

Dauphin County Parks, Recreation, Open Space and Greenways Study

Prepared for:

Dauphin County Parks and Recreation Department
Dauphin County Planning Commission
Tri-County Regional Planning Commission

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Dauphin County Parks, Recreation, Open Space and Greenways Study

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CONTENTS

	<u>PAGE</u>
Executive Summary	vii
Introduction	1-1
Greenway Types and Functions	1-2
Greenway Benefits	1-5
Study Purposes	1-8
Goals and Objectives	1-9
Study Organization	1-9
Study Development	1-10
How To Use The Study	1-11
Current Conditions	2-1
Regional Location	2-1
Population and Development	2-1
Natural Resources	2-5
Waterways and Watersheds	2-5
Floodplains and Wetlands	2-7
Prime Farmland	2-8
Physiography and Geology	2-8
Steep Slopes	2-11
Natural Areas	2-12
Natural Areas Inventory	2-12
Forest Blocks	2-17
Pennsylvania Highlands	2-18
Susquehanna Water Gap	2-18
Susquehanna Greenway	2-19
Migratory Corridors	2-19
Significant Man-Made Features	2-20
Rail Corridors	2-20
Major Utility Rights-Of-Way	2-21
Brownfields	2-21
Mines	2-22
Recreation	2-22
State Sites	2-23
County and Municipal Parks	2-23

Dauphin County Parks, Recreation, Open Space, and Greenways Study

	<u>PAGE</u>
Trails	2-24
Golf Courses	2-24
Significant Private Land Holdings	2-26
Agricultural Easements	2-26
Agricultural Security Areas (ASAs)	2-26
Hershey Trust Lands	2-27
Conservancies	2-27
Historic Features	2-28
Educational and Commercial Facilities	2-30
Schools and Colleges	2-30
Libraries	2-30
Museums	2-31
Municipal Buildings	2-31
Office and Shopping Centers	2-31
Planning Framework	2-31
Summary	2-34
Analysis, Needs, and Opportunities	3-1
Park and Recreation Trends	3-1
Parkland Types and Analysis	3-3
Facilities	3-7
Facility Needs	3-8
Recreation Programs	3-12
Summary	3-13
Parks, Recreation, Open Space, and Greenways System	4-1
Vision for Parks, Recreation, Open Space, and Greenways	4-1
Parks, Greenways, and Open Space System	4-2
Proposed Greenways Concept	4-4
Proposed Open Space Concept	4-8
Greenway Priorities	4-10
Action Program	4-13
Open Space Priorities	4-14
Recommendations	4-14
Land Preservation Techniques	4-20
Costs and Funding	4-25
Dauphin County Roles	4-32

Appendices

A	Summary of Public Meetings	A-1
B	Dauphin County Local Parks Inventory	B-1
C	Trail Design Guidelines	C-1
	Trail Layout	C-1
	Trail Construction	C-3
	Sub-Grade	C-3
	Sub-Base	C-3
	Trail Surface	C-3
	Simple Hiking Trails	C-5
	Crossings	C-5
	At-Grade	C-5
	Above- or Below-Grade Crossings	C-6
	Railroad Crossings	C-6
	Signs for Greenway Trails	C-6
	Identification and Directional Signs	C-7
	Regulatory Signs	C-7
	Warning Signs	C-7
	Educational Signs	C-7
	Support Facilities	C-8
	Access Points, Trailheads, and Parking Facilities	C-8
	Bicycle Parking	C-9
	Benches, Rest Areas, and Receptacles	C-9
	Landscaping	C-10
	Fencing	C-10
	Restrooms	C-11
	Bicycle Routes	C-11
	Shared Roadways	C-11
	Signage	C-12

Tables

2.1	Total Population, 1980–2000	2-1
2.2	Municipal Populations, 1990–2000	2-2
2.3	Population Projections, 2000–2020	2-3
2.4	Stream Water Quality Designations	2-6
2.5	Geologic Eras	2-9
2.6	Bedrock Geology	2-9
2.7	Natural Features of Local Importance	2-13
2.8	Trails in Dauphin County, 2008	2-25

Dauphin County Parks, Recreation, Open Space, and Greenways Study

	<u>PAGE</u>
2.9	Dauphin County Properties Listed on the National Register of Historic Places . . . 2–28
3.1	Parkland Guidelines 3–3
3.2	Dauphin County Parklands, 2000–2020 3–4
3.3	North Planning Section Parklands, 2000–2020 3–5
3.4	Southwest Planning Section Parklands, 2000–2020 3–6
3.5	Southeast Planning Section Parklands, 2000–2020 3–6
3.6	City of Harrisburg Parklands, 2000–2020 3–7
3.7	Recreational Facilities, Dauphin County, 2008 3–8
3.8	Dauphin County Facilities Analysis 3–9
3.9	North Planning Section Facilities Analysis 3–10
3.10	Southwest Planning Section Facilities Analysis 3–10
3.11	Southeast Planning Section Facilities Analysis 3–11
3.12	City of Harrisburg Facilities Analysis 3–11
3.13	Dauphin County Recreation Programs 3–12
4.1	Proposed Dauphin County Greenway Types 4–4
4.2	Greenway Evaluation Criteria Weights 4–11
4.3	Greenway Priorities 4–12
4.4	Action Program 4–15
4.5	Capital Area Greenbelt Budget, 2005 4–26
4.6	Potential Funding Sources 4–28
C.1	Standard Trail Width Recommendations C–2
C.2	Trail Surface Synopsis C–4

Maps

2.1	General Location	following page 2–2
2.2	Development Patterns	following page 2–4
2.3	Waterways and Watersheds	following page 2–6
2.4	Floodplains and Wetlands	following page 2–8
2.5	Prime Agricultural Land	following page 2–8
2.6	Bedrock Geology	following page 2–8
2.7	Steep Slopes	following page 2–10
2.8	Natural Areas	following page 2–12
2.9	Significant Man-Made Features	following page 2–18
2.10	Recreation Sites	following page 2–20
2.11	Significant Private Land Holdings	following page 2–24
2.12	Historic Features	following page 2–24
2.13	Educational and Commerce Facilities	following page 2–26
4.1	Dauphin County Parks and Greenways Concept	following page 4–4
4.2	Dauphin County Open Space Concept	following page 4–4

Figures

1.1	Greenway Types	1-2
A.1	Upper Dauphin Sentinel Article	A-2
A.2	Middletown Press and Journal Announcement	A-3
A.3	Hummelstown Sun Notice	A-3
A.4	Harrisburg Patriot News Notice	A-3
C.1	“Share the Road” Signage	C-12

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EXECUTIVE SUMMARY

Greenway . . . The word is almost a self-description, evoking images of meadows, forests, streams, and wildlife. The word “greenway” is a combination of England’s “greenbelt” and famed New York City architect Frederick Law Olmsted’s “parkway”. In his book, *Greenways for America*, Charles Little defines greenways as:

“1. 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. 2. Any natural or landscaped course for pedestrian or bicycle passage. 3. An open-space connector linking parks, nature reserves, cultural features, or historic sites with each other and with populated areas. 4. Locally, certain strip or linear parks designated as a parkway or greenbelt.”¹

GOAL AND OBJECTIVES

Greenways can range from narrow strips of land only a few feet wide used to connect preserved parcels with a small trail or footpath to large, forested or harvested landscapes thousands of acres in size with limited or no public access. The primary goal of the *Dauphin County Parks, Recreation, Open Space, and Greenways Study* is **to enhance existing and future communities in Dauphin County by preserving and, where appropriate, creating various types of greenways**. The major objectives of the plan that will help to move toward the goal of land conservation are to:

- Preserve and enhance the visual character of Dauphin County’s landscapes.
- Improve the quality of life for residents and the visitor experience for tourists.
- Protect important habitat areas and preserve migration paths for wildlife.
- Create a network of natural and historic features throughout the county that serves as an educational tool for the public.
- Enhance recreational and exercise opportunities in appropriate settings.
- Provide opportunities for nonmotorized transportation links, connections, and pathways in appropriate settings.
- Preserve and enhance historic districts by linking historic sties within the greenway system, not only in Harrisburg, but in small villages and boroughs, such as Linclestown, Hummels-town, and Middletown.

¹ Little, Charles, *Greenways for America*, The Johns Hopkins University Press, Baltimore and London, 1995, p. 1

CURRENT CONDITIONS

The plan begins with a close look at Dauphin County and finds many unique features worthy of preservation. A greenway system is one valuable tool that can help to unify and preserve the land and heritage of Dauphin County in a partnership of both public and private resources. Elements to consider as part of a unified greenway system include:

- **Regional setting** — the county and state capital location along the nationally recognized Susquehanna River
- **Natural features** — the physiography, steep slopes, major landforms, woodlands, natural areas, and water features that comprise the Dauphin County area
- **Man-made features** — roads and rights-of-way for railroads, pipelines, and transmission lines that connect the many other features of the county, in addition to brownfields and mines
- **Parks and recreation sites** — places where people enjoy leisure pursuits, including athletics, picnicking, and education
- **Private land holdings** — the significant land holdings of the Milton Hershey School Trust as well as land conservancies, agricultural easements, and Agricultural Security Areas
- **Cultural and historic sites** — the sites reminiscent of the past, as well as the schools, shopping areas, and other sites that are a part of life today
- **Planning framework** — previous planning efforts that have led to and supported the *Dauphin County Parks, Recreation, Open Space, and Greenways Study*

PARKS AND RECREATION FACILITIES ANALYSIS

The *Dauphin County Parks, Recreation, Open Space, and Greenways Study* includes a complete inventory of all local and county parks and recreation facilities in the county (Appendix B). The analysis compares current parkland acreage and numbers of specific recreation facilities to suggested guidelines from the National Recreation and Park Association (NRPA). Furthermore, the analysis identifies current and future surpluses and deficits of parkland and recreation facilities in each of the four planning sections of the county, as defined in the *2008 Dauphin County Comprehensive Plan*:

Dauphin County Parks, Recreation, Open Space, and Greenways Study

<i>North Planning Area</i>	<i>Southwest Planning Area</i>	<i>Southeast Planning Area</i>	<i>City of Harrisburg</i>
• Berrysburg Bo.	• Millersburg Bo.	• Dauphin Bo.	• Conewago Twp.
• Elizabethville Bo.	• Pillow Bo.	• Highspire Bo.	• Derry Twp.
• Gratz Bo.	• Reed Twp.	• Lower Paxton Twp.	• East Hanover Twp.
• Halifax Bo.	• Upper Paxton Twp.	• Lower Swatara Twp.	• Hummelstown Bo.
• Halifax Twp.	• Washington Twp.	• Middle Paxton Twp.	• Londonderry Twp.
• Jackson Twp.	• Wayne Twp.	• Middletown Bo.	• Royalton Bo.
• Jefferson Twp.	• Wiconisco Twp.	• Paxtang Bo.	• South Hanover Twp.
• Lykens Bo.	• Williams Twp.	• Penbrook Bo.	• West Hanover Twp.
• Lykens Twp.	• Williamstown Bo.	• Rush Twp.	
• Mifflin Twp.		• Steelton Bo.	
		• Susquehanna Twp.	
		• Swatara Twp.	

The plan recognizes the distinction between parks of differing size and function, as follows:

Type	Description	Suggested Acres Per 1,000 Residents
Community Parks	An area of intense recreation activity; has a community-wide service area; typically includes a variety of athletic fields, courts and open informal space area; a "drive-to" site.	5-8
Neighborhood Parks	An area that serves the surrounding neighborhoods with open space and often with facilities such as basketball courts, children's play equipment and picnic tables; Users typically arrive either by car or by walking	1-2
Mini-Parks	A very small open space or tot lot parcel that typically serves an area within a one-quarter mile radius or less; a "walk-to" site	0.25–0.5
Total Suggested Acreage		6.25–10.5

Source: National Recreation and Park Association

The parkland guidelines and analysis suggest that the county parkland situation is currently as follows:²

² Schools can also provide significant community recreation resources and are often considered in analyses of parkland and facility needs. Consideration of school resources depends on the availability of lands and facilities for public use. Dauphin County contains 10 public school districts, each of which has a unique set of policies regarding the use of land and facilities by community groups.

Relationships between the community and school district, and, therefore, the public use of school facilities, vary between districts. Including school resources might skew the demonstrated need for additional lands and facilities and may, in turn, affect future funding needs assessments and grant funding. Therefore, the study committee decided that the most prudent course of action would be to estimate available lands and facilities conservatively by excluding all school resources from the analysis.

Dauphin County Parks, Recreation, Open Space, and Greenways Study

- Community parks: deficit of approximately 150 to 900 acres
- Neighborhood parks: surplus of 119 acres to a deficit of 133 acres, depending on the end of the suggested range used for calculating ³
- Miniparks: deficit of approximately 35 to 98 acres

Using the 2005 population estimate, Dauphin County is 446.5 acres short of meeting the parkland needs of current residents (Table 3.2):

Park Type	2005	2020
Community	- 199.1 acres	- 375.5 acres
Neighborhood	- 145.9 acres	- 176.0 acres
Minipark	- 101.5 acres	- 97.8 acres
Total	- 446.5 acres	- 649.3 acres

The deficit will increase to 588.8 acres in 2020 if no additional parks are provided. The parkland needs vary by planning section, as shown below:

Park Type	Planning Section							
	North (Table 3.3)		Southwest (Table 3.4)		Southeast (Table 3.5)		City of Harrisburg (Table 3.6)	
	2005	2020	2005	2020	2005	2020	2005	2020
Community	+432.5 ac.	+ 421.0 ac.	- 708.2 ac.	- 779.4 ac.	+ 36.9 ac.	+ 4.0 ac.	+39.7 ac.	+ 46.9 ac.
Neighborhood	+ 85.3 ac.	+ 82.4 ac.	- 130.8 ac.	- 148.6 ac.	- 19.2 ac.	- 27.4 ac.	- 81.2 ac.	- 79.4 ac.
Minipark	- 10.0 ac.	- 10.8 ac.	- 52.6 ac.	- 57.0 ac.	- 25.2 ac.	- 27.3 ac.	- 13.7 ac.	- 13.3 ac.

Note: Planning section surpluses (+) and deficits (-) may not total to county surpluses and deficits due to rounding.

The parkland needs analysis compares the current inventory to 2000 census population. Population in Dauphin County is expected to increase in the coming years. Therefore, if no additional parkland is added to address the needs of current and future residents, the identified surpluses will diminish, and the identified deficits will increase.

As with parkland, the study included an analysis of major recreation facilities, again based on suggested guidelines from the National Recreation and Park Association. The guidelines for major facilities in Dauphin County are:

³ Using the midpoint of the range for neighborhood parkland—1.5 acres per thousand population—Dauphin County has a slight deficit of 17 acres (4.6 percent of current neighborhood parkland), based on the 2000 population.

Dauphin County Parks, Recreation, Open Space, and Greenways Study

- Basketball — 1 court per 5,000 residents
- Baseball — 1 field per 5,000 residents
- Baseball (lighted field) — 1 field per 30,000 residents
- Football/Soccer/Lacrosse — 1 field per 5,000 residents
- Softball — 1 field per 5,000 residents
- Swimming Pool — 1 pool per 20,000 residents
- Tennis — 1 court per 2,000 residents

The guidelines suggest that the county has the following surpluses (+) and deficits (-)(Table 3.8):⁴

Facility	2005	2020
Basketball courts	+ 33	+ 31
Baseball fields (unlighted)	- 32	- 35
Baseball fields (lighted)	- 3	- 4
Football/Soccer/Lacrosse fields	- 17	- 19
Softball fields	+ 44	+ 42
Swimming pools	+ 3	+ 3
Tennis courts	- 65	- 71

The recreation facility needs also vary by planning section, as shown below:

Facility	Planning Section							
	North (Table 3.9)		Southwest (Table 3.10)		Southeast (Table 3.11)		City of Harrisburg (Table 3.12)	
	2005	2020	2005	2020	2005	2020	2005	2020
Basketball courts	0	0	+ 23½	+ 21½	+ 4½	+ 3½	+ 4	+ 3
Baseball fields (unlighted)	+ 1	+ 1	- 13	- 15	- 10	- 11	- 10	- 11
Baseball fields (lighted)	- 1	- 1	+ 1	0	- 1	- 1	- 1	- 1
Football/soccer/lacrosse fields	- 1	- 1	- 14	- 16	+ 7	+ 6	- 8	- 9
Softball fields	+ 8	+ 8	+ 18	+ 16	+ 27	+ 26	- 8	- 9
Swimming pools	+ 4	+ 4	- 2	- 2	0	0	+ 2	+ 2
Tennis courts	- 4	- 5	- 29	- 33	- 13	- 15	- 20	- 22

Note: Planning section surpluses and deficits may not total to county surpluses and deficits due to rounding.

⁴ As with parklands, school resources were not included in the analysis (see footnote #2).

DAUPHIN COUNTY PARKS, RECREATION, OPEN SPACE, AND GREENWAYS STUDY

The plan is comprised of a Parks and Greenways Concept, an Open Space Concept, and an action program. The action program provides specific recommendations to implement the concepts as well as tools to help in the county’s land conservation efforts.

PARKS AND GREENWAYS CONCEPT

The proposed Parks and Greenways Concept (Map 4.1) includes three specific types of potential greenways (Table 4.1):

- **Recreational/Cultural greenways** support human activity, provide low-impact recreation opportunities and “quality of life” benefits, such as:
 - Visual relief from development and congestion
 - Environmental education opportunities
 - Linkages for alternative transportation
 - Connections to hubs and nodes, including boroughs, major developments, shopping/employment centers, or points of interest, such as parks and historic sites

Examples of recreational/cultural greenways include the existing Capital Area Greenbelt and Horse-Shoe Trail and the proposed Lykens Valley Rail Trail.

- **Conservation greenways** support ecological or conservation purposes. Conservation greenways are usually undisturbed corridors that protect natural resources and, therefore, fulfill an environmental purpose, such as a habitat, conduit, barrier, or filter. Examples of potential conservation greenways include the Manada Creek Greenway, Fishing Creek Greenway, and Wiconisco Creek Greenway.
- **Multiuse greenways** support both human activity and ecological/conservation purposes. Multiuse greenways typically contain portions that exhibit characteristics of conservation greenways and portions that exhibit characteristics of cultural/recreational greenways. Potential multiuse greenways in Dauphin County include the Appalachian Trail Greenway, the Stony Creek Greenway and Trail, and the Swatara Creek/Union Canal Greenway and Water Trail.

The concept included a priority ranking for potential greenways (Table 4.3). Conservation greenways were ranked separately from recreational/cultural and multiuse greenways because, by definition, conservation greenways provide little or no human access or recreational value. The three highest

ranking recreational/cultural or multiuse greenways (or greenway segments) in the *Dauphin County Parks, Recreation, Open Space, and Greenway* system, in order, are:

1. Susquehanna Greenway and Water Trail from Reed Township to Highspire.
2. Swatara Creek Greenway and Water Trail
3. (tie) Susquehanna Greenway and Water Trail from Northumberland County to Reed Township and
Susquehanna Greenway and Water Trail from Highspire to Lancaster County

Three of the four highest ranking recreational/cultural or multiuse greenways are parts of the Susquehanna Greenway and Water Trail. Other high-ranking recreational/cultural or multiuse greenways include State Bike Route J and the Stony Creek Greenway.

The three highest ranking conservation greenways in the proposed system, in order, are:

- Beaver Creek Greenway
- Paxton Creek Greenway
- Wiconisco Creek Greenway

The Parks and Greenways Concept also includes:

- Selected municipalities that can serve as hubs within the greenway system.
- Current and proposed trails that will become the backbone of a greenway trail network.
- Municipal and county parks, which will become nodes and activity centers within the proposed greenway system.

The Parks and Greenways Concept also recognizes two significant land holdings that will not change in the foreseeable future:

- Fort Indiantown Gap
- Dehart Reservoir

OPEN SPACE CONCEPT

The Open Space Concept (Map 4.2) is centered on lands that are either preserved or in need of significant preservation efforts:

- *State open spaces*, which include state conservation areas and state game lands.
- *Agricultural easements*, which have a permanent conservation easement placed on the land.

- **Conservancy lands**, which are owned and/or controlled by organizations dedicated to land preservation, such as the Manada Conservancy and the Central Pennsylvania Conservancy.
- **Environmentally Sensitive and Natural Areas**, which include floodplains, wetlands, slopes greater than 25 percent, sites from the Dauphin County Natural Areas Inventory, including forest blocks, and Important Bird Areas, as identified by the Audubon Society.

For continuity and to stress the importance of the selected elements, the Open Space Concept also recognizes the existing trails, Fort Indiantown Gap, and Dehart Reservoir.

ACTION PROGRAM

Implementing the *Dauphin County Parks, Recreation, Open Space, and Greenways Study* will take time simply because many of the proposals involve private property. The plan stresses cooperation between many entities interested in greenways: landowners, government agencies, land preservation and recreation organizations, and the general public. The action program contains four sections:

- **Recommendations** — The action program (Table 4.4) includes 47 recommendations divided into five subject areas:
 - Physical Projects
 - Outreach/Education/Information Programs
 - Detailed Planning Projects/Studies
 - Other Potential Projects and Programs
 - Guidelines for Future Actions

Each action includes a priority, in the form of a time frame, and the entity(ies) responsible for fulfilling the recommended action. The list of responsible entities in the action program indicates the breadth and depth of interest in the greenway concept in Dauphin County:

- | | |
|--|---|
| — Capital Area Greenbelt Association | — Harrisburg Area Transportation Study |
| — Conservancies | — Landowners |
| — Dauphin County Commissioners | — Milton Hershey School Trust |
| — Dauphin County Conservation District | — Municipalities |
| — Dauphin County Planning Commission | — PennDOT |
| — Dauphin County Parks and Recreation Department | — Susquehanna Greenways Partnership |
| — “Friends...” groups | — Tri-County Regional Planning Commission |

- **Land Preservation Techniques** — The plan includes information on various land preservation techniques, including many that do not require any public sector involvement:
 - Fee simple acquisition
 - Conservation easements
 - Other easements
 - Purchase and leaseback or resale
 - Donations
 - Land exchange
 - Municipal ordinances
 - Mandatory dedication
 - Open space development
 - Transfer of development rights
 - Official map

- **Costs and Funding** — Examples of costs for greenway projects in other areas and the information on funding for greenways is also included in the implementation section. The information includes a list of state and federal funding programs (Table 4.6).

