Franklin County



Greenway and Open Space Plan

DCNR Project #BRC-TAG-11-206



RESOLUTION 2007 - 40

WHEREAS, Franklin County is desirous of preserving open space and our precious natural resources; and,

WHEREAS, the Franklin County Board of Commissioners is committed to fostering proper growth and development through effective planning to ensure the enjoyment of life by each citizen in a pleasant and harmonious environment; and,

WHEREAS, Franklin County has, as part of the implementation strategy of the Comprehensive Plan and in response to the Commonwealth's movement to establish a strategy for creating a comprehensive, statewide greenway network by the year 2020, initiated a Greenway and Open Space Plan; and,

WHEREAS, the Franklin County Planning Commission, under the direction of the Board of Commissioners, through careful study, community input and public discussion, has thus prepared a Greenway and Open Space Plan; and

WHEREAS, the Franklin County Greenway and Open Space Plan will be utilized to develop a network of connections between the vast natural areas located on the ridges traversing the county and the various natural, cultural, historic, and recreational resources located throughout the Cumberland Valley. These connections will help to protect the county's natural resources while providing valuable recreational opportunities for local residents; and,

WHEREAS, the Franklin County Planning Commission has recommended that the Franklin County Board of Commissioners adopt the Greenway and Open Space Plan;

NOW, THEREFORE, BE IT RESOLVED, that the Franklin County Board of Commissioners hereby adopt the Greenway and Open Space Plan, consisting of maps, charts, tables and textual matter, and entitled "The Franklin County Greenway and Open Space Plan" and dated 2007, as presented at the public hearing of Thursday, July 19, 2007.

Adopted this 19th day of July, 2007

FRANKLIN COUNTY COMMISSIONERS

G. Warren Elliott, Chairman

Robert L. Thomas

Chery\S./Plummer

ohn A. Hart

Attest:

County Administrator/Chief Clerk

TABLE OF CONTENTS

ACKNOWLEDGEMENTS	7
INTRODUCTION	_
WHAT IS A GREENWAY?	
WHY A GREENWAYS PLAN FOR FRANKLIN COUNTY?	
Preserving Franklin County's Defining Characteristics	
Protecting Sensitive Habitats	
Protecting Drinking Water Resources	
HOW IS A GREENWAYS PLAN DEVELOPED?	
Three - Step Process	
Public Participation	
Project Purpose	
Goals and Objectives	
The Greenways and Open Space Plan as a Decision-Making Tool	14
SECTION I - WHERE ARE WE NOW?	
INVENTORY: BUILDING BLOCKS OF A GREENWAYS SYSTEM	
Gathering the Data	
Existing Planning Efforts	
Hydrologic Resources Map	
Priority Habitat Areas Map	
Sensitive Environmental Features Map	
Built Resources.	39
Recreation Features Map	
Cultural and Historic Resources Map	
Current and Future Development Map	59
SECTION II - WHERE DO WE WANT TO BE	
CREATING THE VISION: DESIGNING A GREENWAYS NETWORK	
The Criteria	
The Structure of the Network	
Proposed Conservation Greenways Fian	
Proposed Greenways Plan	
SECTION III - HOW DO WE GET THERE?	
SECTION III - HOW DO WE GET THERE:	01
Management Structure	
Proposed Management Structure Chart	
Land Conservation Tools	
Implementation Plan.	
Implementation Process Tables	
Potential Funding Sources Tables	

TABLE OF CONTENTS

(CONTINUED)

APPENDICES (SEPARATE DOCUMENT)

- A: Meeting Minutes
- B: Key Person Interview Results
- C: Press Releases
- D: Summary of Public Comments on the Draft Greenways Plan
- E: Franklin County's Nationally-registered Historic Places
- F: List Of Regional Land Trusts
- G: Riparian Buffer Information

Pashek Associates Stream Buffer Width Justifications

Chesapeake Bay Program Riparian Buffer Information

H: Example Ordinances and Information - Stream Protection Easement

Chesapeake Bay Foundation Model Stream Buffer Ordinance

Guilford Township Stream Protection Ordinance

J: Example Ordinances - Conservation By Design

Antrim Township Open Space Plan Excerpt

Antrim Township Subdivision and Land Development Ordinance - Conservation by Design

Antrim Township Zoning Ordinance - Conservation by Design

Growing Greener Conservation by Design Overview

Model Landscaping Ordinance

Forest Friendly Development - Definition and Criteria for Development Analysis

K: Example Ordinance - Overlay Zoning Districts

Growing Greener Model Ordinance Language for Conservation Design Overlay District

L: Example Ordinance - Natural Features Buffer

Ann Arbor Township Natural Features Ordinance

M: Example Ordinance - Woodlands Protection

City of Wixom, MI - Woodlands Ordinance

N: Example Ordinances - Agriculture Pollution Control

Model Integrated Pest Management Ordinance

Southeast Michigan Council of Governments - Agricultural Runoff Ordinance

P: Example Ordinance - Mandatory Dedication

North Huntingdon Township (PA) Mandatory Dedication Ordinance

- Q: Illustrated Article on Falling Spring Greenway
- R: DCNR Greenways Website Resource List
- S: Keystone Active Zone (KAZ) 2006 Program Brochure

Acknowledgements

The contributions of the following groups and individuals were vital to the success of the Franklin County Greenway Plan. They are commended for their interest in the project, their perseverance, and the input they provided throughout the planning process.

Franklin County Board of Commissioners

G. Warren Elliott - Chairman Robert L.Thomas - Vice-Chairman Cheryl S. Plummer

Franklin County Planning Commission and Staff

Project Study Committee

Todd Burns - Greene Township
Herbert Doloway - Chambersburg Recreation Department
Christopher Firme - Washington Township / Potomac Appalachian Trail Club
Tammy Gross - Franklin County Conservation District
Bill Hague - Penn Hall / Audubon Society
George Hurd - Penn State Cooperative Extension
Charles D. Jamison, Jr. - Greene Township
Tanya Nitterhouse - Sunny Hill Properties
Maragaret Ronelslad - Washington Township
Anna Swailes - Metal Township

Charles White, Greencastle-Antrim School District / Tayamentasachta Environmental Center

Franklin County Watershed Association
Conodoquinet Creek Watershed Association
Conococheague Creek Watershed Alliance
Antietam Creek Watershed Association
Middle Spring Watershed Association

Also, this project would not have been possible without the valuable input given by the residents of Franklin County, as well as the support of local government officials and the Department of Conservation and Natural Resources.

This project was financed in part by a grant from the Keystone Recreation, Park, and Conservation Fund under the administration of the Pennsylvania Department of Conservation and Natural Resources, Bureau of Recreation and Conservation.

INTRODUCTION

WHAT IS A GREENWAY?

Greenways have been defined in several ways since the term was first coined in the 19th century. Charles Little, in his book, *Greenways for America*, defined them in the following way:

A greenway is a linear open space established along either a natural corridor, such as a riverfront, stream valley, or ridgeline, or overland along a railroad right-of-way converted to recreational use, a canal, scenic road, or other route. It is any natural or landscaped course for pedestrian or bicycle passage: An open-space connector linking parks, nature reserves, cultural features, or historic sites with each other and with populated areas.



Some people think of greenways as primarily recreational, like biking and water trails (sometimes called "blueways"). For them, greenways are places where they can actively experience the outdoors. For others, the purpose of greenways is chiefly for conservation of cohesive tracts of undeveloped habitat. To them, greenways protect important environmental assets, like forests, wetlands and stream banks, and the plants and animals that live there. Still others see greenways as principally aesthetic, preserving the countryside in rural areas or establishing green landscapes in urban areas. All these definitions are embraced by this greenways plan.

In 1987, the movement to establish greenways was given a significant boost when the President's Commission on American Outdoors recommended that an interconnected greenways network be established throughout the nation. Many states, including the Commonwealth of Pennsylvania, took up the task of promoting greenways. *Pennsylvania's Greenways – An Action Plan for Creating Connections* was published in 2001. This report established a strategy for creating a comprehensive, statewide greenway network by the year 2020. The Governor appointed the Department of Conservation and Natural Resources (DCNR) to oversee the Commonwealth's greenways program. DCNR partners with county and municipal officials, to support greenways planning and implementation through education, technical assistance and grant making programs.



WHY A GREENWAYS PLAN FOR FRANKLIN COUNTY?

Wherever greenways are established, they provide numerous benefits to local municipalities and their residents. Some of the benefits provided by greenway development are:

- Protection of Natural Resources
- Protection of Water Resources
- Stewardship of Pennsylvania's Rural and Farmland Legacy
- Conservation of Historic and Cultural Resources
- Conservation of Scenic Resources
- Fostering of Public Recreation, Health and Fitness

- Creation of Educational Opportunities
- Support of Economic Prosperity
- Promotion of Sustainable Development and Sound Land Use
- Provision of Alternative Transportation
- Building Partnerships

In this section, the plan focuses on several benefits that are particularly applicable to the development of a greenway network in Franklin County.

PRESERVING FRANKLIN COUNTY'S DEFINING CHARACTERISTICS



As we move into the 21st century, the importance of the protection of our open spaces and natural resources is greater than ever. Preservation of these assets plays a large role in determining quality of life for ourselves and future generations. Residents enjoy the features that set their community or region apart from every other place. Majestic forested mountain ridges, broad valleys and gently rolling farmlands, historic Civil War sites, and quiet villages give Franklin County its unique character. Visitors are struck by the looming facades of the Tuscarora Ridge and Broad Mountain watching over the shaded Conococheague Creek as it gently meanders through the pastoral setting of the Cumberland Valley, past the county's towns, farms, quaint villages, busy highways, and historic covered bridges.



Franklin County has a long been known for its agricultural heritage and agriculture remains its number one industry today. According to the 2002 Census of Agriculture, Franklin County ranks among the top ten agricultural production counties in Pennsylvania. The county ranks second in milk production, cattle and calves, and in apple production. Additionally, the county ranks third in cash receipts with more than 1,300 active farms operating in the county producing more than \$229 million annually. Preservation of agricultural lands is and always has been very important in Franklin County, as evidenced by the inclusion of several farms in the National Register of Historic Places, and by a very active Agricultural Land Preservation Program described in detail later in this section.



The Franklin County Planning Commission (FCPC) would like to promote the importance of preserving these special places and resources, which will enhance the quality of life for county residents, thus adhering to the mission of the county government:

to enrich social, economic, and environmental vitality, Franklin County will provide services which are responsive to the health, safety, and general welfare needs of county residents. The county government is dedicated to providing these services through the efficient and effective use of the county's available resources in an honest, open, and caring manner. (Franklin County Online www.co.franklin.pa.us)

EXPANDING THE ECONOMY

Recreational tourism is one of the fastest growing sectors in Pennsylvania's economy. According to DCNR, tourism is the second largest industry in the Commonwealth and nearly one-fifth of Pennsylvania's tourists travel to enjoy its outdoor amenities. Franklin County's various natural resources are an important asset that provides potential for substantial growth in the travel and tourism industries.

Franklin County has many recreational assets, including the Appalachian Trail, Tuscarora Trail, Cumberland Valley and Chambersburg Rail-Trails, Iron Horse Trail, three State parks, the Tuscarora and Buchanan State Forests, numerous State Game Lands, as well as several renowned trout fishing streams and dozens of local community parks; which together provide a variety of opportunities for biking, hiking, hunting, fishing, boating, wildlife viewing, and other pastimes.



In addition to its abundant recreational assets, Franklin County has a rich history that is well-preserved. Several significant historic sites such as the Franklin County Courthouse, Brown's Mill School, and the Martin's Mill and Anderson Covered Bridges provide opportunities for increasing tourism to the county. The Boroughs of Chambersburg, Mercersburg, and Greencastle boast National Historic Districts as well as restaurants, shops and lodging. In addition, Blue Ridge Summit, Metal Township, St. Thomas Township, and the Borough of Waynesboro have Nationally-registered historic places. A greenway network linking historic resources with the county's recreational amenities will increase their accessibility and attract more tourists to Franklin County.

The economic benefits of greenway development are well-documented. In 2002, York County published a study of the Heritage Rail Trail, which had been in operation for three years. The study, *Heritage Rail Trail County Park 2001 User Survey and Economic Impact Analysis*, concluded that trail users were having a measurable, positive impact on the York County economy. Specifically, the report stated:

- In terms of economic impact, 72% of the respondents indicated they had purchased "hard goods" in the past year in conjunction with their use of the trail. The majority of these purchases were bicycles and bike supplies that resulted in an average purchase amount of \$367.12. While these types of purchases are not annually recurring, even with the most conservative usage estimate they amount to millions of dollars in sales.
- Even more significant is the purchase of "soft goods" (water, soda, candy, ice cream, lunches, etc.). 65.6% of the respondents indicated that they purchased these types of items on their most recent trip to the trail. The average purchase amount per person was \$8.33. Considering that the average user makes several trips to the trail on an annual basis, at the minimum these types of purchases are contributing several hundred thousand dollars to the York County economy. And, these types of purchases are recurring year after year. Only 15% of the respondents indicated that they did not make a purchase in conjunction with their use of the trail.

To cater to the needs of recreational users, new service businesses such as bike shops, canoe & kayak rentals, restaurants, campsites, and bed and breakfasts often spring up around recreational greenways. These new businesses bring new jobs and additional tax dollars to the host municipalities.

In *Benefits of Greenways*, DCNR noted that in 2002, recreational tourism accounted for 459,000 jobs statewide, an increase of 100,000 from 1998. Moreover, the report noted that "there is also evidence to demonstrate that communities with recreational greenways have witnessed significant increases in real estate values."

In addition to these direct economic benefits of greenways, other less tangible fiscal impacts may be attributed to greenway development. For instance, when looking for places to site new companies, employers look at a variety of factors including quality of life in the surrounding community. In Franklin County, the present quality of life attracts people and businesses. Greenways will help prevent the county's boroughs, farmland, and surrounding forests from becoming a non-distinct clutter of suburban development. At the same time, greenways provide access to parks, trails, and other outdoor recreation opportunities that take advantage of the county's outstanding natural amenities.



PROTECTING SENSITIVE HABITATS

The forests, wetlands, limestone caves, and streams of Franklin County provide habitat for a wide array of plants and animals. The Pennsylvania Biological Survey has designated two Important Bird Areas (IBAs) in Franklin County. Moreover, in the Franklin County Natural Areas Inventory (NAI), the Nature Conservancy has identified natural areas that serve as critical habitat for species of special concern, or that host a variety of habitats and landscape features warranting conservation. The Inventory pinpoints nine (9) natural areas of high or exceptional (Regional or State-wide) significance and approximately sixty (60) other natural areas in the county.

A greenway network will help to protect these sensitive environmental areas from development and to restrict uses that would threaten their conservation.

PROTECTING DRINKING WATER RESOURCES

Much of the drinking water in Franklin County comes from below-ground aquifers, accessible through various wells and springs. These aquifers flow in and around the limestone and dolomite present in the Karst topography that dominates the Cumberland Valley and thus, Franklin County. Two-thirds of the county is underlain by aquifers suitable for drinking water. These aquifers are located in the Cumberland Valley and smaller valleys in the northwestern part of the county. Several above-ground reservoirs are also used as drinking water sources. The Letterkenny Reservoir is located in the northern part of the county, draining water from streams in Horse Valley, the headwaters of the Conodoguinet Creek. The Greencastle Reservoir is located just east of the Borough of Greencastle in Antrim Township and the Mercersburg Reservoir is located northwest of the borough in Peters Township. In addition to these, the Boroughs of Chambersburg and Waynesboro draw water from South Mountain in the Adams County portion of the Michaux State Forest, just over Franklin County's eastern border. Land draining into the first aforementioned reservoir is steeply sloped and largely undeveloped, and land surrounding the latter is protected as state forest. The Greencastle and Mercersburg Reservoirs are significantly closer to developed areas. Incorporating a drinking water protection corridor into the greenway network can help ensure a safe supply of potable water for current and future residents of Franklin County.

HOW IS A GREENWAY PLAN DEVELOPED?

THREE - STEP PROCESS

Sound Greenway Planning uses a three-step process that answers the following questions:

Where Are We Now? - This is the inventory phase, during which information about the county's natural and cultural assets is gathered, forming the building blocks of conservation and/or recreation corridors. For example, it is important to note critical habitat areas, as well as abandoned rail lines that have potential for conversion into recreational trails.



Where Do We Want to Be? - In this phase, the "Vision" for the greenways system is developed. Specifically, the plan synthesizes information gathered in the inventory phase into a proposed network of greenways and trails linking important destinations throughout the county.

How Do We Get There? - This phase provides information and recommendations on the implementing the Greenways and Open Space Plan. It includes concrete tools such as recommended management structure, prioritized trail and greenway segments, potential funding sources, and suggestions for pilot / demonstration projects.

PUBLIC PARTICIPATION

The Plan is further informed by a public participation process that draws from the knowledge and expertise of local residents and officials - the people who know Franklin County best. This process obtains public input in the following ways:

- Study Committee Meetings A Project Study Committee was assembled to help guide the
 planning process. Members included representatives of county and municipal governments,
 and other organizations having expertise in planning, recreation, agriculture, and conservation.
 The Study Committee reviewed and commented on all aspects of the Greenways Plan as it took
 shape. Study Committee Meeting minutes are included in Appendix A.
- Public Meetings Two meetings were held to obtain feedback on the plan from the general public. The first meeting was held in May 2006 to introduce the planning process and solicit information about significant county destinations, natural areas worth conserving, and potential trail opportunities. The second meeting was held in May 2007. At this meeting, the draft Greenways Plan was presented during two open-house sessions, and the public was asked to comment on the plan maps, project process, and recommendations. Significant comments were addressed in the final plan. Public Meeting minutes are included in Appendix B.
- *Key Person Interviews* Using a contact list developed by the Study Committee, as well as contacts with local organizations made during the planning process, fifteen interviews were conducted with individuals and organizations knowledgeable on local issues, including conservation, development, economic impact, recreation, and tourism. Transcripts from these interviews are included in Appendix C.



• Focus Groups - In addition, Pashek Associates held meetings with focus groups, or local organizations interested in various aspects of the Greenways Plan. An example is the Franklin County Township Officials Association Meeting in May 2006. Municipal cooperation is essential to the success of the Greenways Plan because several implementation strategies related to land use must be adopted at the municipal level. The focus of such meetings was concentration on each group's interests that may parallel ideals of greenway planning.

PROJECT PURPOSE

With the aforementioned benefits and planning process in mind, this Plan examines the various methods by which Franklin County can develop a greenway network that will help to preserve its essential natural resources and, in turn, its unique character and quality of life.

The purpose of this project is to develop a network of connections between the vast natural areas located on the ridges traversing the county and the various natural, cultural, historic, and recreational resources located throughout the Cumberland Valley. These connections will help to protect the county's natural resources while providing valuable recreational opportunities for local residents. The preservation of open space is also important due to increasing pressure caused by land development, which is most prominent in the southern portion of the county, near the Pennsylvania / Maryland state border.

GOALS AND OBJECTIVES

Preserving and enhancing Franklin County's character and quality of life is the main goal of the Greenway and Open Space Plan, and these other specific objectives support this main goal:

- Protect existing natural areas primarily for ecological health and preservation of wildlife habitat;
- Promote the preservation of agricultural land;
- Provide recreational opportunities for county residents through preservation and connection of existing open spaces;
- Increase countywide water quality through protection of aquifer recharge areas;
- Identify methods to work with developers to preserve larger amounts of open space;
- Encourage local municipalities to work in unison to help protect their various resources by adopting open-space and land-use regulations;
- Educate county residents on the aspects and benefits of Greenways Planning, including the benefits of implementation of the goals listed above.

