support local projects to clean up nonpoint sources of pollution throughout Pennsylvania.	Counties, Authorities and other municipalities; County Conservation Districts; watershed organizations; and other organizations involved in the restoration and protection of Pennsylvania's environment	Pennsylvania Department of Environmental Protection Bureau of Water Supply Management 11th Floor Rachel Carson State Office Building, P.O. Box 8467 Harrisburg, PA 17105-4018 717-772-4018
Conservation District	County conservation districts provide a local resource for implementation of environmental programs by promoting conservation and sound land use practices.	Conservation districts and local governments.	Chief Division of Conservation Districts and Nutrient Management Bureau of Water Quality Protection (717) 783-7577
Pennsylvania Department of Transportation - PennDOT			
Transportation Enhancement Greenways Partnership Program	An initiative to promote the use of greenways among local, state and federal agencies and develop a statewide network of greenways.	Local, county and regional governments, and the Citizens of Pennsylvania	Transportation Enhancement Program Manager (717)-783-2258

Program	Description	Target Audience	Contact
Scenic Byways Program	The National Scenic Byways Program is part of the U.S. Department of Transportation, Federal Highway Administration. The program is a grass-roots collaborative effort established to help recognize, preserve and enhance selected roads throughout the United States. Since 1992, the National Scenic Byways Program has provided funding for almost 1500 state and nationally designated byway projects in 48 states. The U.S. Secretary of Transportation recognizes certain roads as All-American Roads or National Scenic Byways based on one or more archeological, cultural, historic, natural, recreational and scenic qualities.	Federal and state agencies, local/community governments	PennDOT Bureau of Planning and Research PA Byways Coordinator P.O. Box 3555 Harrisburg, PA 17105-3555 www.dot.state.pa.us
Home Town Streets/Safe Routes to Schools Program	This program is intended to improve the quality of life in our communities. The Department of Transportation (PennDOT) recognizes that the streets that run through the centers of our cities and towns provide vital connections. Sprucing up these streets will bring people back to our town centers and promote healthy living. PennDOT can also contribute to the safety of our children by making improvements to the routes children take to school. This program has two primary objectives: · To encourage the reinvestment in and redevelopment of our downtowns; and · To establish, where feasible, safe walking routes for our children to commute to school and to promote healthy living.	Federal or state agency, county or municipal government, school district or non-profit organization	Program Coordinator 715 Jordan Avenue Montoursville, PA 17754 (570) 368-4255 Affiliated Counties: Tioga, Bradford, Lycoming, Sullivan, Union, Snyder, Columbia, Montour, Northumberland
Pennsylvania Historic and Museum Commission – PHMC			
Historic Preservation Grants	Grant program to fund historic preservation projects, including planning and policy development, public outreach and archaeological activities.	Non-profit organizations and local governments.	Division of Preservation Services Bureau for Historic Preservation (717) 783-9918
History & Museum Grants Programs	Grant program to fund historic preservation projects, including planning and policy development, public outreach and archaeological activities.	Non-profit organizations and local governments.	Division of Preservation Services Bureau for Historic Preservation (717) 783-9918

Bradford County Open Space, Greenways and Outdoor Recreation Plan

Program	Description	Target Audience	Contact
Department of Community and Economic Development - DCED			
Community Development Block Grant Program (CDBG)	Funding program for housing rehabilitation, public services, community facilities, infrastructure improvement, development and planning.	Low and moderate income persons	Community Development and Housing Office (717) 787-5327
Community Revitalization Program	Funding program for the acquisition, development, planning, implementation, and technical assistance projects from the Keystone Recreation, Park and Conservation (Keystone) Fund, the Growing Greener Fund, and the PA Recreational Trails Fund.	Local governments, community groups, non-profit conservation, watershed, greenway and trail organizations.	Bureau of Recreation and Conservation (717) 787-7672
Shared Municipal Services Program	This program provides matching grants for multi-municipal projects ranging from combined police records administration to joint ownership of equipment to shared operations or services.	Local governments	Center for Local Government Services 1-888-223-6839
Pennsylvania Department of Agriculture			
Next Generation Farmer Loan Program	Purpose is to provide an effective means for federal-state industry partnerships, whereby the public sector can assist beginning and first time farmers to purchase land, farm equipment, farm buildings and breeding livestock	Beginning farmers	Bradford County Industrial Development Authority (570) 888-7753 Troy Industrial Development Authority (570) 297-3249
Land Trust Reimbursement Program	This program reimburses qualified land trusts up to \$5,000.00 for expenses incurred in the acquisition of agricultural conservation easements	Eligible land trusts	PA Department of Agriculture Sandra Robinson 2301 North Cameron Street Harrisburg, PA 17110-9408 (717) 783-3167
Nutrient Management Program	This program is a water quality protection program administers through the conservation districts of Pennsylvania. It provides funding for nutrient management planning and best management practices.	Farmers	Bradford County Conservation District Stoll Natural Resource Center R 5, Box 5030C, Towanda, PA 18848 (570) 265-5539
Pennsylvania Farm Bureau			
Pennsylvania Friends of	This program was created to help meet the needs and concerns of the agriculture industry and bring	Persons directly engaged in	Pennsylvania Friends of Agriculture