- **Dauphin County Roles**— The study concludes with a section on the roles Dauphin County should play in the parks, recreation, open space, and greenways system of the county. The study generally recommends that the county continue current roles, as follows:
 - **Parks:** Dauphin County should continue to offer current facilities and, in the future, should focus only on specialized park facilities (including administration, maintenance, and security functions) rather than on athletic fields and courts. Correspondingly, municipal governments, multimunicipal athletic organizations, and private, nonprofit organizations should continue to provide sites oriented to athletic fields, courts, and pools, including administration, maintenance, and security functions.

 - **Recreation:** The county should continue to sponsor and organize events for a countywide audience, focusing on the unique facilities at some locations (e.g., county gardens, Wildwood Park, Fort Hunter Park) or on a specific theme, such as the Jazz Festival.

 - **Open space** — Dauphin County can be an important partner in preserving open space in the county. Many counties and municipalities in Pennsylvania⁵ have floated bonds to support parks, recreation, open space, and greenway functions. Dauphin County could provide funding support for open space, parks, greenways, and other land acquisition projects through a voter-approved bond. If desired, the money from the bond can be leveraged with state matching grants to increase the impact of the land preservation effort.

⁵ County examples include Bucks, Chester, Montgomery, Lehigh, Northampton, and Monroe. The Trust for Public Land database on public funding for land conservation can be found at:

<http://www.conservation Almanac.org/landvote/cgi-bin/nph-landvote.cgi/000000A/https/www.quickbase.com/db/ba72nhu5n?a=q&qid=-1002586>

Dauphin County Parks, Recreation, Open Space, and Greenways Study

The county, through the Tri-County Regional Planning Commission staff, should also provide technical assistance to municipalities regarding land preservation, including aid with ordinance provisions. The county can also work with conservancies to help landowners make the decision to preserve valuable land in the county.

- **Greenways** — The county has prepared the *Dauphin County Parks, Recreation, Open Space, and Greenways Study* to provide a framework for further, more detailed studies at the local level. In addition, county staff should provide guidance to local officials in obtaining and preserving land as part of the county greenway system.

INTRODUCTION

Greenway. . . The word is almost a self-description, evoking images of meadows, forests, streams, and wildlife. The word “greenway” is a combination of England’s “greenbelt” and famed New York City architect Frederick Law Olmsted’s “parkway” and is defined as:

“1. A linear open space established along either a natural corridor, such as a river-front, stream valley, or ridgeline, or overland along a railroad right-of-way converted to recreational use, a canal, scenic road, or other route. 2. Any natural or landscaped course for pedestrian or bicycle passage. 3. An open-space connector linking parks, natural reserves, cultural features, or historic sites with each other and with populated areas. 4. Locally, certain strip or linear parks designated as a parkway or greenbelt.”⁶

As the importance of land conservation increased throughout the United States, the greenway concept grew in popularity. In Dauphin County, important waterways like the Susquehanna River and Fishing Creek expand the concept to include the conservation of waterways.

Greenways also provide an important resource in the county’s park and recreation system. Parks are key activity centers that are often connected within a greenway system.

Open spaces are also critical elements of the county landscape. Open space allows many natural and environmental functions to occur unimpeded by the encroachment of development and also provides visual relief from the built environment.

The *Dauphin County Parks, Recreation, Open Space, and Greenways Study* performs several related functions. The study:

- Reviews background conditions in the county that affect parks, recreation, open space, and greenways.
- Inventories all parkland and recreation facilities in the county.
- Begins to define needs for additional parkland and recreational facilities.
- Defines greenway types within the county.
- Proposes a network of greenways.
- Proposes a network of open space.
- Proposes specific actions to implement the study recommendations.
- Provides information on resources to help with implementation.

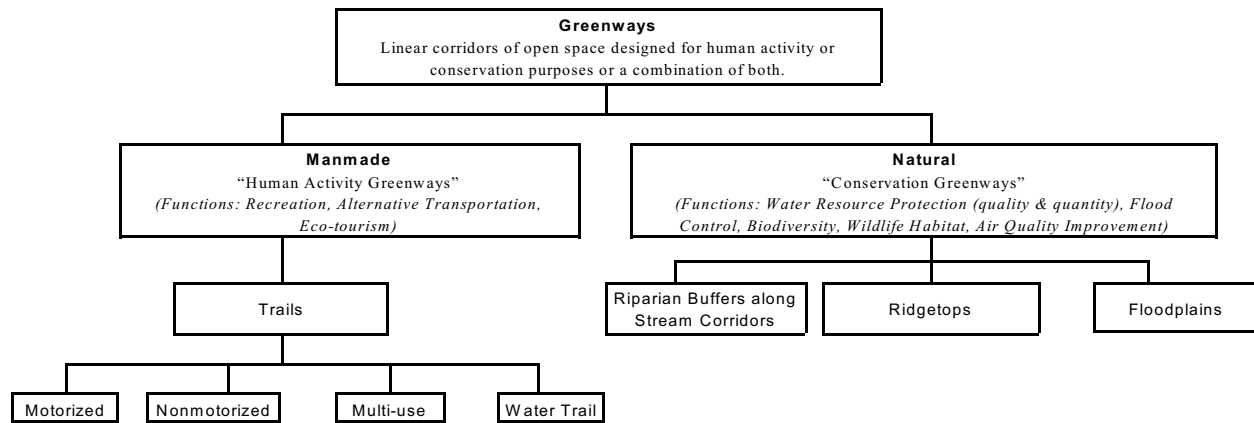
⁶ Little, Charles, *Greenways for America*, The Johns Hopkins University Press, Baltimore and London, 1995, p. 1

GREENWAY TYPES AND FUNCTIONS

Greenways perform many different functions, as identified by the Pennsylvania Department of Conservation and Natural Resources (Figure 1.1). The geography, natural features, and settlement patterns of Dauphin County suggest the need for various types of greenways in different parts of the county.

Greenways also differ by general setting. Five broad categories of settings illustrate different greenway environments:

Figure 1.1
Greenway Types



Source: PA Department of Conservation and Natural Resources (DCNR), available at:
<http://www.pagreenways.org/greenwaysnetworks-types.htm>

- “Supergreenways” — Large-scale greenways that span long distances and often present a common theme; The East Coast Greenway currently under development from Calais, ME to Key West, FL is a prime example of a megagreenway.
- Mega-greenway — The term “mega-greenway” has been created by DCNR to denote large landscapes with a cohesive preservation effort and many partners in a multicounty region. Examples of mega-greenways include the Susquehanna Greenway and the Lehigh Valley Greenway Initiative.
- Rural — Rural greenways often help preserve natural features, such as open meadows, agricultural land, forests, or riparian corridors. Land for rural greenways is often available through Best Management Practices and other land preservation techniques.

Dauphin County Parks, Recreation, Open Space, and Greenways Study

- Suburban — Greenways in a suburban environment often connect residential developments to activity centers, such as schools, parks and recreation areas, employment centers, and downtowns. Suburban greenways can also encourage nonmotorized trips between neighborhoods and provide a pleasant recreational amenity within larger developments.
- Urban — Urban greenways provide pedestrian connections throughout a downtown or heavily developed area. Urban greenways also encompass streetscape improvements (such as trees, plantings, sidewalk widening, and cultural and historical markers) to provide pleasant and educational pedestrian paths for residents and visitors. The City of Harrisburg, the boroughs, and some villages in the county are appropriate locations for urban greenways.

In fact, the characteristics of greenways are so varied as to resist classification, despite attempts to the contrary. Even Charles Little, one of the most knowledgeable and strongest proponents of the greenway concept, acknowledged the difficulty of categorizing greenways. Little observed “...five major project types:

1. *Urban riverside greenways, usually created as part of (or instead of) a redevelopment program along neglected, often run-down city waterfronts.*
2. *Recreational greenways, featuring paths and trails of various kinds, often of relatively long distance, based on natural corridors as well as canals, abandoned railbeds...and other public rights-of-way.*
3. *Ecologically significant natural corridors, usually along rivers and streams and (less often) ridgelines, to provide for wildlife migration and “species interchange,” nature study, and hiking.*
4. *Scenic and historic routes, usually along a road or highway (or, less often, a waterway), the most representative of them making an effort to provide pedestrian access along the route or at least places to alight from the car.*
5. *Comprehensive greenway systems or networks, usually based on natural landforms such as valleys and ridges but sometimes simply an opportunistic assemblage of greenways and open spaces of various kinds to create an alternative municipal or regional green infrastructure.”⁷*

In addition to the different magnitudes of greenways and different environments that greenways create as noted above, differences in land ownership (public vs. private) and other elements often further confuse the greenway concept. Recognizing the many facets of the greenway concept and the need for consistency in definitions, the study committee approved the following definitions for the *Dauphin County Parks, Recreation, Open Space, and Greenways Study* at the meeting of 26 June 2008:

⁷ Ibid., pp. 4–5

Dauphin County Parks, Recreation, Open Space, and Greenways Study

Greenways linear corridors of public and private land that may serve as the linkages between specifically identified natural resource-based or manmade features. They can be either land or water based and serve a variety of functions and benefits including recreation, transportation, community revitalization and economic development, natural resource conservation, environmental protection, wildlife habitat and migration and education. These corridors often follow old railways, canals, ridge tops, rivers and stream valleys ⁸

Greenways Network connected **greenways** as well as **hubs** of specifically identified natural resources or open space and manmade features or destinations that influence the development of the linear greenway corridor ⁹

Hubs “specifically identified features or destinations, either natural resource-based (e.g. protected open space that is unique natural area) or manmade (e.g. school), or a combination of both, that would be linked together by a greenway.” ¹⁰

Open Space “Open space is land or water that is predominately undeveloped and permanently reserved for public or private enjoyment. This can be stream valleys, ridge tops, lakes, woodlands, parks, agriculture land and more. Open space serves many purposes. It provides recreation areas for a wide range of activities such as baseball, skiing, picnicking, soccer, wildlife observation, hiking, and biking. Open space conserves biodiversity and natural resources. Natural areas provide habitat for plants and animals and help purify our air and recharge water by removing pollutants that originate in developed areas. Open space also preserves historic landscapes, scenic quality, community character, and agricultural land.

“Open space often enhances economic value. Property values, though dependent on a variety of factors, do generally rise when located close to clean water, attractive landscapes, recreational areas and parks. Businesses are attracted to areas that provide a high quality of life. This generally means convenient access to natural settings and recreational and cultural opportunities. With the increasing popularity of recreational pursuits, whether natural or cultural, open space areas benefit travel and tourism businesses. By conserving open space and discouraging sprawl development, local agencies can minimize the cost of public services such as water, sewer, trash collection and roads.” ¹¹

⁸ Adapted from Pennsylvania Department of Conservation and Natural Resources (DCNR), *Fact Sheet, County Greenways and Open Space Network Planning*, updated 11 March 03, p. 2

⁹ Ibid.

¹⁰ DCNR, *Fact Sheet, County Greenways and Open Space Network Planning*, updated 11 March 03, p. 2

¹¹ *Dauphin County Comprehensive Plan: Basic Studies and Trends*, Dauphin county Planning Commission, January 2008, p. 9–22

GREENWAY BENEFITS

Interviews, meetings, and other information-gathering activities for the *Dauphin County Parks, Recreation, Open Space, and Greenways Study* identified the following benefits related to greenways in the county, some of which also illustrate the need for greenways as both a recreation element in the county and a vehicle for land preservation.

- *Quality of Life* — The environmental, health, recreational, biodiversity, and other benefits of greenways increase the quality of life in community. Virtually every greenway can provide some measure of benefit to the community, and most greenways provide several such measures.¹²
- *Increased and diversified tourism* — Public-access greenways can be a tourist attraction that can draw visitors from a wide area, depending on the type of greenway and the extent of recreational amenities, such as fish and boat access points, trails, scenic roadway designations, or cultural/historic markers within urban greenways. For example:
 - The Appalachian Trail, which can also be considered a type of greenway, draws hikers from all over the United States. The trail runs from Maine to Georgia, through the middle of Dauphin County.
 - The Lebanon Valley Rail-Trail (www.lvrailtrail.com) in neighboring Lebanon County is dedicated to providing a recreational resource connecting various points of interest in the county, including Lebanon and Cedar Crest High Schools, the Lebanon Expo Center and Fairgrounds, Cornwall Furnace, Governor Dick Recreation Area, and state game lands. The trail extends 12.5 miles from Zinns Mill Road to the Lancaster County line, with a proposed future expansion westward to 8th Street in the City of Lebanon.
 - In York County, the Heritage Rail Trail County Park is a 21.1-mile trail stretching southward from the First Continental Courthouse in York through several boroughs connecting to Maryland's Northern Central Railroad Trail, which extends for 20 miles into the Hunt Valley area near Ashland, MD.

The trail is being extended by approximately 5.0 miles northward from York to John Rudy County Park. The first section of the extension was opened to the public in summer 2007. The York County Rail Trail Authority estimated that 300,000 people use the Heritage Rail Trail County Park in 2004, and usage has reportedly increased from 2004 to the present. Furthermore, a 2007 study found a significant economic impact by trail users.¹³

¹² For more information, the reader is referred to www.pagreenways.org.

¹³ According to *Heritage Rail Trail County Park 2007 User Survey and Economic Impact Analysis* (November 2007), 89.6% of trail users cited trail use as influencing a purchase of hard goods (average cost: \$367.77), and 79.1% of trail users cited trail use as influencing a purchase of soft goods (average cost: \$12.86).

Dauphin County Parks, Recreation, Open Space, and Greenways Study

- The Great Allegheny Passage (www.atatrail.org) is a planned 150-mile system of biking and hiking trails of which 132 miles is completed and continuous from McKeesport, PA to Cumberland, MD. The 150-mile system will connect to the C & O Canal Towpath in Cumberland, creating a continuous, nonmotorized, 318-mile system linking Pittsburgh to Washington, D.C. In July 2007, the Great Allegheny Passage was named the first inductee into the Rails to Trails Conservancy’s Trail Hall of Fame.
- The Pine Creek Trail (www.visittiogapa.com/railtrail.html) is a 60.5-mile trail through the Pine Creek Gorge, commonly referred to as the Grand Canyon of Pennsylvania. The hiking/ biking trail also has a section for equestrians. The trail connects Ansonia (Tioga County) to Waterville (Lycoming County). The rail trail has been voted one of the “10 great places to take a bike tour” by USA Today. In 1968, the Pine Creek Gorge was designated a National Natural Landmark by the National Park Service. The recent *Pine Creek Rail Trail 2006 User Survey and Economic Impact Analysis* shows that trail users spend an average of \$30 per visit on soft goods and \$355 on hard goods, generating annual revenue of \$3–\$5 million for the local economy.
- The East Coast Greenway (ECG, www.greenway.org) is a planned, 2,950-mile trail that is approximately 21 percent complete and will eventually connect all major cities along the East Coast from Calais, ME to Key West, FL.

In some cases, the greenway itself can be a destination—without an extensive trail network and with limited, well-defined public access points—offering opportunities for bird-watching and wildlife-viewing. Greenways might also be the thread used to tie together historic and/or cultural stories in Dauphin county, such as the development of state capital activities in Harrisburg.

- *Recreation-related spending*— Active greenways can also increase recreation-related spending, which can provide a significant boost to the local economy. The *Western Maryland Rail Trail Economic Impact Study* indicated that the mean spending for a WMRT user in 2002 was approximately \$13 per visit. The corresponding mean spending per user in 2006 was approximately \$16 per visit.¹⁴ Closer to Dauphin County, the *Heritage Rail Trail County Park 2001 User Survey and Economic Impact Analysis* (Interactive Marketing Solutions, June 2002) estimates that the average purchase of “soft goods” (e.g., drinks, snacks, lunches) by trail users increased from \$6.74 per trip in 1999 to \$8.33 per trip in 2001.
- *Reduced future flooding potential* — Many greenways are located adjacent to waterways and provide natural areas for overflow in times of flooding, which helps to minimize flood damage. At a time when development proposals are increasing, particularly in the eastern and southern parts of the county, greenways are one tool that developers and local officials can use to reduce the potential for future flood damage.

¹⁴ Urban Research and Development Corporation (URDC), September 2002 (revised December 2002), p. 13, updated 2006

Dauphin County Parks, Recreation, Open Space, and Greenways Study

- *Health benefits* — Public-access greenways provide an environment for people to walk, hike, jog, or bicycle while enjoying the experience of nature or simply a time of solitude and meditative contemplation, all of which contribute to physical and emotional health. Selected greenway segments include fitness equipment along the trail to incorporate into trail use. Studies have shown a direct link between increased use of nonmotorized trails (hiking / biking / walking) and decreased public health expenditures.¹⁵ Other evidence suggests that nature contact enhances emotional, cognitive and values-related development in children.¹⁶
- *Preservation of natural, historic, or scenic features* — Most greenways contain natural, historic, or scenic features that add to the visual character of the community or are a part of the area's history. As development pressure increases, greenways become an attractive use for the land that provides many benefits for current and future residents and helps to preserve valuable community resources on both public and private land.
- *Protection of water resources* — Greenways also help to preserve water resources by providing a vegetation buffer between streams and developed areas. Together with Best Management Practices, greenways help to control and purify stormwater runoff and to reduce soil erosion. Greenways can also help to conserve water supply and enhance water quality. Greenways and associated open spaces also provide recharge areas for groundwater aquifers, which are critical to drinking water supplies, especially in times of drought.
- *Environmental education* — Access to nature through greenways can inspire school classes, nonprofit organizations, and the general public to learn about and care for the environment. Greenways can also provide both basic and advanced research opportunities for plant and wildlife research.
- *Alternative transportation* — In view of the rising cost of gasoline and other fuels, greenways with trails can also provide an alternative form of transportation between activity centers. In areas where greenways and trails have become an established part of the community, bicyclists, walkers, and runners / joggers often use greenway trails to travel between home, work, school, shops, parks, and other destinations, rather than relying on roads and cars.

¹⁵ See, for instance, Wang PhD, Guijing, Macera PhD, Caroline A., Scudder-Soucie MEd, Barbara, Schmid PhD, Tom, Pratt MD, MPH, Michael, and Buchner, MD MPH, David; *Cost-Benefit Analysis of Physical Activity Using Bike / Pedestrian Trails*; Journal; Health Promotion Practice; April 2005 Vol. 6, No. 2, 174–179

¹⁶ Frumkin, Howard (2003). *Healthy Places: Exploring the Evidence*. American Journal of Public Health, 93 (9).

- *Potential increased property value*— Studies have documented the increased property value that comes from being located near or adjacent to parks, open space, and greenways.¹⁷ Greenways provide nearby recreation facilities and a knowledge that land preservation is an important value in the community. No studies have found a negative economic effect of greenways on adjacent property. In the vast majority of cases, proximity to a greenway has a positive economic effect on property value. (In a few rare cases, the greenway will have no effect on property value.)

STUDY PURPOSES

The *Dauphin County Parks, Recreation, Open Space, and Greenways Study* has several important purposes. The study process will result in several tangible products for the county's future use.

- The study provides a vision for greenways and open space in Dauphin County. Building upon the recently adopted county comprehensive plan, the study is a tool for planning activities and lays the foundation for a network of preserved land throughout the county that will provide scenic, aesthetic, recreational, and, in some areas, transportation benefits for county residents.
- The study also serves as Dauphin County's response to the goal of establishing a physical network of greenways throughout the commonwealth, as identified in the state greenway plan.¹⁸
- The study identifies park and open space needs based on recent changes in Dauphin County population. The study includes an inventory of parkland and recreation facilities in the county and an assessment of needs based on Dauphin County's current and forecasted population compared to general standards of usage adjusted for local conditions. Comparing the current inventory to needs identifies current deficiencies or surpluses of parkland and/or recreation facilities in various parts of the county.

¹⁷ See, for example:

- U.S. Department of the Interior, National Park Service, *Economic Impacts of Protecting Rivers, Trails, and Greenway Corridors*, 1995, 4th edition (revised), available at: <http://www.nps.gov/pwro/rtca/econindx.htm>
- Nicholls, Sarah, and Crompton, John L., "The Impact of Greenways on Property Values: Evidence from Austin, Texas", *Journal of Leisure Research*, 3rd Quarter, 2005, available at: http://www.findarticles.com/p/articles/mi_qa3702/is_200507/ai_n14799204
- Nicholls, PhD, Sarah, "Measuring the Impact of Parks on Property Values", National Recreation and Park Association, March 2004, available at: <http://www.nrpa.org/content/default.aspx?documentId=1013>

¹⁸ *Pennsylvania Greenways: An Action Plan for Creating Connections*, available at: www.dcnr.state.pa.us/brc/greenways/.

GOAL AND OBJECTIVES

Greenways can range from narrow strips of land only a few feet wide used to connect preserved parcels with a small trail or footpath to large, forested or harvested landscapes thousands of acres in size with limited or no public access. The primary goal of the *Dauphin County Parks, Recreation, Open Space, and Greenways Study* is **to enhance existing and future communities in Dauphin County by preserving and, where appropriate, creating various types of greenways**. The major objectives of the plan that will help to move toward the goal of land conservation are to:

- Preserve and enhance the visual character of Dauphin County’s landscapes.
- Improve the quality of life for residents and the visitor experience for tourists.
- Protect important habitat areas and preserve migration paths for wildlife.
- Create a network of natural and historic features throughout the county that serves as an educational tool for the public.
- Enhance recreational and exercise opportunities in appropriate settings.
- Provide opportunities for nonmotorized transportation links, connections, and pathways in appropriate settings.

STUDY ORGANIZATION

The *Dauphin County Parks, Recreation, Open Space, and Greenways Study* includes four sections:

- **Introduction** — The introduction lays the foundation for the plan by explaining the concept of greenways, including the types, functions, and benefits of greenways. The introduction also includes information on the organization of the plan as a guide for the reader. The chapter describes the purpose and information included in each section of the plan. The introduction also includes information on the process of developing the plan, including the roles of the Tri-County Regional Planning Commission and the Dauphin County Planning Commission, the consulting team, and the study committee.
- **Current Conditions** — The second chapter presents background information on the following topics regarding Dauphin County:
 - Regional Location
 - Population and Development
 - Natural Resources
 - Natural Areas
 - Significant Man-Made Features
 - Recreation
 - Open Space
 - Significant Historic Sites
 - Significant Cultural Facilities
 - Planning Framework
- **Analysis, Needs, and Opportunities** — The third chapter of the study presents the inventory and analysis of parkland and open spaces in Dauphin County. General guidelines regarding

parkland and recreation facility needs from the National Recreation and Park Association are modified to better reflect local conditions in Dauphin County. The resulting guidelines are applied to the current inventory throughout the county to identify current and future land and facility needs and deficiencies.