THE GREENWAY AND OPEN SPACE PLAN AS A DECISION-MAKING TOOL

The Greenway and Open Space Plan will provide Franklin County with a flexible tool for making decisions regarding the protection of its natural, cultural, historic, and scenic resources. By encompassing a variety of issues pertinent to the resources, the Plan will lay the groundwork for the continued success of conservation of open space and quality of life in Franklin County. Specific policy details and greenway locations may be adjusted as needed during the planning process and implementation. Sound Greenway Planning includes inventory and analysis of natural features, cultural and historic sites, and open spaces such as parks or nature reserves; along with collaboration with local government agencies, private groups, and interested citizens to form policies for development and/or conservation.

This multi-layered approach, involving Franklin County and its decision-makers, yields short-, medium-, and long-term strategies for natural resource conservation and greenway development. It is important to note that a thoughtfully-developed Greenway and Open Space Plan does not oppose development, but rather identifies ways to integrate it with conservation practices.

SECTION I - WHERE ARE WE NOW?

INVENTORY: BUILDING BLOCKS OF A GREENWAY SYSTEM

GATHERING THE DATA

Much of the background information needed to support the Greenways and Open Space Plan was gathered through independent research conducted specifically for this plan. With the help of the Franklin County Planning Commission, studies and reports were obtained and reviewed, including several county and Municipal planning documents and other natural resource-related materials. Other information was gathered through the public participation process described in the Introduction section of this report, as well as through field observation. In this section, the Plan will describe the county's resources and the sources of information we consulted, referring to relevant sections of the various existing planning documents, where appropriate.

EXISTING PLANNING EFFORTS

Thoughtful Greenway Planning will allow the county to address issues and follow recommendations set forth in existing planning efforts such as the Comprehensive Recreation, Park, and Open Space Plan (completed by Pashek Associates, 2001). For example, the Greenway and Open Space Plan will provide an opportunity for the county to assume a direct role in conserving natural resources and providing recreational opportunities, possibly attracting residents and businesses which will in turn stimulate economic activity. Some of the specific Comprehensive Recreation, Park, and Open Space Plan recommendations that may be partially fulfilled through sound Greenway Planning include:

- Embracing a recreation and open space policy that promotes cooperation and coordination with state agencies, county officials, local governments, and private organizations;
- Supporting appropriate local recreation and open space initiatives by providing technical and financial support;
- > Continual exploration of creative funding and support sources for recreation and open space initiatives in the county; and
- ➤ Creation of a countywide natural resources policy that outlines open space conservation areas, greenway connections, and guidelines for development within designated sensitive natural areas.

In addition to the aforementioned Comprehensive Recreation, Park, and Open Space Plan, Franklin County has conducted other related planning efforts that were studied and considered during the Greenway Planning process.

Franklin County Comprehensive Plan

In 1999, Franklin County adopted a Comprehensive Plan (Comp Plan) to guide development, land use, economic progress, and the long-term preservation of the quality of life in the county. Its recommendations are intended to provide guidance for the best possible methods of growth and development while maintaining the county's heritage and rural character. In accomplishing this, the Plan promotes cooperation and coordination across municipal borders and between various public agencies, private organizations, and landowners.

Many specific goals and objectives are set forth in various sections of the Comp Plan, with respect to agriculture, natural resources, community facilities and services, economic development, land use

and housing, as well as transportation and trails. For example, specific goals set forth in the *Natural Resources and Agricultural Conservation Plan* section of the Comp Plan include:

- Maximize the preservation of key areas of farmland through a range of methods including: agricultural conservation easements, agricultural security areas, zoning for agricultural preservation, avoiding non-farm activities that could cause conflicts near agricultural areas, allowing opportunities for farmers to earn supplemental income, and avoiding the extension of sewage service into key agricultural areas.
- Make sure that development respects the natural features of the land, especially creek valleys, wetlands, and very steeply-sloped lands.
- Other natural resources and agricultural conservation objectives are also discussed in this section of the Comp Plan. These include:
 - preserving steep slopes (25% or more);
 - promoting vegetative buffers along waterways;
 - conserving woodlands;
 - preserving the "most important" natural areas through cluster development, mandatory dedication (of open space) ordinances, conservation, and other appropriate methods;
 - establish a lands conservancy to emphasize land preservation; and
 - protecting flood-prone areas.

The Land Use and Housing Plan is another section of the Franklin County Comp Plan that is related to greenways and open space planning. Its overall goal is to direct growth and change in a manner that conserves the most important natural, scenic, agricultural, and historic features and character of Franklin County while maintaining a high quality of life for residents. This section of the Comp Plan is focused on the idea that growth needs to be steered toward the most suitable locations in the county, and that growth should occur in an efficient manner to avoid unnecessary consumption of land. In addition, the Land Use and Housing Plan identifies Environmental Conservation and Agricultural Conservation areas on a countywide land use map.

Franklin County Natural Areas Inventory

The 2004 Franklin County Natural Areas Inventory (NAI) report provides maps and information on the known outstanding floral, faunal, geologic, and scenic features in Franklin County. These sites may be examples of the county's best natural communities and the locations of animal and plant species of concern (endangered, threatened, or rare).

Because natural resource conservation is the main focus of the Greenway Plan, the information provided in the NAI is extremely important. The natural areas that contribute to the heritage of Franklin County can be easily lost without careful planning of growth and development. Planning for long-term sustainability can maintain open space, including natural environments and plants and animals associated with them. Using the NAI as a conservation tool can steer development away from environmentally sensitive areas, creating a balance between growth and the conservation of scenic and natural resources. This balance is one of the fundamental reasons for greenways planning.

Agricultural Land Preservation Program

Following the passage of the Agricultural Security Area Law, Franklin County introduced an Agricultural Lands Preservation Program: a voluntary program that pays landowners a price per acre

for an agricultural conservation easement to be placed on their farms. The county partners with the Commonwealth of Pennsylvania to purchase these easements, which are placed on the farm in perpetuity.

Landowners are eligible for the program only if 1) their farm is part of an Agricultural Security Area established by the Township in which it is located, 2) at least 50% of their tract's acreage is actively farmed, and 3) their farm has an active conservation easement in place. Applications are ranked using a system that awards points according to soil value, distance from public water supplies and sewers, and proximity to development or other conservation easements. The conservation easements placed on these agricultural lands help to control development and preserve open space, both of which are important aspects of Greenway Planning. Thus agricultural preservation lands are considered during the various aspects of the planning process.



Watershed Management Plans

Several watersheds comprise most of Franklin County. Residents in each watershed have worked to form organizations whose basic goals are very similar: to assess and monitor land use impacts on their respective streams and deter negative impacts through community education and activism. The Franklin County Watershed Association, Conococheague Watershed Alliance, Conodoguinet Creek Watershed Association, Antietam Watershed Association, and Middle Spring Watershed Association each recommend various actions based on identified problems and opportunities of water resource management in their respective watershed areas.



Because these recommended management actions encourage proper land use planning, they have potential to parallel the county's conservation interests, namely those that are the focus of this Greenway Plan. For example, the various recommendations given by the watershed associations account for development pressures in each watershed, as well as the water quality issues that may arise due to such pressures. Below is a list of projects recently completed by a few of the watershed associations active in Franklin County.

Antietam Watershed Association

- Riparian planting / buffer restoration projects at various farms and sites in the Antietam Creek Watershed in southeastern Franklin County and northern Maryland, via the Chesapeake Bay Foundations's Farm Stewardship Program projects restore riparian vegetation to limit erosion, and may also limit cattle access to streams with fencing and controlled stream crossings. Projects have ranged from 1500 feet to 1/2-mile, along one or both sides of streams (2002-2006)
- Rattlesnake Road annual trash cleanups (2004-2006)
- Rain garden / bio-retention projecst at Paul's Market (2005) and Summitview Elementary School (planned for 2006)
- Assisted Center for Watershed Protection with professional stream assessment on along Country Club Road in Washington Township, on Red Run and Falls Creek (2005)
- Stream water-quality monitoring on East Branch of Antietam Creek (2004-present)
- The Association's cause is also taken up by the Antietam Creek Watershed Alliance (ACWA) in

Maryland.

Conodoguinet Creek Watershed Association

- School Grant Program Small grants are offered to school districts in the watershed to enhance environmental education with a watershed theme.
- Burd Run restoration Collaborative work with Shippensburg University, Cumberland County Conservation District, and others to restore the stream, riparian forest, and riparian wetlands along a stream in Shippensburg Township (Cumberland County).
- Good Hope Dam Removal Collaborative work with PA Fish & Boat Commission and others to improve aesthetics and sustainability of the stream.
- River Conservation Study Mapping the watershed characteristics in the middle portion of the watershed.
- Stream cleanups At various locations, several times annually.
- Water quality monitoring quarterly sampling of Conodoguinet Creek and its tributaries.



- Monthly water-quality monitoring
- Annual stream cleanups
- Educational outreach programs
- Invasive plant removals, plant inventories in natural areas, native plantings
- Siloam Dam removal and reclamation
- *Small Watershed Grant* The Alliance received a small watershed grant from the Chesapeake Bay Foundation, and this grant may help restore fish habitat or improve fish hatcheries.
- Possible Water Trail one potential project is a water trail on the Conococheague from Greene Towsnhip into the Borough of Chambersburg. Interns are inventorying all of the properties abutting the stream along this stretch.
- Rivers Conservation Plan The Conococheague Watershed Alliance plans to assist the Franklin
 County Planning Commission in efforts to advance a DCNR-funded Rivers Conservation Plan for
 the Conococheague Creek Watershed. A grant application had been submitted and recently approved
 at the time of this study.

Franklin County Watershed Association

- *Showcasing best management practices* (bmp's) by printing and distributing brochures to educate local farmers via grant funding from the Western PA Conservancy
- Partnerships with the Growing Native Program and the Potomac Association from Silver Spring,
 MD
- Five-Star Grant This grant will help to construct solar panels, restore a constructed wetland, and construct model runoff treatment facilities
- Installation of *fish habitat structures* (mud sills and deflectors) along Back Creek (2004, 2005)
- Dennis Creek Watershed Restoration The FCWA utilized the Watershed Protection Approach (WPA) system developed by the EPA as a means of promoting interaction between a wide array of public and private sector organizations (approximately 40 different parties). Organizations within and outside of Franklin County worked with landowners, sportsman's clubs, environmental organizations, and the general public to coordinate programs and implement conservation practices.





Stream restoration projects used in this watershed include:

- a.) Over 6 miles/30,000 ft. of stream cattle-fencing;
- b.) 6 wetlands restoration projects (25 acres);
- c.) 12 stream crossings;
- d.) over 10,000 tree seedlings planted along Dennis Creek;
- e.) 10 mallard nesting boxes;
- f.) 35 blue bird boxes installed;
- g.) 3 bio-engineering projects;
- h.) tree border cuttings; and
- i.) warm season grass plantings.

A water monitoring station was constructed and continuous water monitoring took place for a 3 year period. An outdoor interpretive exhibit explaining the conservation practices has been developed and placed in the watershed for public education. A brochure on conservation best management practices was developed and is distributed to the farming community. The watershed has also been used as an outdoor classroom for an educational event called "Eco-Days" which averages 200 eighth grade students each time it is held.

The benefits of the project can be seen by the increase in the native brown trout population. As a result, the PA Fish & Boat Commission has upgraded the stream's classification from Cold Water Fishery to Wild Trout Stream. In addition, as a result of the wetlands and riparian buffers that have already been established by this project, the American Bittern, which is on the PA Endangered Species List, has been sighted on eleven different occasions.

Middle Spring Watershed Association

- Water-quality testing (with help from Environmental Studies students at Shippensburg University)
- Public Awareness programs
- Opposition to construction of a new sewage treatment plant downstream from the existing sewage treatment plant along the Middle Spring Creek, just south of Shippensburg (the creek is the Franklin / Cumberland County border in this area). The treatment plant is emptying organic pollution into the stream, as evidenced by biological and water-quality surveys.

Municipal Recreation, Park, and Open Space Plans and Municipal Comprehensive Plans

Several municipalities in Franklin County have adopted their own Recreation, Park, and Open Space Plans and/or Comprehensive Plans, within which they outline various community objectives related to current and future land use, natural resource preservation, recreation, and community growth. Some of these objectives were considered during the Greenway Planning process.

One example is the Chambersburg Comprehensive Recreation, Parks, and Open Space Plan (2005), the goals of which include the identification of safe trail, sidewalk, and bikeway linkages with between existing parks and schools. Similar linkages of important community resources on a countywide scale are an integral part of the greenway plan.

Ideals of greenway planning are evident in numerous other plans, such as Greene Township's 2006 Comprehensive Plan. The Greene Township plan realizes the need to identify environmentally sensitive lands, emerging growth areas such as the State Route 997 corridor, and strategies for controlling future development and land use. In addition, Antrim Township and Greencastle Borough are currently developing a joint Comprehensive Plan. Among the plan's objectives, as listed at www.antrim.twp..

<u>pa.us</u>, is preservation of open space and agricultural land. These resources are essential to the area's (and county's) rural character. The plan also focuses on managing future growth so that it occurs in places where its positive effects far outweigh negative effects.

Statewide Greenway Plan

The Action Plan for Creating Connections, a portion of <u>Pennsylvania Greenways</u>, identifies many needs and recommends complex actions that will enable the gradual implementation of a statewide Greenways Plan. This project fits into the Pennsylvania Greenways Plan, in which the needs to map county / municipal greenways, to build GIS base mapping on a regional scale, and to facilitate regional coordination and cooperation among municipalities were identified as building blocks toward a successful statewide greenways network.

Other needs identified in detail by the Pennsylvania Greenways Plan include:

- More public education about greenways and their benefits;
- Greater effort to conserve land and protect ecological systems;
- Dedication of funding sources for long-term support of greenways, and coordination of funding programs
- A lead state agency for greenway initiatives;
- State agencies' revision of their guidance documents, policies, and practices, and to work cooperatively better to support greenways.

Using a "Bottom up" approach, only greenways recognized at the local or county level will be considered as a part of the statewide network. The goal of the state's greenways program is to identify and encourage linkages between and among local and regional greenways, placing them in a wider context. Each county is encouraged to use greenways as a land use strategy, and show existing and proposed greenways and open space in their plans. The information from each county would then be shared in a statewide Geographic Information System (GIS). Thus, the Franklin County Greenway Plan is building toward not only its own goals, but a greater statewide objective.

Another part of Pennsylvania's greenway objectives, as established by DCNR, is the development of *Major Greenway Corridors*. These are regional greenways greater than 50 miles in length, passing through two or more counties, and are each recognized in at least one official planning document. Major greenways are among the top greenway priorities in the state, and will serve as the backbone of the statewide greenways network. Each county's greenway plan is required to discuss major



greenway corridors, two of which cross through Franklin County: 1) the Appalachian National Scenic Trail / Kittatinny Ridge; and 2) the Tuscarora Trail. The inclusion of both of these corridors in Franklin County's proposed greenway network is described in detail later in this report.

Neighboring County Greenways Plans

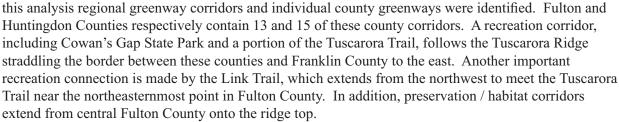
Some information contained in the Greenway Plans of neighboring counties may also be useful in determining potential connections to those respective counties. One example is the *Cumberland Countywide*

<u>Greenway Study</u>, completed in April 2000. This document proposes greenways along the Cumberland Valley Trail, a shared-use trail which currently extends northeastward from Shippensburg. Portions of an extension of this trail have been completed in Chambersburg, yet lack connection to the trail in Cumberland County. Cumberland County's plan also proposes a conservation greenway along the

Conodoguinet Creek, whose headwaters are in Franklin County.

Furthering its greenways planning efforts, Cumberland County completed <u>Land Partnerships: A Countywide Strategy for Open Space and Smart Growth</u> in April 2006. This plan's ultimate goal is a healthy balance between preservation (natural resource and agricultural) and development among Cumberland County's 33 municipalities. The plan proposes greenways along two ridgetops that extend into Franklin County, and along the Conodoguinet Creek. A large swath of farmland preservation in southern Cumberland County is also proposed. This swath would extend to the Franklin County line northwest of Shippensburg.

Another plan covering neighboring counties is the <u>Southern Alleghenies Greenways</u> and <u>Open Space Network Plan</u> (SAG), completed in late 2006 / early 2007. The plan promotes a regional network of greenways in Bedford, Blair, Cambria, Fulton, Huntingdon, and Somerset Counties. Two of these counties, Fulton and Huntingdon, border Franklin County. The SAG presented an analysis of the various conservation and recreation opportunities throughout the Southern Alleghenies region. From



NATURAL RESOURCES

Understanding the county's natural resources is fundamental to developing a greenways and open space plan. For example, sensitive riparian or steep slope habitats are candidates for conservation corridors, while rivers and lakes provide opportunities for water trail development. Unique natural features may become important greenway destinations.

Water Resources

Franklin County has an abundance of water resources. Primary among these are its three main streams: the Conodoguinet Creek, Conococheague Creek, and Antietam Creek (East and West Branches) - - and associated floodplains and wetlands. The majority of the county lies within the Potomac River watershed which drains southward into Maryland. Some northern portions of the county are within the Susquehanna River watershed, draining to the north and east.

Although there are no wild and scenic rivers in Franklin County, twelve (12) stream basins have been classified as high-quality cold water fisheries (HQ-CWF), and one other stream basin was designated exceptional-value (EV) water-quality -- the highest possible classification -- by the Pennsylvania Department of Environmental Protection (DEP). Seven (7) of these streams, along with four (4) others, have been proven to support natural trout reproduction, making them prime habitat and an important recreation asset as well. Natural Trout Reproduction Streams in Pennsylvania are listed (as of August 2006) by the Pennsylvania Fish & Boat Commission (http://sites.state.pa.us/PA_Exec/Fish_Boat/trout_repro.htm). All of the aforementioned streams are listed:

Stream (Section, if applicable)	Classification	Municipalities
Trout Run	EV, Natural Trout Reproduction	Lurgan Twp., also Perry County
Conodoguinet Creek (Source to Letterkenny Reservoir)	HQ-CWF	Lurgan, Letterkenny, and Saint Thomas Townships
Rocky Mountain Creek	HQ-CWF	Quincy, Guilford, and Greene Townships
Raccoon Creek	HQ-CWF	Quincy, Guilford, and Greene Townships
Carbaugh Run	HQ-CWF, Natural Trout Reproduction	Greene Township
Cold Spring Run	HQ-CWF	Greene Township
Falling Spring Branch	HQ-CWF, Natural Trout Reproduction	Guilford Township, Chambersburg Borough
Muddy Run	HQ-CWF, Natural Trout Reproduction	Antrim Township
Township Run	HQ-CWF	Peters Township
Broad Run	HQ-CWF, Natural Trout Reproduction	Letterkenny, Saint Thomas, Peters Township
Buck Run	HQ-CWF, Natural Trout Reproduction	Peters Township
East Branch Antietam Creek	HQ-CWF, Natural Trout Reproduction	Waynesboro Borough, Qunicy and Washington Twps., also Adams Co.
Vineyard Run	HQ-CWF	Quincy Township
Bear Valley Run	Natural Trout Reproduction	Letterkenny Township
Red Run	Natural Trout Reproduction	Washington Township
West Branch Antietam Creek	Natural Trout Reproduction	Waynesboro Borough, Quincy and Washington Twps., also Maryland
West Branch Conoco- cheague (headwaters down- stream to Route 997 bridge)	Natural Trout Reproduction	Green

Floodplains and wetlands correlate directly with the intricate stream system that covers the central part of Franklin County, draining off of the county's ridges into the Cumberland Valley. The soft limestone of the Cumberland Valley is also important as it allows recharge of the underlying aquifers throughout the central portion of the county.

The county also boasts several small lakes, two drinking water reservoirs, and many small ponds. These along with other water resources are depicted on the *Hydrologic Resources* Map.