Program	Description	Target Audience	Contact
Agriculture Foundation	together agribusiness leaders to raise funds for solving agricultural and agricultural community problems	agriculture or related enterprises	Foundation PO Box 8736 Camp Hill, PA 17011-8736 (717) 761-2740
Pennsylvania Department of Health			
Keystone State Games	Annually help multi-sport competition providing amateur athletes an opportunity to compete against athletes from throughout the Commonwealth	Amateur athletes of all ages	Keystone State Games 31 S Hancock Street Wilkes-Barre, PA 18702 Phone (570) 823-3164 or (888) 445-4559 (PA only) Fax (570) 822-6558

Program	Description	Target Audience	Contact
Federal Agencies			
U.S. Department of Agriculture - USDA			
Watershed Protection and Flood Prevention Program	<p>Also known as the "Small Watershed Program", this program provides technical and financial assistance to address resource and related economic problems on a watershed basis. Projects related to watershed protection, flood prevention, water supply, water quality, erosion and sediment control, wetland creation and restoration, fish and wildlife habitat enhancement, and public recreation are eligible for assistance. Technical and financial assistance is also available for planning and installation of works of improvement to protect, develop, and use land and water resources in small watersheds. Local or state agency, county, municipality, town or township, soil and water conservation district, flood prevention/flood control district, Indian tribe or tribal organization, or other subunit of state government with the authority and capacity to carry out, operate, and maintain installed works of improvement are eligible for this program. Projects are limited to watersheds containing < 250,000 acres. Technical assistance and cost sharing (amount varies) for implementation of NRCS-authorized watershed plans, and technical assistance on watershed surveys and planning is provided under this program. Although projects vary significantly in scope and complexity, typical projects entail \$3.5 million to \$5 million in federal financial assistance.</p> <p>http://www.ftw.nrcs.usda.gov/programs.html http://aspe.os.dhhs.gov/cfda/p10</p>	States, Counties and Local Governments	<p>Department of Agriculture Natural Resources Conservation Service P.O. Box 2890 Washington, DC 20013-9770 (202) 720-3534</p>
Environmental Quality Incentives Program (EQIP)	<p>The Environmental Quality Incentives Program (EQIP) was established to provide a single, voluntary conservation program for farmers and ranchers to address significant natural resource needs and objectives. Nationally, it provides technical, financial, and educational assistance, half of it targeted to livestock-related natural resource concerns and the other half to more general conservation priorities. EQIP is available primarily in priority areas where there are significant natural resource concerns and objectives. Non-federal landowners (including American Indian tribes) engaged in livestock operations or agricultural production are eligible for this program. Eligible land includes cropland, rangeland, pasture, forestland, and other farm and ranch lands. Assistance provided includes: Cost</p>	Farmers and Ranchers	<p>U.S. Department of Agriculture Natural Resources Conservation Service P.O. Box 2890 Washington, DC 20013-9770 (202) 720-1873</p>