- **Dauphin County Greenways System** — The proposed greenway system is presented in chapter 4. The system is composed of various types of greenways presented on a series of maps and described in the chapter.
- **Implementation** — The implementation chapter includes recommendations for actions to fulfill the plan vision presented in the previous chapters. The final chapter of the study also includes information on the following topics to assist in implementation:
 - Recommended actions, including priorities and lead entity(ies)
 - Land preservation techniques
 - Cost estimates for high priority projects
 - Potential funding sources

STUDY DEVELOPMENT

The *Dauphin County Parks, Recreation, Open Space, and Greenway Study* was developed by the Dauphin County Commissioners through the Dauphin County Planning Commission and in cooperation with the Dauphin County Parks and Recreation Department. The county retained the consulting team of Urban Research and Development Corporation (Bethlehem, PA) and Herbert, Rowland, & Grubic (Harrisburg, PA). In addition, the county formed a study committee to meet regularly with the county and consultant, exchange and discuss ideas, monitor progress, and help advise during the planning process.

The steering committee met nine times during the course of the project:

- 9 January 2008
- 21 February 2008
- 27 March 2008
- 22 May 2008
- 26 June 2008
- 24 July 2008
- 28 August 2008
- 9 October 2008
- 12 March 2009

The study committee provided valuable input to the project, including:

Dauphin County Parks, Recreation, Open Space, and Greenways Study

- Resources and research for background information.
- Review of the consultant's findings and documentation.
- Ideas and direction for questions posed by the staff and consultant.
- A forum for discussion throughout the planning process.

The plan also offered a set of public meetings for comment from the general public. Dauphin County is large, and issues vary in different parts of the county. Therefore, each meeting was held in a different part of the county, corresponding to the three general planning areas of the county: North, Southeast, and Southwest. The meetings were conducted on the following dates in the noted locations:

- 13 November 2008, Millersburg Borough (North Planning Section)
- 18 November 2008, Derry Township (Southeast Planning Section)
- 20 November 2008, Swatara Township (Southwest Planning Section)

A summary of information from the public meetings is provided in Appendix A.

HOW TO USE THE STUDY

The *Dauphin County Parks, Recreation, Open Space, and Greenways Study* is useful for elected officials and others interested in identifying potential parks and recreation improvements, preserving open space, and conserving natural resources. Examples of possible uses for the study and subsequent actions by elected and appointed officials are outlined below.

- Review the results of the park inventory and analysis in chapter 3. Use every available opportunity to acquire land and develop parks to meet the needs within each section of the county as identified in chapter 3 and in the action program (chapter 4).
- Review the results of the recreation facility analysis in chapter 3. Use every available opportunity to provide additional facilities to meet the needs identified in chapter 3 and in the action program (chapter 4) for the appropriate section of the county.
- Keep abreast of funding programs and aggressively apply for funding for park and recreation improvements (Table 4.6).
- Consider adopting provisions to the municipal subdivision and land development ordinance (SALDO) that requires developers to set aside usable land for recreation purposes within land developments. Model ordinance provisions developed by the Tri-County Regional Planning Commission can be found at:

http://www.tcrpc-pa.org/text/Tcrpc/Model_SALDO_Ordinance.pdf.

Dauphin County Parks, Recreation, Open Space, and Greenways Study

- Review the open space and greenway priority information in chapter 4. Use every available opportunity to preserve open space from development in both rural and urban settings. Identify open space as part of landscape greenways to preserve valuable viewsheds.
- Consider adopting provisions to the municipal zoning and subdivision and land development ordinances (SALDO) that preserve open space within proposed developments. Promote the Open Space Development Concept. Model ordinance provisions developed by the Tri-County Regional Planning Commission can be found at:
 - http://www.tcrpc-pa.org/text/Tcrpc/Model_Zoning_Ordinance.pdf
 - http://www.tcrpc-pa.org/text/Tcrpc/Model_SALDO_Ordinance.pdf
- Work with landowners, conservancies, the county, and others knowledgeable about the value of open space to consider all options regarding the question of preservation vs. development, including a complete review of the financial and nonfinancial benefits to the landowner. Consider the land preservation techniques found in chapter 4.

CURRENT CONDITIONS

REGIONAL LOCATION

Located within the Mid-Atlantic state of Pennsylvania, Dauphin County (Map 2.1) is centrally located between the American east coast's largest river (the Susquehanna River to the west), largest mountain chain (the Appalachian Mountains in the north), and a large swath of fertile farmland (the Great Valley to the south). The county is situated between two of Pennsylvania's largest cities, Philadelphia and Pittsburgh, which are connected by the PA Turnpike through the southern section of the county. New York City, Washington D.C., and Baltimore are all within driving distance of Dauphin County.

Dauphin County is surrounded by the counties of Lebanon, Schuylkill, Northumberland, Juniata, Perry, Cumberland, York and Lancaster. The county is home to both the state capital of Harrisburg and the Hershey Corporation — a name synonymous with “chocolate” all over the world.

POPULATION AND DEVELOPMENT

Dauphin County consists of 50% of the population within the Tri-County region; a three-county area containing Dauphin, Cumberland and Perry Counties. The largest population centers are located in the southern portions of the county, specifically in the Harrisburg metro area. Dauphin County had an eight percent increase in population from 1980 to 2000, according to the U.S. Census Bureau. The county's population growth was significantly greater than the three percent increase Pennsylvania experienced during the same period..

Table 2.1
Total Population, 1980–2000

Area	1980	1990	2000
Dauphin County	232,317	237,813	251,798
Tri-County Region	447,660	474,242	509,074
Pennsylvania	11,864,904	11,881,643	12,281,054

Sources: U.S. Census
PA State Data Center
County Data Books
Dauphin County Comprehensive Plan (2008)

Dauphin County Parks, Recreation, Open Space, and Greenways Study

The *Dauphin County Comprehensive Plan (2008)* divides the county into four different planning sections: north, southwest, southeast, and the City of Harrisburg. The north planning section, a mountainous and rural area, has the lowest total population of the three sections. The north section had 1.5 percent less population in 2000 than in 1990. The southwest section includes the municipalities around the City of Harrisburg and contains the greatest population of the four planning sections. The southwest section experienced an 11.4 percent increase in population during the 1990s. The southeast section contains concentrations of population, primarily around Hershey in Derry Township and experienced a 10.7 percent increase within the same time period. The City of Harrisburg has the greatest population of any single municipality in the county, but the population of the city declined by 6.5 percent from 1990 to 2000.

**Table 2.2
Municipal Populations 1990 - 2000**

Area	1990	2000	Change 1990-2000	
			Number	Percent
Dauphin County	237,813	251,798	13,985	5.9
NORTH SECTION	26,680	26,272	-408	-1.5
Berrysburg Borough	376	354	-22	-5.9
Elizabethville Borough	1,467	1,344	-123	-8.4
Gratz Borough	696	676	-20	-2.9
Halifax Borough	911	875	-36	-4.0
Halifax Township	3,449	3,329	-120	-3.5
Jackson Township	1,797	1,728	-69	-3.8
Jefferson Township	385	327	-58	-15.1
Lykens Borough	1,986	1,937	-49	-2.5
Lykens Township	1,238	1,095	-143	-11.6
Mifflin Township	676	662	-14	-2.1
Millersburg Borough	2,729	2,562	-167	-6.1
Pillow Borough	341	304	-37	-10.9
Reed Township	259	182	-77	-29.7
Upper Paxton	3,680	3,930	250	6.8
Washington Township	1,816	2,047	231	12.7
Wayne Township	847	1,184	337	39.8
Wiconisco Township	1,372	1,168	-204	-14.9
Williams Township	1,146	1,135	-11	-1.0
Williamstown Borough	1,509	1,433	-76	-5.0
SOUTHEAST SECTION	45,467	50,324	4,857	10.7
Conewago Township	2,832	2,847	15	0.5
Derry Township	18,408	21,273	2,865	15.6
East Hanover Township	4,569	5,322	753	16.5
Hummelstown Borough	3,981	4,360	379	9.5
Londonderry Township	4,926	5,224	298	6.1
South Hanover Township	4,626	4,793	167	3.6
West Hanover Township	6,125	6,505	380	6.2

Dauphin County Parks, Recreation, Open Space, and Greenways Study

Area	1990	2000	Change 1990-2000	
			Number	Percent
SOUTHWEST SECTION	113,290	126,252	12,962	11.4
Dauphin Borough	845	773	-72	-8.5
Highspire Borough	2,668	2,720	52	1.9
Lower Paxton Township	39,162	44,424	5,262	13.4
Lower Swatara Township	7,072	8,149	1,077	15.2
Middle Paxton Township	5,129	4,823	-306	-6.0
Middletown Borough	9,254	9,242	-12	-0.1
Paxtang Borough	1,599	1,570	-29	-1.8
Penbrook Borough	2,791	3,044	253	9.1
Royalton Borough	1,120	963	-157	-14.0
Rush Township	201	180	-21	-10.4
Steelton Borough	5,152	5,858	706	13.7
Susquehanna Township	18,636	21,895	3,259	17.5
Swatara Township	19,661	22,611	2,950	15.0
HARRISBURG CITY	52,376	48,950	-3,426	-6.5

Sources: U.S. Census
Dauphin County Comprehensive Plan (2008)

Dauphin County population is projected to increase by 8.6 percent by the year 2020 (Table 2.3). The Tri-County region is expected to grow 17.5 percent within the same 20-year span. The greatest increase in population is projected to occur in the southeast (13 percent) and the southwest (11 percent) sections of Dauphin County.

Table 2.3
 Population Projections 2000 - 2020

Area	2000	2005	2010	2015	2020	2000-2020 Change	
						Number	Percent
Dauphin County	251,798	259,932	264,379	268,908	273,485	21,687	8.6
Tri-County Region	509,074	548,862	566,976	583,567	598,642	89,568	17.6
NORTH SECTION	26,272	27,130	27,601	28,078	28,562	2,290	8.7
Berrysburg Borough	354	355	356	356	357	3	0.8
Elizabethville Borough	1,344	1,361	1,371	1,381	1,390	46	3.4
Gratz Borough	676	691	699	707	716	40	5.9
Halifax Borough	875	892	902	912	922	47	5.4
Halifax Township	3,329	3,488	3,576	3,664	3,754	425	12.8
Jackson Township	1,728	1,823	1,876	1,929	1,982	254	14.7
Jefferson Township	327	347	358	369	380	53	16.2
Lykens Borough	1,937	1,931	1,927	1,924	1,920	-17	-0.9
Lykens Township	1,095	1,133	1,154	1,176	1,198	103	9.4
Mifflin Township	662	691	707	723	739	77	11.6
Millersburg Borough	2,562	2,585	2,597	2,609	2,622	60	2.3
Pillow Borough	304	308	310	312	315	11	3.6
Reed Township	182	184	185	186	187	5	2.8
Upper Paxton	3,930	4,124	4,230	4,338	4,447	517	13.2

Dauphin County Parks, Recreation, Open Space, and Greenways Study

Area	2000	2005	2010	2015	2020	2000-2020 Change	
						Number	Percent
Washington Township	2,047	2,170	2,237	2,305	2,374	327	16
Wayne Township	1,184	1,278	1,329	1,381	1,434	250	21.1
Wiconisco Township	1,168	1,170	1,171	1,172	1,173	5	0.4
Williams Township	1,135	1,173	1,194	1,216	1,237	102	9
Williamstown Borough	1,433	1,426	1,422	1,418	1,415	-18	-1.3
SOUTHEAST SECTION	50,324	52,796	54,146	55,523	56,913	6,589	13.1
Conewago Township	2,847	3,021	3,116	3,213	3,311	464	16.3
Derry Township	21,273	22,357	22,950	23,554	24,164	2,891	13.6
East Hanover Township	5,322	5,675	5,867	6,064	6,262	940	17.7
Hummelstown Borough	4,360	4,432	4,471	4,511	4,551	191	4.4
Londonderry Township	5,224	5,472	5,608	5,746	5,886	662	12.7
South Hanover Township	4,793	5,030	5,159	5,291	5,424	631	13.2
West Hanover Township	6,505	6,809	6,975	7,144	7,315	810	12.5
SOUTHWEST SECTION	126,252	131,596	134,517	137,493	140,499	14,197	11.2
Dauphin Borough	773	770	769	767	765	-8	-1.0
Highspire Borough	2,720	2,763	2,786	2,810	2,835	115	4.2
Lower Paxton Township	44,424	46,919	48,282	49,672	51,075	6,651	15.0
Lower Swatara Township	8,149	8,594	8,838	9,086	9,337	1,188	14.6
Middle Paxton Township	4,823	5,022	5,131	5,241	5,353	530	11.0
Middletown Borough	9,242	9,401	9,488	9,577	9,666	424	4.6
Paxtang Borough	1,570	1,565	1,563	1,560	1,557	-13	-0.8
Penbrook Borough	3,044	3,090	3,115	3,141	3,167	123	4.0
Royalton Borough	963	983	994	1,005	1,017	54	5.6
Rush Township	180	186	190	193	197	17	9.4
Steelton Borough	5,858	5,784	5,743	5,702	5,660	-198	-3.4
Susquehanna Township	21,895	22,967	23,552	24,149	24,751	2,856	13.0
Swatara Township	22,611	23,552	24,066	24,590	25,119	2,458	10.9
HARRISBURG CITY	48,950	48,410	48,115	47,814	47,511	-1,439	-2.9

Sources: PA State Data Center (projected county totals based on 2000 census) & Tri County Regional Planning Commission; *Dauphin County Comprehensive Plan* (2008)

The Tri-County Regional Planning Commission published the *Regional Growth Management Plan 2020* in July 2004. As a result of population trends, infrastructure location and capacity, and other planning analyses, the plan identifies “community service areas” and “growth areas” in Dauphin County (Map 2.2) where infrastructure improvements should be focused to support current and future population. The community service areas and growth areas can also be the activity centers to be connected by a countywide greenway system.

NATURAL RESOURCES

Natural resources provide the basis for any land preservation effort, and land preservation is one of the primary benefits of a greenway system. Natural resources discussed below include:

- Waterways and watersheds
- Floodplains and Wetlands
- Prime Farmland
- Physiography and Geology
- Steep Slopes

WATERWAYS & WATERSHEDS

A watershed is the natural dispersion of runoff to a central location, such as a stream or river, from higher topographical areas. The Pennsylvania Department of Environmental Protection (DEP) defines a watershed as “land area from which water drains toward a common watercourse in a natural basin.” Since the activities occurring within a watershed are geographically dispersed and affect a multitude of natural resources, environmental regulations are usually created for entire watersheds.

Dauphin County is centrally located along the main stem of the Susquehanna River, the largest watershed on the American east coast. The Susquehanna and its hundreds of tributaries constitute more than 49,000 miles of waterways and drain 27,510 square miles (an area nearly the size of Massachusetts, Vermont, Delaware, and New Jersey combined) spread over parts of New York, Pennsylvania, and Maryland. The Susquehanna River watershed is divided into six subbasins, one of which is the Lower Susquehanna River Subbasin that includes Dauphin County.

The Lower Susquehanna River Subbasin is divided into major watersheds. Dauphin County consists of four major watersheds (Map 2.3):¹⁹

- Mahantango Creek watershed
- Wisconisco Creek watershed
- Susquehanna River watershed
- Swatara Creek watershed

¹⁹ As with many of the maps in the *Dauphin County Parks, Recreation, Open Space, and Greenways Study*, Map 2.3 includes a small area surrounding the county to illustrate context/continuation of information across county lines. Since the Susquehanna River is the western boundary of Dauphin County, the context shown on Map 2.3 includes four watersheds which are completely outside Dauphin County: Conodoguinet Creek, Juniata River, Sherman Creek, and Yellow Breeches Creek.

Dauphin County Parks, Recreation, Open Space, and Greenways Study

Each watershed can be divided further into subwatersheds that include smaller streams and tributaries. The four major watersheds in Dauphin County are divided into 14 smaller subwatersheds:

- Armstrong Creek • Conewago Creek • Manada Creek • Spring Creek
- Beaver Creek • Fishing Creek • Paxton Creek • Spring West Run
- Bow Creek • Gurdy Run • Powell Creek • Stony Creek
- Clarks Creek • Kellock Run

Conditions and components of streams generally are the major components behind preparing greenway plans. The floodplains, hydric soils, wetlands, woodlands and steep slopes that surround streams offer continuous natural green pathways ideal for greenway designation.

Pennsylvania’s water quality standards (Pennsylvania Code, Chapter 93) designate protection categories for streams throughout the commonwealth. Dauphin County waterways (Table 2.4) are identified in one or more of five categories:

- *Cold Water Fisheries* are streams that should be protected as habitat for cold water fish and other fauna and flora indigenous to cold water.
- *High Quality-Cold Water Fisheries* are Cold Water Fisheries with excellent water quality and other environmental attributes.
- *Exceptional Value Waters* are high quality surface waters that satisfy other requirements.
- *Trout Stock Fisheries* are streams that qualify for trout stocking by the state.
- *Warm Water Fisheries* are streams that should be protected as habitat for warm water fish and other flora and fauna which are indigenous to warm water habitats.

**Table 2.4
Stream Water Quality Designations**

Stream	Zone	Designation
Armstrong Creek	Basin, Unnamed Tributary at RM 9.86 to LR 22028 (SR 4001) Bridge	Cold Water Fishery
Armstrong Creek	Basin, LR 22028 Bridge to Mouth	Trout Stock Fishery
Unnamed Tributary to Armstrong Creek at RM 9.86	Basin, Source to SR 1003 Bridge	High Quality - Cold Water Fishery
Unnamed Tributary to Armstrong Creek at RM 9.86	Basin, SR 1003 Bridge to Mouth	Cold Water Fishery
Bear Creek	Basin	Cold Water Fishery
Beaver Creek	Basin	Warm Water Fishery
Clark Creek	Basin	High Quality - Cold Water Fishery
Conewago Creek	Basin	Trout Stock Fishery
Fishing Creek	Basin	Warm Water Fishery
GurdyRun	Basin	Warm Water Fishery
Iron Run	Basin	Warm Water Fishery
Laurel Run	Basin	Warm Water Fishery

Dauphin County Parks, Recreation, Open Space, and Greenways Study

Stream	Zone	Designation
Little Wiconisco Creek	Basin	Warm Water Fishery
Mahantango Creek	Basin, Pine Creek to Mouth	Warm Water Fishery
Manada Creek	Basin, Source to I-81	Cold Water Fishery
Manada Creek	Basin, I-81 to Mouth	Warm Water Fishery
Paxton Creek	Basin	Warm Water Fishery
Powell Creek	Basin, Confluence of North and South Forks to Mouth	Trout Stock Fishery
Powell Creek (North Fork)	Basin, Source to Confluence with South Fork	Cold Water Fishery
Powell Creek (South Fork)	Basin, Source to Confluence with North Fork	Cold Water Fishery
Rattling Creek	Confluence of East and West Branches	Exceptional Value
Rattling Creek	East and West Branches to Mouth	High Quality - Cold Water Fishery
Spring Creek	Basin	Cold Water Fishery
Stony Creek	Basin, Source to Ellendale Dam	High Quality - Cold Water Fishery
Stony Creek	Basin, Ellendale Dam to Mouth	Cold Water Fishery
Susquehanna River	Main Stem, West Branch Susquehanna River to PA-MD State Border	Warm Water Fishery
Unnamed Tributaries to Susquehanna River	Basins, West Branch Susquehanna River to Muddy Run	Warm Water Fishery
Swatara Creek	Main Stem, Proposed Swatara Gap Dam to Mouth	Warm Water Fishery
Unnamed Tributaries to Swatara Creek	Basins, Proposed Swatara Gap Dam to Mouth	Warm Water Fishery
Wiconisco Creek	Main Stem	Warm Water Fishery
Unnamed Tributaries to Wiconisco Creek	Basins, Source to US 209 Bridge at Loyalton	Cold Water Fishery
Unnamed Tributaries to Wiconisco Creek	Basins, US 209 Bridge at Loyalton to Mouth	Warm Water Fishery

Source: Commonwealth of Pennsylvania, Department of Environmental Protection, as shown at:
<http://www.pacode.com/secure/data/025/chapter93/chap93toc.html>

FLOODPLAINS & WETLANDS

Floodplains (Map 2.4) are areas that are inundated in a storm. The Federal Emergency Management Agency (FEMA) identifies floodplains by the theoretical timing of a storm event necessary to inundate the land. The two most common measures are a 100-year floodplain (i.e., the area to be flooded in a storm the strength of which has a 1 in 100 chance of occurring in the current year) and a 500-year floodplain. Acting as a natural barrier, floodplains have environmentally sensitive riparian buffers full of vegetation.

Wetlands (Map 2.4)—the areas that have water present and also exhibit vegetation and soil types that show the characteristics of a permanently or frequently saturated environment—are normally found within floodplains. Marshes, vernal pools, and swamps are types of wetlands found in Dauphin County. As with floodplains, wetlands help control flooding by storing or detaining storm water.

Wetlands provide a diverse ecosystem that is a common habitat for endangered species, such as the bog turtle.

PRIME FARMLAND

Prime farmland is land that has the best combination of conditions for farming and is available for farming.²⁰ In addition to identifying prime farmland, the Natural Resources Conservation Service (NRCS) of the U. S. Department of Agriculture identifies soils of statewide importance for each state. Large areas of prime farmland are located in the northern and southern parts of Dauphin County (Map 2.5²¹). In addition, a large swath of farmland of statewide importance cuts through the middle of the county east of Harrisburg and south of Blue Mountain.

Farmland preservation is an important issue in Dauphin County and throughout Pennsylvania. Many of the farms in the county participate in programs that help to preserve land from development, maintaining the rural character of some portions of the county and allowing farmers to support a lifestyle that has persisted for generations.