Important Bird Areas

The forests, wetlands, limestone caves, streams, and vernal pools of Franklin County provide habitat for a wide array of plants and animals. The Pennsylvania Biological Survey has designated two (2) Important Bird Areas (IBAs) in Franklin County -- South Mountain IBA, and "The Pulpit" / Tuscarora Ridge IBA. According to the Audubon Society (Audubon Pennsylvania), "to qualify as an IBA, a

site must meet at least one of four criteria, each associated with a different type of vulnerability. It must support endangered or threatened species; species that are not widely distributed; species that are restricted to a single extensive habitat or biome; or high densities of congregating species, such as waterfowl or shorebirds." Sites that are important flyways for migrating birds in Spring and Fall may also qualify as IBAs. Both of Franklin County's designated IBAs fall into this category.

A portion of the Kittatinny Ridge, also known as Blue Mountain, traverses the eastern portion of Franklin County. The 185-mile long ridge is the largest IBA in the State of Pennsylvania and is a globally-significant migratory route for millions of songbirds each Fall, and its many rock outcroppings attract vultures, hawks, and other raptors. The high-quality interior forest habitat of the Kittatinny Ridge, the Tuscarora Ridge IBA, and South Mountain IBA are also critical to dozens of songbird, mammal, amphibian, and reptile species. In addition, these two IBA's coincide with portions of two of Pennsylvania's major greenway corridors identified by DCNR: the Applachian National Scenic Trail / Kittatinny Ridge; and the Tuscarora Trail.



The South Mountain IBA is part of "the Highlands", a large network of forested ridges on the eastern edge of the Appalachian Mountain Range. These ridges stretch from Northwestern Connecticut, through New York, New Jersey, and Pennsylvania, and southward into Maryland, Virginia, and the southern Appalachians. The Highlands Region of PA includes parts of 13 counties: Bucks, Montgomery, Northampton, Lehigh, Chester, Berks, Lancaster, Lebanon, Dauphin, Cumberland, Franklin, Adams, and York. The large, continuous forest tracts that comprise the Highlands provide critical habitat for all wildlife as well as migration corridors to their avian inhabitants, which include several raptors and over 70 species of neotropical migratory songbirds (from The Highlands: Our Backyard Paradise, Highlands Coalition 2005 Update, www.highlandscoalition.com).

These IBAs are depicted on the *Priority Habitat Areas* Map.

Natural Areas

Another essential source of information about important habitat areas is the Franklin County Natural Areas Inventory (NAI), which provides maps and information on the known outstanding floral, faunal, geologic, and scenic features in Franklin County. These sites may be examples of the county's best natural communities and the locations of animal and plant species of concern (endangered, threatened, or rare). The NAI rates natural areas within the county by level of quality and vulnerability (priority ratings 1-5). High and Exceptional quality sites that are very vulnerable to development and/or pollution (receiving a 1st or 2nd priority rating) are important on a broad regional or state-wide level, and sites receiving a lower rating (3rd to 5th priority level) are mainly of local significance only.

The NAI identifies one exceptional quality natural feature (top conservation priority) in the county: the Kittatinny Ridge. The connectivity of forest habitat provided by this area is vital to migratory birds and other woodland wildlife on a regional basis (as described earlier in this section). Audubon Pennsylvania, which works to designate IBAs and protect bird habitat state wide, actually suggests a conservation corridor several miles wide on both sides of the Kittatinny Ridge due to its extreme importance. Such a corridor would cover half of the Cumberland Valley in Franklin County. Protection of the Kittatinny Ridge is a top priority of Audubon Pennsylvania, the Nature Conservancy, Pennsylvania DCNR, and other groups. The Kittatinny Ridge is also part of a large network of forested ridges on the eastern edge

of the Appalachian Mountain Range known as "the Highlands", which is described earlier in this section. More information on the Kittatinny Ridge can be found at http://pa.audubon.org/kittatinny.

The NAI also identifies eight (8) high-quality natural areas in Franklin County:

- <u>Licking Creek Woods</u> (Warren Township / Northern Maryland) -- An important site in terms of conservation for biodiversity, this area is home to one (1) animal *species of concern* (endangered, threatened, or rare) and eighteen (18) plant species of concern. A wide variety of habitats are located within this area: floodplains, limestone bedrock outcroppings, mixed deciduous upland forests.
- <u>Conococheague Creek at Highland School</u> (Antrim and Montgomery Townships) -- This site is
 also very important in terms of conservation for biodiversity, as it contains multiple populations
 of large numbers of plant species of concern, most of which are found on the limestone bedrock
 outcroppings along the banks of the West Branch of the Conococheague Creek.
- <u>Big Pine Flat</u> (Southampton and Greene Townships / Cumberland County) -- This site contains a good-quality example of a "Ridgetop Dwarf-Tree Forest Natural Community". This community complex (combination of multiple narrowly-defined habitats) is typically found in elevations where thin, dry soils, high winds, repeated cutting and frequent fires limit the growth of trees. Though covering many ridgetop plateaus in the state, this habitat type is considered rare on a global scale. The species found on these sites are specially adapted to the conditions of these acidic, drought-prone, nutrient poor soils, where other species cannot survive.
- <u>Williamson Red Cedar Redbud Shrubland</u> (Antrim, Peters, and St. Thomas Townships) -- This site contains a natural community type that is the result of repeated disturbance of the relatively thin and dry soil over limestone bedrock outcrops, which create frequent openings in the tree and shrub canopy. The highly calcareous soil weathered from the limestone parent material in these woods and openings creates ideal conditions for the calcium-loving species encountered here. The limestone bedrock is perforated with openings leading into an extensive cave system that was once open to the public as a tourist attraction called Baker's Caverns.
- <u>Concord Narrows</u> (Fannett Township / Huntingdon County) -- This site contains a good population of the globally rare Virginia Mallow (*Sida hermaphrodita*), a plant species of concern. This population is situated on a roadside bank/woods border at the foot of Tuscarora Mountain, and could be severely impacted by roadside maintenance activities. Also included in this site on a talus slope is a fair population of Allegheny Woodrat (*Neotoma magister*), a Pennsylvania animal species of concern.
- Mount Cydonia (Guilford and Greene Townships) -- This site contains a fair quality "Ephemeral/ Fluctuating Pool" Natural Community and several species of concern, such as the Federally– Endangered plant Northeastern Bulrush (*Scirpus ancistrochaetus*). Threats and disturbances include logging, exotic plant species, overbrowsing by deer, and ATV trails through the area.
- <u>Muskrat Fen</u> (Greene Township) -- This wetland contains populations of Prairie Sedge (*Carex prairea*), Baltic Rush (*Juncus arcticus* var *littoralis*), Vetchling (*Lathyrus palustris*), and Broadleaved Willow (*Salix myricoides*), all plant species of concern. Some areas adjacent to the wetland are negatively impacted by non-point sources of pollution.

• Needy Cave (Washington Township) -- This site contains three globally rare animal species of concern found in a complex cave system. The caves may be vulnerable to non-point sources of pollution due to the lack of forested buffers around cave openings.

The NAI recommends that these sites be given top priority in any conservation planning effort, as they contain high-quality natural habitat that is more vulnerable to development than most other natural areas in Franklin County. The natural areas for Franklin County are depicted on the *Priority Habitat Areas* Map.

Aquatic Habitats

The streams of Franklin County must be considered when discussing important habitats. Twelve (12) stream basins received high-water quality value ratings from the Pennsylvania DEP. Another county stream received an exceptional-value water quality rating, the highest possible. In addition, seven (7) of the streams listed above, along with four (4) other streams are identified as habitat for natural trout reproduction: Red Run, West Branch - Antietam Creek, and an unnamed tributary to the Conodoguinet Creek. County streams are listed earlier in this section.

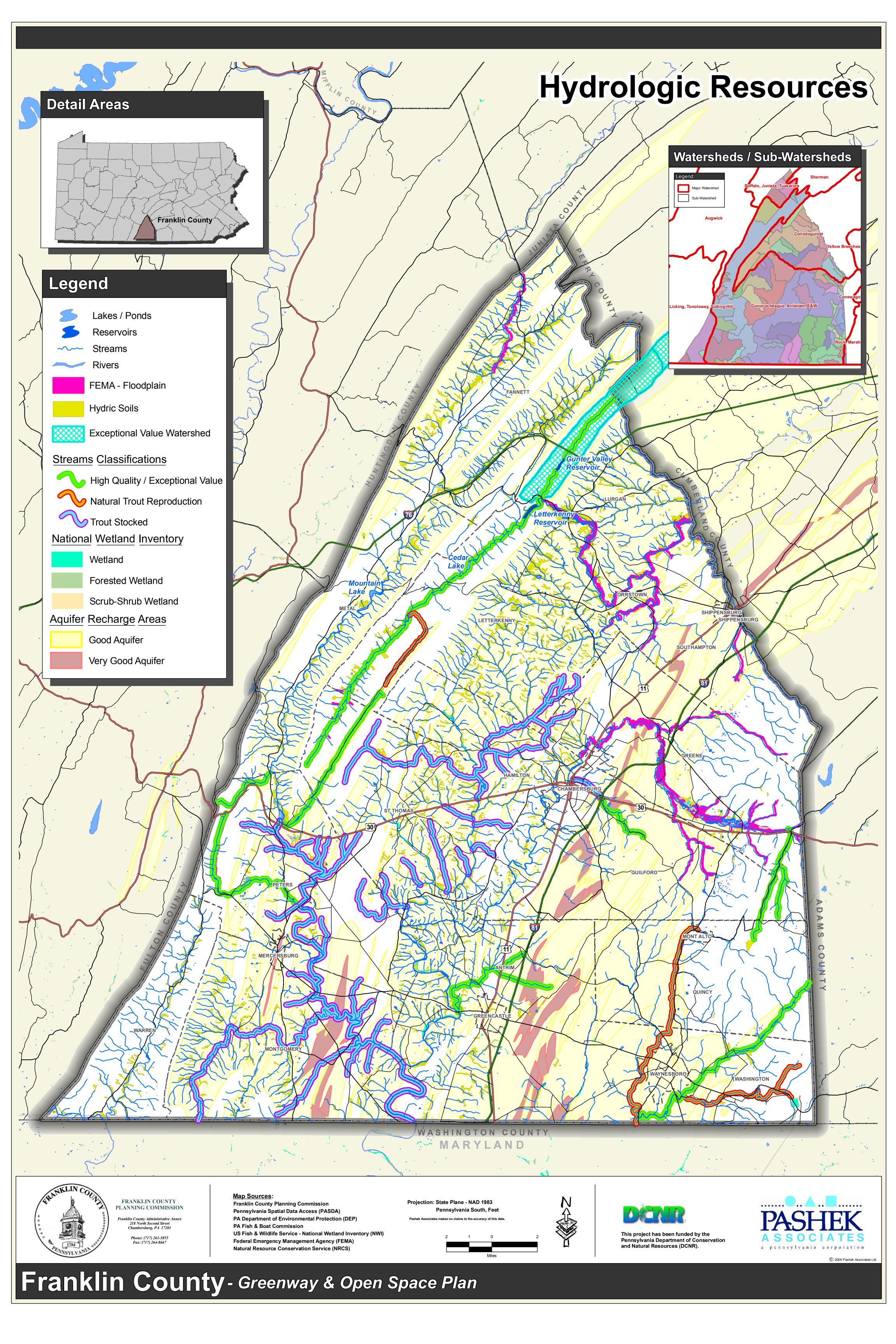


Another important aquatic habitat type of abundance in Franklin County is the vernal pool. These shallow ponds fill with water during the winter and early spring, and dry up during warmer summer months. Because the pools are temporary, they serve as essential habitat for plants and animals that would otherwise fall prey to fish or other predators that thrive in more permanent aquatic habitats. Vernal pools are of the utmost importance to amphibians, including some globally-threatened species of frogs and salamanders.

The South Mountain area, which spans portions of Adams, Cumberland, and Franklin Counties, is home to one of the largest collections of high-quality vernal pools in the Eastern United States. Threats to these vernal pools include poisoning from insecticides, acid rain, agricultural runoff, pesticides, as well as pressure from housing developments, logging, and mining operations.

Beginning in 2004, The Nature Conservancy has worked to increase its presence in the South Mountain area to help educate landowners and communities about the importance of vernal pools and to advance preservation efforts. Its collective efforts are part of the *South Mountain Landscape Initiative* (SMLI). In 2005, the Nature Conservancy partnered with Messiah College to identify species, testing water quality, and inventorying other physical features specific to Franklin and Cumberland Counties' vernal pools. This effort complements the first statewide vernal pool inventory, also to be completed in 2007, by a team of several organizations including the Nature Conservancy. More information is available online at www.nature.org/wherewework/northamerica/states/pennsylvania/preserves/art19366.html.

One of the most pristine examples of vernal pools located in Franklin County is Mountain Run Ponds, a collection of vernal pools along a 35-mile long belt of land at the western and northern base of South Mountain in Franklin and Cumberland Counties. Mountain Run Ponds is one of three preserves in the South Mountain area protected by the Nature Conservancy. This and other areas containing high numbers of vernal pools are shown on the *Hydrologic Resources* Map, along with other aquatic habitats such as the county's streams. One of the main goals of the SMLI is to advance land acquisition and protection in the South Mountain area.



Insert Priority Habitat Areas Map

Forests and Woodlands

Since early settlers first came to Forest County, agriculture and urban development have resulted in extensive forest clearing. However, large tracts of continguous forest still remain. Most are located along the mountain ridges that traverse the eastern and western fringes of the county in a generally northeast to southwest direction. About one-fourth of these woodlands are protected state game lands, state forests, or state parks, but the remaining three-fourths remain under private ownership. The benefits of woodland preservation are described in the Natural Resources and Agricultural Conservation Plan section of the county's Comprehensive Plan, and listed below.



Benefits of woodland preservation:

- provide wildlife habitat;
- protect air quality;
- reduce erosion, particularly on steep slopes and stream banks;
- · protects scenic resources;
- protects stream water quality;
- prevents thermal pollution in streams;

Strategies for woodland preservation:

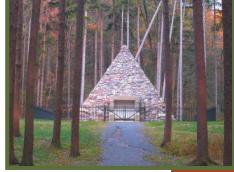
- Establish regulations that require developers to identify wooded areas to be cleared and preserved.
- During development use temporary fencing to protect the root systems of trees that are to remain.
- Limit the density of residential development in wooded areas so that it is practical to preserve trees around homes.
- Minimize clear-cutting as part of forestry operations.
- Minimize forestry on very steep slopes and near creeks.
- Involve a professional forester in forestry operations to develop a long-range forest management plan.
- Replant areas that are forested or retain a sufficient distribution of seed trees.

Public and Other Protected Open Space

Portions of the Buchanan, Tuscarora, and Michaux State Forests are located in Franklin County. Most of the forests included in these protected lands are located on the hard sandstone ridgetops and steeply-sloped hillsides along the eastern and western fringes of the county.

Franklin County boasts three State parks: Mont Alto State Park, whose 23 forested acres are bisected by the West Branch of the Antietam Creek; Caledonia State Park, consisting of 1,125 forested acres with several streams; and Buchanan's Birthplace State Park, an 18.5-acre natural area on the site of the original cabin in which former U.S. President James Buchanan was born. A small portion of the 1,085-acre Cowan's Gap State Park is also located in Franklin County, within the Buchanan State Forest.

More than 15,000 acres in Franklin County are protected as State game lands. These lands are managed



by the State Game Commission for wildlife conservation, hunting, and trapping. These activities remain tantamount to any other proposed activities on these lands. Proposals for other uses are reviewed by the Game Commission to determine if they are compatible with primary uses. The three State game lands in Franklin County are SGL #76, 235, and 124.

In addition to the State forests and game lands, Franklin County claims various community centers and municipal parks. Public Lands are shown on the *Sensitive Environmental Features* Map.

Farmland

Franklin County has a long been known for its agricultural heritage and farming continues to play an



important role in Franklin County. In 2002, more than 244,000 acres throughout the county were used for agriculture purposes. Although farming is widespread in Franklin County, the most prominent farming areas are located in the southwestern portion of the county surrounding Mercersburg, and just east of Interstate 81 near the center of the county. While their economic value is crucial to the county's economy, the farms are also important as they offer large areas of open space that contribute to the scenic quality of the county landscape and provide for much needed groundwater recharge.

As of September 2006, Franklin County had purchased easements on 75 farms, thus permanently preserving 10,167 acres of agricultural land under the Agricultural Conservation Easements Purchase Program. Through this program, the county (via State financial assistance) pays a farmer a price per acre in exchange for the development rights to their property. This price per acre is based on the difference between the agricultural value of land under an easement and that same land's market value if it were sold for development. The county currently preserves an average of 1,000 acres of farmland each year and is working to preserve another 5,000 acres within the next two years, an aggressive trend it hopes to continue.

In addition, over 106,000 acres of farmland in the county has been registered in the PA Department of Agriculture's Agricultural Security Program as of August 2006. This program preserves land for agricultural use and gives farmers special legal protection from lawsuits or ordinances that may adversely effect the future of agriculture on the protected land. Protected Agricultural lands are depicted on the *Sensitive Environmental Features* Map.

Soils and Geologic Features

Key soil types for the purposes of greenways planning include hydric (wetland indicator) soils. Hydric



soils are periodically wet soils, in an undrained condition, that often support the growth of wetland vegetation. Given the water purifying and habitat benefits

of wetlands, the value of protecting these areas is well established. Hydric soils are depicted on the *Sensitive Environmental Features* Map.

The Franklin County Natural Areas Inventory identifies the county's significant geologic features that merit conservation. Limestone outcrops, such as the Chimney Rocks / Buzzard's Peak in eastern Quincy Township, the area of the Turscarora Ridge known as "the Pulpit" or Tuscarora Summit at the western edge of Peters Township, as well as limestone caves such as

Needy Cave in Washington Township, provide unique habitat for threatened and endangered plant and animal species and offer recreational and educational opportunities for visitors.

Steep Slopes

Land with slopes exceeding 25% is generally considered environmentally sensitive and in need of protection. In Franklin County, most steeply sloped land is also forested, providing significant wildlife habitat. Conservation of steep slopes is also important for purposes of erosion control. Steep slopes in Franklin County can be found on parts of the Tuscarora Ridge, Cove Mountain, South Mountain, and along stream corridors and smaller mountains throughout the Cumberland Valley. They are shown on the *Sensitive Environmental Features* Map.

Ridge Tops and Scenic Viewsheds

Franklin County's ridge tops are one of its defining characteristics. As one looks in any direction, the mountain ridges dominate the landscape. They demonstrate the power and constancy of the natural forces that shaped them. Development along ridge tops should be discouraged so that their imposing beauty is preserved. The overlooks scattered along these ridge tops also afford views over scenic landscapes throughout the county. There are many ridge tops and scenic viewpoints that should be preserved such as Tuscarora, Kittatinny, Timmons, and South Mountain, along with the numerous scenic overlooks along the county's ridge lines. The ridge tops in Franklin County are depicted on the *Sensitive Environmental Features* Map.

Insert Sensitive Environmental Features Map

BUILT RESOURCES

Greenways also capitalize on certain features of the built environment. Most commonly, one thinks of abandoned rail lines that are reborn as recreational rail trails. But sound greenways planning also require an understanding of many types of built resources. There are those that facilitate a greenway corridor, like old canal beds or utility corridors. Others present challenges to greenway development, like major highways and active industrial sites. And there are some built features that provide interesting stops along the greenway, like historic sites and cultural amenities.

Transportation and Utility Corridors

• <u>Abandoned Rail Lines</u> - Several discontinued rail lines exist in Franklin County, most of which were abandoned during formation of larger railroad companies such as Conrail in the 1970s. The following information was available at www.abandonedrailroads.com.

The former Waynesboro Branch of the Pennsylvania Railroad line from Harrisburg, PA to Hagerstown, MD (via Edgemont, MD) ran from the Maryland border north through Waynesboro, Quincy, Mont Alto, Pond Bank, Fayetteville, and then northwest through Woodstock to a stop at what is now called Railroad Road, just north of the interchange of State Route 997 and Interstate 81. Trails have been built through the right-of-way near Fayetteville, but none utilize the rail's former alignment. The former right-of-way is mainly on private property, and short segments are currently used as driveways.