Program	Description	Target Audience	Contact
	<p>sharing: Up to 75 percent of costs of certain conservation practices Incentive payments: Up to 100 percent for 3 years, paid at a flat rate Maximum \$10,000 per person per year and \$50,000 over length of contract</p> <p>http://aspe.os.dhhs.gov/cfda/p10912.htm http://www.nrcs.usda.gov/NRCSProg.html</p>		
Forestry Incentives Program	<p>The Forestry Incentives Program (FIP) is intended to ensure the nation's ability to meet future demand for sawtimber, pulpwood, and quality hardwoods. FIP provides cost-share monies to help with the costs of tree planting, timber stand improvements, and related practices on nonindustrial private forestlands. In addition to ensuring a future supply of timber, FIP's forest maintenance and reforestation projects provide numerous natural resource benefits, including reduced soil erosion by water and wind, and enhanced water quality and wildlife habitat. FIP provides no more than 65 percent of the total costs, with a maximum of \$10,000 per person per year. Private landowner of at least 10 acres and no more than 1,000 acres of nonindustrial forest or other suitable land. Individuals, groups, Indian tribes or other native groups, associations, and corporations whose stocks are not publicly traded might be eligible provided they are not engaged primarily in the business of manufacturing forest products or providing public utility services.</p> <p>http://www.nhq.nrcs.usda.gov/OPA/FB96OPA/FIPfact.html http://aspe.os.dhhs.gov/cfda/p10064.htm</p>	<p>Land must be suitable for conversion from nonforest to forestland, for reforestation, or for improved forest management. Land must be capable of producing marketable timber crops and must meet productivity standards. Land of at least 10 acres and no more than 1,000 acres of non-industrial forest or other suitable land are also eligible.</p>	<p>U.S. Department of Agriculture Natural Resources Conservation Service P.O. Box 2890 Washington, DC 20013 (202) 720-6521</p>
Value-Added Producer Grants (VAPG)	<p>Grants may be used for planning activities and working capital for marketing value-added agricultural products and for farm-based renewable energy. Eligible applicants are independent producers, farmer and rancher cooperatives, agricultural producer groups, and majority-controlled producer-based business ventures.</p>		<p>USDA Rural Development One Hollowcrest Complex Tunkhannock, PA 18657 (570) 836-5111, ext. 119</p>

Bradford County Open Space, Greenways and Outdoor Recreation Plan

Program	Description	Target Audience	Contact
U.S. Department of Agriculture, Farm Service Agency			
Conservation Reserve Program (CRP)	<p>CRP is a voluntary program that offers long term rental payments and cost-share assistance to establish long-term, resource conserving cover on environmentally sensitive cropland or, in some cases, marginal pastureland. The protective cover reduces soil erosion, improves water quality, and enhances or establishes wildlife habitat. Increased rental payments are available on certain land areas (e.g., land within a wellhead protection area may receive an additional 10 percent payment. Assistance provided under this program includes:</p> <ul style="list-style-type: none"> · (1) Annual rental payments to each participant of up to \$50,000 per fiscal year (2) Payment to participant of up to 50 percent of the cost for establishing cover (3) Incentive payments for wetland hydrology restoration equal to 25 percent of the cost of restoration (4) Land must be owned or operated for at least 12 months. Land must have a minimum acceptable erodibility index, be located in an approved conservation priority area, have evidence of scour erosion damage, be a cropped wetland or cropland associated with noncropped wetlands, be land enrolled in the Water Bank Program (WBP) in the last year of the WBP agreement, or contain other environmentally sensitive land. <p>http://www.fsa.usda.gov/pas/publications/facts/pu/bfacts.htm http://aspe.os.dhhs.gov/cfda/p10069.htm</p>	Individuals, partnerships, associations, Indian tribal venture corporations, estates, trusts, other business enterprises or legal entities, a state, state political subdivisions, state or local agencies owning or operating agricultural land	<p>Bradford County FSA Office Lyle Harding Route 187 Towanda PA 18848 (570) 265-3146</p> <p>Headquarters: U.S. Department of Agriculture, Farm Service Agency Conservation Reserve Program Stop 0513, Washington, DC 20250-0513 (202) 720-6221 info@fsa.usda.gov</p>
Conservation Reserve Program (CRP)	<p>CREP is a voluntary program that helps agricultural producers “retire” agricultural land to natural vegetation, thereby protecting environmentally sensitive land, decreasing erosion, restoring wildlife habitat, and safeguarding ground and surface water.</p> <p>http://www.fsa.usda.gov/pas/publications/facts/html/crep03.htm</p>	Individuals, partnerships, associations, Indian tribal venture corporations, estates, trusts, other business enterprises or legal entities, a state, state political subdivisions, state or local agencies owning or operating agricultural land	<p>Bradford County FSA Office Lyle Harding Route 187 Towanda PA 18848 (570) 265-3146</p> <p>Headquarters: U.S. Department of Agriculture, Farm Service Agency Conservation Reserve Program Stop 0513, Washington, DC 20250-0513 (202) 720-6221 info@fsa.usda.gov</p>
U.S. Department of Agriculture, Natural Resources Conservation Service – USDA NRCS			
Wetlands	This voluntary program provides landowners with	Landowners	Natural Resources