Farmland is a critical component of a greenway system. In some cases, a “working farm” can be an educational destination along a greenway. An easement across the land can provide a key connection in a greenway network. Farms can also be part of a conservation greenway, providing vistas for the enjoyment and contemplation of county residents.

PHYSIOGRAPHY & GEOLOGY

Physiographic provinces are large regions, typically including multiple states, that exhibit similar topography and geology. Dauphin County is located in two physiographic provinces: the Ridge and Valley Province and the Piedmont Province. The Ridge and Valley is a linear province that includes the Blue Mountain Ridge and the Great Valley. The Piedmont province in southern Dauphin County—flat with occasional high points—has exceptional areas for farming.

Geology also affects the underlying soils of Dauphin County. Various geologic eras (Table 2.5) are exhibited in the county, during which the geology underlying the county was formed (Table 2.6, Map 2.6). Unique geologic sites are present throughout the Ridge and Valley and Piedmont sections, including the following sites in Dauphin County:²²

²⁰ *National Soil Survey Handbook*, section 622.04, U.S. Department of Agriculture, Natural Resources Conservation Service, available at <http://soils.usda.gov/technical/handbook/contents/part622.html>

²¹ Map 2.5 illustrates the location of prime farmland according to the *Dauphin County Soil Survey*. However, not all areas noted are available for farming because developed land has not been excluded.

²² as presented in the *Dauphin County Park, Recreation and Open Space Plan* (1974)

Dauphin County Parks, Recreation, Open Space, and Greenways Study

**Table 2.5
Geologic Eras**

Period	Age	Explanation
Cambrian Period	490 - 570 mil.	Limestone, dolomite, and sandstone (<i>slate, limestone, zinc, clay</i>)
Ordovician Period	443 - 490 mil.	Shale, Limestone, dolomite, and sandstone (<i>slate, limestone, zinc, clay</i>)
Silurian Period	417 - 443 mil.	Red & gray sandstone, conglomerate, shale, and limestone (<i>lime, building stone</i>)
Devonian Period	354 - 417 mil.	Red sandstone, gray shale, black shale, limestone, and chert (<i>Flagstone, silica sand, clay, lime</i>)
Mississippian Period	323 - 354 mil.	Red and gray sandstone, shale, and limestone (<i>flagstone, limestone, clay</i>)
Pennsylvanian Period	290 - 323 mil.	Cyclic sequences of sandstone, red and gray shale, conglomerate, clay, coal, and limestone (<i>coal, clay, lime, building stone</i>)

Source: Pennsylvania Department of Conservation and Natural Resources (DCNR)

**Table 2.6
Bedrock Geology**

Symbol (Map 2.6)	Bedrock Geology Name	Age	Symbol (Map 2.6)	Bedrock Geology Name	Age
Ca	Antietam Formation	Cambrian	Oh	Hamburg sequence rocks	Ordovician
Cbs	Buffalo Springs Formation	Cambrian	Ohg	Graywacke of Hamburg sequence	Ordovician
Ce	Elbrook Formation	Cambrian	Ohl	Limestone of Hamburg sequence	Ordovician
Ch	Harpers Formation	Cambrian	Ohm	Hershey and Myerstown Formations, undivided	Ordovician
Chm	Montalto Member of Harpers Formation	Cambrian	Oj	Juniata Formation	Ordovician
Cms	Millbach and Schaefferstown Formations, undivided	Cambrian	Ojb	Juniata and Bald Eagle Formations, undivided	Ordovician
Cr	Richland Formation	Cambrian	Om	Martinsburg Formation	Ordovician
Csc	Snitz Creek Formation	Cambrian	Omg	Graywacke and shale of Martinsburg Formation	Ordovician
Csg	Shadygrove Formation	Cambrian	Oml	Limestone of Martinsburg Formation	Ordovician
Ct	Tomstown Formation	Cambrian	Oo	Ontelaunee Formation	Ordovician
Cwb	Waynesboro Formation	Cambrian	Ops	Pinesburg Station Formation	Ordovician
Cwl	Weverton and Loudoun Formations, undivided	Cambrian	Ori	Rickenbach Formation	Ordovician
Cz	Zullinger Formation	Cambrian	Orr	Rockdale Run Formation	Ordovician
DSkt	Keyser and Tonoloway Formations, undivided	Devonian, Silurian	Os	Stonehenge Formation	Ordovician

Dauphin County Parks, Recreation, Open Space, and Greenways Study

Symbol (Map 2.6)	Bedrock Geology Name	Age	Symbol (Map 2.6)	Bedrock Geology Name	Age
Dccf	Clarks Ferry Member of Catskill Formation	Devonian	Osp	St. Paul Group	Ordovician
Dcd	Duncannon Member of Catskill Formation	Devonian	Pl	Llewellyn Formation	Pennsylvanian
Dciv	Irish Valley Member of Catskill Formation	Devonian	Pp	Pottsville Formation	Pennsylvanian
Dsc	Sherman Creek Member of Catskill Formation	Devonian	Sb	Bloomsburg Formation	Silurian
Dh	Hamilton Group	Devonian	Sbm	Bloomsburg and Mifflintown Formations, undivided	Silurian
Doo	Onondaga and Old Port Formations, undivided	Devonian	Sc	Clinton Group	Silurian
Dtr	Trimmers Rock Formation	Devonian	St	Tuscarora Formation	Silurian
Jd	Diabase	Jurassic	Swc	Wills Creek Formation	Silurian
mb	Metabasalt	Precambrian	Trfl	Limestone fanglomerate	Triassic
MDsk	Spechty Kopf Formation	Mississippian Devonian	Trfq	Quartz fanglomerate	Triassic
Mmc	Mauch Chunk Formation	Mississippian	Trg	Gettysburg Formation	Triassic
Mp	Pocono Formation	Mississippian	Trgc	Gettysburg conglomerate	Triassic
mr	Metarhyolite	Precambrian	Trh	Hammer Creek Formation	Triassic
Oan	Annville Formation	Ordovician	Trhc	Hammer Creek conglomerate	Triassic
Oc	Chambersburg Formation	Ordovician	Trn	New Oxford Formation	Triassic
Oe	Epler Formation	Ordovician	vs	Greenstone schist	Precambrian

Source: DCNR

- *Devils Race Course* — Unique to Dauphin County, this glacial boulder field is not generally viewed by geologists as comparable to those found in Monroe and Berks Counties. However, it is of interest to the general public and offers visual amenities.
- *Rockville Fossil Locality* — Well known by local geologists, the Rockville Fossil Locality contains fossils typical of the Middle Devonian Age. Consisting of several quarries, the locality has rock exposures estimated to be in excess of 300 million years old. While some fossils may be found in all of the quarries, the northern quarry is of most value to collectors.
- *Susquehanna Water Gap* — Recognized as a significant natural landmark, the area of five water gaps along the Susquehanna River north of Harrisburg presents a magnificent view. The gaps accent the history of geological events which produced the existing water gaps.

Dauphin County Parks, Recreation, Open Space, and Greenways Study

- *Manada Gap* — Formed during the glacial period, Manada Gap provides a picturesque division of the Blue Mountain Chain. The gap serves as a classical exhibit of mountain fold development and long periods of erosion, affecting various rock formations and ridges.
- *Indian Echo Caverns* — Indian Echo has long been recognized as an outstanding example of cave development with many unique features. Stalagmites and stalagmites are found in abundance along with coating on the cavern walls, and “flows” over irregularities such as broken pieces of rock.
- *Annville High-Calcium* — High calcium limestone such as that found at this site is considered very rare in the United States. Limestone of this quality is in demand for steel production. Fortunately, this site has been retained in reserve under private ownership.
- *Highspire Gravel Pits* — Originally mined for gravel and sand, these pits contain exposed glacial gravels. Rocks found within the pits have been matched with those of the “Canadian Shield” and typify rock movement during various glacial periods.

STEEP SLOPES

Vegetation of steep slopes is crucial in controlling erosion, slowing storm water runoff, and preserving viewsheds. Steep slopes are frequently unsuited for either agriculture or development. Towns such as Millersburg, Elizabethville, Gratz, Berrysburg, Lykens, Halifax, and Williamstown evolved in the flatter, more accessible stretches of land.²³

Slopes of 15 to 25 percent occur as lower, rolling hills where development should be viewed with caution. The areas tend to be closely related to streams in drainage areas. Steeper slopes designated as 25% and higher are mountainous areas that are generally considered unsuitable for development and should remain as open space. Development restrictions are often placed on land with the slopes above 25 percent.

Steep slopes in Dauphin County are found in two major concentrations: along the mountainous terrain in the north-central part of the county and along stream and river corridors (Map 2.7). The inclines of the Ridge and Valley Province have the highest concentration of steep slopes.

²³ Dauphin County Planning Commission, 2008. *Dauphin County Comprehensive Plan: Basic Studies & Trends*. p.3-11

NATURAL AREAS

Natural areas are specifically identified for special characteristics, such as a unique plant or animal habitat or an important waterway or mountain. Some natural areas can add to the enjoyment of the greenway experience while others should be avoided to preserve potentially endangered species. Natural areas in Dauphin County include:

- Areas identified in the *Natural Areas Inventory for Dauphin County, Pennsylvania* (The Nature Conservancy, 1999)
- Pennsylvania Highlands
- Susquehanna Water Gap
- Migratory corridors

NATURAL AREAS INVENTORY

The Natural Areas Inventory (NAI, sometimes referred to as the Natural Heritage Inventory, or NHI) identifies national, statewide, and locally important rare, threatened, and endangered species of plants and animals within Dauphin, Cumberland, and Perry Counties. The inventory also includes inherently unique natural features (Map 2.8). Sites of statewide significance are the most critical to biodiversity in the future and are labeled “top priority”. Dauphin County has eight “top priority” sites:²⁴

- *Peters Mountain Wetland* — A headwaters swamp, drained by tributaries of Powell Creek which flow out both east and west. It supports five plant species of special concern. The site is primarily used for hunting and does not appear to have any unnatural threats.
- *Doc Smith Run Woods / BearPuddles* — A poor to fair quality of federally and PA-Endangered plant species occurs in a Bear Puddles series of shallow woodland pools (Bear Puddles) at the headwaters of Doc Smith Run. This site occurs within State Game Lands #210 and Weiser State Forest.
- *Fort Indiantown Gap* — A valley located between Blue Mountain and Second Mountain on both sides of the Dauphin/Lebanon County line. Historically, parts of the valley were kept open by wildfires and other disturbance. Populations of two rare animal species occur together in these open habitats in the Dauphin County portion of the site. The Nature Conservancy is working with Fort Indiantown Gap to assess how future military operations might coexist with and facilitate the survival of the rare species at this site.

²⁴ Map 2.8 illustrates general areas in which sites identified in the Natural Areas Inventory are located. Specific locations are not shown in order to help preserve the integrity of the site and the associated feature.

Dauphin County Parks, Recreation, Open Space, and Greenways Study

- *Stoney Mountain Ponds* — Includes 12 ponds which occur in a high valley between Stoney Mountain and Sharp Mountain. A PA-Endangered plant species occurs in open habitat in several of the ponds. The woods surrounding the ponds have been logged. The wooded buffer between the pools and the mowed area to the south should be maintained. The site occurs on State Game Lands #211.
- *Rattling Creek Watershed* — Animal and plant species (threatened and of concern) are found in the forests adjacent to Rattling Creek and its small tributary streams. This is Dauphin County’s only exceptional value watershed.
- *Wiconisco Creek Outcrops* — Consists of a series of calcareous shale and limestone outcrops along Wiconisco Creek below Elizabethville. A PA-Threatened plant species occurs on seven separate outcrops.
- *Mahantango Mountain Slopes* — Supports a fair to good quality Mesic Central Forest Natural community and a fair to good quality Northern Appalachian Acidic Cliff Natural Community. Both are mature and relatively undisturbed.
- *Susquehanna River Islands* — Consists of a number of islands along the Susquehanna River in Harrisburg. Fair to good quality populations of three state listed species of wading birds. The importance of preserving the islands is underscored by the lack of alternative habitat along the highly developed Susquehanna River shoreline.

In addition to the eight top priority areas, the county also has locally significant natural features (Table 2.7). Sites of local significance are unique areas chosen because of size, diversity of wildlife and plant life, water quality protection, and recreation potential.

**Table 2.7
Natural Features of Local Importance**

Site Name	Municipality	Description
Ellendale Forge Site	Middle Paxton Twp.	Consists of the forested crest and steep upper slopes of a south facing section of Third Mountain. Located in State Game Lands #211, it supports a good quality population of a PA-Endangered animal species.
Camp Hebron Swamp	Halifax Twp.	An approximately five-acre swamp located at the headwaters of a tributary to Powell Creek. A fair-to-good quality population of a PA-Rare shrub species is found growing in dense thickets.
State Game Lands #290	Reed Twp.	An island in the Susquehanna River located in State Game Lands #290. A Federally-Threatened, PA-Endangered animal species has been breeding at this site since 1991.
Second Mountain Cliffs	Middle Paxton Twp.	An extremely steep southwest-facing slope. Located partly in State Game Lands #211. It supports an Acidic Cliff Natural Community and a population of PA-Threatened animal species.

Dauphin County Parks, Recreation, Open Space, and Greenways Study

Site Name	Municipality	Description
Hummelstown Limestone Bluff	Hummelstown Borough	Series of small north facing limestone bluffs with rich flora and animal species. It supports a fair quality population of a PA-Threatened plant species.
Bear Swamp	Wisconisco Twp.	Includes wetlands and riparian areas along a two-mile stretch of Bear Creek in Valley between Bear Mountain and Big Lick Mountain. The site supports two PA-Rare plant species. Located entirely within State Game Lands #264, this site will benefit from being allowed to recover from mining activities without further manipulation.
Williamstown Woods / Wisconisco Creek Floodplain	Jackson Twp.	Consists of a 3.5 mile rectangular block situated on the lower north slope of Berry Mountain and the adjacent floodplain of Wiconisco Creek between Wisconisco and Tower City. Three plant species of concern occur at this site. Most of the site is within the Weiser State Forest.
Berry Mountain Woods	Halifax Twp.	Consists of a portion of the lower slopes of Berry Mountain along Wisconisco Creek. A good quality population of a PA-Rare plant species occurs at several locations within the site. Additional surveys, particular of the steeper slopes and ravines, are needed to determine the full extent of the population.
State Game Lands #258	Upper Paxton Twp.	Consists of an archipelago of islands in the Susquehanna River near the Dauphin/ Northumberland County line. A PA-Endangered vertebrate species is on Crafts Island, the largest forest island in the group. It is dependent upon maintaining the fish populations and water quality of the Susquehanna River.
Oakdale Station Woods	Washington Twp.	A north-facing ravine. A PA-Rare shrub specimen is in the understory of the site. The site has been disturbed by logging, a railroad grade, and small dams in the past. Severe logging or browsing are potential threats.
Clark Creek	Middle Paxton Twp.	Wooded site consists of two small pools along a blocked streamlet at the base of Third Mountain. A fair to good population of a PA-Endangered plant species was discovered in 1997.
Sharp Mountain	Middle Paxton Twp.	Consists of a steep south-facing forested upper slope. It supports a population of a PA-Threatened animal species. Located in State Game Lands #211.
Wildwood Lake	Susquehanna Twp.	The lake and adjacent marshes support two plant species of special concern. Entirely within Wildwood Lake County Park.
Smoke Hole Run	Jefferson Twp.	A clear, sandy-bottomed stream which flows south from Broad Mountain. A particular species occurs along the stream.
Swatara Creek Woods	Lower Swatara Twp.	A forested site along the Swatara Creek that supports a rich diversity of herbaceous species, including two species of special concern.
Cummings Swamp	Upper Paxton Twp.	Consists of a swampy forest on the floodplain of the Susquehanna River which supports a good quality population of a plant species of special concern.
Mahantango Creek Outcrops	Upper Paxton Twp.	Consists of two shale cliffs. A good quality population of a PA-Threatened species occurs at this site. The woods above and across the creek from the cliffs should be preserved.
Conewago Creek at Koser Run	Conewago Twp.	An aquatic animal species of concern was found in this portion of Conewago Creek, located in the Dauphin and Lancaster County lines. It supports one animal species of special concern that is sensitive to pollution and excessive sedimentation.

Dauphin County Parks, Recreation, Open Space, and Greenways Study

Site Name	Municipality	Description
Deep Hollow	Jackson Twp.	A forested north-facing drainage located within Haldeman State Forest. A poor to fair quality population of a PA-Rare shrub species is found at this site. Over-browsing by deer is a potential threat to the site.
Clark Creek Wetlands	Middle Paxton Twp.	A small, damp to seepy, sandy opening on the roadbank / woods border interface along PA Route 325 in State Game Lands #211. Marginal and poor populations of two PA-Threatened plant species. The viability of this habitat is largely dependent on maintaining roadside clearing operations to benefit the species of concern.
Stony Creek-White Springs	Middle Paxton Twp.	Located along the narrow forested floodplain of Stony Creek. A small population of a PA-Rare plant species grows in and adjacent to the sandy bottom of one of these channels. Within State Game Lands #211.
Stony Mountain	East Hanover Twp.	Consists of the steep forested slope of a south-facing mountain. Supports a population of a PA-Threatened animal species. Located in State Game Lands #211.
Susquehanna River at Fort Hunter	Middle Paxton Twp.	Site is located in the Susquehanna River and supports two animal species of special concern that are sensitive to water pollution and excessive siltation.
Susquehanna River at Independence Island	City of Harrisburg	Portion of the Susquehanna River within the City of Harrisburg. Increasing the height of the Dock Street Dam would expand the impounded area and may eliminate the species of concern at this site. Pollution or other changes in water quality are also threats.
Indian Echo Caverns	Derry Twp.	A commercially operated cave with one large room and two passages. A fair quality population of a globally rare animal species is in the room.
Swatara Creek at Fiddler's Elbow	Lower Swatara and Derry Townships	An approximately one-mile section of Swatara Creek below Hummelstown with a fair to good quality population of a particular freshwater mussel. Threats to these populations, as well as to other common species that occupy Swatara Creek, include thermal and chemical pollution, impoundment, and excessive sedimentation.
Iron Run Dam Site	Londonderry Twp.	A fair to poor quality of a PA-Rare plant species of concern occurs at this site on the shoreline of an artificial lake in the Susan Cole Natural Area. The lake is used as a water source for Middletown Borough.
Roundtop Thicket	Londonderry Twp.	Situated on a power line right-of-way in State Game Lands #242 in the Iron Run drainage, it supports a poor population of a plant species of special concern having a suggested state status of endangered.
Royalton Rivershore	Londonderry Twp.	A disturbed site just below a small rapids on the east shore of the Susquehanna River has a poor quality population of a plant species of concern. The species requires disturbance.
Swatara Creek Royalton	Londonderry Twp.	This site supports two invertebrate animal species of special concern. The species are sensitive to degradations in water quality.
Susquehanna River at State Game Lands #258	Upper Paxton Twp.	Consists of an archipelago of islands in the Susquehanna River near the Dauphin/Northumberland County line. Three animal species of concern exist. A PA-Endangered animal species was found in Craft's Island, the most southern of the large islands.
Susquehanna River at Millersburg	Upper Paxton Twp.	There are two animal species of special concern in the water at the confluence of Wisconisco Creek and the Susquehanna River. These species are sensitive to pollution and excessive siltation.
Susquehanna River at Montgomery Ferry	Halifax Twp.	Portion of the Susquehanna River just upstream of the confluence of the Susquehanna River and Bucks Run. Two animal species of concern have been found here. Threats to these populations as well as to other common species that occupy this stretch of the river, include thermal and chemical pollution, impoundment, and excessive sedimentation.

Dauphin County Parks, Recreation, Open Space, and Greenways Study

Site Name	Municipality	Description
Hill Island Rapids	Londonderry Twp.	Located on the west side of Hill Island and consists of a rock outcrop river shore. A fair to good quality population of a PA-Endangered plant species exists. This population is vulnerable to impoundment of the river on this otherwise free flowing stretch of water.
Susquehanna River Islands at Steelton	City of Harrisburg and Steelton Borough	An area of islands and associated small rapids and riffles in the Susquehanna River south of the Dock Street Dam. There are two animal species of concern which are subject to the threats of degradation of water quality and flow.
Conewago Falls	Londonderry Twp, Lancaster & York Cos.	The exposed bedrock and isolated pools of the lower portion of the Susquehanna River in Dauphin County are characteristic of a Riverside Outcrop Natural Community. Four plant species of concern are adapted to these disturbances and thrive in this location. There are numerous examples of disturbances along this stretch of the river including a railroad, a gravel road and a boat launch ramp, power line crossings, garbage dumping, and weedy exotic species of plants.
Conewago Creek at T300 Covered Bridge	Londonderry Twp & York Co.	Surveys in 1995 yielded a G3G4 aquatic animal species of concern in the creek. Threats to this species include siltation of the creek from erosional runoff and degradation of the water quality from a nearby chicken farm.
Susquehanna River at Middletown	Londonderry, Swatara, Lower Swatara Twps., Middletown Boro. & York Co.	A nesting pair of Bald Eagles was documented along this stretch of the Susquehanna River in 2001. Threats for this area include many disturbances along the river shore, such as roads, railroads, lack of a forested buffer, point and non-point sources of pollution, exotic species of plants and commercial, industrial and residential development.
Harrisburg Site	City of Harrisburg	The PA-Endangered Peregrine Falcon has been found at this site in downtown Harrisburg. Each year a nesting pair uses the Rachel Carson Building located on Market Street and in the past have successfully reproduced. Possible threats for this species may be the loss of foraging habitat in surrounding areas.
Susquehanna River at Speeceville	Middle Paxton & Reed Twps.	An animal species of concern was found among the river islands at this site in 2004. Threats to these populations as well as to other common species that occupy this stretch of river include thermal and chemical pollution, impoundment and excessive sedimentation.
Aqueduct Bluffs / Juniata River Scour	Reed Twp & Perry County	This site along the Juniata River has the following two listed species occupying distinct habitats: PA-threatened jeweled shooting star and the PA-endangered flat-stemmed spike rush. The habitat occupied by the shooting star is fairly inaccessible and there are no current threats to the population. The exotic species purple loosestrife is a potential threat to the river scour species, although annual scouring by ice and floods prevents succession from progressing at this site.
Dehart Dam Spillway	Rush Township	Two small populations of plant species of concern were documented south of the spillway for the DeHart Dam Reservoir. The native populations of American holly found in Stony Valley and a few other locations in the state may represent a local ecotype of distinct genetic composition. It is considered ecologically important to maintain local genotypes of widespread species to preserve the genetic variability of the species.
Dividing Ridge	Wayne Township	A roadside population of a PA-rare plant species of concern was documented at this site. The plant population occupies a wooded hillside along the roadway, and may actually benefit from the periodic mowing provided by roadside maintenance. The hillside is a diverse mix of hardwoods.