A former Western Maryland rail line runs from Conboy south toward Waynesboro, where it meets the former Waynesboro Branch of the Pennsylvania Railroad Company (PRR) line mentioned above. The line at the northern terminal of this abandoned rail is an active CSX railway.

A portion of the former Chambersburg Area line operated by Western Maryland Railroad Co. (now known as CSX) is still in light use between Chambersburg and Shippensburg. This line's former terminus was located in the median of Water Street in Chambersburg, and connected to the Reading Railroad just east of Shippensburg as part of the Western Maryland Railroad Company's (WM) portion of the "alphabet network", in which WM partnered with other regional companies to provide competition to PRR and NYC Railroad Companies.

The Mercersburg Branch of the PRR left the main (and still active) Harrisburg-Hagerstown line near Marion and heads westward through Stonebridge, Williamson, McCulloch, Lemasters, Mercersburg Junction, terminating in Mercerburg. Most of this line's right-of-way has been obscured, and is located mainly on private agricultural land. The remains of the railroad bridge that once spanned the West Branch of the Conococheague Creek are still visible today. A five-mile long branch of this line was abandoned earlier, formerly running north from Mercersburg Junction through Fort Loudon to Richmond Furnace.

One other abandoned rail line, the Shippensburg to Isle PRR line, ran from Shippensburg into Cumberland County and north toward Harrisburg. The western portion of this trail has been converted to a rail trail, while other parts are now used as utility corridors or are still active short-track rails. Rails such as these are noted because they have potential as connections beyond

Franklin County borders.

- Highway Bike Routes Pennsylvania's bike routes are laid out to allow bicyclists to experience the State's scenic, cultural, and historic places. These routes often do not contain bike lanes or other facilities designed specifically for bicyclists. The route is depicted solely by signage. Pennsylvania Bike Route "S", the longest of the State's designated bike routes, traverses central Franklin County in an east-west orientation. Bike Route "S" enters Franklin County from the west, following U.S. Route 30 through Chamberburg. The bike route exits Route 30 just east of the I-81 interchange, following Falling Spring Road to the southeast toward Duffield, continues southeast on Mont Alto Road toward Mont Alto, then turns directly east, crossing State Route 997 into the western reaches of the Michaux State Forest near Penn National Golf Course. Then the bike route utilizes portions of St. Anne's Road and White Rock Road before heading north to East Fayetteville, where it re-enters U.S. Route 30, on which it remains as it heads east into Adams County.
- Pedestrian Walkways The main population centers in Franklin County, including Chambersburg, Shippensburg, Waynesboro, Greencastle, Mont Alto, and Mercersburg, have paved sidewalks. Most of the county's townships do not require sidewalks with new development, thus none exist except in small population centers where housing units are in close proximity to the roadway and to each other.
- The <u>Lincoln Highway Heritage Corridor</u> (LHHC) is one of 12 heritage areas in the Commonwealth of Pennsylvania. The LHHC was established to create opportunities for preserving and interpreting resources associated with the Lincoln Highway and the more than 200 years of regional transportation history that preceded it. All are nonprofit organizations, and part of the Pennsylvania Heritage Areas Program, under the Department of Conservation and Natural Resources (DCNR).

According to the LHHC website, www.lhhc.org, the mission of the LHHC is "to identify, conserve, promote, and interpret the cultural, historical, natural, recreational, and economic resources along the Lincoln Highway in Westmoreland, Somerset, Bedford, Fulton, Franklin, and Adams Counties". Through these regions, the original highway is marked with red, white, and blue signs.

In Franklin County, as in most of the Commonwealth, the original route of the Lincoln Highway is U.S. Route 30. This route passes through Chambersburg, which has a rich Civil War history and has been the county's government center since the county's establishment in 1784. A description of Chambersburg's Civil War history is given earlier in this section.

The Lincoln Highway is relatively flat as is passes through Caledonia State Park and Fayetteville in the eastern part of the county. West of Chambersburg and St. Thomas, the highway climbs gradual hills climb and then mountains as it passes Fort Loudon and heads westward into Fulton County.

The various transportation and utility corridors in Franklin County are shown on the *Recreation Features* Map.



Recreation Facilities

Recreation facilities, including the various community parks throughout the county, are depicted onthe *Recreation Features* Map. Though the number of recreation facilities in Franklin County are too numerous to describe in detail here, this section provides descriptions of significant recreational assets that are relevant to the Greenways and Open Space Plan.

This Greenways Plan acknowledges an important ongoing recreational planning effort. The Keystone Active Zone (KAZ) program headed by Pennsylvania Advocates for Nutrition and Activity (PANA) is a valuable resource in Franklin County. The KAZ encourages Pennsylvanians to have fun and stay fit by engaging in outdoor recreation at a local park, trail, or other outdoor open space. To

advance this mission, PANA created a directory and a website of Franklin County parks and recreation sites (which are described in this section) through the KAZ program.

Franklin County served as one of two pilots in the statewide collaborative effort with PANA, DCNR, Pennsylvania Parks and Recreation Society (PRPS), AARP Pennsylvania, and the Pennsylvania Department of Health. The campaign was opened by 90 students from Coldbrook Elementary and 30 representatives from three local AARP chapters who "Walked the Talk in the Park." Team members presented KAZ outcomes at a state conference and state-wide teleconference. Franklin County continues as a pilot to increase use of sites by children, families, and senior adults. Materials developed in Franklin County are serving as a model for communities throughout the state (www. KeystoneActiveZone.org). Local advancement of the KAZ program is headed by a non-profit organization known as the Healthy Communities Partnership of Greater Franklin County, Inc. A KAZ brochure, as provided by HCP, is included in the appendices of this report.

• <u>Caledonia State Park</u> includes 1,125 forested acres on South Mountain, with opportunities for tent or trailer camping, group tent camping areas for 100+ people, over 450 picnic tables, two rental cabins available year-round, ten (10) miles of hiking trails passing through forested and historic areas. A portion of the 2,000-mile Appalachian National Scenic Trail also passes through Caledonia State Park. The park also boasts an accessible swimming pool, an 18-hole public golf course, and the Totem Pole Playhouse, which offers performances during the summer. Guided hikes and environmental education programs are also offered in the summer by a seasonal naturalist.

The East Branch of the Conococheague Creek, along with Rocky Mountain Creek and Carbaugh Run, flow through the park and the surrounding state forest lands, offering many exciting places for anglers. Brown trout, rainbow trout, native brook trout and some warm-water game fish can be found in these streams. Approximately 740

acres of the park is open to hunting, trapping, and dog training during established seasons.

Mont Alto State Park was purchased in 1902, creating
 Pennsylvania's first State Forest Park. The park is located approximately one mile east of the town of Mont Alto. The park is directly adjacent to the 103-acre Mont Alto branch campus



of Penn State University, which was established in 1903 as one of the first forestry schools in the nation. This 23-acre park offers a picnic area (50 tables), fishing opportunities on the West Branch of the Antietam Creek, access to the public snowmobile trails in the adjacent 83,950-acre Michaux State Forest, and hiking and wildlife observation opportunities along existing mountain roads.

- The 18.5-acre <u>Buchanan's Birthplace State Park</u> is a natural area preserving the location of the original cabin in which former U.S. President James Buchanan was born. The park site is nestled in a gap in the Tuscarora Mountain northwest of Mercersburg. Although this site is purely historical in nature and offers no active recreational facilities, it is adjacent to the Tuscarora Trail, which is described in further detail in this section.
- Although only a tiny portion of the 1,085-acre <u>Cowan's Gap State Park</u> lies in Franklin County, it is still very relevant to the Greenways Plan, as it presents opportunities for connectivity between recreational facilities. This park is surrounded by the Buchanan State Forest.

Picnic areas with pavilions and individual picnic tables are available around the 42-acre Cowan's Gap Lake, which offers fishing opportunities for trout and other warm-water species. An accessible fishing pier is located at the lake, as are a swimming beach and refreshment area. A modern trailer camping area, as well as a walk-in tent camping area is also offered, along with 10 miles of hiking trails that vary in difficulty. A 2-mile section of the Tuscarora Trail also traverses the park. Other park recreational opportunities include organized group tenting, cabin rentals in warmer months, ice skating, cross-country skiing and seasonal environmental education programs.

- The county's State Forest lands, portions of the <u>Buchanan</u>, <u>Tuscarora</u>, and <u>Michaux State Forests</u>, offer recreational activities such as hiking, picnicking, fishing, snowmobiling (Michaux State Forest only) and wildlife observation. The 39,780 acres of State Forest land within Franklin County's borders provide access to some of the most tranquil, scenic locations and most contiguous tracts of wildlife habitat in the county and are thus very important to Greenways Planning.
- A 16-mile section of the <u>Appalachian National Scenic Trail</u> enters Franklin County from the south near Pen Mar in the southeastern portion of the county and extends northward through the Michaux State Forest, the Village of South Mountain, Mont Alto and Caledonia State Parks, and follows the ridgeline northward. The trail finally passes into Cumberland County in the far eastern reaches of Southampton Township, southeast of Shippensburg.

The Appalachian National Scenic Trail is arguably the most-famous footpath in the United States, following the Appalachian Mountain Range for 2,100 miles (marked with white blazes on adjacent trees) between Katahdin, Maine, and Springer Mountain, Georgia. This trail serves as a main spine of connectivity for other regional trails in Pennsylvania and elsewhere and thus is an opportunity for greenway connections to areas outside Franklin County.

A new trail has been proposed to connect existing trails throughout the Highlands Region of the Mid-Atlantic. This trail proposes to utilize portions of the Appalachian Trail in Franklin County. The PA Highlands Trail will extend to the nearly complete Highlands Trail in New York and New Jersey through the Highlands Region of PA. The Highlands Region of PA includes parts of 13 counties (Bucks, Montgomery, Northampton, Lehigh, Chester, Berks, Lancaster, Lebanon, Dauphin, Cumberland, Franklin, Adams, and York). The PA Highlands trail is intended to link

with other existing trails and new trail segments established to bridge the gap between linkages of trails. Overall, the Highlands Trail will help with the conservation of the Highlands while increasing recreational opportunities in this beautiful region. The Highlands Trail project will be a collaborative effort between non-profit organizations and public agencies.

A portion of another famous trail, the <u>Tuscarora Trail</u>, traverses the western portion of Franklin County. The trail enters the far southwestern corner of the county near Yeakle Mill, and follows the Tuscarora Mountain and Amberson Ridge before entering the Tuscarora State Forest and then Perry County to the east of Doylesburg.

The 252-mile Tuscarora Trail footpath spans parts of Pennsylvania, Maryland, Virginia, and West Virginia. In 1997, the former Big Blue Trail was integrated into what is now known as the Tuscarora Trail, forming a large bypass to the Appalachian National Scenic Trail. This bypass was conceived in the 1960's with the intent of circumventing development along the Appalachian Trail in Northern Virginia. Had the Appalachian Trail not received protection under the National Scenic Trails Act, the Tuscarora Trail would have become the "new" Appalachian Trail route through Northern Virginia. This trail, like the Appalachian Trail, is important to Greenways Plan because it provides opportunities for connections to areas outside of Franklin County.

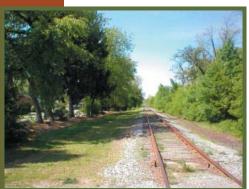
Another trail, the newly proposed <u>Great Eastern Trail</u> (GET) will connect with the Tuscarora Trail in Franklin County. It will run from the Alabama-Florida border to New York State. The trail will use existing footpaths to the greatest extent possible, connecting them together with new trails where necessary. The Great Eastern Trail will form an alternate to the Appalachian Trail. It directly connects to some 10,000 miles of other trails, creating possibilities for endless exploration.

The Tuscorora Trail will connect with the Mid State Trail in Pennsylvania via the Link Trail, and south it will connect with the Allegheny Trail in West Virginia via a new connecting trail. Potomac Appalachian Trail Club (PATC) is one of the prime movers in the GET, and is responsible for the longest new connection, from the Tuscarora to the Allegheny, a distance of 159 miles.

- The <u>Iron Horse Trail</u> provides a 10-mile loop hiking trail between Big Spring State Park and the Eby Cemetery along PA Route 274 in Perry County, just outside of Franklin County. This trail follows the grade of the Perry Lumber Company and the Path Valley railroads, and is relevant to the Greenways Plan because it is located in the Tuscarora State Forest, which increases potential for connectivity.
- Planned Bicycle and Pedestrian Trails In 2002, the Franklin County
 Planning Commission adopted the Franklin County Comprehensive
 Recreation, Park, and Open Space Plan. This plan included
 recommendations for a countywide Trail Plan that recommended the
 rehabilitation of existing trails, identified potential new trail routes, and laid the groundwork for
 the development of a trail system that offers a variety of opportunities to county residents.

Some of the trail planning efforts at the time of the Comprehensive Recreation, Park, and Open Space Plan have since been implemented. These include the identification of PA Bike Route "S" along U.S. Route 30 and other local roads, and the construction of the Chambersburg Rail-





Trail along the west banks of the Conococheague Creek in downtown Chambersburg.

The plan included specific trail objectives, such as connecting the Chambersburg Rail-Trail to Shippensburg utilizing abandoned railroad lines and other rights-of-way, creating shared-use trails from Chambersburg to Mercersburg, from Mercersburg to Richmond Furnace, and from Waynesboro to Mont Alto utilizing more abandoned rail lines, and connecting the Iron Horse Trail (Perry County) to the Tuscarora Trail by following the county's western boundary southwestward along the Tuscarora Mountain. Trailheads at Fort Loudon, Chambersburg, Waynesboro, and Mountain Green were also proposed, and support of local trail groups' upgrades to the existing Frontier Trail and Tuscarora Trail was recommended.

Some pedestrian walkways, such as those in Washington Township, are being planned. The township is currently adding 7 miles of 8-foot wide aggregate shoulders to Washington Boulevard, which serves as a bypass around Waynesboro. These shoulder areas will serve as pedestrian walkways. In addition, all future residential developments accessible from Washington Boulevard will be required to add pedestrian walkways on their roads. These new walkways will connect with the trails along

Washington Boulevard, thereby linking residential areas with newly-developed commercial centers.

Antrim Township recently received a Federal Transportation Enhancement grant (distributed via PADOT) for development of paved multi-use trails paralleling Shanks-Church Road and Grant-Shook Road. These planned trails will be approximately 1.5 miles in length and will connect residential growth areas to Antrim Township Park. The township has also recently adopted ordinances that require residential developments to include trails that connect to this planned walking trail system. Acquisition of the final required right-of-way for trail development is underway, and trail construction is slated for 2007.

• Planned Greenways - Another part of the 2002 Franklin County Comprehensive Recreation, Park, and Open Space Plan was the Greenways / Open Space Conservation Plan. This plan analyzed natural resources in the county to identify potential areas that, through proper conservation efforts, would lead to the creation of a successful greenways system that could to guide future land development. Such identified areas were stream corridors, riparian buffers, woodlands, agricultural lands, and other areas of natural significance. A greenways / open space connection between the county's ridges was proposed. This connection included land between Fayetteville and Chambersburg, then southwest toward the mainly agricultural land between Greencastle and Mercersburg, with connections further south into Maryland and westward to the county border in the Buchanan State Forest and State Game Lands #124. The plan also proposed interpretive stations at Wayneboro, Greencastle, Mont Alto, Chambersburg, Willow Hill, and at the confluence of the East and West Branches of the Conococheague Creek in the southwestern portion of the county.

Insert Recreation Features Map

Insert Map List

Historic Sites

Franklin County played an important role in frontier settlement and the Revolutionary, French & Indian, and Civil Wars. The county's picturesque ridges have attracted countless nature enthusiasts since those times. Today, many cultural and historical sites throughout the county serve as reminders of this rich heritage and help to educate local residents and visitors. The National Register of Historic Places lists sixty (60) sites in Franklin County. These sites are listed in the Appendices of this report.

The Fort Loudoun State Historic Site, located just southeast of the Village of Fort Loudon in Peters Township, was one of a string of forts built to protect Colonial citizens from French & Indian raids. This fort was the site of the first armed uprising against British royal troops on March 9, 1765 (from www.fortloudoun-pa.com). Information on Fort Loudoun, Fort Frederick (Maryland), and the large number of private forts built to protect the vulnerable frontier during the 18th century is available through exhibits at the Conococheague Institute (www.geocities.com/welshrunpa/).



Several Civil War sites, including the following examples, are found in Franklin County. Fleming Farm, located outside of Greencastle, was the site of a Confederate ambush that resulted in the death of the first Union soldier killed in Pennsylvania. The Monterey Historic District includes the site of the Battle of Monterey, the second largest Civil War battle fought in Pennsylvania. This area is located near Blue Ridge Summit. Memorial Square in Chambersburg commemorates an important date in Civil War history, the burning of Chambersburg on July 30, 1864. Chambersburg was the only northern town destroyed by Confederate soldiers during the entire war (from www.visitpa.com).

Several buildings and other historical sites in Chambersburg and elsewhere can be seen along a driving tour route that follows Confederate General McCausland's advance and raid of Chambersburg. The tour route begins near Clear Spring, Maryland and continues through several communities in southern and central Franklin County, including Shimpstown, Mercersburg, Fort Loudon, and Chambersburg. To continue the tour, one would then drive westward through McConnellsburg in Fulton County before turning back southward to Hancock, Maryland (from "McCausland's Raid and the Burning of Chambersburg", by Ted Alexander and Dave Roth - Blue & Gray Magazine's History and Tour Guide).

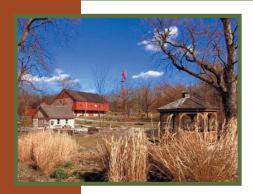
In addition to the aforementioned war-related historical sites, several bridges, mills, and farms are remnants of the area's agricultural and industrial past. Several of the aforementioned places have potential as points of interest in the proposed greenways system, and are shown on the *Cultural and Historic Resources*

Map.

Cultural Destinations

Several types of cultural sites were inventoried, including schools, interpretive centers, colleges, community centers, museums, public facilities, libraries, and hospitals. These cultural destinations are depicted on Map 5: *Cultural and Historic Resources*. Sites that offer education on the county's natural and cultural heritage, and thus are of special relevance to the Greenways Plan, include:





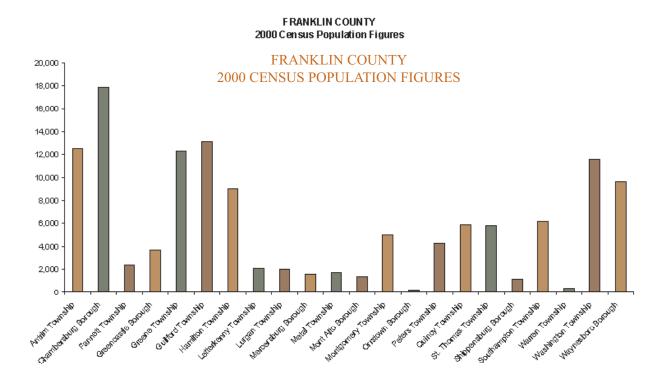
- Allison-Antrim Museum
- Chambersburg Heritage Center
- o Charles Brightbill Environmental Center
- Waynesboro Industrial Museum
- o Renfrew Institute for Cultural and Environmental Studies
- Tayamentasachta Environmental Center

Population Centers and Destinations

Franklin County has fifteen (15) townships and seven (7) boroughs. According to the 2000 U.S. Census, the five largest municipalities in

Franklin County are: Chambersburg Borough (population 17,862); Guilford Township (13,100); Antrim Township (12,504); Greene Township (12,284); and Washington Township (11,559). This indicates a dispersal of the county's population into more suburban residential areas that are in proximity to employment centers such as Chambersburg, and transportation routes, such as I-81. These municipalities are obviously important in any planning study. The smaller boroughs and villages, however, often have unique historic features and character that make them appealing destinations.

The county's population density and distribution are depicted on the *Current and Future Development* Map.