Program	Description	Target Audience	Contact
Reserve Program	<p>financial incentives to restore and protect wetlands in exchange for retiring marginal agricultural land. Landowners may sell a conservation easement or enter into a costshare restoration agreement. Landowners voluntarily limit future use of the land, but retain private ownership. Landowners and the Natural Resources Conservation Service develop a plan for the restoration and maintenance of the wetland. Easement participants must have owned the land for at least 1 year. Owners may be an individual, partnership, association, corporation, estate, trust, business, or other legal entity; a state (when applicable); a political subdivision of a state; or any agency thereof owning private land, and the land must be restorable and be suitable for wildlife benefits. WRP provides three options to the landowner: (1) Permanent Easement: USDA purchases easement (price is lesser of the appraised agricultural or raw land value, payment cap, or amount offered by the landowner). USDA pays 100 percent of restoration costs. (2) 30-year Easement: Easement payment will be 75 percent of what would be paid for a permanent easement. USDA pays 75 percent of restoration costs. (3) Restoration Cost-Share Agreement: Agreement (min. 10 yr) to restore degraded wetland habitat. USDA pays 75 percent of restoration costs.</p> <p>http://www.wl.fbnet.org http://aspe.os.dhhs.gov/cfda/p10072.htm</p>		<p>Conservation Service Watersheds and Wetlands Division P.O. Box 2890 Washington, DC 20013 (202) 690-0848</p>
U.S. Environmental Protection Agency – US EPA			
Chesapeake Bay Small Watersheds Grant Program	<p>This program, funded by EPA's Chesapeake Bay Program Office, supports communities undertaking small-scale watershed projects for the benefit of the Chesapeake Bay and its rivers. The program is administered by an intermediary organization, which provides subawards to communities. Subawards may support investigations, experiments, surveys, studies, training, and demonstrations to work toward the protection and restoration of the Chesapeake Bay and its rivers and streams. Contact EPA for intermediary organization information or visit the Chesapeake Bay Program Office web site. Project grants, range from \$1,000 to \$35,000.</p> <p>http://www.chesapeakebay.net</p>	Non-profit organizations, interstate agencies, educational institutions, citizen organizations, and local governments within the Chesapeake Bay watershed	<p>U.S. Environmental Protection Agency Chesapeake Bay Program Office, Region III 410 Severn Avenue Suite 109 Annapolis, MD 21403 (800) 968-7229 or (410) 267-5700</p>
Sustainable Development	Grants are intended to initiate community based projects that promote environmentally and	Non-profit organizations and	U.S. Environmental Protection Agency,

Program	Description	Target Audience	Contact
Challenge Grants	<p>economically sustainable development. The program encourages partnering among community, business, and government entities to work cooperatively to develop flexible, locally oriented approaches that link environmental management and quality of life activities with sustainable development and revitalization. This program challenges communities to invest in a sustainable future that will link environmental protection, economic prosperity, and community wellbeing. These grants are intended to (1) catalyze community-based projects; (2) build partnerships that increase a community's capacity to take steps to ensure long-term ecosystem and human health, economic vitality, and community well-being; and (3) leverage public and private investments to enhance environmental quality by enabling community efforts to continue beyond the period of funding. Grant amounts are for up to \$200,000, and a 20% match is required.</p> <p>http://aspe.os.dhhs.gov/cfda/p66651.htm http://www.epa.gov/ecocommunity/sdcg/</p>	community groups, and federally recognized Indian tribes, state and local governments.	SDCG, Office of the Administrator (MC 1306) Ariel Rios Bldg. 1200 Pennsylvania Ave., NW Washington, DC 20460 (202) 260-6812
Capitalization Grants for Clean Water State Revolving Funds	<p>EPA awards grants to states to capitalize their Clean Water State Revolving Funds (CWSRFs). The states, through the CWSRF, make loans for high-priority water quality activities. As loan recipients make payments back into the fund, money is available for new loans to be issued to other recipients. Although traditionally used to build wastewater treatment facilities, loans are also used for other water quality management and source water protection activities, including (1) agricultural, silviculture, rural, and urban runoff control; (2) estuary improvement projects; (3) wet weather flow control, including stormwater and sewer overflows; (4) alternative wastewater treatment technologies; and (5) landfills and riparian buffers. Loans are made at low interest rates (0 percent to market rate) for up to 20 years. States can use loan funds to refinance previously executed debt obligations, guarantee local debt obligations, buy bond insurance for local debt obligations, or guarantee bonds issued by municipal and inter-municipal revolving funds. States may use up to 4 percent of the federal funds for administrative costs. States may set the criteria for determining which municipalities can access the loans and other fund uses each year. (continued) Capitalization grant funds are available to states and Puerto Rico. Territories and District of</p>	Local and County Governments	U.S. Environmental Protection Agency Office of Wastewater Management, SRF Branch, Municipal Support Division (4204) Ariel Rios Bldg. 1200 Pennsylvania Ave., NW Washington, DC 20460 (202) 260-7360 srfinfo@epa.gov