Dauphin County Parks, Recreation, Open Space, and Greenways Study

Site Name	Municipality	Description
Peters Mountain	Jefferson & Rush Twps.	PA-threatened Allegheny woodrat was found in this area during surveys in 1995. This species utilizes rocky outcrops along the ridgetop and requires a mosaic of forested and open areas. The habitat is within State Game Lands #210.
Big Lick Mountain	Williams Twp. & Schuylkill Co.	A good-quality population of PA-Rare plant species was found on several acres along the roads and slopes of Big Lick Mountain. This species occupies oak-heath woods, borders of woods, heath thickets, openings associated with logging or woods roads, rocky places, and bare sandy openings. No threats are evident and no special management appears to be needed.
Bear Mountain	Wiconisco, Williams, & Lykens Twps. & Schuylkill Co.	In 2001 a fair-quality population of PA-Rare plant species, minniebush, was found on several acres along the roads and slopes of Bear Mountain. This species occurs scattered sparingly from Georgia, where it is considered critically imperiled, through the Smoky Mountains of Tennessee, to the northernmost limit of its range in Pennsylvania. Evidence of several fair-quality populations of Pa-threatened animal species, the Allegheny woodrat, was found at this site during a site survey in 2001. This site includes a portion of State Game Lands #264.
Mahantango Creek at Pillow	Pillow Boro. & Northumberland Co.	This site is a very steep east-southeast facing shale cliff area along the Mahantango Creek. During a survey, a marginal to good-quality population of PA-Threatened jeweled shooting star was identified on the cliffs. The plant population may eventually be threatened by aggressive plant species such as multiflora rose, but the threat is not immediate.
Malta Cliffs	Upper Paxton Twp. & Northumberland Co.	A new excellent-quality population of a PA-Threatened plant species, the jeweled shoot star, was identified in a steep shale cliff area along the creek. Several plant species that were growing in association with the species of concern included liverwort, columbine, lyre-leaved rockcress, maidenhair spleenwort, marginal shield fern, white wood aster, fragile fern, and early saxifrage.

Source: Dauphin County Natural Areas Inventory (1999)
PA Science Office of the Nature Conservancy (2005)

FOREST BLOCKS

Forest blocks are managed areas of woodlands that are used for timber harvest. Large sections of NAI forest blocks (Map 2.8) are found in the mountains of north-central Dauphin County. Forest blocks can generate income for the municipality and state, and DCNR provides technical support for forest conservation. Large forested areas also provide potential hubs for greenways and increases the benefits that forests provide, including:

Dauphin County Parks, Recreation, Open Space, and Greenways Study

- Better control of rain runoff and snow melt.
- Cleaner air.
- Cleaner drinking water.
- Cooler temperatures due to increased tree canopy in urban areas.
- Improved quality of life in both urban and rural areas.
- Less erosion.
- More wildlife habitat.
- Processing of harmful carbon dioxide.

PENNSYLVANIA HIGHLANDS

The Highlands is a federally-designated mountainous landscape along the western edge of the Northeastern megalopolis. The 3,000,000-acre region provides a green buffer to the sprawling New York City, Philadelphia and Hartford metropolitan areas, providing clean drinking water, vital open spaces, and abundant outdoor recreation opportunities to the more than 25 million people who live within an hour of the nationally significant and threatened region.²⁵

The Pennsylvania Highlands includes 18 counties from the border of Maryland in Adams and York Counties to the northeast in the Pocono Mountains. In Dauphin County, the Pennsylvania Highlands stretch through Londonderry, Conewago, and Derry Townships and Royalton Borough (Map 2.8). The Hershey Community Center, the Milton S. Hershey Mansion, and the Henry Smith (Hidden Spring) Farm are all National Register Historic Sites located within the Pennsylvania Highlands. In addition, the Iron Run Dam Site and the Roundtop Thicket (Table 2.7) are both part of the Sand Hills Area, identified in the *Pennsylvania Highlands Conservation Atlas*²⁶ as a potentially important hub in the proposed Pennsylvania Highlands Greenway.

SUSQUEHANNA WATER GAP

The Susquehanna Water Gap is located in central Dauphin County. As described in the geology section, the gap is a natural corridor with significant views. The gaps were created by the long-term erosion of the Susquehanna River through the Ridge and Valley Province.

Along with the natural viewsheds, the gap has important transportation routes for both humans and wildlife. The Kittatinny flyway acts as a natural corridor for songbirds and raptors along the Kittatinny Ridge and is visited by bird enthusiasts year-round. Route PA 22-322 meanders north to south along the Susquehanna River through the water gap, which is a major corridor connecting Harrisburg with State College.

²⁵ Regional Highlands Coalition, 2008. <http://www.highlandscoalition.org/>

²⁶ Appalachian Mountain Club, Highlands Coalition, and The Trust for Public Land, *Pennsylvania Highlands Conservation Atlas*, November 2006

At least one major development has been considered within the Susquehanna Water Gap. Plans are moving slowly because of external housing market conditions, and the developer has indicated a sensitivity to the importance of environmental considerations in the water gap. Development should always be monitored and minimized within environmentally sensitive areas such as the Susquehanna Water Gap.

SUSQUEHANNA GREENWAY

The Susquehanna Greenway is a 500-mile linear corridor of land and water along the Susquehanna River Main Branch and West Branch. The greenway is recognized as Pennsylvania’s longest greenway in the state plan, *Pennsylvania Greenways; An Action Plan for Creating Connections* (2001).

MIGRATORY CORRIDORS

Migratory corridors allow migrating birds to follow specific ridges, rivers, and other natural landmarks to breeding grounds and summer homes. Bird migration is generally a north-to-south movement, with coastlines, mountain ranges, and river valleys offering the highest concentration of routes. Pennsylvania is unique because the commonwealth’s complex topography and geographic position allow two major migratory bird pathways—the Atlantic and Appalachian Flyways—and several minor flyways to converge on the state.²⁷ Dauphin County contains portions of the Atlantic Flyway, Kittatinny Flyway, and the Susquehanna Flyway.

The Kittatinny Flyway, located along the Blue Mountain/Kittatinny Ridge, is the most famous seasonal (fall and spring) flyway in Pennsylvania. Stretching from Maryland east toward New Jersey along the eastern edge of the Ridge and Valley Province (Map 2.8), the flyway acts as a major corridor for migrating raptors and songbirds. The Kittatinny Ridge is recognized as a “globally significant” migration flyway in spring and fall for thousands of hawks and eagles and millions of songbirds and has been officially designated by Audubon as the state’s largest “Important Bird Area”.²⁸

The Atlantic Flyway is a large geographic area consisting of many states, countries, and continents. Major corridors follow the eastern Atlantic coastline from the Arctic to South America. Tributaries of the flyway extend from the American prairie and sites located east of the Appalachian Mountains. The Atlantic Flyway route from the northwest is of great importance to migratory waterfowl and

²⁷ National Audubon Society, Inc. 2008. http://www.audubon.org/chapter/pa/pa/news_20060119.html

²⁸ National Audubon Society, Inc. 2008. http://www.audubon.org/chapter/pa/pa/kittatinny/facts_overview.html

other birds, including Canvasbacks, Redheads, and Lesser Scaups that winter on the waters and marshes south of Delaware Bay.²⁹

The Appalachian Flyway is a multistate corridor ranging from Georgia to Maine along the Appalachian Mountains. Some of the most important birding sites are located along the corridor. In Pennsylvania, the Kittatinny Ridge and Blue Mountain are part of the Appalachian Flyway, allowing thousands of bird watchers to view migratory birds annually.

The Susquehanna Flyway is part of the Susquehanna Greenway. The corridor provides access from New York and central Pennsylvania south to the Chesapeake Bay. Many different migratory and local birds use the corridor. Different species of ducks, geese, and other water fowl use the corridor for migration and for daily food and nesting resources.

SIGNIFICANT MAN-MADE FEATURES

Man-made features, as well as natural features, are also significant parts of a greenway network. In the *Dauphin County Parks, Recreation, Open Space, and Greenways Study*, some man-made features may serve as elements of greenway system. The man-made features discussed below include:

- Rail corridors
- Major utility rights-of-way
- Brownfields
- Mines

RAIL CORRIDORS

Rail corridors extend north to south along the Susquehanna River in Dauphin County (Map 2.9). The active rail lines are both used by passenger (Amtrak) and freight (Norfolk Southern) rail cars. Stations in Harrisburg and Middletown are located along Amtrak's rail line that connects to Philadelphia. Within Harrisburg, the largest concentration of both freight and passenger lines converges to the northeast of the Capitol building.

Abandoned rail corridors are often converted to trails, as in the case of the proposed Lykens Valley Rail Trail. The Rails-to-Trails Conservancy (www.railstotrails.org) refers researchers to the database of the federal Surface Transportation Board (STB) to determine the status of rail abandonments. A review of the STB database reveals no abandoned rail lines currently in Dauphin County.

²⁹ Bird Nature: North American Flyway Corridors. 2008. <http://www.birdnature.com/flyways.html>

Discussions with county planning staff confirm the lack of abandoned lines. One small piece of rail line is currently unused: the short spur owned by Norfolk Southern over the intersection of Cameron and Paxton Streets in Harrisburg. Plans have been made to remove the bridge and reconfigure the intersection.

MAJOR UTILITY RIGHTS-OF-WAY

Major utility rights-of-way consist of pipelines, telephone lines, and transmission lines. The various linear corridors, created by the utility lines, offer existing connections to towns through rural settings (Map 2.9). Three-Mile Island, located west of Londonderry Township in the Susquehanna River, is a nuclear power plant site. Transmission lines in Dauphin County are directly connected to Three-Mile Island and extend northward into South Hanover Township. Pipelines generally flow east to west in the southern and middle portions of the county. In the northeast portion of the county, pipelines lie in a north to south alignment.

In 2007, the U. S. Department of Energy issued an order for two National Interest Electric Transmission Corridors (NIETC), one in the Southwest United States and one in the Northeast United States. Designation of a corridor indicates a large area of significant transmission constraint or congestion problem. The Northeast NIETC includes:

- All of New Jersey, Delaware, and Washington, D. C.
- Most of Pennsylvania (52 of 67 counties), New York, Maryland, and West Virginia
- Parts of Virginia and Ohio

Dauphin County is included in the NIETC, One of the major effects of the order is to permit the Federal Energy Regulatory Commission to review and approve plans for a proposed new electric transmission project if the plans have not received site approval from a state within a year. The designation could mean the siting of new electric transmission lines through Dauphin County approved through either a state or federal review process.

BROWNFIELDS

Brownfields are real property sites the expansion, redevelopment, or reuse of which may be complicated by the potential presence of a hazardous substance, pollutant, or contaminant, according to the U.S. Environmental Protection Agency (EPA). Brownfields are normally old industrial sites that have been abandoned for some time. The parcels of land, especially in urban centers, are generally prime real estate sites that can generate an economic stimulus for the municipality and county.

The highest concentration of brownfields in the county are located within the City of Harrisburg (Map 2.9). With the high concentration of industrial land and rail yards, the Harrisburg area at one

time supported several large industries, including major steel producing sites. Activity at the sites has diminished or stopped, but the land and infrastructure remains available for redevelopment in today's economy.

MINES

Pennsylvania has both underground and surface (strip) mines. Minerals found near the top of the surface and different types of rocks, such as shale, are mined through open pits or strip mines, which can be less costly and dangerous. Mineral mines are found in the southern portion of the county, outside Hummelstown Borough along the Swatara Creek and in Steelton Borough along the Susquehanna River.

In underground mining, where most of the coal is mined, the procedures are costly and contain many hazardous conditions. The north eastern section of the county, especially in Wiconisco and Williams Townships have the highest concentration of coal and abandoned mines (Map 2.9). Abandoned mines become a safety issue and require special procedures to keep unwanted visitors from entering.

RECREATION

Recreation sites are a major component of a greenway system. Greenways—particularly those with trails—are often used to link recreation sites, providing a cohesive network of recreation opportunities throughout the municipality or county. Recreation sites discussed below include:

- State sites (conservation areas, game lands, forests)
- County and municipal parks
- Trails
- Golf courses

Dauphin County contains a total of 167 county and municipal parks, along with the Joseph E. Ibberson Conservation Area, the Boyd Big Tree Preserve, state game lands, and tracts of Weiser State Forest (Map 2.10). The parks, state forests, and state game lands provide recreational opportunities from hunting, fishing, hiking, and biking to football, baseball, soccer, and basketball. State, county, and municipal entities control a total of 2,396.5 acres of parkland. Chapter 3 contains an analysis of the parks, parkland, and recreation facilities in Dauphin County compared to established guidelines for meeting the recreational needs of county residents.

STATE SITES

Joseph E Ibberson Conservation Area is 350 acres located along Peters Mountain. Nearly 320 acres are open to public hunting, trapping, and dog training during established seasons. The park also consists of nearly eight miles of trails ranging from easy to difficult hiking.

Boyd Big Tree State Conservation Area contains 949 acres in southwestern Middle Paxton Township and the northwestern corner of Lower Paxton Township. Boyd Big Tree includes 12 miles of hiking, biking and cross-country skiing trails. Approximately 800 acres are open to public hunting, trapping, and dog training.

State game lands are state-designated areas for wildlife management and protection and wildlife habitat protection. The lands are controlled by the Pennsylvania Game Commission, created in the late 1800s due to over-hunting, deforestation, and pollution of the natural environment. Used mainly for hunting and trapping purposes, the state game lands also offer sources of fuel in oil and natural gas fields. According to the 2008 *Dauphin County Comprehensive Plan*, the county includes a total of 44,792 acres of state game lands within the county. The largest concentration of state game lands are located along the Blue Mountain/Kittatinny Ridge (State Game Land 211), which offers terrain for the Appalachian Trail, Horse Shoe Trail, and the Stoney Valley Rail Trail (Map 2.10). Two other large areas are in Jefferson Township (SGL 210) and Wiconisco and Williams Townships (SGL 264).

State forests offer large tracts of pristine forest to both residents and tourists. Dauphin County contains two tracts of the Weiser State Forest District within Jackson and Jefferson Townships. Scenic vistas and old growth forests allow for natural beauty within the areas, while recreational sports, such as all-terrain vehicles, snowmobiles, and mountain biking have become more popular in recent years. According to the 2008 *Dauphin County Comprehensive Plan*, Dauphin County contains a total of 8,028 acres of state forest land.

COUNTY AND MUNICIPAL PARKS

Parks vary depending on size, recreation facilities, ownership, and drawing area. Typically, county parks are larger than municipal parks, have more facilities, and draw from a larger geographic area. County parks may also include specialized facilities that are often too expensive for municipalities to provide. Municipal parks are designed to serve residents in a smaller area and usually offer ball fields and/or courts to meet the active recreational needs of the municipal population.

Dauphin County includes a total of 167 county and municipal parks (Map 2.10) on a total of 2,380.8 acres (Appendix A). The southwest planning section has the most park acreage of the four planning sections, as follows:

Dauphin County Parks, Recreation, Open Space, and Greenways Study

Total	2,380.8 acres
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Parks in the north planning section are located primarily in the boroughs, which have the highest concentration of population. The southeast planning section has parks scattered along the Swatara Creek, with other concentrations in Lower Paxton and West Hanover Township (Map 2.10).

TRAILS

Trails in Dauphin County range from paved bike paths to narrow footpaths and from on the top of mountain ridges to along major stream and river waters (Table 2.8, Map 2.10). Trails frequently connect parks, schools, and other community service centers. Some Dauphin County trails are also part of larger, regional trails extending across many counties or states.

The Appalachian Trail, stretching 2,175 miles from Georgia to Maine, passes through Dauphin County along the top of Blue Mountain. The trail extends from the Susquehanna River eastward along the Blue Mountain/Kittatinny Ridge, through Ibberson State Conservation Area, and into Lebanon County through State Game Lands 211.

In addition to land trails, Dauphin County is the home of two significant water trails: the middle section of the Susquehanna River Water Trail and the Swatara Creek Water Trail. The Susquehanna River Water Trail extends 51 miles from Sunbury to Harrisburg. In June 2008, the middle and lower sections of the Susquehanna River Water Trail were designated as a National Recreation Trail—the third water trail in the state to achieve national status, along with parts of the Delaware River and Schuylkill River water trails. Previously, in 2005, the American Canoe Association (ACA) designated the entire Susquehanna River Water Trail as a ACA-recommended water trail.

The Swatara Creek Water Trail is a 42-mile segment of the Swatara Creek from Jonestown, Lebanon County to the Pennsylvania Fish and Boat Commission’s Middletown Access in Dauphin County. Sights along the trail include Union Canal locks, farms, forested riparian buffers, the abandoned Lebanon to Tremont railroad and bridge, Harper's Tavern, limestone outcrops, and the only lava deposits in Pennsylvania.

GOLF COURSES

Golf courses offer open space and recreational opportunities, but many courses are privately owned facilities. Sunset Golf Course, located in Londonderry Township (Map 2.10), is the only publicly owned golf course in Dauphin County.

Dauphin County Parks, Recreation, Open Space, and Greenways Study

**Table 2.8
Trails in Dauphin County, 2008**

Name	Approximate Length	Municipalities
Bicycle Route J	not available	Middle Paxton Township Highspire Borough Susquehanna Township Royalton Borough Harrisburg City Londonderry Township Steelton Borough
Capital Area Green Belt	18.7 miles	Harrisburg City Penbrook Borough Paxtang Borough Susquehanna Township
Darlington Trail	11.8 miles	East Hanover Township Middle Paxton Township
Derry Township Bicycle/Pedestrian Trail	8.4 miles	Derry Township
Horse Shoe Trail	32.2 miles	Derry Township South Hanover Township East Hanover Township West Hanover Township Middle Paxton Township
Lykens Valley Rail Trail (proposed)	21.3 miles	Elizabethville Borough Washington Township Lykens Borough Wiconisco Township Millersburg Borough Williams Township Upper Paxton Township
Stoney Valley Rail Trail	14.7 miles	East Hanover Township Middle Paxton Township
Susquehanna River Water Trail	49.7 miles	Dauphin Borough Millersburg Borough Halifax Township Reed Township Halifax Borough Royalton Borough Harrisburg City Steelton Borough Highspire Borough Susquehanna Township Londonderry Township Upper Paxton Township Middletown Borough
Swatara Creek Water Trail Union Canal	21.0 miles	Derry Township Middletown Borough Hummelstown Borough Royalton Borough Londonderry Township South Hanover Township Lower Swatara Township East Hanover Township
Victoria Trail	1.9 miles	Middle Paxton Township Wayne Township

Sources: Dauphin County
URDC

Since the 1980s, the land around golf courses has been highly valued for residential development due to the amenity of adjacent open space and pleasant views offered by the course. Most golf courses are not legally preserved as open space, so development pressure should be carefully monitored.

However, as long as the course continues, the tract is a large open space with scenic views and habitat for various species of flora and fauna.

SIGNIFICANT PRIVATE LAND HOLDINGS

Greenway systems are not composed solely of public land—either land open to the public or land owned in the public sector. A strong greenway system incorporates private land, as well. Land that remains in private ownership may be protected from development by a conservation easement, providing views and viewsheds that add significantly to the value of the greenway experience. Easements on private land are also frequently granted to provide trails, allow access to waterways, or offer connections within a trail system. Significant private land holdings in Dauphin County include:

- Agricultural easements
- Agricultural security areas
- Hershey Trust lands
- Conservancy lands

AGRICULTURAL EASEMENTS

Easements are often used to help preserve agricultural land from development. The landowner is paid for development rights, and the easement is held by a governmental or nonprofit entity, such as a land trust or conservancy. Development restrictions are placed on the deeds, and the land is held in perpetuity as agricultural land. Agricultural easements are primarily found in the northern part of the county, with a few in Londonderry and Conewago Townships to the south (Map 2.11). Through September 2008, Dauphin County’s agricultural easement program has placed easements on 114 farms totaling 11,569 acres. An additional 10 easements representing 819 acres are either approved and awaiting finalization or pending and expected to be approved in early 2009.³⁰

AGRICULTURAL SECURITY AREAS

Agricultural security areas (ASAs) do not have legal binding restrictions and, therefore, do not preserve land. However, ASAs represent the first step in becoming an agricultural easement. A landowner places the land in an ASA to indicate a willingness to have an easement placed on the land. The land is enrolled in the ASA for a designated period of time, during which the landowner receives tax incentives. At the end of the enrollment period, the landowner may leave the program, forgoing the tax breaks and making the land ineligible to have public money purchase a conservation

³⁰ Dauphin County Conservation District - <http://www.dauphincd.org/ag/alp%20stats.html>, as updated

easement on the land. Agricultural security areas are more abundant than eased land (Map 2.11) because of the lack of funding to purchase all the development rights from eligible farms. As with agricultural easements, the majority of the ASAs are found within the north and south, although a few security areas are found in central Dauphin, east of Lower Paxton Township.

HERSHEY TRUST LANDS

The Milton S. Hershey School Trust controls approximately 12,900 acres located in Derry, South Hanover and Conewago Townships (Map 2.11). More than 85 percent of the Hershey lands (11,000 acres) is comprised of the Milton Hershey School campus and farmland. Hershey Foods, of which the trust is the majority stockholder, controls approximately 800 acres of industrial and commercial land, farmland, and open space. Hershey Entertainment and Resorts Company is wholly owned by the trust and controls approximately 1,100 acres in Dauphin County, including:

- Giant Center
- Hershey Nursery
- Hershey Cleaners
- Hershey Country Club
- Hershey Highmeadow Campground
- Hershey Lodge
- HersheyPark
- HersheyPark Stadium
- HersheyPark Arena
- Star Pavilion
- Hershey Bears (American Hockey League)
- The Hotel Hershey
- The Spa at The Hotel Hershey
- ZooAmerica

Lands owned by the trust are not preserved or protected. Any proposal to utilize Hershey lands in a trail or pathway system is subject to approval by the Hershey Trust.