Future Development Areas

Areas targeted for future growth were evaluated in detail in the <u>Land Use and Housing Plan</u> section of the county's Comprehensive Plan, which states that "Growth needs to be steered to the most suitable locations. Growth needs to occur in an efficient manner that avoids excessive consumption of land." The future land use policies compiled as part of the Comprehensive Plan was based on the following

factors, among others:

- Areas that are highly unlikely to change in the foreseeable future were recognized. The goal is to provide compatible land uses near existing land uses.
- The natural features of different areas of land were carefully considered. Major stream valleys were highlighted with the intent that they be preserved in their natural states. Natural features help to determine appropriate densities and uses.
- Policies were emphasized to strengthen the historic downtown areas and to build upon the older villages.
- The location of public water and sewage systems were taken into account, including areas that could be efficiently served by extensions of existing systems.
- Areas with suitable soils that are not prime for growth were considered for agricultural preservation.





• The capacity of the road system to support development was considered.

Some of the notable current and future county growth areas were identified by depicting population density across the county. These areas include in the following:

- > Suburban areas around Chambersburg are being developed on formerly agricultural land, putting higher demands on existing water and sanitary sewer systems, and creating need for new systems.
- Residential development in the southern half of the county has created sprawling suburbs, especially south and southwest of Greencastle, and east of Waynesboro. The population density in these areas indicates the even distribution of single family residential developments on formerly agricultural land.
- Mercersburg and its surrounding area have seen slightly less growth due to a concentration of agricultural land protected by easements and a slightly greater distance to main transportation routes such as I-81 and U.S. Route 11.

Areas of recent development and expected future development are apparent on the *Current and Future Development* Map.

Insert Cultural and Historic Resources Map

Add Map List

Add Map List

Insert Current and Future Development Map

SECTION II - WHERE DO WE WANT TO BE?

CREATING THE VISION: DESIGNING A GREENWAYS NETWORK

THE CRITERIA

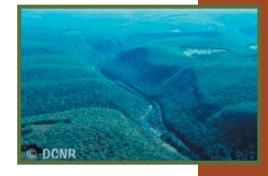
As discussed earlier, greenways can take several forms. In determining what guiding principles should be used to designate greenways for Franklin County, we looked to several goals that were established in the early part of the planning process, and as mentioned in Section I of this report. The following goals pertain directly to greenway development.

Preserving and enhancing Franklin County's rural character and quality of life is the main goal of the Greenway and Open Space Plan, and these other specific objectives support this main goal:

- Protect existing natural areas primarily for ecological health and preservation of wildlife habitat;
- Promote the preservation of agricultural land;
- Provide recreational opportunities for county residents through preservation and connection of existing open spaces;
- Ensure countywide water quality through protection of aquifer recharge areas;
- Balance new development with preservation of open space;
- Promote education of county residents on the aspects and benefits of open space preservation and greenways planning.

These goals support the two bases for defining Franklin County's Greenways:

- 1) Conservation Greenways are corridors whose primary function ispreservation of sensitive environmental features and habitats, such as wetlands, steep slopes, floodplains, high-quality streams, high-value natural areas identified by the Franklin County Natural Areas Inventory, and land surrounding the county's drinking water sources. They are linear tracts of essentially undeveloped open space. Some low-impact activity, like hiking or wildlife observation, is acceptable in these corridors, but intense development and motorized vehicle use are not recommended.
- 2) Recreational and Transportation Greenways are corridors in which trail development is recommended. These greenways connect population centers and points of interest in Franklin County. They bring people into contact with the outdoors and engender an appreciation of the natural world. These trails also provide alternative, environmentally-friendly transportation options for commuters and visitors. In some cases, recreational trails overlay areas where conservation of natural assets is also an objective. To avoid conflicts, recreational uses should be planned to minimize impacts. For example, a biking trail along a river or stream corridor should be designed to preserve steep slopes, wetlands, and other sensitive areas.



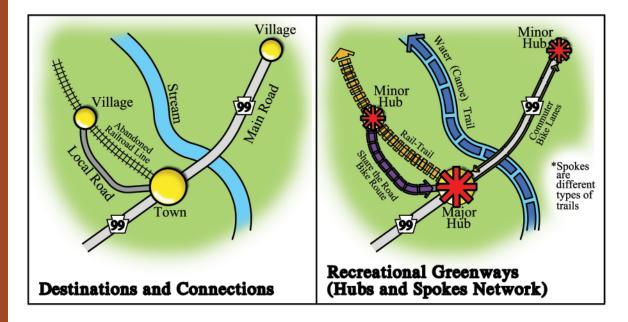


THE STRUCTURE OF THE NETWORK

Building the framework of the greenway network began with laying out the conservation greenways. These corridors follow the natural systems and features of the county -- forests, ridge lines, significant stream corridors, and wildlife habitats. Overlaying this backdrop, the plan adopts a "hubs and spokes" structure for its recreational and transportation greenways. Pennsylvania's State Greenways Plan, entitled <u>Pennsylvania Greenways: An Action Plan for Creating Connections</u>, describes the product of this overlay method as follows:

Pennsylvania's greenways network will ultimately take the form of "hubs and spokes." The "hubs" of this network will be the state's parks, forests, game lands, lakes, and other destination areas, including our towns. The "spokes" of the network will be greenways -- connecting our natural areas and recreational and cultural destinations with the places where we live. The landscape connections that will result throughout Pennsylvania will create a "green infrastructure" of open space vital to the health of Pennsylvania's ecological systems and human communities.

The hubs, sometimes also called "nodes," are the significant destination points - boroughs and villages, historic and cultural sites, and important parks and recreational areas. The "spokes," or corridors, will provide the links between them.



In some areas, conservation corridors are distinct from recreational greenways; in other cases, they coincide. Finally, because streams, mountain ridges, wildlife habitats, state parks, and some recreational trails do not terminate at the county's boundaries, the greenways network proposes that corridors continue outward and form connections to natural and recreational assets in neighboring counties.

It should be noted that any plan to develop greenways will encounter hurdles, such as incompatible land uses, environmental constraints, and unwilling private and public landowners. These issues, while inevitable, should not prevent the county from creating its vision of a greenway network. Conflicts can be addressed at a later phase, when segments of this plan proceed to design and implementation at the local level.

Conservation Greenways

Conservation Greenways were established using the system of prioritization set forth in the table below. The project study committee, with the help of Pashek Associates, prioritized the following types of natural resources according to magnitude of importance. Resources of State-, Region-, and countywide significance were ranked exceptional priorities. Resources of local significance but not significant throughout the county were ranked as high priorities.

CONSERVATION GREENWAYS CRITERIA				
TYPE OF RESOURCE	PRIO	PRIORITY		
	Exceptional	High		
Hydrologic Resources:				
Drinking Water Reservoirs (Watershed)	X			
Very Good Aquifers	X			
Good Aquifers		X		
High-Quality / Exceptional Value Streams (100' Buffer on each side of stream)	X			
Streams supporting Natural Trout Reproduction (200' Buffer on each side of stream)	X			
Trout-Stocked Reproduction (100' stream buffer-each side)	X			
Municipal Drinking Water Well Locations	X			
Priority Habitat Areas:	'			
County Natural Areas, NAI Priority Levels 1-3	X			
County Natural Areas, NAI Priority Levels 4-5		X		
Locally Significant Natural Areas		X		
Important Bird Areas	X			
Sensitive Environmental Features:				
Steep Slopes	X			
Flood Plains	X			
Wetlands	X			
Forested Areas	X			
Hydric Soils		X		
Protected Lands:				
State Game Lands	X			
State Forests	X			
State Parks	X			
Agricultural Preservation Land (Conservation Easements)	X			
Privately Managed Lands		X		

Although every effort was made to include all the resources listed above in the conservation greenways network, not every piece of land containing an exceptional or high priority resource could be encompassed. The greenways network includes most contiguous areas of exceptional priority natural resources. It is recommended that small isolated patches of exceptional-priority resources, as well as resources receiving high-priority rankings, be addressed at the municipal level rather than in the countywide Greenways and Open Space Plan. In addition, where one high-priority resource overlapped a second high-priority resource, that land was given exceptional priority ranking and, if feasible, included in the proposed conservation greenway network.

Conservation Greenways Descriptions and Priorities

Using the above criteria, the following Conservation Greenways were identified. Following the name of each proposed Greenway is a number (#) representing its priority ranking. These rankings were determined by the amount of exceptional-priority (most sensitive) natural resources contained in each proposed greenway, the susceptibility of the land in the proposed greenway to development, and the importance of each proposed greenway in ensuring connection of open space areas throughout the county and beyond.

Most of the county's eastern border is included in the proposed <u>South Mountain Conservation</u> <u>Greenway (1)</u>, which includes portions of the Michaux State Forest, Caledonia State Park, Mont Alto State Park, other forested areas and steep slopes along what is known as Blue Mountain



and locally as "South Mountain". This greenway provides connections to the other forested areas in Cumberland and Adams County, and contains twelve (12) natural areas. They include a portion of Big Flat Pine Barrens, which is considered one of the prime sites for protection of biodiversity in Franklin County because it contains a large example of the Ridgetop Dwarf Tree Forest natural community. This habitat type is relatively contiguous in this area, and is considered globally rare. High-quality cold water fisheries (identified by Pennsylvania DEP) such as Rocky Mountain Creek and the headwaters of the East Branch of Antietam Creek are encompassed by this proposed greenway, which also includes portions of Red Run, a stream boasting natural trout reproduction. Also included as part of this greenway is the Happel's Meadow Wetland; a 73-acre scrub-shrub wetland area that forms a

flattened bowl surrounded by higher hilltops. This wetland is significant because of its size and upland location. It has several natural plant communities with a cattail swamp, a scrub and shrub swamp and a forested swamp. More than seventy (70) different species of birds and two hundred (200) species of plants inhabit Happel's Meadow.

Of even greater importance to note that this greenway will protect forested areas and ridge tops that are essential pieces of the Kittatinny Ridge. The Kittatinny Ridge is the largest Important Bird Area in Pennsylvania and acts as a globally-important migratory flyway for millions of songbirds every year. It's rock outroppings provide habitat for raptors, and it's interior forests are essential to several amphibian species. The Kittatinny Ridge has also been designated a *major greenway* by DCNR, making it one of the highest greenways priorities in Pennsylvania. Protection of this resource was given the utmost consideration when forming conservation greenways.

Another important planning effort is the South Mountain Landscape Initiative (SMLI), whose

aim is to educate landowners and communities in the South Mountain area about an important but often overlooked aquatic resource of abundance in this greenway corridor: vernal pools. These shallow ponds fill with water during the winter and early spring, and dry up during warmer summer months. Because the pools are temporary, they serve as essential habitat for plants and animals that would otherwise fall prey to fish or other predators that thrive in more permanent aquatic habitats. Vernal pools are of the utmost importance to amphibians, including some globally-threatened species of frogs and salamanders.

The South Mountain area, which spans portions of Adams, Cumberland, and Franklin Counties, is home to one of the largest collections of high-quality vernal pools in the Eastern United States. This greenway includes one of the notable collection of vernal pools is Mountain Run Ponds, along the nothern and western base of South Mountain in Franklin and Cumberland Counties. Threats to these vernal pools include poisoning from insecticides, acid rain, agricultural runoff, pesticides, as well as pressure from housing developments, logging, and mining operations.

As part of the SMLI, The Nature Conservancy has worked to increase its presence in the South Mountain area. The Nature Conservancy has partnered with Messiah College to inventory Franklin and Cumberland Counties' vernal pools, complementing the first statewide vernal pool inventory, to be completed in 2007, by the Nature Conservancy and a team of several organizations. More information is available online at www.nature.org/wherewework/northamerica/states/pennsylvania/preserves/art19366.html.

Approximate Size: The Franklin County portion of this corridor is 25 miles long, and its total width, of which only half lies in Franklin County, varies between 1 and 8 miles. However, this area is part of a 185-mile long ridge system, which serves as the centerline of a recommended 5-mile wide conservation area as recommended by DCNR. Form more information, visit http://pa.audubon.org/kittatinny or the major greenways section of www.pagreenways.org.

Associated Municipalities: Greene, Guilford, Quincy, Southampton, and Washington Townships, Mont Alto Borough

Tuscarora Conservation Greenway (2) follows the Tuscarora Ridge along the western boundary of the county. Most of the land in this corridor is forested and encompasses steep slopes on the side of the ridge. Included in this greenway is "the Pulpit", a designated Important Bird Area containing rocky outcrops offering great visibility for observing raptors. This area is located within the Buchanan State Forest. An average of 6,000 migrating raptors, including hawks, peregrine falcons, and bald eagles, visit the Pulpit each year along with several other migrating birds. A portion of the mostly-contiguous forest along the ridge in Franklin County is protected within State Game Land #124, The Buchanan and Tuscarora State Forests, and Cowan's Gap and Buchanan's Birthplace State Parks. It is important to note that this greenway is a portion of an essential migratory flyway spanning several states. Locally the flyway encompasses parts of Fulton, Huntingdon, Juniata, Perry, Cumberland, and Franklin Counties. Natural Areas contained in this Greenway include: Licking Creek Woods in Warren Township and Maryland; Tuscarora Ridgetop in Peters and Metal Townships; Neeleyton Ridgetop in Fannett and Metal Townships; portions of the Tuscarora Trail in Warren Township; and Concord Narrows in Fannett Township. These areas are home to several plant and animal species of concern, some of which are threatened on a global scale.

In addition to its importance as a migratory flyway, the Tuscarora Ridge is one of Pennsylvania's major greenways, as designated by DCNR. These greenways form the backbone of the statewide greenways network, and are considered among the state's top greenways priorities. Inclusion of the Tuscarora Trail, a nationally-renowned footpath, only increases the importance of this corridor.

Approximate Size: This is a long, linear greenway roughly 2 miles wide. The portion of this corridor in Franklin County is slightly more than 45 miles long, while the total length of the Tuscarora Ridge is much longer.

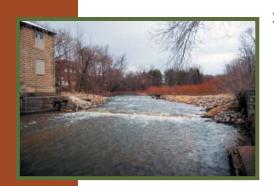
Asociated Municipalities: Fannett, Metal, Petters, and Warren Townships



➤ West Branch Conococheague Conservation Greenway (3) covers the area surrounding the West Branch of the Conococheague Creek from its headwaters to its confluence with the East Branch southwest of Greencastle. It encompasses numerous wetlands, small forest tracts, and the stream's floodplain, as well as nine (9) natural areas, including the Conococheague Creek at Highland School, which the Natural Areas Inventory (NAI) identified as the county's highest conservation priority. This area contains multiple populations of several plants and animal species of concern, thriving within a calcareous (limestone-soil based) mixed deciduous forest. Unfortunately, this area lies completely on private property.

Approximate Size: This greenway's width varies from 400' along the West Branch of the Conococheague Creek to nearly 3 miles in northern Fannett Township. This corridor stretches for 25 miles in Franklin County and extends far into neighboring Cumberland County.

Associated Municipalities: Fannett, Metal, Montgomery, and Peters Townships



East Branch Conococheague Conservation Greenway (4) provides connectivity across the Cumberland Valley between the two ridges on eastern and western sides of Franklin County. This corridor protects the Eastern Branch of the Conococheague Creek, from its headwaters in Caledonia State Park, to the confluence with the western branch southwest of Greencastle, and then southward to the Maryland border, where the Conococheague Creek continues toward the Potomac River. This proposed area of conservation includes the stream's floodplain and associated wetlands, a riparian corridor along the length of the stream, and encompasses several natural areas. Of

the eight (8) natural areas slated for protection within this greenway, the most notable are: the Williamson Red-Cedar Redbud Shrubland, which contains several plant species of concern including Pennsylvania's only known population of Limestone Adder's Tongue, and thus is classified as a top conservation priority by the Franklin County NAI; and Muskrat Fen, a wetland east of Chambersburg that contains populations of four plant species of concern threatened by non-point source pollution.

Approximate Size: Width for this corridor ranges from 400' to 2 miles, with a length of 35 miles

within Franklin County borders. The corridor extends into Washington County Maryland to the south.

Associated Municipalities: Antrim, Greene, Guilford, Hamilton, Montgomery, and St. Thomas Townships, Chambersburg Borough

Conodoguinet Conservation Greenway (5) encompasses the area around the Conodoguinet Creek, whose headwaters (above Letterkenny Reservoir) are designated by Pennsylvania DEP's Chapter 93 Water Quality Standards as a high-quality cold water fishery. This creek, along with Trout Run, is classified as an Exceptional-Value fishery. Trout Run's watershed is also given exceptional value classification. This Greenway also contains portions of eight (8) natural areas, including the Letterkenny Reservoir area, which contains a ravine of mature native hemlocks, a wet meadow along the Conodoguinet Creek, and a floodplain area dominated by sugar maple. Also found within this conservation corridor is an example of *ephemeral / fluctuating pool natural community*, which contains several vernal (seasonal) pools of water that fill with rainwater, surface runoff, and rising groundwater during winter and spring months. These pools are the sole breeding habitat for some amphibians.

Approximate Size: Corridor length is roughly 25 miles within Franklin County before extending far into Cumberland County to the northeast. Width varies from 1 to 4 miles.

Associated Municipalities: Fannett, Letterkenny, Lurgan, Metal, and St. Thomas Townships

➤ Broad Mountain Conservation Greenway (6) encompasses the forested steep slopes and ridge top of Broad Mountain. A large portion of this greenway is located on public land: portions of State Game Lands #235 and #76, as well as the Buchanan State Forest, are included. This greenway will also protect small portions of two (2) natural areas, along with the headwaters of many tributaries to a branch of the Conococheague Creek in Letterkenny, Hamilton, and St. Thomas Townships.

Approximate Size: Corridor length is 16 miles while width varies between 2 and 3 miles.

Associated Municipalities: Hamilton, Letterkenny, and St. Thomas Townships

➤ <u>Keasey Run Conservation Greenway</u> (7) proposes the preservation of the Keasey Run stream corridor, which includes the Keasey Run Wetlands natural area, home to the Pennsylvania plant species of concern Brown Sedge. Also protected by this greenway is a portion of the Clark's Knob natural area, whose rocky outcrops are home to a population of Allegheny Woodrat, which is of concern in Pennsylvania due to excessive logging of its habitat.

Approximate Size: Total corridor length within Franklin County is 20 miles (one 12-13 mile fork and one 6-7 mile fork) before the corridor extends northeastward into Cumberland County. Width varies from 200' along Keasey Run to 1 mile where natural areas identified by the Franklin County NAI.

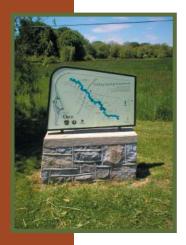
Associated Municipalities: Letterkenny, Lurgan, and Southampton Townships, Orrstown Borough

Antietam Creek Conservation Greenway (8) follows both the eastern and western branches of the Antietam Creek, from the headwaters of the western branch to the confluence of the two

branches just southwest of Waynesboro, and southward to the Maryland border. The greenway also follows the eastern branch from the point it exits the Michaux State Forest to the confluence. The west branch is identified by Pennsylvania DEP as a natural trout reproduction stream, and the east branch received a high-quality cold water fishery classification. Despite encompassing the second smallest amount of land area of any of the proposed conservation greenways, this corridor contains portions of five (5) natural areas, including Needy Cave, a complex cave system found along the east branch of the Antietam Creek that is home to three globally-rare animal species of concern that are threatened by pollution to underground streams that run through the caves.

Approximate Size: Total length of the two forks of this greenway (which follow the two branches of the Antietam Creek) is 18 miles, with a length varying from 400' to 1 mile.

Associated Municipalities: Quincy and Washington Townships, Waynesboro and Mont Alto Boroughs



Falling Spring Conservation Greenway (9) is an existing greenway along the Falling Spring Creek stream corridor. Several streambank restoration projects have been completed along this corridor to restore the stream channel in place where it had been widened and shallowed by agricultural land uses. The Falling Spring Creek is a popular fly-fishing stream boasting a native trout population, and is designated a high-quality cold water fishery by the Pennsylvania DEP. Falling Spring Greenway, Inc., Trout Unlimited, the PA Fish & Boat Commission and Guilford Township have worked for over 15 years to ensure that fishing access is provided and erosion and sedimentation is minimized in the stream corridor, which is also listed in the county's NAI. Through their efforts, over 90% of the stream corridor, from its headwaters to its confluence with the Conococheague Creek in Chambersburg, has been protected.