Program	Description	Target Audience	Contact
	<p>Columbia receive construction grants for wastewater treatment. States and Puerto Rico lend money to municipalities for wastewater treatment systems and to municipalities, communities, citizens' groups, non-profit organizations, and citizens implementing NPS and estuary management activities. Loans provided by states to eligible recipients (approx. \$3 billion annually). A 20 percent state match is required.</p> <p>http://aspe.os.dhhs.gov/cfda/p66458.htm http://www.epa.gov/owm/finan.htm</p>		
Environmental Education Grants Program	<p>The purpose of the Environmental Education Grants (EEG) is to provide financial support for projects that design, demonstrate, or disseminate environmental education practices, methods, or techniques. Projects must focus on one of the following: (1) improving environmental education teaching skills; (2) educating teachers, students, or the public about human health problems; (3) building state, local, or tribal government capacity to develop environmental education programs; (4) educating communities through community-based organization; or (5) educating the public through print, broadcast, or other media. The funding for this project are project grants (up to \$25,000 regionally; \$25,000 to \$150,000 nationally), a nonfederal government match of 25 percent is required.</p> <p>http://www.epa.gov/enviroed/grants.html http://aspe.os.dhhs.gov/cfda/p66951.html</p>	Local, tribal, or state education agencies, colleges and universities, non-profit organizations, state environmental agencies, and noncommercial education broadcasting agencies are eligible for this program.	U.S. Environmental Protection Agency Office of Environmental Education (1704) Environmental Education Grants Ariel Rios Bldg. 1200 Pennsylvania Ave., NW Washington, DC 20460 (202) 260-8619
United States Department of the Interior			
North American Wetlands Conservation Act Grants	<p>The North American Wetlands Conservation Act of 1989 provides matching grants to carry out wetlands conservation projects in the United states, Canada, and Mexico. The act was passed, in part, to support activities under the North American Waterfowl Management Plan. This plan is an international agreement between the three countries for the long-term protection of wetland/upland habitats on which waterfowl and other migratory birds in North America depend. Both the Standard and Small Grants programs help deliver funding to on-the-ground projects through the protection, restoration, or enhancement of an array of wetland habitats. (continued)</p> <p>The act requires that U.S. and Canadian partners focus on these three activities; Mexican partners</p>	Public or private, profit or non-profit entities or individuals establishing public-private sector partnerships are eligible for this program.	U.S. Department of the Interior U.S. Fish and Wildlife Service North American Waterfowl and Wetlands Office (NAWWO) 4401 North Fairfax Drive Room 110 Arlington, VA 22203 (703) 358-1784

Program	Description	Target Audience	Contact
	may also develop training, educational, and management programs and conduct sustainable use studies. Project grants range between \$50,000 to \$1 million. Cost-share partners must match grant funds 1:1 with U.S. nonfederal dollars. http://www.fws.gov/r9nawwo/granpro.html		
Partners for Fish and Wildlife Habitat Restoration Program	The Partners for Fish and Wildlife Habitat Restoration Program, through partnerships with conservation groups and federal/state/tribal/local government agencies, provides technical and financial assistance to private landowners interested in voluntarily restoring or otherwise improving native habitats for fish and wildlife on their lands. This program focuses on restoring former and degraded wetlands, native grasslands, stream and riparian areas, and other habitats to conditions as natural as feasible. Under cooperative agreements, private landowners agree to maintain restoration projects, but otherwise retain full control of the land. Since 1987, the program has partnered with more than 19,000 landowners to restore over 409,000 acres of wetlands, 333,000 acres of prairie grassland, and 2,030 miles of in-stream aquatic and riparian habitat. In addition, the program has reopened more than 200 miles of stream habitat for fish and other aquatic species by removing barriers to passage. The assistance is project cost-share or service cost-share assistance. (generally limited to less than \$25,000). Technical assistance is also available for habitat assessment and restoration expertise. http://www.fws.gov/r9dhcpfw/index.htm http://www.fws.gov/cep/coastweb.html	Private landowners are eligible for this program, however they must enter into a cooperative agreement for a fixed term of at least 10 years.	U.S. Department of the Interior, U.S. Fish and Wildlife Service Branch of Habitat Restoration, Division of Habitat Conservation 4401 North Fairfax Drive Room 400 Arlington, VA 22203 (703) 358-2201