CONSERVANCIES

Two nonprofit conservancies—Central Pennsylvania Conservancy and Manada Conservancy—operate within Dauphin County and help to conserve land as natural habitat and for environmental educational (Map 2.11). Both conservancies will continue to be valuable partners in future land conservation efforts.

The Manada Conservancy (MC) has preserved a total of 467 acres in Dauphin County. In addition, MC is actively working on an additional 257 acres and has work scheduled for 2009 on an additional 250 acres. The Central Pennsylvania has preserved 609.12 acres in Dauphin County as of November 2008 and is actively pursuing a project involving an additional 135 acres. If all scheduled projects are successfully completed, the two conservancies will have more than 1,800 acres preserved in Dauphin County by 2009.

Dauphin County Parks, Recreation, Open Space, and Greenways Study

In addition, Dauphin County controls the 153-acre Fort Hunter Conservancy in Middle Paxton Township near the Susquehanna River. The Fort Hunter Conservancy is open to the public for day hiking only. The property was donated to the Fort Hunter Board of Trustees in 1986 to be used exclusively as a nature area in perpetuity.

HISTORIC FEATURES

Historic features are often destination points in a greenway/pathway system, particularly sites listed on the National Register of Historic Places. A total of 66 sites in Dauphin County are listed in the National Register (Table 2.9, Map 2.12). A large portion of the National Register Listed sites are located in and around Harrisburg.

Table 2.9
Dauphin County Properties Listed on the National Register of Historic Places

Municipality	Historic Name	Address
Berrysburg Borough	Romberger-Stover House	Market Street
Derry Township	Hershey Community Center Building	14 E. Chocolate Avenue
Derry Township	Hershey, Milton S., Mansion	Mansion Road
Derry Township	Quarries of the Hummelstown Brownstone Comp	Brookline Drive & Amber Drive
East Hanover Township	Todd, John, House	South Mountain Road (L.R. 22053)
Halifax Township	Clemson Island Prehistoric District	
Halifax and Reed Twps.	Sycamore Allee	Leg. Route 1, approx. one mi. n. & s. of Halifax Boro.
Harrisburg City	Broad Street Market	Verbeke Street (formerly Broad Street)
Harrisburg City	Cameron, Simon, School	1839 Green Street
Harrisburg City	Camp Curtin Fire Station	2504 N. 6th Street
Harrisburg City	Colonial Theatre	3rd and Market Streets
Harrisburg City	Dauphin County Courthouse	Front and Market Streets
Harrisburg City	Donaldson, William, House	2005 N. 3rd Street
Harrisburg City	German Evangelical Zion Lutheran Church	Capitol Street and Herr Street
Harrisburg City	Griffith, William R., House	215 N. Front Street
Harrisburg City	Harris Switch Tower, Pennsylvania Railroad	637 Walnut Street
Harrisburg City	Harris, John, Mansion	219 S. Front Street
Harrisburg City	Harrisburg 19th Street Armory	1313 S. 19th Street
Harrisburg City	Harrisburg Cemetery	13th Street and Liberty Street
Harrisburg City	Harrisburg Central Railroad Station & Trainshed	Aberdeen Street
Harrisburg City	Harrisburg Historic District	Susquehanna River, Forster St., 3rd St. & Hanna St.
Harrisburg City	Harrisburg Military Post	14th and Calder Streets
Harrisburg City	Harrisburg Polyclinic Hospital	2610 N. 3rd Street
Harrisburg City	Harrisburg Technical High School	423 Walnut Street
Harrisburg City	Keystone Building	18-22 S. 3rd Street
Harrisburg City	Kunkle Building	301 Market Street
Harrisburg City	Market Street Bridge	Market Street (L.R. 34)
Harrisburg City	Midtown Harrisburg Historic District	Susquehanna River, Forester St., Verbeck & 3rd St.
Harrisburg City	Mount Pleasant Historic District	Sylvan Terrace to 19th, Market to Brookwood Streets

Dauphin County Parks, Recreation, Open Space, and Greenways Study

Municipality	Historic Name	Address
Harrisburg City	Mount Pleasant Historic District Extension	1100-1360 Market Street
Harrisburg City	Old Downtown Harrisburg Commercial H.D. (Bou	Bounded by Chestnut, Walnut, Blackberry, 4th Streets
Harrisburg City	Old Downtown Harrisburg Commercial Historic Dist.	Bounded by Dewberry, Chestnut, Blackberry, S. 3rd St.
Harrisburg City	Old Uptown Harrisburg Historic District	2nd, 3rd, Reilly, Kelker Streets
Harrisburg City	PA GGI Electric Locomotive No. 4859	Aberdeen Street Harrisburg Transportation Center
Harrisburg City	Pennsylvania State Capitol	N. 3rd Street
Harrisburg City	Pennsylvania State Lunatic Hospital	Cameron Street
Harrisburg City	Salem United Church of Christ	231 Chestnut Street
Harrisburg City	Seel, William, Building	319 Market Street
Harrisburg City	Sheffield Apartments	2003 N. 3rd Street
Harrisburg City	Soldiers & Sailors Memorial Bridge	State Street (L.R. 140)
Harrisburg City	Walnut Street Bridge	Walnut Street
Highspire Borough	Highspire High School	221 Penn Street
Hummelstown Borough	Henderson, Dr. William, House	31 East Main Street
Hummelstown Borough	Keystone Hotel	40 E. Main Street
Hummelstown Borough	Matlack, Enoch, House	250 E. Main Street
Hummelstown Borough	Zion Lutheran Church & Graveyard	Rosanna Street Northwest Corner
Jackson Township	Shoop Site 36DA0020	
Londonderry Township	Smith, Henry Farm (Hidden Spring Farm)	950 Swatara Creek Road, Middletown
Lower Swatara Township	Star Barn Complex	Nissley Drive Between Rt. 283 & Spring Garden Drive
Lykens Borough	Grand Army of the Republic Building	628 N. 2nd Street
Lykens Township	Bridge in Lykens Township No. 1	L.R. 22001
Lykens Township	Bridge in Lykens Township No. 2	L.R. 22033
Middle Paxton Township	Ayers, John, House	1801 Peter's Mountain Road
Middletown Borough	B'nai Jacob Synagogue	Nissley and Water Streets
Middletown Borough	Cameron, Simon, House and Bank	28-30 E. Main Street Bank and House
Middletown Borough	Raymond, Charles and Joseph Houses	37-38 N. Union Street
Middletown Borough	Saint Peter's Kierch	31 W. High Street
Middletown Borough	Swatara Ferry House	400 Swatara Street
Mifflin Township	Dauphin County Bridge No. 27	Deibler's Dam Road
Millersburg Borough	Millersburg Passenger Rail Station	127 W. Center Street
Millersburg Borough	Millersburg Ferry	Susquehanna River bet. Millersburg and Buffalo Twp.
Reed Township	Bridge in Reed Township	L.R. 1 (T.R. 147)
Susquehanna Township	Fort Hunter Historic District	N. Front Street (U.S. Rt. 22)
Susquehanna Township	McAllister, Archibald, House	5300 N. Front Street
Susquehanna Township	Pennsylvania State Lunatic Hospital	Cameron Street
Susquehanna Township	Rockville Bridge	3 miles North of Harrisburg
Washington Township	Henninger Farm Covered Bridge	T-624
Wayne Township	Shoop Site 36DA0020	

Source: Pennsylvania Historical and Museum Commission, 2008

In 1945, the Pennsylvania Historical and Museum Commission began a major initiative to erect historical markers throughout the commonwealth. Today, nearly 1,500 markers are located throughout all 67 counties, including over 40 in Dauphin County (Map 2.12).

EDUCATIONAL AND COMMERCIAL FACILITIES

Educational and commercial facilities are cultural destinations—places where people work, shop, and go to school—that can be significant destinations in a greenway system. Educational centers can also include libraries, museums, and government facilities, such as municipal buildings. Together, all of the destinations above (Map 2.13) are locations for modern cultural activity.

SCHOOLS & COLLEGES

Private and public elementary and secondary schools (grades Kindergarten through 12) include educational and recreational opportunities for local children. A large majority of both private and public schools in Dauphin County are located between the Interstate Route 81 and 76 corridors (Map 2.13), where the majority of the county’s residents reside.

Colleges and universities provide post-secondary educational opportunities and offer many community benefits, including many facilities open for public use. Colleges in Dauphin County are:

- Dixon University Center, a regional education hub housing classes from ten universities throughout Pennsylvania
- Harrisburg Area Community College
- Harrisburg University of Science and Technology, opened in 2005
- Pennsylvania State University, College of Medicine
- Pennsylvania State University, Harrisburg Campus
- Temple University, Harrisburg Campus
- Widener Law School, Harrisburg Campus

LIBRARIES

Libraries are community centers; the buildings and facilities are for public use and are often centrally located within neighborhoods. In addition to the benefits of providing information resources to the general public, libraries also strengthen a community identity and often offer a sense of historical pride. Libraries can be found in the larger boroughs in the county with many located in and around Harrisburg (Map 2.13).

MUSEUMS

Museums allow the public to learn about the history of community, state, national, and/or geological events. Dauphin County includes eight museums (Map 2.13):

- Antique Automobile Club of America (AACA) Museum
- Fire Museum of Greater Harrisburg
- Fort Hunter Mansion
- John Harris Mansion Museum
- Hershey Museum
- National Civil War Museum
- Susquehanna Art Museum
- State Museum of Pennsylvania
- Pennsylvania State Archives

MUNICIPAL BUILDINGS

Every municipality in the county has a municipal building (Map 2.13) that holds legal documents and the offices for the municipal government officials and departments. The municipal buildings are also used as a community center for public meetings and retrieving other public information.

OFFICE & SHOPPING CENTERS

Office and shopping centers are activity centers where people gather to work or shop. Activity centers are often hubs or destinations within a greenway system. The corridor between Interstates 81 and 76 holds the largest concentration of population and activity centers in Dauphin County (Map 2.13).

PLANNING FRAMEWORK

Many plans and actions at many levels of government have preceded the *Dauphin County Parks, Recreation, Open Space, and Greenway Plan*. The following information briefly encapsulates the work that has laid the foundation for the Dauphin County plan. Plans are listed in reverse chronological order.

Dauphin County Parks, Recreation, Open Space, and Greenways Study

- *Dauphin County Comprehensive Plan*, January 9, 2008.—TCRPC led the Dauphin County Planning Commission in developing the comprehensive plan for the county, which included the underlying themes of maintaining a quality of life and adhering to principles of “smart growth”.³¹ The plan includes background and recommendations on community services, including parks and recreation, that support the concept of a greenways network in Dauphin County. The *Dauphin County Parks, Recreation, Open Space, and Greenways Study* will be adopted as an addendum to the county comprehensive plan.
- *Lebanon County Comprehensive Plan*, December 13, 2007—The Lebanon County plan discusses filling gaps in the county greenway system and creating regional greenways. The plan acknowledges the Kittatinny Ridge, Pennsylvania Highlands, Swatara Creek, Little Swatara Creek, and other sensitive areas that are in both Lebanon and Dauphin Counties as major corridors for greenways.
- *Schuylkill County Open Space & Greenway Plan*, 2006—The plan was prepared in accordance with the 2006 Schuylkill County comprehensive plan. The plan identified preserved farmlands near Dauphin County, State Game Lands 264 and 211, and three trails crossing into or in close proximity to Dauphin County: the Bartram Trail, the Stony Valley Railroad Grade Trail, and the Appalachian Trail.
- *York County Open Space & Greenways Plan*, December 13, 2006—The York County plan was prepared as a component to the 2005 York County comprehensive plan. The plan identifies existing and proposed greenway corridors and tracts of land that should be permanently preserved. The plan also highlights the Susquehanna Greenway and other greenway potential in the vicinity of Dauphin County.
- *Susquehanna Greenway Strategy Action Plan - A Call to Action*, June 2006—The strategic action plan for the Susquehanna Greenway includes recommendations for a new organizational framework, a method for implementing greenway components, and a communications and outreach strategy. The 3-year plan calls for creating four regional committees and empowering the committees and local partners to implement the plan. In response to the plan, the nonprofit Susquehanna Greenway Partnership (SGP) formed to implement and preserve the Susquehanna Greenway. The partnership works four regional lead organizations to address local needs and priorities. The purpose of the SGP is to protect and promote the exceptional resources of the river, creating an interconnected network of trails and natural areas across urban, suburban, and rural landscapes. The SGP provides endless opportunities for visitors and residents to connect with the river and its bountiful heritage through land and water trails, parks, historic sites, working farms and forests, and many unique river communities.”

³¹ More information about the principles of “smart growth” applied throughout Pennsylvania are found at: <http://www.smartgrowth.org/news/bystate.asp?state=PA>.

Dauphin County Parks, Recreation, Open Space, and Greenways Study

- *Paxton Creek Rivers Conservation Plan*, June 2006—Paxton Creek watershed consists of portions of the City of Harrisburg, Penbrook Borough, and the Townships of Lower Paxton and Susquehanna. The Paxton Creek Watershed and Education Association (PCWEA) prepared the conservation plan for the creek. The plan recognizes the importance of greenways and parklands in promoting the ecological health of the watershed.
- *Lykens Valley Rail Trail Feasibility Study*, May 2005—The Lykens Valley Rail Trail is a 20.5-mile rail trail conversion project that connects the Susquehanna River near Millersburg/Lenker-ville to the Schuylkill County Line northeast of Williamstown. The feasibility study describes the existing conditions of the corridor, explores the surrounding landscape and natural resources, and considers potential trail impacts.
- *Pennsylvania's Recreation Plan 2004-2008*, April 2004—Among many other things, the statewide recreation plan enforced the recommendations in support of greenways. The plan also analyzed census data for future goals and provided recommendations for the enhancement of recreational opportunities.
- *Tri-County Regional Growth Management Plan*, July 24, 2003—TCRPC also prepared the growth management plan for Cumberland, Dauphin, and Perry Counties. The plan serves as a guide for coordinating comprehensive planning among the 103 municipalities, 3 counties, and regional planning agency within the Tri-County area. The plan encourages interjurisdictional cooperation of ongoing planning for land use, transportation, economic, and cultural development, and includes physical growth policies to the year 2020.
- *Pennsylvania Greenways - An Action Plan for Creating Connections*, June 2001—The recommendation to preserve and protect greenways goes back to the early 1990s. The statewide greenways plan in 2001 provided specific coordination and strategic planning processes to incorporate Pennsylvania's counties into a statewide greenways network. The plan defines greenways, networks of hubs and spokes, and green infrastructure. The plan includes seven needs for creating a successful local greenway plan as well as priorities for state agencies in supporting local efforts.
- *Cumberland Countywide Greenway Study*, April 2000—TCRPC guided the Cumberland County Planning Commission in creating the greenway study for Cumberland County. The plan represents Cumberland County's response to the state directive that all counties should produce a county greenway plan to support and further the concepts in the statewide greenway plan. The Cumberland plan examines ways in which the county can create greenways and provides a framework for establishing greenways through public-private partnerships. Recommended greenway corridors include the Susquehanna River Greenway and the Appalachian Trail Greenway, which extend in or along Dauphin County.

- *Susquehanna River Conservation Plan*, September 1998—The Tri-County Regional Planning Commission (TCRPC) prepared the plan as an effort to promote and direct activities that will enhance, protect, and conserve the designated project corridor.
- *Swatara Creek Greenway & River Conservation Plan*, April 22, 1997—The river conservation plan for the Swatara Creek includes a greenway corridor along the Swatara Creek that ultimately would link with a similar corridor planned on lands of the Hershey Trust to the east and, perhaps, beyond into Lebanon County.
- *Dauphin County Park, Recreation & Open Space Plan*, May 1975—The previous parks, recreation, and open space plan for Dauphin County was prepared more than 30 years ago.

SUMMARY

Chapter 2 has presented information about Dauphin County that describes both characteristics of the county and potential elements of a greenway system in the county. Key points and associated conclusions include:

- Dauphin County population is projected to grow by more than eight percent between 2000 and 2020.

The county population will continue to increase, increasing the importance of land preservation and also providing a larger pool of potential hikers and trail users.

- Dauphin County has many important natural features which should be preserved, including waterways, floodplains, wetlands, prime farmland, physiology and geology, steep slopes, and natural areas.

Natural features should be protected from development. Many of the natural characteristics already have some form of protection from federal, state, or local regulation. Others should be considered for local regulation, and some characteristics may become nodes on a greenway system, such as unique geologic sites along trails or steep slopes as part of conservation greenways.

- Man-made features in Dauphin County include rail corridors, utility rights-of-way, brown-field sites, and mines.

Linear man-made features, such as rail and utility corridors, are often used as part of trail systems. Brownfields and mines, if properly and safely redeveloped, can become nodes within a trail system.

Dauphin County Parks, Recreation, Open Space, and Greenways Study

- Dauphin County has a significant recreation system consisting of:
 - Approximately 65,800 acres of state land in conservation areas, game lands, and state forests.
 - Approximately 2,400 acres of county and municipal parks.
 - More than 150 miles of hiking, bicycling, and water trails.
 - One publicly owned golf course.

Parks and recreation sites are important nodes in any greenway/trail system. Existing trails provide a strong foundation upon which to expand in order to create a comprehensive greenway system in Dauphin County.

- Significant private lands in Dauphin County include:
 - Lands owned by the Hershey Trust.
 - Lands preserved by agricultural (conservation) easements.
 - Lands owned or otherwise controlled by land trusts or conservancies.
 - Lands that are not preserved but are located in Agricultural Security Areas and, therefore, may be preserved in the future through agricultural easements.

Private lands are a critical part of any land preservation system, either with or without public access. Lands with public access can be used as part of a trail system or for isolated water access. Lands that do not include public access can be an important part of landscapes or conservation greenways.

- Dauphin County has many historic sites listed on either Pennsylvania's Historic Architecture and Archaeology database and/or the National Register of Historic Places.

Major historic sites or clusters of historic sites are often significant nodes of a greenway/trail system. Dauphin County's historic sites provide potential nodes for possible future trails.

- The cultural facilities of Dauphin County include activity centers that could become significant nodes in an alternative transportation system.

In addition to recreational pursuits, a well-planned trail system can support alternative transportation that alleviates congestion on major roads. Activity centers provide the nodes that draw people during the day, including schools/colleges, libraries, museums, municipal buildings, offices, and shopping centers.

- The *Dauphin County Parks, Recreation, Open Space, and Greenways Study* is the next step in a long line of planning studies and documents that have studied various aspects of the county and helped to bring many benefits to county residents.

Dauphin County Parks, Recreation, Open Space, and Greenways Study

Planning at the state, regional (multimunicipal), and local (county and municipal) levels is necessary to determine the best use of limited natural, human, and financial resources. The planning history leading up to the *Dauphin County Parks, Recreation, Open Space, and Greenways Study* dates back to the previous county parks, recreation, and open space plan in 1975. Most recently, in early 2008, Dauphin County adopted a new comprehensive plan that helps lay the foundation for the current study.

ANALYSIS, NEEDS, AND OPPORTUNITIES

The analysis of the Dauphin County recreation system consists of two parts: parkland and facilities. The *Dauphin County Parks, Recreation, Open Space, and Greenways Study* includes an inventory of recreation sites throughout the county (Appendix B). The amount of land and the number of facilities are both compared to guidelines based on population to establish both needs for additional parkland and facilities and opportunities to provide additional amenities for Dauphin County residents. The National Recreation and Park Association (NRPA) has established general guidelines for different types of parks and different types of recreation facilities. The broad NRPA guidelines have been adjusted to more accurately reflect estimates of demand in Dauphin County.

The analyses have been further divided by planning section. The four planning sections coincide with the divisions reflected in the *Dauphin County Comprehensive Plan*:

<i>North Planning Section</i>		<i>Southwest Planning Section</i>	<i>Southeast Planning Section</i>	<i>City of Harrisburg</i>
• Berrysburg Borough	• Millersburg Borough	• Dauphin Borough	• Conewago Township	
• Elizabethville Borough	• Pillow Borough	• Highspire Borough	• Derry Township	
• Gratz Borough	• Reed Township	• Lower Paxton Twp.	• East Hanover Township	
• Halifax Borough	• Upper Paxton Twp.	• Lower Swatara Twp.	• Hummelstown Borough	
• Halifax Township	• Washington Township	• Middle Paxton Twp.	• Londonderry Township	
• Jackson Township	• Wayne Township	• Middletown Borough	• Royalton Borough	
• Jefferson Township	• Wiconisco Township	• Paxtang Borough	• South Hanover Twp.	
• Lykens Borough	• Williams Township	• Penbrook Borough	• West Hanover Twp.	
• Lykens Township	• Williamstown Borough	• Rush Township		
• Mifflin Township		• Steelton Borough		
		• Susquehanna Twp.		
		• Swatara Township		

PARK AND RECREATION TRENDS

Recreation—the use of a person’s leisure time—changes as people age and as habits and tastes change. Recreation activities have changed significantly in the past several decades, and the need for specific types of parks and recreation facilities has changed as the activities have changed. Nationally, the Outdoor Industry Foundation of Boulder, Colorado cites the following trends, published in the *Outdoor Recreation Participation Study, Eighth Edition, Trend Analysis for the United States, 2006*.³²

³² available at: www.outdoorindustry.org/images/researchfiles/ParticipationStudy2006.pdf?27

Dauphin County Parks, Recreation, Open Space, and Greenways Study

- In 2006, more than 160 million Americans participated in outdoor activities, but only 59.5 million took a vacation specifically to participate in an outdoor activity.
- Since 2001, the number of American women ages 16 and older who participate in fitness activities has grown from 37% in 2001 to 47% in 2005. The growth is centered around activities such as exercise, walking, and yoga.
- A total of 86.5% of Americans between the ages of 16 and 24 participated in outdoor activities in 2005, taking 21.7 billion total outings. Activities experiencing growth include cross-country skiing, trail running, snowshoeing, and telemark skiing.