Approximate Size: Total length is roughly 6 miles, while width varies from 400' to nearly 1 mile.

Associated Municipalities: Greene and Guilford Townships, Chambersburg Borough



Two Top Mountain Conservation Greenway (10) contains the steep forested slopes and ridge top of Two Top and Claylick Mountains, which extend from the southwestern portion of Franklin County into Maryland. The greenway also protects a finger of forested land that connects to the easternmost point of State Game Lands #124 just west of Mercersburg. Connection is also made to the West BranchConococheague Conservation Greenway via the protection of a small stream corridor in Montgomery Township, south of Mercersburg. Two (2) natural areas are also protected by this greenway: the Shimpstown Meadows, whose grasslands and upland forests are home to a population of barn owls; and Concrete Bottom at Licking Creek, which contains the Limestone Petunia, a Pennsylvania, and a plant species of concern.

Approximate Size: Total length of two branches is roughly 14 miles before extension southward into Maryland. Width varies from 200' to 2 miles.

Associated Municipalities: Montgomery and Warren Townships

Proposed conservation greenways for Franklin County are depicted on the *Proposed Conservation Corridors* map on the following page. Corridor priority numbers shown in parentheses (#) above coincide with numbers shown on the aforementioned map. In addition to the proposed greenway corridors mentioned above, it is also recommended that the county strive to conserve open space by continuing its aggressive agricultural preservation program.

Areas that should be specifically targeted for conservation are agricultural lands nearest to the most acute development pressures in the county: in the Southern portion of the county around Waynesboro, Greencastle, and their surrounding Townships; as well as the rapidly growing suburban areas around Chambersburg. Preservation of these areas are vital to preserving both open space and the rural character that is definitive of Franklin County.

Caution must also be taken to preserve farm-related infrastructure such as farm supply stores, etc. A regional example of preservation without proper planning is Montgomery County, Maryland. Agricultural preservation areas were concentrated in one area of the county only, while other areas were left open to development. Once land was developed in other portions of the county, farm-related infrastructure like supply businesses moved out of the county towards larger customer bases. The farms that remained protected in the county then experienced financial hardship due to lack of nearby support businesses like supply stores, machinery dealers, etc.

Level of Recommended Protection

Some large areas of several greenway corridors are protected as state forest or state park land. However, portions of many of the greenway corridors are located on private land. Acquisition of the entirety of each corridor would be unfeasible and unnecessary. Municipalities associated with each proposed conservation greenway corridor should strive to educate and work with landowners to promote conservation.

While regulatory tools may protects some areas from development, they ignore other threats such as logging or mining, and can also be a heavy hand to deal when attempting to form friendly relationships with landowners. Easements and other agreements with conservation-minded landowners can be customized to meet needs of both parties and may protect some targeted natural resources. Acquisition of small tracts near very vulnerable resources (vernal pools, etc.) should be considered, but only when feasible and directly beneficial.

Falling Spring Greenway, an established greenway corridor, is an excellent example to be followed regarding level of land protection for other greenways protecting stream corridors, especially trout fisheries. A sample stream buffer ordinance and an article from *Pennsylvania Angler & Boater* magazine illustrating the success at Falling Spring are included in the appendices of this report.

Specific tools for conservation, along with specific recommendations, are described in detail later in this report.

Insert Proposed Conservation Greenways Map

Recreation and Transportation Greenways

Recreational and transportation greenways were established by first identifying those locations in the county that qualify as key destination points. The table below sets forth the criteria used to designate those destination points, or "hubs". Those that were regionally significant destinations were seen as major hubs. Others that had less significance but exhibited potential for connectivity to other hubs were selected as minor hubs. Those designated as "points of interest" are considered of mainly local cultural, historical, or aesthetic significance. Thus they are included in the recreational and transportation greenways network only when they are in close proximity (one-half mile) to proposed hubs or spokes.

RECREATION AND TRANPORTATION GREENWAYS: Hub Selection Criteria				
	Major Hubs	Minor Hubs	Points of Interest	
Population Centers:				
Municipalities with Visitor Services (Restaurants, Lodging, Main Street Retail)	X			
Municipalities with Cultural and Historic Sites (Museums, Theaters, Libraries, etc.)	X			
Other Municipalities			X	
Recreational Features:				
State Parks	X			
Community Parks		X		
Small Community Recreation Areas / Parks (Playgrounds, etc.)			X	
State Game Lands			X	
Cultural and Historical Sites:				
National Register Historic Districts		X		
National Register Historic Sites with Regional Visitation		X		
National Register Historic or other Local Historic Sites with Local Visitation			X	
Museums and Cultural Centers			X	
Secondary Schools and Universities			X	
Libraries			X	

Once the "hubs" were pinpointed, the "spokes" or trail connections between them were charted using one or more of the following manmade or natural features:

- Existing or planned land or water trails
- Abandoned rail lines

- Stream corridors
- Existing on-road bike routes
- Utility Corridors / Rights-of-way

Proposed trails or "spokes" are planned primarily for active recreational uses such as running, walking, rollerblading, hiking, biking, canoeing, and other forms of non-motorized recreation and transportation. Preference was given to off-road trail opportunities wherever feasible. However, in making trail linkages through urban areas or across rural areas where other options were not available, trails on or adjacent to existing roadways were proposed. Where proposed recreation and transportation greenways coincide with conservation greenways, trail design should strive to minimize impact from these uses.

Several of the trails described in the proposed greenway network are existing trails or already planned. In other instances, new trail connections are recommended. The inclusion of both existing and proposed trails supports the Study Committee's goal of creating an interconnected web of recreational opportunities connecting various destinations around the county.

Most of the proposed trails are for a single mode of travel, whether it be hiking, biking, or canoeing / kayaking. It is important to note that the "shared-use" paths may be used for any desired combination of waking, jogging, biking, rollerblading, and horseback riding. Motorized vehicles should be prohibited on such trails. Modes of travel for inidividual trails can be decided upon in feasibility studies and more detailed trail planning efforts in the future.

It is also important to keep in mind that because the plan makes recommendations at a countywide level, exact locations and designs of trails are not specified. This plan is conceptual in nature and actual implementation will require further study on a site-specific level. However, this plan does describe possible obstacles to recreation and transportation greenway development.



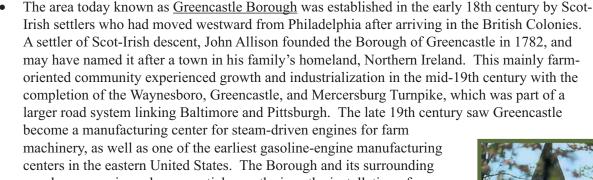


Major Hubs

The Borough of Chambersburg is the county's largest population, commercial, and historic center. In 1730, Benjamin Chambers first settled at the confluence of the Conococheague Creek and Falling Spring Creek and started a gristmill and sawmill. The community was organized in 1764 around the fort that had protected the settlement from attacks by natives, and grew as a traveler's crossroads between Cumberland Valley traffic and settlers moving westward from Philadelphia. The Borough received its charter from the State of Pennsylvania in 1803, and played a significant role in the Civil War. The center of town was burned by Confederate troops in July 1864, and was rebuilt shortly after the end of the war. Chambersburg grew as a transportation center in the early 20th century, sparked by the 1915 completion of the Lincoln Highway (U.S. Route 30), the first highway to span the continental United States from coast-to-coast. Today the Borough boasts a nationally-recognized Historic District and other sites on the National Register of Historic Places, such as the John Brown House, the Franklin County Courthouse and Jail, Masonic Temple, and the Fountain and Statue in Memorial Square. The Borough is also home to the Chambersburg Heritage Center, which is housed in a renovated 1915 marble bank within the historic district.

old County Jail today houses the Franklin County Historical Society (formerly known as the Kittochinny Historical Society). Chambersburg's 1818 "Old Jail" was in continuous use for more than 152 years, is the third oldest building in the borough, and is one of the few structures to have survived the burning of Chambersburg by Confederate Forces in 1864. The jail also served as a stop on the underground railroad. The Borough is also home to regional libraries, museums, and Wilson College, one of the two higher education facilities in the county.

- Waynesboro Borough was originally settled in 1749 by John Wallace, who purchased land near the East Branch of the Antietam Creek, but was renamed after Revolutionary War General "Mad Anthony" Wayne in 1797. Until the 1850s, the Borough was a trading post and cross roads for farmers and artisans to take their goods to larger markets, such as Harrisburg, Baltimore, and Pittsburgh. Like several other towns in Franklin County, Waynesboro is also rich in civil war history, being taken by Confederate soldiers in 1863 prior to the burning of Chambersburg. The latter part of the 19th century saw industrialization take root in Waynesboro, but not at the expense of the scenic countryside. Since the early 20th century, one of the Borough's main distinctions has been its proximity to the pastoral settings of the Cumberland Valley and the forested mountain ridges, state parks and forests, and the Appalachian National Scenic Trail, which attracts many outdoor enthusiasts.
- The Borough also contains eight (8) nationally-registered historic sites, including the Waynesboro Armory and Waynesboro Borough Hall.

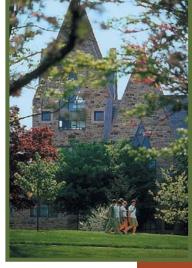


machinery, as well as one of the earliest gasoline-engine manufacturing centers in the eastern United States. The Borough and its surrounding area have experienced exponential growth since the installation of Interstate 81, which links Greencastle to points north and south. This has made Greencastle an attractive residential community to those commuting to Hagerstown, MD and Chambersburg. Today the Borough contains a nationally-registered historic district and several other historic sites, as well as the Allison-Antrim Museum of local history.

• Mercersburg Borough's most celebrated distinction is that it was the birthplace of former U.S. President James Buchanan. However, the Borough had a rich civil war history tied to the burning of Chambersburg, and was home to one of the first Civil War Memorials in the country in 1866. Today, Mercersburg attracts visitors to its historic sites, which include nine (9) nationally registered historic sites along







with the nationally-registered Mercersburg and Hays Bridge Historic Districts. Mercersburg Academy, a nationally-renowned boarding school currently housing students from 29 different states, is also located with the Borough limits. The Borough's proximity to the forested Tuscarora Ridge, the Buchanan State Forest, and the famed Tuscarora Trail also makes it a destination for outdoor enthusiasts.

• Although most of Shippensburg Borough is located in Cumberland County, the facts that it is a population center and that portions of the Borough are in Franklin County qualify it as one of the county's cultural and demographic centers. Shippensburg was named after Edward Shippen, who received a grant for the land from descendants of William Penn. Shippensburg is the oldest community in the Cumberland Valley, being founded in 1730. The first Cumberland County Court sessions were held there in 1750-51. The Borough was also located along important railroad lines, and later near main automobile thoroughfares such as Interstate 81 and U.S.



Route 11. The Borough is also home to a large public library and to Shippensburg University.

Minor Hubs

• Many of the smaller villages and boroughs located in the county, such as Fannettsburg, Roxbury, Orrstown Borough, Green Village, Scotland, Fayetteville, Fort Loudon, and others are small population centers that provide more affordable housing than some of the larger boroughs and townships and are becoming increasingly important landmarks as suburban

development continues. Scotland is home to the Scotland School for Veterans Children that since 1895 has educated more than 10,000 children. This is the only residential school in the United States specifically designed to educate and care for children of United States veterans. Scotland, Green Village, and Fayetteville are all located along the Conococheague Creek corridor to the northeast of Chambersburg and these and the other remaining significant villages and small population centers in the county are all located in close proximity to major local roads, thus their potential for connectivity is high.

- Only a small portion of <u>Cowan's Gap State Park</u> lies within the Franklin County borders, but the park's facilities described in detail in Section I of this report attract outdoor enthusiasts from the surrounding region. The park is surrounded by the Buchanan State Forest and offers access to the Tuscarora Trail.
- <u>Buchanan's Birthplace State Park</u> is a historical site of regional significance, and offers access to the nearby Tuscarora Trail.
- <u>Caledonia State Park</u> offers a wide array of passive and active recreational activities within its 1,125 acres, including access to the famed Appalachian National Scenic Trail.
- Although Mont Alto State Park is very small compared to most state parks, it still offers many recreational activities, as well as access to trails in the Michaux State Forest. Mont Alto State Park is also in close proximity to the town of Mont Alto and the Borough of Waynesboro.
- Old Forge Historic Area offers passive and active recreational facilities such as a playground, baseball field, picnic pavilions, and serves as a destination due to its access to the Appalachian

Trail and the headwaters of the East Branch of the Antietam Creek.

- <u>Pine Hill Recreation Area</u> boasts several miles of hiking trails and other active recreational facilities, including baseball and softball, volleyball, soccer, picnicking, and skating, making it a destination for residents of southeastern Franklin County.
- Antrim Township Park is a large community recreation facility
 that contains ball fields, picnicking, and other active recreation
 opportunities, along with trail connections to the Martin's Mill
 Covered Bridge over the Conococheague Creek. This park offers
 potential for water trail access for canoe and kayak enthusiasts as
 well as anglers.
- Montgomery Township Park is a large community park offering multi-use fields, a walking trail, and a community pavilion.
 Restrooms, baseball and softball fields, picnic pavilions, an outdoor amphitheater, nature trail, and children's play area are all planned for future development within this park.
- Norlo Park in Guilford Township serves as a recreational destination due to its trail connections, proximity to Route 30, and its variety of passive and active recreational facilities, such as volleyball, basketball, picnicking, ice skating, tennis, and horseshoes. The park is equally significant destination for anglers and bird watching enthusiasts, as it houses the offices of a local Trout Unlimited Chapter, Falling Spring Greenway Inc., and the local chapter of the Audubon Society.





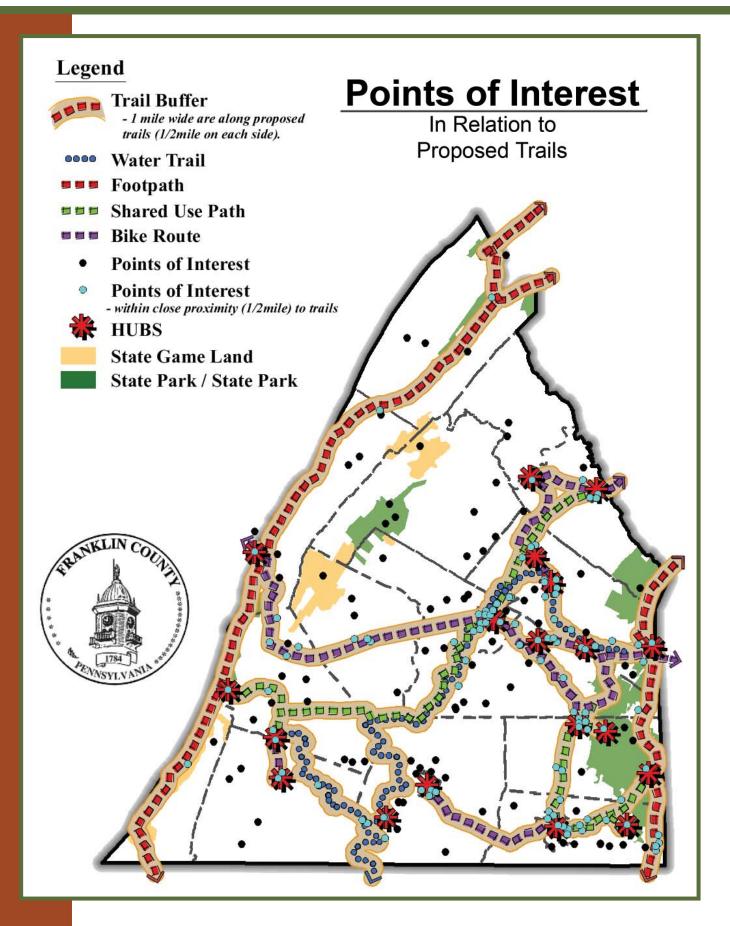


<u>Points of Cultural and Historic Interest and Aesthetic Value</u> (within 1/2-mile of proposed trails)

The following points of interest along the greenway network will provide trail users with opportunities to rest, learn about Franklin County's rich history, enjoy local recreation facilities, or enjoy some of Franklin County's scenic areas. These venues are not the only places of interest in Franklin County, just those that are in close proximity to the proposed trail network (within 1/2-mile). The map on the following page shows proposed trail routes, along with points of cultural and historical interest. Points of interest within 1/2 mile of proposed trails are highlighted in blue.

Proposed Trails in proximity to these points should strive to offer connection to them. Signage directing trail users to these sites and noting their historic, cultural, scenic, or recreational significance should be included in the trail design.

- Penn National Golf Club The two acclaimed golf courses at Penn National are continually voted among the best in the Mid-Atlantic region, and offer several views of South Mountain near Mont Alto. Residents of the associated community represent a large contingent of potential trail users seeking both passive and active recreational activities.
- <u>The Capitol Theatre</u> Renovated in 1996 and located in historic Chambersburg, the Capitol Theatre is home to the performing arts in Franklin County. The 852-seat theatre houses the



Chambersburg Community Theatre and the Chambersburg Ballet Company and hosts a number of performances by the Chambersburg Council for the Arts and the Cumberland Valley School of Music each year.

- <u>Libraries</u> identified along the proposed recreational and transportation greenways include the Fort Loudon Library, St. Thomas Library, Coyle Free Library (Chambersburg), Alexander Hamilton Memorial Library (Waynesboro), Grove Family Library (Guilford Township), and Lilian S. Besore Memorial Library (Greencastle).
- Allison-Antrim Museum Named after John Allison, the Scot-Irish settler who founded Greencastle, and for adjacent Antrim Township, this museum houses photographs, paintings by famed local artists, and other artifacts related to the history of Greencastle and the rest of Franklin County. Exhibits feature historical information on railroads, cultural background of revolutionaryperiod settlers in the Cumberland Valley, local industries and individuals, past-times such as baseball, and backgrounds of historic sites such as Browns Mill and the Enoch Brown House, and local traditions like Old Home Week.
- Other Museums The Orrstown Museum, Waynesboro Industrial Museum, and ATH&L Fire Museum are identified along proposed trail network, and provide stopping points for local historical learning.
- <u>Nitterhouse Memorial Park</u> is an 18-acre privately-managed recreation area along the
 Conococheague Creek just southwest of Chambersburg. Recreational opportunities include
 walking / running trails, soccer fields, informal picnic areas, and fishing access. One historical
 feature located in the park is a rock face bearing scars from Union Soldier target practice that took
 place there during the Civil War. This park offers a stopping place for trail users to rest or enjoy
 recreational facilities.
- <u>Additional Community Parks</u> to be included in the proposed recreational and transportation greenways system includes: Chambersburg Memorial Park, Fayetteville Community Park, and Veterans Memorial Park (Shippensburg).
- <u>Community Centers</u> such as the Marion Community Center, Quincy Community Center, St. Thomas Community Association facility, Fayetteville Athletic Association facility, New Franklin Community Center, and others provide opportunities for trail users to learn about local community events, recreation, and trail development.
- Schools Since students and young people are likely trail users and prime candidates for education on the importance of greenways, proposed greenways should include access to colleges / universities and secondary schools in close proximity to proposed trails. Schools included along the recreational and transportation greenway network for Franklin County include Penn State Mont Alto Campus, Wilson College, the Scotland School for Veteran's Children, Mercersburg Academy, Franklin County Learning Center, and several other elementary, middle, and high school facilities around the county.
- <u>Historic Sites</u> The proposed recreational and transportation greenway network should provide access to sites of local historic significance that are in close proximity to proposed trails. Many



such sites exist in Franklin County. These include, but are not limited to: Corkerhill, the Gass House, Fort Chambers, Townhouse Row and several other sites in Chambersburg, Emmanuel Chapel, John Brown House, Snow Hill Cloister, the Bourn's House, the Old Log House (Waynesboro), Springdale Mills, Old Union Church, the Monterey Historic District, Welsh Run Presbyterian Church, Witherspoon's Bridge, Martin's Mill Covered Bridge, the Angle Farm, and Historic Fort Loudoun, Thaddeus Stevens Iron Works, the Conococheague Institute, and the Mt. Pleasant Iron Works.