At the state level, the Pennsylvania Department of Conservation and Natural Resources (DCNR) prepared *Pennsylvania's Recreation Plan, 2004-2008*.³³ The report identifies the four activities with the largest increases in Pennsylvania from 1990 through 2003 as:

- Bird- and wildlife watching
- Golf
- Off-road motor sports
- Camping

The primary facilities in local parks include courts and fields. Sports trends also change over time. The Sporting Goods Manufacturers Association (SGMA) is one of the primary sources of information about nationwide changes in individual sports, exercise, and recreation. Several key changes in sports participation include:³⁴

- Tennis popularity increased by 30 percent from 2000–2007. Equipment costs are low and courts are easily accessible without a long drive, particularly as gas prices continue to rise.
- High gas prices will reduce the popularity of boating, recreational vehicles, and other items with large engines.
- The activities with highest increases in participation from 2000 through 2007 were bowling, table tennis, lacrosse, and paintball.
- Roller skating on traditional 2x2 skates is increasing, while inline skating is decreasing.
- The increase in fitness-related activities is one of the strongest, long-term trends in all of the recreation business.

³³ executive summary available at: http://www.dcnr.state.pa.us/brc/RecGuide_ExecSummary.pdf

³⁴ as reported at <http://www.plunkettresearch.com/Industries/Sports/SportsTrends/tabid/274/Default.aspx>

PARKLAND TYPES AND ANALYSIS

Parks come in a variety of types and sizes and serve many different purposes. The parkland analysis for the *Dauphin County Parks, Recreation, Open Space, and Greenways Study* includes an inventory of all public parks in the county (Appendix B). The following section presents information about the different types of parks, guidelines for the suggested amount of each park type, and a discussion of needed parkland in the county.

NRPA defines various types of local parks according to characteristics such as size, service area, population served, and facilities provided (Table 3.1). In general, approximately 6.25–10.5 acres of the three types of locally controlled parkland are needed to serve every 1,000 residents.

Table 3.1
Parkland Guidelines

Type	Description	Suggested Acres Per 1,000 Residents
Community Parks	An area of intense recreation activity; has a community-wide service area; typically includes a variety of athletic fields, courts and open informal space area; a "drive-to" site.	5-8
Neighborhood Parks	An area that serves the surrounding neighborhoods with open space and often with facilities such as basketball courts, children's play equipment and picnic tables; Users typically arrive either by car or by walking	1-2
Miniparks	A very small open space or tot lot parcel that typically serves an area within a one-quarter mile radius or less; a "walk-to" site	0.25–0.5
Total Suggested Acreage		6.25–10.5

Sources: NRPA, URDC

In determining a goal for parkland throughout the county, the study committee agreed on the following points and conclusions:

- According to the inventory of Dauphin County parklands (Appendix B), the county currently contains 2,222.3 acres of community parklands, neighborhood parklands, and miniparks. The 2005 estimated county population (Table 2.3) is 259,932. Therefore, the county currently has a “level of service” of 8.6 acres of parkland per thousand population.
- The county should at least maintain the current level of service and should strive to increase the level of service.
- Population in the county is expected to increase. If no additional parkland is provided, an increased population will result in a decreased level of service.
- Therefore, the county should strive for the upper end of the NRPA range.

Dauphin County Parks, Recreation, Open Space, and Greenways Study

The *Dauphin County Parks, Recreation, Open Space, and Greenways Study* recognizes a goal of 10.5 acres of parkland per thousand population. The study further recognizes that the goal represents a significant increase of parkland and will not be achieved quickly. All opportunities to increase parkland should be explored.

The parkland guidelines suggest that the county has a deficit of all three types of parkland. The deficit ranges from 101.5 acres for minipark land to 199.1 acres for community parkland (Table 3.2).³⁵ Assuming no additional parkland is added, the deficits increase as population increases. By 2020, the county will have a total combined deficit of approximately 588.8 acres. The parkland needs, surpluses, and deficits vary by planning section, as follows:

Table 3.2
Dauphin County Parklands, 2000–2020

Dauphin County Parkland	2000 Population (251,798)	2005 Estimate (259,932)	2010 Projection (264,378)	2020 Projection (273,483)
Community Parkland				
Current Parkland (2008 acres)	1,880.4	1,880.4	1,880.4	1,880.4
Parkland Guideline	2,014.4	2,079.5	2,115.0	2,187.9
Surplus / (Deficit)	-134.0	-199.1	-234.6	-307.5
Neighborhood Parkland				
Current Parkland (2008 acres)	374.0	374.0	374.0	374.0
Parkland Guideline	504.0	519.9	528.8	547.0
Surplus / (Deficit)	-130.0	-145.9	-154.8	-173.0
Minipark Parkland				
Current Parkland (2008 acres)	28.4	28.4	28.4	28.4
Parkland Guideline	125.9	129.9	132.2	136.7
Surplus / (Deficit)	-97.5	-101.5	-103.8	-108.3
TOTAL PARKLAND				
Current Parkland (2008 acres)	2,282.8	2,282.8	2,282.8	2,282.8
Parkland Guideline	2,644.3	2,729.3	2,776.0	2,871.6
Surplus / (Deficit)	-361.5	-446.5	-493.2	-588.8

Sources: U.S. Census Bureau; Dauphin County; NRPA; URDC

³⁵ Schools can also provide significant community recreation resources and are often considered in analyses of parkland and facility needs. Consideration of school resources depends on the availability of lands and facilities for public use. Dauphin County contains 10 public school districts, each of which has a unique set of policies regarding the use of land and facilities by community groups.

Relationships between the community and school district, and, therefore, the public use of school facilities, vary between districts. Including school resources might skew the demonstrated need for additional lands and facilities and may, in turn, affect future funding needs assessments and grant funding. Therefore, the study committee decided that the most prudent course of action would be to estimate available lands and facilities conservatively by excluding all school resources from the analysis.

Dauphin County Parks, Recreation, Open Space, and Greenways Study

- *North Planning Section (Table 3.3)* — The north planning section has a surplus of both community and neighborhood parkland. The section has the smallest population of any of the four planning sections. Several large park sites, such as Veterans Memorial Park in Halifax, L&W Park/Glen Park, Fort Halifax Park, Wiconisco Creek County Park provide sufficient acreage to meet the suggested guidelines. Total parkland acreage in the north planning section is approximately 507.8 acres above the NRPA guideline.

Table 3.3
North Planning Section Parklands, 2000–2020

Parkland	2000 Population (26,272)	2005 Estimate (27,130)	2010 Projection (27,600)	2020 Projection (28,562)
Community Parkland				
Current Parkland (2008 acres)	649.5	649.5	649.5	649.5
Parkland Guideline	210.2	217.0	220.8	228.5
Surplus / (Deficit)	439.3	432.5	428.7	421.0
Neighborhood Parkland				
Current Parkland (2008 acres)	139.6	139.6	139.6	139.6
Parkland Guideline	52.5	54.3	55.2	57.2
Surplus / (Deficit)	87.1	85.3	84.4	82.4
Minipark Parkland				
Current Parkland (2008 acres)	3.5	3.5	3.5	3.5
Parkland Guideline	13.1	13.5	13.8	14.3
Surplus / (Deficit)	-9.6	-10.0	-10.3	-10.8
TOTAL PARKLAND				
Current Parkland (2008 acres)	792.6	792.6	792.6	792.6
Parkland Guideline	275.8	284.8	289.8	300.0
Surplus / (Deficit)	516.8	507.8	502.8	492.6

Sources: U.S. Census Bureau; Dauphin County; NRPA; URDC

- *Southwest Planning Section (Table 3.4)* — The southwest planning section has the largest population of the three planning sections and also carries the largest parkland deficits. The current deficit for total parkland, based on the 2005 census population estimate, is 891.6 acres. The section has deficits in all three types of parkland.
- *Southeast Planning Section (Table 3.5)* — The southeast planning section has a relatively small deficit of parkland. The section had a slight surplus of parkland using the 2000 census population. As the population increased from 2000 to 2005 with no additional parklands, the calculation turned from a slight surplus to a slight deficit. Currently, the total parkland deficit is approximately 7.5 acres.

Dauphin County Parks, Recreation, Open Space, and Greenways Study

Table 3.4
Southwest Planning Section Parklands, 2000–2020

Dauphin County Parkland	2000 Population (126.252)	2005 Estimate (131.596)	2010 Projection (134.517)	2020 Projection (140.499)
Community Parkland				
Current Parkland (2008 acres)	344.6	344.6	344.6	344.6
Parkland Guideline	1,010.0	1,052.8	1,076.1	1,124.0
Surplus / (Deficit)	-665.4	-708.2	-731.5	-779.4
Neighborhood Parkland				
Current Parkland (2008 acres)	132.4	132.4	132.4	132.4
Parkland Guideline	252.5	263.2	269.0	281.0
Surplus / (Deficit)	-120.1	-130.8	-136.6	-148.6
Minipark Parkland				
Current Parkland (2008 acres)	13.2	13.2	13.2	13.2
Parkland Guideline	63.1	65.8	67.2	70.2
Surplus / (Deficit)	-49.9	-52.6	-54.0	-57.0
TOTAL PARKLAND				
Current Parkland (2008 acres)	490.2	490.2	490.2	490.2
Parkland Guideline	1,325.6	1,381.8	1,412.3	1,475.2
Surplus / (Deficit)	-835.4	-891.6	-922.1	-985.0

Sources: U.S. Census Bureau; Dauphin County; NRPA; URDC

Table 3.5
Southeast Planning Section Parklands, 2000–2020

Dauphin County Parkland	2000 Population (50.324)	2005 Estimate (52.796)	2010 Projection (54.146)	2020 Projection (56.913)
Community Parkland				
Current Parkland (2008 acres)	459.3	459.3	459.3	459.3
Parkland Guideline	402.6	422.4	433.2	455.3
Surplus / (Deficit)	56.7	36.9	26.1	4.0
Neighborhood Parkland				
Current Parkland (2008 acres)	86.4	86.4	86.4	86.4
Parkland Guideline	100.6	105.6	108.3	113.8
Surplus / (Deficit)	-14.2	-19.2	-21.9	-27.4
Minipark Parkland				
Current Parkland (2008 acres)	1.2	1.2	1.2	1.2
Parkland Guideline	25.2	26.4	27.1	28.5
Surplus / (Deficit)	-24.0	-25.2	-25.9	-27.3
TOTAL PARKLAND				
Current Parkland (2008 acres)	546.9	546.9	546.9	546.9
Parkland Guideline	528.4	554.4	568.6	597.6
Surplus / (Deficit)	18.5	-7.5	-21.7	-50.7

Source: U.S. Census Bureau; Dauphin County; NRPA; URDC

Dauphin County Parks, Recreation, Open Space, and Greenways Study

- *City of Harrisburg (Table 3.6)* — The City of Harrisburg has a separate parks and recreation department that operates and maintains parks and provides recreational opportunities for city residents. Using the same guidelines as for the three planning sections, the city has a total deficit of 55.2 acres. The city includes a surplus of community parkland due to several unique sites including City Island, Italian Lake, Reservoir Park, Riverfront Park, and Wild-wood Park/Olewine Nature Center. The city has deficits of both neighborhood parklands and miniparks.

Table 3.6
City of Harrisburg Parklands, 2000–2020

Dauphin County Parkland	2000 Population (48,950)	2005 Estimate (48,410)	2010 Projection (48,115)	2020 Projection (47,511)
Community Parkland				
Current Parkland (2008 acres)	427.0	427.0	427.0	427.0
Parkland Guideline	391.6	387.3	384.9	380.1
Surplus / (Deficit)	35.4	39.7	42.1	46.9
Neighborhood Parkland				
Current Parkland (2008 acres)	15.6	15.6	15.6	15.6
Parkland Guideline	97.9	96.8	96.2	95.0
Surplus / (Deficit)	-82.3	-81.2	-80.6	-79.4
Minipark Parkland				
Current Parkland (2008 acres)	10.5	10.5	10.5	10.5
Parkland Guideline	24.5	24.2	24.0	23.8
Surplus / (Deficit)	-14.0	-13.7	-13.5	-13.3
TOTAL PARKLAND				
Current Parkland (2008 acres)	453.1	453.1	453.1	453.1
Parkland Guideline	514.0	508.3	505.1	498.9
Surplus / (Deficit)	-60.9	-55.2	-52.0	-45.8

Sources: U.S. Census Bureau; Dauphin County; NRPA; URDC

FACILITIES

People generate the need/demand for recreation services. Therefore, as with parkland, NRPA provides guidelines for the number of specific recreation facilities required to serve a given population. The NRPA guidelines may be adjusted for variations in local conditions, but the study committee decided that the guidelines were appropriate for the current comparisons. Therefore, the guidelines for major facilities in Dauphin County, based on the NRPA guidelines, are:

Dauphin County Parks, Recreation, Open Space, and Greenways Study

- Basketball — 1 court per 5,000 residents
- Baseball — 1 field per 5,000 residents
- Baseball (lighted field) — 1 field per 30,000 residents
- Football/Soccer/Lacrosse — 1 field per 5,000 residents
- Softball — 1 field per 5,000 residents
- Swimming Pool — 1 pool per 20,000 residents
- Tennis — 1 court per 2,000 residents

Recreational facilities are found throughout Dauphin County. Different facilities support active recreation, such as sports, and passive recreation, such as walking trails and open space. The Dauphin County recreation system includes a wide variety of major recreation facilities (Appendix B, summarized in Table 3.7):

**Table 3.7
Recreational Facilities, Dauphin County, 2008**

Facility	Planning Section				Dauphin County	
	North	Southwest	Southeast	Harrisburg	Totals	
Basketball Court (full, unlighted)	4	31	10	4	49	86
Basketball Court (full, lighted)	1	16	4	8	29	
Basketball Court (half, unlighted)	0	5	1	0	6	
Basketball Court (half, lighted)	0	0	0	2	2	
Baseball Field (unlighted)	6	13	0	0	19	24
Baseball Field (lighted)	0	5	0	0	5	
Football / Soccer / Lacrosse Field (unlighted)	3	9	17	2	31	35
Football / Soccer / Lacrosse Field (lighted)	1	3	0	0	4	
Softball Field (unlighted)	10	41	35	0	86	96
Softball Field (lighted)	3	3	2	2	10	
Swimming Pool	5	5	2	4	16	16
Tennis Court (unlighted)	7	13	3	0	23	65
Tennis Court (lighted)	2	24	10	6	42	

Source: URDC, 2008

Facility Needs

Facility needs are determined by comparing the number of actual facilities available for use to the number required to meet the guidelines noted above. Dauphin County has a current surplus of basketball courts and softball fields and significant deficits of baseball fields, football/soccer/lacrosse

Dauphin County Parks, Recreation, Open Space, and Greenways Study

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fields, and tennis courts (Table 3.8).<sup>36</sup> If no additional facilities are provided and that population will increase, the surpluses will shrink and the deficits will grow.

**Table 3.8  
Dauphin County Facilities Analysis**

| Facility                        | # Of Facilities | NRPA Guideline | 2000 Population (251,798) |                 | 2005 Estimate (259,932) |                 | 2010 Projection (264,378) |                 | 2020 Projection (273,483) |                 |
|---------------------------------|-----------------|----------------|---------------------------|-----------------|-------------------------|-----------------|---------------------------|-----------------|---------------------------|-----------------|
|                                 |                 |                | Needed Units              | Surplus/Deficit | Needed Units            | Surplus/Deficit | Needed Units              | Surplus/Deficit | Needed Units              | Surplus/Deficit |
| Basketball Courts               | 85              | 1 / 5,000      | 50                        | + 35            | 52                      | + 33            | 53                        | + 32            | 54                        | + 31            |
| Baseball Fields                 | 19              | 1 / 5,000      | 50                        | - 31            | 52                      | - 32            | 53                        | - 33            | 54                        | - 35            |
| Baseball Fields (Lighted)       | 5               | 1 / 30,000     | 8                         | - 3             | 8                       | - 3             | 8                         | - 3             | 9                         | - 4             |
| Football/Soccer/Lacrosse Fields | 35              | 1 / 5,000      | 50                        | - 15            | 52                      | - 17            | 53                        | - 18            | 54                        | - 19            |
| Softball Fields                 | 96              | 1 / 5,000      | 50                        | + 46            | 52                      | + 44            | 53                        | + 43            | 54                        | + 42            |
| Swimming Pools                  | 16              | 1 / 20,000     | 12                        | + 4             | 13                      | + 3             | 13                        | + 3             | 13                        | + 3             |
| Tennis Courts                   | 65              | 1 / 2,000      | 125                       | - 60            | 130                     | - 65            | 132                       | - 67            | 136                       | - 71            |

Note: County totals may not represent the sum of planning areas (Tables 3.9 through 3.12) due to rounding.

Sources: U.S. Census Bureau, NRPA, URDC

In general, facilities are spread well across the county to accommodate the population. The surpluses and deficits vary by planning section as follows:

- *North Planning Section (Table 3.9)* — The north planning section contains approximately 10 percent of the county’s population. According to the NRPA guidelines, the area has surpluses of baseball fields, softball fields, and swimming pools, and deficits of baseball fields, football/soccer/ lacrosse fields, and tennis courts. If no additional facilities are provided by 2020, the planning section will need one additional lighted baseball field, four additional football/soccer/lacrosse fields, and five additional tennis courts to meet the needs of the projected population.
- *Southwest Planning Section (Table 3.10)* — The southwest planning section contains approximately half of the county’s population. According to the NRPA guidelines, the area has surpluses of 15 softball fields and 23½ basketball courts, and one lighted baseball field, and deficits of 13 baseball fields, 14 football/soccer/lacrosse fields, two swimming pools and 30 tennis courts. If no additional facilities are provided by 2020, the deficits will increase to 15 unlighted baseball fields, two swimming pools, 16 football/soccer/lacrosse fields, and 34 tennis courts.

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<sup>36</sup> Deficits may be at least partially offset by facilities at school sites, depending on the availability of school facilities.

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Dauphin County Parks, Recreation, Open Space, and Greenways Study

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**Table 3.9  
North Planning Section Facilities Analysis**

| Facility                        | # Of Facilities | NRPA Guidelines | 2000 Population (26,272) |                 | 2005 Estimate (27,130) |                 | 2010 Projection (27,601) |                 | 2020 Projection (28,562) |                 |
|---------------------------------|-----------------|-----------------|--------------------------|-----------------|------------------------|-----------------|--------------------------|-----------------|--------------------------|-----------------|
|                                 |                 |                 | Needed Units             | Surplus/Deficit | Needed Units           | Surplus/Deficit | Needed Units             | Surplus/Deficit | Needed Units             | Surplus/Deficit |
| Basketball Courts               | 5               | 1 / 5,000       | 5                        | 0               | 5                      | 0               | 5                        | 0               | 5                        | 0               |
| Baseball Fields                 | 6               | 1 / 5,000       | 5                        | + 1             | 5                      | + 1             | 5                        | + 1             | 5                        | + 1             |
| Baseball Fields (Lighted)       | 0               | 1 / 30,000      | 1                        | - 1             | 1                      | - 1             | 1                        | - 1             | 1                        | - 1             |
| Football/Soccer/Lacrosse Fields | 4               | 1 / 5,000       | 5                        | - 1             | 5                      | - 1             | 5                        | - 1             | 5                        | - 1             |
| Softball Fields                 | 13              | 1 / 5,000       | 5                        | + 8             | 5                      | + 8             | 5                        | + 8             | 5                        | + 8             |
| Swimming Pools                  | 5               | 1 / 20,000      | 1                        | + 4             | 1                      | + 4             | 1                        | + 4             | 1                        | + 4             |
| Tennis Courts                   | 9               | 1 / 2,000       | 13                       | - 4             | 13                     | - 4             | 13                       | - 4             | 14                       | - 5             |

Sources: U.S. Census Bureau, NRPA, URDC

**Table 3.10  
Southwest Planning Section Facilities Analysis**

| Facility                        | # Of Facilities | NRPA Guidelines | 2000 Population (126,252) |                 | 2005 Population (131,596) |                 | 2010 Projection (134,517) |                 | 2020 Projection (140,499) |                 |
|---------------------------------|-----------------|-----------------|---------------------------|-----------------|---------------------------|-----------------|---------------------------|-----------------|---------------------------|-----------------|
|                                 |                 |                 | Needed Units              | Surplus/Deficit | Needed Units              | Surplus/Deficit | Needed Units              | Surplus/Deficit | Needed Units              | Surplus/Deficit |
| Basketball Courts               | 49.5            | 1 / 5,000       | 25                        | + 24.5          | 26                        | + 23.5          | 27                        | + 22.5          | 28                        | + 21.5          |
| Baseball Fields                 | 13              | 1 / 5,000       | 25                        | - 12            | 26                        | - 13            | 27                        | - 14            | 28                        | - 15            |
| Baseball Fields (Lighted)       | 5               | 1 / 30,000      | 4                         | + 1             | 4                         | + 1             | 4                         | + 1             | 5                         | 0               |
| Football/Soccer/Lacrosse Fields | 12              | 1 / 5,000       | 25                        | - 13            | 26                        | - 14            | 27                        | - 15            | 28                        | - 16            |
| Softball Fields                 | 44              | 1 / 5,000       | 25                        | + 19            | 26                        | + 18            | 27                        | + 17            | 28                        | + 16            |
| Swimming Pools                  | 5               | 1 / 20,000      | 6                         | - 1             | 7                         | - 2             | 7                         | - 2             | 7                         | - 2             |
| Tennis Courts                   | 37              | 1 / 2,000       | 63                        | - 26            | 66                        | - 29            | 67                        | - 30            | 70                        | - 33            |

Sources: U.S. Census Bureau, NRPA, URDC

- *Southeast Planning Section (Table 3.11)* — The southeast planning section contains approximately 20 percent of the county’s population. According to the NRPA guidelines, the area has surpluses of 27 softball fields, 4½ basketball courts, and seven football/soccer/lacrosse fields and deficits of 10 unlighted baseball fields, one lighted baseball field, and 13 tennis courts. If no additional facilities are provided by 2020, the deficits will increase to 11 unlighted baseball fields and 15 tennis courts.