- Tayamentasachta Environmental Center This environmental learning facility works closely with the Greencastle-Antrim School District to encourage students and the community at large to learn about the natural world around them and become more ecologically responsible. Interactive programming at the center includes hiking, wildlife observation, backyard composting workshops, and hands-on outdoor experiences. The Center's promotion of a lifestyle in harmony with nature parallels several objectives underlying the development of greenways.
- The Charles Brightbill Environmental Center was named after Charlie Brightbill, an environmental educator, scout leader, and once an active member of the Conococheague Audubon Society. Mr. Brightbill was a founding member of the Tuscarora Wildlife Education Project (TWEP), a non-profit organization dedicated to education about wildlife resources. This Environmental Center is home to TWEP, and promotes environmental education in wildlife, conservation and ecology. The Center is adjacent to James Buchanan High School in Mercersburg and provides opportunities for students and others to learn about the natural world.
- Several other <u>Public Facilities</u> are included in the trails network, as they may offer public learning opportunities on specific topics such as local culture and the environment. These include the Franklin County Farm Complex, the Chambersburg Heritage Center, and the Renfrew Institute for Cultural and Environmental Studies.
- Other points of interest include <u>Swimming Pools</u>, various <u>Private Recreation Facilities</u>, local <u>Golf Course</u>, and <u>Campsites</u>.



Recreation and Transportation Greenway Priorities

Proposed recreation and transportation greenways are prioritized according to their perceived feasibility, potential to spur economic growth, and by the perceived amount of use they will receive. The priorities given to these proposed trail segments should *not* deter development of trail projects along low-priority proposed trail routes if they are proposed before high-priority trails are constructed.



High-Priority Trails:

Segment E is a proposed shared-use trail following the abandoned railroad alignment from Mercersburg eastward to Conococheague Creek, then following the creek northward to Chambersburg, meeting the existing section of rail-trail in the Borough of Chambersburg.
Segment C continues this alignment northward to connect with the existing rail-trail segment in Shippensburg. A portion of the railroad right-of-way between Chambersburg and Shippensburg has not yet been abandoned. If abandonment should occur, the County is encouraged to pursue acquisition of the right-of-way.

Approximate Length: 29 miles in Franklin County before connection with existing rail trail in Shippensburg. Segment C is approximately 10 miles long, Segment E is 19 miles.

Associated Municipalities: Greene, Hamilton, Peters, Southampton, and St. Thomas Townships; Chambersburgh, Mercersburg, and Shippensburg Boroughs.

Segment D is a proposed Seasonal Water Trail along the East Branch of the Conococheague Creek, from headwaters near Caledonia State Park (or from the first point the stream becomes navigable) downstream through Chambersburg, continuing southward past Greencastle into Maryland. This trail should be coordinated with Washington County so that the trail may continue further southward into Maryland. Casual canoeists and kayakers are occasionally seen on this stream, but to date no official trail has been established.





Detailed information on water trails is available via the Pennsylvania Fish & Boat Commission (http://sites.state.pa.us/PA_Exec/Fish_Boat/watertrails/index.htm), and through the Pennsylvania Environmental Council (www.pecwest.org/watertrails.htm).

Approximate Length: 41 miles in Franklin County before extension into Maryland. Associated Municipalities: Antrim, Greene, Guilford, Hamilton, Montgomery, Peters, and St. Thomas Townships; Chambersburg Borough.

The Greenway Plan's only other proposed Seasonal Water Trail is <u>Segment J</u>, which follows the West Branch of the Conococheague Creek from Mercersburg southeast to the confluence with the West Branch just southwest of Martin's Mill Bridge. The addition of water trails has great potential for attracting tourists and related businesses. Canoesists and kayakers also

make casual use of the larger southern portions of this stream, but no official trail has yet been established.



Approximate Length: 10-11 miles Associated Municipalities: Antrim, Montgomery, and Peters Townships; Mercersburg Borough

Medium-Priority Trails:

A proposed connection of the Iron Horse Trail to the Tuscarora Trail near the northeastern county border is represented by <u>Segment A</u>. The existing Iron Horse Trail and Tuscarora Trail are very popular footpaths and this connection will provide a great opportunity for additional access.

Approximate Length: 4 miles
Associated Municipalities: Fannett Township

Segment F represents a proposed bike trail from Norlo Park to the Village of Fayetteville. Trail sections have been built within the park and expansion may promote park use.

Approximate Length: 4 miles
Associated Municipalities: Guilford and Greene Townships

Segment H represents a proposed shared-use trail along an abandoned railroad alignment (near West Branch of Antietam Creek) from Mont Alto south to Waynesboro. This trail would connect



two of the county's population centers and would receive high amounts of use from residents in the rapidly developing countryside nearby. A majority of the railroad right-of-way is undeveloped, and is visible behind local businesses on the western side of State Route 997.

Approximate Length: 8 miles Associated Municipalities: Guilford, Quincy, and Washington Townships; Mont Alto and Waynesboro Boroughs

A proposed on-road bike route from Scotland Village north to Orrstown and eastward to Shippensburg is represented by

<u>Segment B</u>. This route may provide an alternative means of transportation for commuters between these small population centers and nearby Chambersburg. Commuter may welcome this alternative given the rapid growth of surrounding suburban areas and subsequent traffic problems.

Approximate Length: 14 miles
Associated Municipalities: Greene and Southampton Townships; Orrstown and Shippensburg
Boroughs

Low-Priority Trails:

Segment L is a proposed shared-use trail along East Branch of Antietam Creek from Waynesboro

northeast to Appalachian Trail at Old Forge Historic Area, with spur to Pine Hill Park. This path connects one of the county's largest populations centers with the natural areas and historic resources atop of South Mountain, as well as the Appalachian Trail. The Appalachian Trail already has several vehicular access points on South Mountain.

Approximate Length: 8-9 miles (including spur)

Associated Municipalities: Quincy and Washington Townships; Waynesboro

Borough

The proposed on-road bike route known as <u>Segment M</u> follows Township Roads from Greencastle to Waynesboro. This route may offer a safe alternative for commuters between the two Boroughs who currently use State Route 16, as well as a low-traffic route for recreational bicyclists.



Approximate Length: 10 miles

Associated Municipalities: Antrim and Washington Townships; Greencastle and Waynesboro

Boroughs

Segment G represents a proposed shared-use trail from Buchanan's Birthplace State Park to Mercersburg. Although this trail connects historical amenities within the county and would provide further access to the Tuscarora Trail, there is no clear right-of-way for the trail route to follow, and Mercersburg will be connected to other points in the county via other trail connections.

Approximate Length: 6 miles

Associated Municipalities: Peters Township and Mercersburgh Borough

Segment I is a short proposed shared-use trail from Borough of Mont Alto to Mont Alto State Park. Access to the State Park can already be gained easily, and much of South Mountain is accessible via other trail connections or access points.

Approximate Length: 2 miles

Associated Municipalities: Quincy Township and Mont Alto Borough

A proposed on-road bike route linking Mercersburg with Montogmery Township Park is represented by <u>Segment K</u>. This route offers easy access for Mercersburg residents to a large recreational asset near their community.

Approximate Length: 3 miles

Associated Municipalities: Montgomery Township and Mercersburg Borough

Proposed recreation and transportation greenways are depicted on the *Proposed Recreation Greenways Plan* on the next page. All greenways are shown on the *Proposed Greenways Plan* map. This map can be seen on the following page.

A HISTORY LESSON FOR THE AVID BICYCLIST...

In addition to the proposed recreational trails mentioned in this section of the Greenways Plan, trail users should be made aware of the Civil War Trail in Franklin County. The Civil War Trail is not an actual trail, but an informal driving tour between the various historic places in the county. The route, which follows Confederate General McCausland's footsteps in the advance on and burning of Chambersburg on July 30, 1864, is described in further detail in the first section of this report.

It is a recommendation of this plan that signage be implemented along proposed bicycle trails and on-road bike lanes to indicate the existence of nearby historical sites such as those along the Civil War Trail. Bicyclists and vehicles alike could then read the wayfinding signs, which would indicate a direction and distance to a historic feature (see example photos below). When visiting features that are far from the proposed bike trail or lane, bicyclists

> could share the road with vehicular traffic in the event that formal bike lanes to the feature are

not developed.

The addition of such simple wayfinding signage could introduce a new tourism opportunity for bicyclists visiting the county, offer residents a chance to learn about local history, and provide small communities containing historic features with a potential economic benefit.







Insert Proposed Greenways Plan Map

SECTION III - HOW DO WE GET THERE?

MAKING IT HAPPEN: THE ACTION PLAN

A framework for implementation of the Greenways Plan is provided in this section. The concrete strategies presented here can be undertaken by Franklin County, its municipalities, and other public and private organizations in order to put the Greenways Plan into action.

The action plan is organized into several subsections:

- 1) Management Structure;
- 2) Land Conservation Tools;
- 3) Implementation Plan; and
- 4) Potential Funding Sources.

Strong leadership at the county level will be required for the successful implementation of this Greenways and Open Space Plan, as will partnerships with local municipalities and key organizations, both public and private. The proposed network can only be realized if there is commitment at the County <u>and</u> local levels. Greenway and trail corridors are not developed overnight. They are built piece-by-piece, often a parcel at a time. The process can take years, even decades. Greenway connections that can be achieved with few obstacles should be targeted as pilot projects that will build a record of success, thus gaining momentum for remaining portions of the plan. This section offers recommendations that can be used to help bridge the gap between concept and completion.

As Franklin County adopts the Greenways and Open Space Plan as part of its Comprehensive Plan, efforts should be made to implement the plan at a municipal level. The Franklin County Planning Commission will spearhead this effort and will provide guidance and assistance to officials from the County's townships and boroughs in developing municipal or multi-municipal comprehensive plans or other local planning efforts that advance the County's Greenways-oriented objectives.

Municipal planning efforts should refine the recommendations made in this Greenways Plan and recommend adoption of new land use tools in local ordinances that facilitate greenway development. Such tools may include, but are not limited to; adoption of conservation corridor overlay districts, riparian buffer requirements, steep slope restrictions, and developer incentives that encourage the preservation of contiguous open space in new subdivisions. It is also recommended that implementation of the greenways network be achieved through development of multi-municipal greenway plans or feasibility studies. These plans will evaluate the corridors proposed in this Plan in greater detail, including exact trail alignments, land ownership at the parcel level, known obstacles, and proposed solutions.

MANAGEMENT STRUCTURE

No single organization in Franklin County has the capacity or expertise to single-handedly manage the implementation of the Greenways and Open Space Plan. Successful realization of this plan will require a well-organized and collaborative management structure based on partnerships. An effort of this magnitude will require careful coordination and well-defined roles among management partners. The proposed management structure is illustrated in an organizational chart shown in *Figure 1*.

INSERT PROPOSED MANAGEMENT STRUCTURE CHART

Leadership and Coordination

Under this proposed management structure, planning and coordination of implementation functions would be guided by the Franklin County Planning Commission (FCPC). The FCPC, under the direction of the Franklin County Commissioners, would be responsible for policy-making and decision-making regarding the execution of the Greenways Plan recommendations. Efforts will be made to create a full-time staff position charged with the responsibility of planning and coordination of greenways. This Greenways Coordinator would be an employee of the FCPC, working primarily out of their office for easy access to the office's planning resources. Two representatives from the FCPC, along with a Sub-Committee comprised of representatives of partner organizations listed on the *Proposed Management Structure* Chart (see previous page), would meet regularly with the Greenways Coordinator to review the status of implementation efforts and to determine what technical, financial, or other assistance is needed to advance the goals of the Greenways and Open Space Plan. In addition, the Greenways Coordinator would coordinate with neighboring county planning commissions to ensure connectivity and continuity between Franklin County's greenways network and those in the surrounding region.

The Greenways Sub-Cmmittee, governed by the FCPC, would be responsible for ensuring that the goals of the Franklin County Greenways and Open Space Plan are carried forward and reflected in municipal and multi-municipal comprehensive and/or greenways plans. It would oversee the advancement of greenways planning at the municipal level, serving as the main point of contact for local municipalities seeking to plan and implement greenways. This Plan also recommends that the FCPC, via the Greenways Coordinator and Sub-Committee, assume a leadership role in seeking funds necessary for the advancement of municipal greenway plans. This task would require coordination with local municipalities to identify potential funding sources and submit grant applications.

Leadership in providing technical guidance to local municipalities working to establish recreational and transportation greenways would also be provided by the FCPC. Valuable experience in various land use tools will enable the FCPC to assume this role, and planning expertise can be provided by various planning partners, such as DCNR, the Franklin County Conservation District (FCCD), and others. Representatives of these organizations may be included in the Greenways Sub-Committee. All potential partners in the Greenway Plan Management are discussed later in this section and listed on the *Proposed Management Structure* Chart. Where the two types of greenway corridors overlap, both the FCPC and its aforementioned partners would collaborate to assist municipalities and ensure that their objectives do not conflict.

As mentioned earlier in this section, it is recommended that the FCPC explore the possibility of creating a new staff position dedicated to greenways implementation. A Greenways Coordinator would lead the Greenways Sub-Committee, bringing the appropriate agencies and non-profit organizations to the table, and coordinating with municipal officials and providing technical assistance where needed. He or she can act as a "point person," in advancing greenways efforts. Depending on available funding, this position should be a full-time position funded by the FCPC but with access to both FCPC and Conservation District resources.

Planning and Implementation / Maintenance Partners

The County's various municipalities, preferably forming municipal and/or multi-municipal greenway planning committees, would be the primary partners responsible for planning and implementation of greenways.

This plan also recommends that environmental advisory councils (EAC's) consisting of members of existing governing bodies and knowledgeable private conservation groups be organized at the municipal, multi-municipal, or even County level to assist in the planning and implementation of conservation greenways. Municipalities interested in forming and EAC should visit www.eacnetwork.org. Using this website, the Pennsylvania Environmental Council (PEC) offers learning opportunities regarding locations, operations, and successes of EAC's throughout the state.

Similarly, existing municipal or multi-municipal recreation commissions would provide local guidance for recreation and transportation corridors.

Other organizations in Franklin County with expertise valuable to greenways planning would serve as partners for planning and/or implementation and maintenance. The organizational chart in *Figure 1* depicts organizations that possess knowledge and skills pertinent to the establishment of greenways. The Franklin County Visitors Bureau can be a valuable partner in bringing the local business community to the table by promoting the economic and social benefits of greenways tourism.

For conservation greenways, the list of partners that would be beneficial to greenways planning is diverse: Franklin County Conservation District, Pennsylvania Game Commission, Chesapeake Bay Foundation, the Nature Conservancy, and neighboring County Planning Commissions. Several other possible partners would offer assistance in both greenways planning and implementation. These include: Falling Spring Greenway, Inc.; various local watershed organizations; local chapters of Trout Unlimited; and the Conococheague Audubon Society. Potential implementation and/or maintenance partners for conservation greenways planning may be local land trust organizations, colleges and universities, homeowners' associations, as well as the Franklin County Farm Bureau, Pennsylvania Department of Community and Economic Development (DCED), Pennsylvania Department of Agriculture, and others as needed.

Where recreational and transportation greenways are being pursued, recreation commissions from local municipalities and neighboring counties should be brought in as planning partners. Several other organizations, such as Trout Unlimited, PADOT, the Pennsylvania Fish & Boat Commission, and the South Central Chapter of Pennsylvania Rails-to-Trails, may also offer assistance in both planning and implementation of recreational greenways. Potential partners for implementation of trails may include: DCNR, the National Park Service, DCED, Caledonia and Cowan's Gap State Parks, PA Cleanways, the Potomac Appalachian Trail Club, and other various outdoor recreation clubs.

This Plan recommends that local municipalities enlist representatives from these partner organizations to serve on their greenway planning committees or coordinate closely with them. Furthermore, municipalities are encouraged to identify and interface with other partners that have expertise and resources that may aid the advancement of the Plan.

DCNR offers a list of web resources regarding public and private organizations, partnerships, and programs that involve some of the suggested partners for greenways management. This descriptive list includes initiatives focusing on both conservation and recreation interests. For more information, please review the DCNR Greenways Website Resource List included in the appendices of this report. The outlined initiatives and organizations included in the list may provide information on implementation strategies mentioned later in this section.

LAND CONSERVATION TOOLS

A portion of the land proposed for greenway corridors lies on public lands such as State Game Lands or State Forests, and is protected from development. However, the majority of the land proposed for inclusion in the greenways network is privately owned. The property rights of individual landowners will be considered when land conservation tools that may be used to establishing trails or conservation corridors are discussed in this section.

Methods for protecting open space generally fall into two categories: 1) acquisition of property or development rights; and 2) zoning requirements. Many of the mechanisms summarized below are discussed in detail in the publication "Land Use in Pennsylvania: Practices and Tools" released in 2000 by the Department of Community and Economic Development, Governor's Center for Local Government Services.

Acquisition Tools

These tools generally provide permanent protection of land and are preferred when establishing greenways.

Fee Simple Purchase

- O Description: This practice involves the acquisition of land for the purposes of preservation of open space and natural areas. The purchase is usually done by a governmental or public agency or a non-profit land trust organization. Land acquisition can be made at every level of government.
- O Benefits: Acquisition of fee simple title provides a more permanent long-term protection of open space and natural areas than through other methods such as zoning or subdivision requirements. Acquisition by non-profit groups in partnership with communities to protect open space and natural areas imposes minimal or no cost and little administrative burden on local governments.
- o <u>Implementation</u>: Pennsylvania's Department of Conservation and Natural Resources (DCNR) and the Pennsylvania Department of Community and Economic Development (DCED) offer sources of funding to help communities and non-profit groups implement acquisition of open space and natural areas projects.

Option / First Right of Refusal

- <u>Description</u>: A local government may enter into an agreement with a landowner that gives the
 government entity the right to bid on the land before anyone else should the landowners decide
 to sell.
- Benefits: This technique gives the municipality time to assemble funds needed to purchase the property or to reach an agreement with the landowner to protect the land through other means.
- Implementation: The option is negotiated and memorialized in a legal agreement. If the
 property is to be sold, the municipality may, but is not obligated to, submit a bid to the
 landowner.

Conservation Easements

O Description: Under this option, the landowner voluntarily agrees to sell the right to develop his land in certain ways by granting an easement to another entity such as a land trust. The

- landowner retains title to the land and continues to pay taxes on it. The easement may or may not allow the grantee access to the land for certain purposes.
- O Benefits: Acquisition of conservation easements also provides permanent long-term protection of open space and natural areas, but is less costly than fee simple acquisition because the purchaser receives less than full title to the land. Similarly, where the easement is held by a non-profit group, there is little cost or burden on local governments. Moreover, the landowner pays lower real estate taxes on land subject to conservation easements.
- Implementation: Generally, the purchaser pays the landowner the difference between the value of the land that can be fully developed and the value of the land without development potential. The easement is recorded with the deed and "runs with the land," meaning that if the land is sold by the grantor, the land transfers subject to the easement.

Agricultural Conservation Easements

- Description: Agricultural conservation easements are a subset of conservation easements described above. They permanently protect farms from development. Landowners voluntarily sell the rights to develop the farm to a government entity or private conservation organization or land trust. The agency or organization usually pays them the difference between the value of the land for agricultural use, and the value of the land for its "highest and best use" which is generally residential or commercial development.
- Benefits: Conservation easements permanently preserve land for agricultural use. They provide
 a financial benefit to farmers, while allowing conservation of farmland that often provides
 important habitat, aesthetic vistas, and vast groundwater recharge areas. Real estate taxes on
 land subject to conservation easements are lower.
- Implementation: County Agricultural Land Preservation Boards have primary responsibility for developing application procedures. They also establish priority for easement purchases based on a numerical ranking system. The ranking system is modeled upon state regulations that require consideration of soil quality, conservation practices, development pressures in the County, and the location of other permanently preserved farmland and open space.

Forest Land Conservation Easements

- <u>Description</u>: Conservation easements on working forests are a market-driven tool used to
 preserve open space, like those used to protect working farmland. Easements can be used to
 protect forests for present and future economic benefit, simultaneously preserving wildlife
 habitat, protecting watersheds, providing outdoor recreation opportunities, and promoting soil
 conservation.
- <u>Benefits:</u> Again, this tool provides permanent protection of land from development. Since timber is one of the top five sectors in Pennsylvania's economy and its continued availability is dependent upon the existence and preservation of open space and forests, the benefits of such easements are economic as well as environmental. Benefits to landowners include lower property taxes.
- Implementation: Some non-profit organizations such as conservancies and land trusts provide financial support for purchasing easements from landowners; they also accept tax-deductible donations of easements from landowners.
 - The U.S. Forest Service's Forest Legacy Plan (FLP) aids in the identification and protection of environmentally-important forest lands threatened by conversion to non-forest uses. The FLP provides funding to state governments to help purchase easements on private forestland.

Eligible forest lands must be located in a designated Forest Legacy Area and must meet other specific eligibility requirements. The DCNR Bureau of Forestry, in cooperation with the State Forest Stewardship Committee (SFSC), is responsible for implementation of this program in Pennsylvania. For more information, visit www.dcnr.state.pa.us/forestry.

Transfer / Purchase of Development Rights

Description: Transfer of Development Rights (TDRs) is a tool that allows conservation and development to coexist within a municipality or group of municipalities with joint zoning. TDRs permit landowners in areas where conservation is desired to transfer some or all of the development rights associated with their land (sending areas) to areas where growth is desired at densities in excess of that permitted by current zoning (receiving areas). The landowner keeps title to the land and the right to use it, but gives up the right to develop the property for other purposes. The purchaser of the development rights uses them to develop another parcel at great density than would otherwise be permitted. With TDRs, the transfer of rights occurs at the time of development.

Purchase of Development Rights (PDRs) operates in a similar manner. However, with PDRs, an entity buys the rights to develop land from the landowner. The landowner retains the use of the land, and receives tax benefits. The municipality can pass a bond issue to buy the rights and "bank" them. A developer may purchase the development rights from the municipality when ready to develop an area with high density. The municipal bond financing which was entered into to purchase the right is paid off over the years by the purchase of the development rights as development occurs.

- <u>Benefits:</u> The value of each development right is controlled by the open market, not the municipality. TDRs are an equitable option for preserving open space and agricultural lands, by compensating the owner of preserved land, while guiding the growth of development through the allowance of increased density where existing infrastructure can support it.
 - PDRs provide an immediate return to the landowner. They compensate the landowner for reduction in development potential and facilitate the goals of the development district concept. PDRs also streamline the time line for development, since private sales and negotiations for development rights are not necessary to go forward with high density development. It allows the municipality to guide growth since it owns all the development rights.
- o <u>Implementation</u>: In Pennsylvania, TDR programs can only be used to transfer development rights within a single municipality or among municipalities with a joint zoning ordinance. It is up to each municipality implementing TDR to set up a mechanism to accomplish this transfer.

Land Trust Organizations

Description: The regular acquisition of property rights (using several of the conservation tools mentioned previously in this section) for conservation defines an organization as a land trust. Land trusts are non-profit organizations focusing on working cooperatively with landowners and organizing land acquisition projects that benefit both landowner and community.

Land trusts can be private charitable organizations, or in some cases governmental agencies, that vary greatly in size and conservation priorities. They may be staffed entirely by volunteers

concentrating efforts in a small area or municipality, or may be large regional entities staffed by many professionals (i.e. the Central Pennsylvania Conservancy). Some operate public recreation areas or nature preserves, others own no property but hold conservation easements for the protection of natural resources, and others work to acquire land that is to be turned over to governments for public parks or other recreation such as State Game Lands. Some land trusts focus on protection of water resources such as lakes, rivers, and streams. Others may work to preserve scenic views, wildlife habitat, or open space for public recreation; and still others may promote the preservation of productive farmland, forested areas, or hunting grounds. Land trust may even work to promote smart land-use planning, environmental education, or trail development for transportation.

 Benefits: Conservation of open space in Pennsylvania is essential not only to the environment, but to the State's economy. Agriculture, timber production, eco-tourism, hunting, fishing, wildlife observation, and other outdoor recreation are all dependent on preservation and management of Pennsylvania's natural resources, upon which the State's economic success depends.

Nearly 100 land trusts operate in Pennsylvania. Because they are devoted to working directly with landowners, they can dispel any fears that those landowners may have about government "taking" of land. Their efforts can comply with community conservation interests while spelling out benefits to the landowner, thus creating a "win-win" situation.

In addition, land trusts may have considerably more success than municipalities in attracting funding for acquisition projects. A variety of federal, state and local government agencies fund conservation projects. Land trusts sometimes qualify for these government funds. Pennsylvania DCNR supports land trust acquisitions with Keystone Fund and Environmental Stewardship Fund (Growing Greener) grants, which support 50% of the costs of priority acquisitions. Land acquisition projects were a main focus of the Growing Greener grant funding in 2006. Of further interest, the Pennsylvania Land Trust Association (PALTA) also offers a similar program with a newly-increased maximum \$6,000 reimbursement grant for conservation easements on natural areas and also for trail easements. (see www.conserveland.org/ceap).

- Implementation: In order to tap the pool of resources, mainly local residents, that will help to meet Franklin County's conservation needs, County officials may consider one of the following actions:
 - Forming a new land trust organization,
 - Expanding the mission of an existing organization such as a watershed association, or
 - > Coordinating with an existing land trust to expand its interests into Franklin County.

If the county decides to work with an existing land trust in the surrounding region to expand the organization's geographic interests into Franklin County, the conservation priorities of such land trusts must be considered. This will allow the county to gauge the interest a land trust may have in expanding into Franklin County, and help the county to choose a land trust organization that will better advance local conservation interests. Some of the existing land trusts in the Franklin County region are listed in the appendices of this report.

Many of Pennsylvania's land conservation organizations are members of the *Pennsylvania Land Trust Association* (PALTA), whose mission is to increase the quality and pace of land conservation state-wide by strengthening conservation efforts, improving related government

policy, and raising public awareness while building positive relationships between land conservation organizations and other partners.

The most efficient method of forming a land trust is to expand the geographic area of interest of an existing land trust or expand the duties / mission of another organization with conservation interests (i.e. watershed organizations). Revising or re-using the existing corporate structures of such entities is often easier than formation of a new organization. However, such methods will take tremendous efforts to convince existing organizations to expand their operations.

Formation of a new land trust would provide Franklin County officials with the comfort of knowing that the trust's interests are based within County. No sharing of power would be required among the trust's Board of Directors, as members could be appointed by Franklin County officials. According to PALTA, some of the general first steps Franklin County can take in any effort to create a new land trust organization are:

- 1) Incorporating a new <u>non-profit organization</u> (land trust), and setting an <u>official purpose</u> for this entity. The focus of the new land trust may be very general or very specific, according to the conservation interests of County officials.
- 2) Write up <u>by-laws</u> for the land trust, and make decisions on how the <u>board of directors</u> will be elected.
- 3) The County must also choose what <u>degree of independence</u> the land trust will have from County government. Will the land trust be required to gain approval from the County for all acquisitions, or will it be able to act on its own apart from County government?
- 4) A level of <u>funding</u> must be designated. One of the most important things to consider is that resources will be needed to "get the ball rolling" after the creation of the trust. Staffing and/or funding will must be provided. One local related success story is the Allegheny Land Trust (<u>www.alleghenylandtrust.org</u>), who was given initial funding by Allegheny County but now functions as a separate entity.

One publication that may greatly benefit the County in any effort to form a land trust organization is <u>Starting a Land Trust</u> (2000) published by the Land Trust Alliance and available at their online store (<u>www.lta.org/publications/index.html</u>).

Zoning Tools

Regulatory mechanisms can also be useful tools for the establishment of greenways. However, they cannot be relied upon as a means of providing permanent protection of land because they can be amended or even abolished by local officials. Nonetheless, they should be seriously considered when developing a long-term strategic plan for assembling a greenway network.

Open Space Zoning / Conservation by Design

 Description: The purpose of this technique is to preserve a larger amount of land for conservation uses while still allowing full-density development. In contrast to cluster zoning, where the emphasis is more often placed on providing active recreation areas, open space

- zoning is more suited for protecting farmland, woodland habitat, historic sites, and scenic views. Subdivisions are required to dedicate a significant portion of their unconstrained land to permanent open space uses. The open space is typically owned and managed (according to an approved management plan) by a homeowner association. Other possible owners include land trusts, the municipality, or individuals with large "conservancy lots", which are a form of noncommon open space.
- Benefits: This technique, while a regulatory tool, provides a means for permanent protection
 of undeveloped land. It preserves large open spaces while allowing full-density development.
 Ideally, the open space in each new subdivision will ultimately join together to form
 interconnected systems of conservation lands.
- o <u>Implementation</u>: This technique can be implemented through a municipality's zoning ordinance. The number of dwellings permitted is based on the net acreage of buildable land and the underlying density in the zoning district. Easements are then placed in the open space to ensure that it will not be further subdivided or developed. An example of Conservation by Design Zoning is the Antrim Township ordinance found in the appendices of this report.

Overlay Zoning Districts

- O Description: An overlay zoning district applies additional regulations to an underlying zoning district or districts. The restrictions of the overlay district supplement and supersede (where there is a conflict) the provisions of the underlying district. Overlay districts have been used to conserve floodplains and other sensitive natural features.
- Benefits: Overlay zoning allows regulations to be tailored to specific conditions. Administration
 is the same as any zoning district.
- Implementation: An example of a conservation overlay zoning ordinance is offered in the appendices of this report. In general, the provisions of a zoning district must apply uniformly to each class of uses or structures within each district. However, Section 605(2) of the Municipal Planning Code authorizes additional classifications, potentially through the use of overlay zoning, for "regulating, restricting, or prohibiting uses and structures at, along or near ...
 - (ii) Natural and artificial bodies of water, boat docks and related facilities.
 - (iii) Places of relatively steep slope or grade, or the areas of hazardous geological or topographic features....
 - (vi) Places having unique historical, architectural, or patriotic interest or value.
 - (vii) Floodplain areas, architectural areas, sanitary landfills, and other places having a special character or use affecting and affected by their surroundings."

Buffer Zones

- <u>Description</u>: Municipalities may enact regulations requiring that buffers of a prescribed width be established between incompatible uses such as residential and commercial areas or adjacent to sensitive resources such as streams or drinking water supplies. This tool allows the municipality to limit or prohibit development within the buffer area.
- Benefits: Buffers can be used to protect large, linear corridors of valuable resources like stream and river banks. Therefore, they are well-suited for greenway development. They allow municipalities to protect areas of sensitive land without having to shoulder the expense of acquisition.
- o <u>Implementation</u>: Requirements for buffers are enacted as part of a zoning ordinance or subdivision and land development ordinance. Buffer restrictions should be wide enough to protect the resource or shelter the less intensive use. However, care must be taken not to

create buffers that are so wide that they will disproportionately reduce the value of land in the municipality. An amazingly successful example of a buffer zone is Falling Spring Greenway in Guilford Township. Successful implementation of a buffer zone around the Falling Spring Branch, a popular fishery, coupled with several stream restoration projects, saved a threatened natural resource. This ordinance, as well as an illustrated article detailing its success, are available in the appendices of this report.

Agricultural Protection Zoning

- Description: Agricultural Protection Zoning ordinances designate areas where farming is the primary land use, and discourage other land uses in those areas.
- O Benefits: Agricultural Protection Zoning stabilizes the agricultural land base by keeping large tracts of land relatively free of non-farm development. This can reduce the likelihood of conflicts between farmers and their non-farming neighbors. Maintaining a critical mass of agricultural land can ensure that there will be enough farmland to support local agricultural services.
- o <u>Implementation</u>: Agricultural Protection Zoning can be economically viable by coupling it with such tools as Transfer of Development Rights and Purchase of Development Rights.

Although no examples of traditional agricultural protection zoning have been enacted in Franklin County, one related regulation of importance has been developed. Peters Township requires developers of land near farmland to add an Agricultural Nuisance Disclaimer to land development plans. This disclaimer states that residents of land in new subdivisions or land developments to acknowledge that they may be subjected to inconvenience, discomfort, and possibly injury to health or property due to normal and accepted agricultural practices. The disclaimer also states that these residents may be prohibited from filing a nuisance action against farmers owning farms that engage in normal agricultural operations. Normal agricultural operations that may effect residents include, but are not limited to early-morning farm work producing significant odors, dust, fertilizing chemicals, and noise. This bold regulation is an important example to be followed by other municipalities in Franklin County and elsewhere. The aforementioned ordinance is included in this report's appendices.

Mandatory Dedication and Fee-in-Lieu Ordinances

- Description: Municipal officials may require developers to dedicate a portion of the undeveloped land on a development parcel for open space preservation purposes. The amount of open space dedication required is often reflective of the type, amount, and intensity of development to occur on the site.
 - Fees in lieu of dedication may be required of the owner or developer as a substitute for a dedication of land, usually calculated in dollars per lot, and referred to as in-lieu fees or inlieu contributions. These funds can then be used by the municipality to purchase new park or conservation land.
- <u>Benefits</u>: Mandatory dedication ensures that a certain amount of open space will automatically be preserved as a municipality develops. With careful planning by municipal officials, these areas of open space can be aligned to create green corridors. However, many municipalities prefer payment of fees-in-lieu to mandatory dedication because it allows the municipality to aggregate funds from several developments and purchase a single contiguous tract of recreation or conservation land.
- o <u>Implementation</u>: Provisions requiring mandatory dedication and fee-in-lieu can be added to municipal zoning ordinances by amendment. The Municipalities Planning Code requires

that "the land to be dedicated or the fees to be paid shall bear a reasonable relationship to the use of the park or recreational facilities by future inhabitants of the development...". The municipality is also required to expend any fee within three years of payment by the developer. An example mandatory dedication ordinance is found in the appendices of this report.

Other Regulatory Tools

The Official Map

- Description: The Municipalities Planning Code permits municipalities to create an "official map" that designates public or private land for which it has identified a current or future public need. This can be land for roads and other infrastructure as well as open space for conservation and recreation needs. This tool puts landowners and developers on notice about land that the municipality is planning to use for public purposes.
- Benefits: The Official Map is a powerful tool for municipalities planning their open space and recreation needs. The time period allowing the right of first refusal gives a municipality time to assemble funding needed to purchase land or easements.
- O Implementation: The Official Map does not cause a taking of land, but rather allows the municipality to have the right of first refusal to purchase the land or obtain an easement. After one year, the right of first refusal expires and the landowner can sell the property to another interested purchaser. Municipalities wanting to establish an official map should only do so after they have identified the lands needed to serve a public purpose through a comprehensive planning process. Official maps can designate parks, trail corridors, greenways and conservation lands protecting sensitive environmental features such as wetlands and floodplains. However, if lands are to be reserved in an official map, the municipality should have a reasonable prospect of obtaining the funds necessary to purchase the interest.

Agricultural Security Areas

- Description: A landowner or group of landowners, whose parcels together comprise at least 250 acres, may apply to their local government for designation as an Agricultural Security Area (ASA).
- O Benefits: Franklin County boasts an aggressive farm preservation program, and has many ASA's, and is undoubtedly familiar with the benefits offered by the ASA program. Although such benefits promote continuation of farming, which is part of Franklin County's heritage, protection provided by ASA's is not conservation-based. For example, a farm producing runoff that pollutes a nearby stream can attain ASA designation, but that will not change the farm's effects on the stream. Other tools, such as agricultural conservation easements, are more effective for those purposes, which are central to greenways planning.

An example of a more conservation-minded regulatory tool related to agriculture, an agricultural pollution-control ordinance, is found in the appendices of this report.

Agricultural Tax Incentives

- <u>Description</u>: Differential assessment laws direct local governments to assess agricultural land at its value for agriculture, instead of at its full market value, which is generally higher. Differential assessment laws are enacted in the state, and implemented at the local level.
- o <u>Benefits:</u> The programs afford protection to farmers to continue operating an agricultural operation in the face of development, thus helping to ensure the economic viability of

- agriculture. These tax laws align agricultural property taxes with what it actually costs local governments to provide services to the land.
- o <u>Implementation</u>: Landowners must apply to the County Assessment Office.

IMPLEMENTATION PLAN

Within this section of the Greenways Plan, a step-by-step plan for the implementation of the greenways network is explained. The following lists and tables show the sequence of events needed to advance the Franklin County greenway vision expressed in this Plan through to completion of conservation and recreational / transportation corridors. This section explains the implementation process in terms of general objectives and the sequence of specific strategies needed to achieve them, and the parties responsible for undertaking each respective task. Responsible parties will need to seek funding through grants or cost reimbursement programs throughout the process. Lists of funding sources specific to each general objective are provided after the respective tables of related strategies.

Specific recommended strategies are organized into tables according to general objective. Each entry specifies responsible parties, priority, estimated cost and completion date (for keeping track of progress). Tables should be reviewed annually at a minimum to determine which tasks have been accomplished, which should be undertaken next and whether adjustments need to be made.

Prioritization of tasks has been divided into three designations:

- Short-term -- should be accomplished in the first 2 years after official adoption of the Greenways Plan. These strategies will lay the groundwork for the successful implementation of the Plan.
- ➤ "M" Mid-Term -- These strategies should be undertaken in years 3 through 5.
- ➤ "L" Long-Term -- Tasks that are expected to begin after 5 or more years.

Many of the strategies listed in the following tables have little or no cost beyond the administrative costs that will be incurred by the responsible parties. However, where recommended tasks will require an additional expense for implementation, a cost estimate is included. The costs are "ball park" estimates based on similar projects or initiatives. More detailed cost estimates will need to be developed on an individual project-by-project basis through feasibility studies.

It is recommended that the "Status" column of the tables be used to enter beginning and/or completion dates for each task to keep track of progress made toward completion of each general objective.

These implementation strategies described herein are intended to provide guidance to the FCPC along with their planning and implementation / maintenance partners. These tables outline a recommended plan of action. Actual implementation will depend on the fiscal and political climate in any given year or municipality, thus making it imperative that the tables be reviewed on an annual basis. Priorities and strategies would then be modified to reflect what is achievable under the circumstances. Although this section of the Greenways Plan should set lofty goals, it should also respond to fiscal and political realities.

POTENTIAL FUNDING SOURCES

Greenways planning and implementation is expensive and requires a long-term strategic plan that explores a variety of State, Federal, and private resources. Funding programs designed to conserve natural resources, develop recreational trails and create transportation improvements are all potential sources of grants. Most require that local matching funds be allocated toward the project. This section lists current funding sources that may be useful in establishing a greenway network. Because these programs are constantly changing, these lists should be considered a starting point. When seeking grant programs, applicants should check the websites of the funding organizations for an updated listing of grants programs and eligibility requirements.

Further, any funding strategies should leverage local sources as well. Private and non-profit contributors in the local community are an important resource. Moreover, every effort should be made to develop public-private partnerships and seek out in-kind contributions from local businesses and organizations.

Tables of funding sources include lists of the general objectives of the Franklin County Greenways Plan to which each funding source may be significant. In addition, brief descriptions are given of proposed strategies under each general objective that could potentially be funded by the respective funding source in each table. These strategies do *not* represent the only parts of the Greenway Plan that can be funded by each respective funding source. Additional research by the FCPC will be required to determine additional funding sources for proposed implementation strategies.

INSERT FUNDING SOURCE TABLES