**Dauphin County Parks, Recreation, Open Space, and Greenways Study**

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**Table 3.11
Southeast Planning Section Facilities Analysis**

Facility	# Of Facilities	NRPA Guidelines	2000 Population (50,324)		2005 Estimate (52,796)		2010 Projection (54,146)		2020 Projection (56,913)	
			Needed Units	Surplus/Deficit	Needed Units	Surplus/Deficit	Needed Units	Surplus/Deficit	Needed Units	Surplus/Deficit
Basketball Courts	14.5	1 / 5,000	10	+ 4.5	10	+ 4.5	10	+ 4.5	11	+ 3.5
Baseball Fields	0	1 / 5,000	10	- 10	10	- 10	10	- 10	11	- 11
Baseball Fields (Lighted)	0	1 / 30,000	1	- 1	1	- 1	1	- 1	1	- 1
Football/Soccer/Lacrosse Fields	17	1 / 5,000	10	+ 7	10	+ 7	10	+ 7	11	+ 6
Softball Fields	37	1 / 5,000	10	+ 27	10	+ 27	10	+ 27	11	+ 26
Swimming Pools	2	1 / 20,000	2	0	2	0	2	0	2	0
Tennis Courts	13	1 / 2,000	25	- 12	26	- 13	27	- 14	28	- 15

Sources: U.S. Census Bureau, NRPA, URDC

- City of Harrisburg (Table 3.12)* — The City of Harrisburg contains slightly less than 20 percent of the county’s population. According to the NRPA guidelines, the city has a surplus of two basketball courts and deficits of 10 unlighted baseball fields, one lighted baseball field, eight football/soccer/lacrosse fields, eight softball fields, and 20 tennis courts. The deficits in the city do not account for the stadium fields on City Island, which might not be readily available to city residents. If no additional facilities are provided by 2020, the deficits will increase to 11 unlighted baseball fields, nine football/soccer/lacrosse fields, nine softball fields, and 22 tennis courts.

**Table 3.12
City of Harrisburg Facilities Analysis**

Facility	# Of Facilities	NRPA Guidelines	2000 Population (48,950)		2005 Estimate (48,410)		2010 Projection (48,115)		2020 Projection (47,511)	
			Needed Units	Surplus/Deficit	Needed Units	Surplus/Deficit	Needed Units	Surplus/Deficit	Needed Units	Surplus/Deficit
Basketball Courts	14	1 / 5,000	10	+ 4	10	+ 4	10	+ 4	11	+ 3
Baseball Fields	0	1 / 5,000	10	- 10	10	- 10	10	- 10	11	- 11
Baseball Fields (Lighted)	0	1 / 30,000	2	- 2	1	- 1	1	- 1	1	- 1
Football/Soccer/Lacrosse Fields	2	1 / 5,000	10	- 8	10	- 8	10	- 8	11	- 9
Softball Fields	2	1 / 5,000	10	- 8	10	- 8	10	- 8	11	- 9
Swimming Pools	4	1 / 20,000	2	+ 2	2	+ 2	2	+ 2	2	+ 2
Tennis Courts	6	1 / 2,000	24	- 18	26	- 20	27	- 21	28	- 22

Sources: U.S. Census Bureau, NRPA, URDC

RECREATION PROGRAMS

Dauphin County, municipalities, nonprofit organizations, some schools, and other entities provide a variety of recreation programs and other opportunities for county residents. The Dauphin County Department of Parks and Recreation focuses on special events, while the repeating programs (e.g., classes) and competitive activities (e.g., sports) are offered by municipal and other local providers. The delineation in primary responsibilities fits well with the distinction in local and county park types—the specialized facilities and larger size of county facilities supports broader special events and allows larger attendance.

Currently, the Dauphin County Department of Parks and Recreation offers 15 highlighted special events (Table 3.13).³⁷ In addition, the department uses community partnerships to cosponsor environmental, historical, arts, and other programs at the county’s unique facilities.

Table 3.13
Dauphin County Recreation Programs

Program	Length	Approximate Attendance
Maple Sugar Festival	1 day	1,400
Black History Month School Program	—	2,000
Wetlands Festival	1.5 days	500
Egg Hunt	1 day	4,300
Garden Faire	1 day	1,300
Blues and Wine Festival	1 day	500
Fort Halifax MusicFest	1 day	500
Cultural Celebration Steet Festival	1 day	2,000
Dauphin County Jazz Festival	1 day	1,000
Pipe and Drum Festival	1 day	1,000
Fort Hunter Day	1 day	3,000
Pennsylvania Indians Festival	1 day	1,200
Lykens Glen Fall Festival	1 day	500
Christmas at Fort Hunter	weekends in December	3,350
Sunset Performing Artist Series	6 summer evenings	1,000

Source: Dauphin County Department of Parks and Recreation

³⁷ More information on department events is available at the department website:
<http://www.dauphincounty.org/parks-recreation/>

SUMMARY

The Dauphin County parks and recreation system is composed of parks, recreation facilities, and recreation programs. The National Recreation and Park Association (NRPA) provides guidelines for the amount of parkland and recreation facilities suggested to meet the recreation needs of the general population. Chapter 3 included a summary of the parks, recreation facilities, and recreation programs in the county and a comparison of the amount of parkland and facilities to the Dauphin County guidelines. Key information points and associated conclusions include:

- Parks vary based on size, facilities, and service area. The Dauphin County system includes three major types of parks: community parks, neighborhood parks, and miniparks (Table 3.1). The county currently has 2,282.8 total acres of the three types of parkland, or 8.8 acres of active parkland per thousand population. As population increases, the need for parkland increases. The county should strive to achieve a goal of 10.5 acres of parkland per thousand population, which coincides with the NRPA suggested guideline. Based on a 2005 estimated population of 259,932, Dauphin County needs 446.5 acres of total parkland to meet the needs of the current population, as follows (Table 3.2):
 - 199.1 acres of community parkland
 - 145.9 acres of neighborhood parkland
 - 101.5 acres of minipark land

Dauphin County and all of the municipalities in the county should look for opportunities to provide additional parkland wherever possible. Expansion of current parks should be a primary goal. Municipalities can also use the regulatory tool of requiring developers to provide parkland or a fee in lieu of land for parks.

- Based on the 2005 population estimate, the deficit of parkland in the county is divided as follows:
 - The North Planning Section has surpluses of community and neighborhood parkland and a slight deficit of minipark land (Table 3.3). The section has a total surplus of approximately 507.8 acres.
 - The Southwest Planning Section has a total deficit of 891.6 acres, with deficits in all three types of parkland (Table 3.4).
 - The Southeast Planning Section has a slight surplus of community parkland and small deficits of neighborhood and minipark lands. The section has a total deficit of 7.5 acres (Table 3.5).
 - The City of Harrisburg has a total deficit of 55.2 acres, with deficits of neighborhood parkland and miniparks and a surplus of community parkland (Table 3.6).

Dauphin County Parks, Recreation, Open Space, and Greenways Study

The Southwest Planning Section has the largest population of the three sections. Therefore, the demand for parks is greatest, and the deficit of current parkland is highest. Efforts to obtain additional parkland should be made throughout the county to meet identified deficits.

- The Dauphin County public recreation system currently contains the following major facilities in county and local parks (Appendix B, Table B-1):
 - 86 basketball courts
 - 24 baseball fields
 - 96 softball fields
 - 35 football/soccer/lacrosse fields
 - 16 swimming pools
 - 65 tennis courts

Schools are not considered part of the recreation inventory because the use of school facilities by outside groups and the general public varies by school district, and relationships between school districts and the general public vary within the county.

The NRPA also provides population guidelines to help determine major recreation facility needs. Based on the 2005 population estimate and excluding school facilities, Dauphin County currently has (Table 3.8):

- A surplus of 33 basketball courts
- A deficit of 35 baseball fields, which includes a need for three lighted fields
- A deficit of 17 football/soccer/lacrosse fields
- A surplus of 44 softball fields
- A surplus of three swimming pools
- A deficit of 65 tennis courts

Similar to the parkland needs analysis, facility needs can be identified by planning section. The analysis indicates that the following facilities are needed by planning section:

- North (Table 3.9): one football/soccer/lacrosse (f/s/l) field and four tennis courts
- Southwest (Table 3.10): 13 baseball fields, 14 f/s/l fields, two swimming pools, and 29 tennis courts
- Southeast (Table 3.11): 11 baseball fields (including one with lights) and 13 tennis courts
- Harrisburg City (Table 3.12): 11 baseball fields (including one with lights), 10 f/s/l fields, eight softball fields, and 20 tennis courts

Dauphin County and the municipalities can work with the school districts to open school facilities throughout the county to outside groups and the general public whenever possible. Furthermore, the county and municipalities can also work with program providers that make the greatest use of the facilities, such as sports leagues, to monitor needs and refine facility needs, as needed.

PARKS, RECREATION, OPEN SPACE, AND GREENWAYS SYSTEM

The *Dauphin County Parks, Recreation, Open Space, and Greenways Study* presents a system of recreational and green spaces throughout the county designed to enhance the quality of life for all county residents. The following chapter includes:

- A vision for the parks, recreation, open space, and greenways system in Dauphin County.
- A description of the system, including maps of the proposed system, a ranking system and analysis of the proposed greenways, and potential future projects in support of greenways and open space in general and, specifically, the proposed system.
- An action program, composed of recommended actions including proposed time frames, lead entities, and, if appropriate, cost estimates. The action program also includes information on land preservation techniques and potential funding sources for the proposed system.
- A discussion of generalized costs and potential funding sources.
- A discussion of the role of Dauphin County government in parks, recreation, open space, and greenways.

VISION FOR PARKS, RECREATION, OPEN SPACE, AND GREENWAYS

Dauphin County has a strong parks and recreation system based on different and appropriate park configurations and program responsibilities for different levels of government. Local governments and nonprofit organizations, such as Little Leagues, will continue to provide neighborhood and smaller community parks, closer to residents, with traditional facilities, such as playgrounds, fields, and courts. Local government and nonprofit organizations will also continue to provide for appropriate programming at the local level.

The Dauphin County Department of Parks and Recreation provides larger community parks with more unique facilities, such as trails, gardens, historic sites, and natural habitats. Programming through the county department focuses on special events.

The *Dauphin County Parks, Recreation, Open Space, and Greenways Study* envisions a continuation of the basic delineation of park and recreation functions within the county for the foreseeable future. However, the current parks and recreation system will be enhanced by implementing the Greenway Concept and the Open Space Concept presented in the following chapter. The proposed greenway and open space system will accomplish several important objectives, including:

- Preserve and enhance the visual character of Dauphin County's landscapes.
 - Improve the quality of life for residents and the visitor experience for tourists.
-

- Protect important habitat areas and preserve migration paths for wildlife.
- Create a network of natural and historic features throughout the county that serves as an educational tool for the public.
- Integrate the recreation sites in Dauphin County with the Susquehanna Greenway, one of Pennsylvania’s megagreenways, as identified by the PA Department of Conservation and Natural Resources.
- Enhance recreational and exercise opportunities in appropriate settings.
- Provide opportunities for nonmotorized transportation links, connections, and pathways in appropriate settings.
- Preserve and enhance historic districts by linking historic sites within the greenway system, not only in Harrisburg, but in small villages and boroughs, such as Linglestown, Hummels-town, and Middletown.

PARKS, GREENWAYS, AND OPEN SPACE SYSTEM

The proposed parks, greenways, and open space system is based on the following definitions approved by the study committee on 26 June 2008:

Greenways linear corridors of public and private land that may serve as the linkages between specifically identified natural resource-based or manmade features. They can be either land or water based and serve a variety of functions and benefits including recreation, transportation, community revitalization and economic development, natural resource conservation, environmental protection, wildlife habitat and migration and education. These corridors often follow old railways, canals, ridge tops, rivers and stream valleys ³⁸

Greenways Network connected **greenways** as well as **hubs** of specifically identified natural resources or open space and manmade features or destinations that influence the development of the linear greenway corridor ³⁹

Hubs “specifically identified features or destinations, either natural resource-based (e.g. protected open space that is unique natural area) or manmade (e.g. school), or a combination of both, that would be linked together by a greenway.” ⁴⁰

³⁸ adapted from Pennsylvania Department of Conservation and Natural Resources (DCNR), *Fact Sheet, County Greenways and Open Space Network Planning*, updated 11 March 03, p. 2

³⁹ Ibid.

⁴⁰ DCNR, *Fact Sheet, County Greenways and Open Space Network Planning*, updated 11 March 03, p. 2

Open Space

“Open space is land or water that is predominately undeveloped and permanently reserved for public or private enjoyment. This can be stream valleys, ridge tops, lakes, woodlands, parks, agriculture land and more. Open space serves many purposes. It provides recreation areas for a wide range of activities such as baseball, skiing, picnicking, soccer, wildlife observation, hiking, and biking. Open space conserves biodiversity and natural resources. Natural areas provide habitat for plants and animals and help purify our air and recharge water by removing pollutants that originate in developed areas. Open space also preserves historic landscapes, scenic quality, community character, and agricultural land.

“Open space often enhances economic value. Property values, though dependent on a variety of factors, do generally rise when located close to clean water, attractive landscapes, recreational areas and parks. Businesses are attracted to areas that provide a high quality of life. This generally means convenient access to natural settings and recreational and cultural opportunities. With the increasing popularity of recreational pursuits, whether natural or cultural, open space areas benefit travel and tourism businesses. By conserving open space and discouraging sprawl development, local agencies can minimize the cost of public services such as water, sewer, trash collection and roads.”⁴¹

The background studies for the *Dauphin County Parks, Recreation, Open Space, and Greenways Study* identified the many items to be considered in developing a greenway system. The volume of information and variety of land properties requires the proposed Dauphin County parks, recreation, open space, and greenways system to be illustrated on two maps instead of one:

- The Greenways Concept (Map 4.1) includes three types of proposed greenways: recreational/cultural, conservation, and multiuse. The concept also identifies several of the boroughs and the City of Harrisburg as hubs of activity within the greenway system.
- The Open Space Concept (Map 4.2) identifies both current open spaces and lands that should be protected. The concept includes:
 - State open spaces, such as state conservation areas and state game lands.
 - Agricultural easements.
 - Environmentally sensitive areas, including 100-year floodplains, wetlands, slopes greater than 25 percent, and sites/forest blocks identified in the *Natural Areas Inventory for Dauphin County, Pennsylvania* (The Nature Conservancy, 1999).

⁴¹ *Dauphin County Comprehensive Plan: Basic Studies and Trends*, Dauphin County Planning Commission, January 2008, p. 9–22

Dauphin County Parks, Recreation, Open Space, and Greenways Study

For continuity, established trails, Fort Indiantown Gap, and the Harrisburg Water Authority land holdings at Dehart Reservoir have been placed on both plan maps. Each portion of the proposed system is presented in greater detail below.

PROPOSED GREENWAYS CONCEPT

The proposed Greenways Concept (Map 4.1) includes three different types of greenways (Table 4.1): recreational/cultural, conservation, and multiuse. In general, recreational/cultural greenways will include one or more elements of human activity, such as trails, attractions, historic sites and districts, or activity centers. Conservation greenways should be preserved in a natural state with limited or no human activity. Multiuse greenways exhibit characteristics of both recreation/cultural and conservation greenways for different portions of the greenway.

**Table 4.1
Proposed Dauphin County Greenway Types**

Greenway Type	Definition	Proposed Examples
Recreational/ Cultural	support human activity; provide low-impact recreation opportunities and “quality of life” benefits, such as: <ul style="list-style-type: none"> • Visual relief from development and congestion • Environmental education opportunities • Linkages for alternative transportation • Connections to hubs and nodes, including boroughs, major developments, shopping/employment centers, or points of interest, such as parks and historic sites or districts 	<ul style="list-style-type: none"> • Bike Route J • Capital Area Greenbelt • Darlington Trail • Derry Twp. Bike/Pedestrian Trail • Horse-Shoe Trail • Lykens Valley Rail Trail • Victoria Trail
Conservation	support ecological or conservation purposes; undisturbed corridors that protect natural resources and, therefore, fulfill an environmental purpose, such as a habitat, conduit, barrier, or filter.	<ul style="list-style-type: none"> • Armstrong Creek Greenway • Beaver Creek Greenway • Clarks Creek Greenway • Conewago Creek Greenway (part) • Fishing Creek Greenway • Mahantango Creek Greenway • Manada Creek Greenway • Powell Creek Greenway • Wiconisco Creek Greenway
Multiuse	support both human activity and ecological/conservation purposes; greenways with portions that exhibit characteristics of conservation greenways and portions that exhibit characteristics of cultural/recreational greenways	<ul style="list-style-type: none"> • Appalachian Trail Greenway • Conewago Creek Greenway (part) • Paxton Creek Greenway • Stony Creek Greenway and Trail • Susquehanna River Greenway / Water Trail • Swatara Creek/Union Canal Greenway / Water Trail

Source: URDC; adapted from Pennsylvania statewide greenway definitions, available at:
<http://www.pagreenways.org/greenwaysnetworks-types.htm>

Dauphin County Parks, Recreation, Open Space, and Greenways Study

Each specific greenway is discussed below, with a notation for those that are proposed. The entire system represents more than 350 miles of greenways, broken down as follows:

— Recreation/Cultural Greenways:	94.3 miles
— Conservation Greenways:	141.3 miles
— Multiuse Greenways:	118.3 miles
Total	353.9 miles

- ***Appalachian Trail Greenway*** — The Appalachian National Scenic Trail passes through Dauphin County. The 2,175-mile trail between Maine and Georgia is a hiker’s lifetime achievement, and the 21.0-mile portion through Dauphin County includes some wonderful scenery and a large span of scenic wonder, which classifies the greenway as a multiuse facility.
- ***Armstrong Creek Greenway (proposed)*** — The Armstrong Creek Greenway is a proposed belt of preserved land along the 15.4-mile main stem of the creek from the creek source in Jackson Township downstream through Halifax Township to the Susquehanna River. The greenway includes an additional 3.8-mile spur that roughly parallels Rutter Road, Straws Church Road, and Wolf Hole Road in Jackson Township.
- ***Beaver Creek Greenway (proposed)*** — The study proposes a conservation greenway along the entire 10.3-mile Beaver Creek from south of Sleepy Hollow Road in West Hanover Township to the Swatara Creek near Hummelstown. The greenway also includes a 2.1-mile portion of Nyes Run—a tributary to Beaver Creek—from a point near Red Top Road in Lower Paxton Township to the Swatara. The Beaver Creek Greenway provides much-needed north-south connectivity in the southern portion of the county greenway system.
- ***Bike Route J*** — Bike Route J, part of PennDOT’s system of bicycle touring roads spanning the entire state, passes through Dauphin County and is incorporated into the proposed greenway system. The route uses existing state roads connecting the Borough of New Freedom on the Maryland border to the Borough of South Waverly on the New York border.
- ***Capital Area Greenbelt*** — The plan recognizes the 18.7-mile Capital Area Greenbelt as a significant recreational/cultural greenway in the region. More information is available through the Capital Area Greenbelt Association at [http:// www.caga.org](http://www.caga.org).

The Capital Area Greenbelt includes a section along the east bank of Wildwood Lake to the west of US 22/322. The plan includes a proposal for an additional greenway—which may or may not be formally associated with the Greenbelt—along the east side of US 22/322 from PA 39 to Wildwood Road. The proposed greenway will allow safe passage under US 22/322 for residents north of PA 39 via the Wildwood Road underpass.

Dauphin County Parks, Recreation, Open Space, and Greenways Study

- **Clarks Creek Greenway (proposed)** — The Clarks Creek Greenway is a proposed conservation greenway along the entire length of the 17.1-mile creek. Clarks Creek connects Dehart Reservoir to the Susquehanna River.
- **Conewago Creek Greenway (proposed)** — The Conewago Creek Greenway along the southern border of Dauphin County is proposed as a conservation and multiuse greenway. The 7.2 miles bordering Londonderry Township as the creek flows into the Susquehanna River is proposed as a conservation greenway. The residents of Londonderry Township along the creek have indicated a preference for conserving the waterway. The 4.9 miles upstream bordering Conewago Township are proposed as a multiuse greenway, in line with township wishes and recognizing the potential for water recreation in the upper reaches of the creek.
- **Darlington Trail** — The Darlington Trail is an 11.8-mile trail on State Game Land #211. The trail connects the Appalachian Trail in Middle Paxton Township on the west to Tower Road in East Hanover Township on the east. Current information indicates that the trail may not be continuous.
- **Derry Township Bike and Pedestrian Pathway** — The current Derry Township pathway system provides significant connections in the Hummelstown/Hershey area and connects to the proposed countywide system. The 8.4-mile pathway system connects the Swatara Creek Greenway to the Horse-Shoe Trail.
- **Fishing Creek Greenway (proposed)** — The proposed Fishing Creek Greenway is intended as a conservation greenway along the entire 10.5 miles of the creek. The creek flows westward through West Hanover and Middle Paxton Townships to the Susquehanna near Fort Hunter.
- **Horse-Shoe Trail** — The state greenways plan⁴² identifies the Horse-Shoe Trail as a Major Greenway Corridor. The 140-mile trail connects the Appalachian Trail in Dauphin County to the Valley Forge National Historical Park in Chester County. The 32.2-mile Dauphin County segment from the Appalachian Trail in East Hanover Township to the Lebanon County border in Derry Township is the longest portion of any of the five counties through which the trail passes because of the need for a significant switchback to circumvent Fort Indiantown Gap. The Horse-Shoe Trail is the only trail in Dauphin County maintained and designated for both equestrian and hiking use.
- **Lykens Valley Rail Trail (proposed)** — The proposed Lykens Valley Rail Trail follows the abandoned right-of-way of the former Lykens Valley Railroad and has been the subject of a recent feasibility study. The initial phase of 6.0 miles will connect the Williamstown area to the Washington Township/Elizabethville border. When completed, the entire 20.5-mile trail in

⁴² Pennsylvania Greenways Partnership Commission and Greenways Partnership Advisory Committee, *Pennsylvania Greenways, An Action Plan for Creating Connections*, June 2001

Dauphin County Parks, Recreation, Open Space, and Greenways Study

Dauphin County will connect the hubs of Millersburg, Elizabethville, Lykens, and Williams-town. The railroad right-of-way extends further eastward to the Borough of Tower City in neighboring Schuylkill County.

- ***Mahantango Creek Greenway (proposed)*** — The study proposes a conservation greenway along the entire Mahantango Creek. The creek meanders along the northern border between Dauphin County and Northumberland County for approximately 16.5 miles.
- ***Manada Creek Greenway (proposed)*** — The Manada Creek is a tributary of the Swatara Creek. The study proposes a conservation greenway for the entire 11.8-mile length of the meandering creek from the source within Fort Indiantown Gap near PA 443 in East Hanover Township to the mouth at Swatara Creek.
- ***Paxton Creek Greenway (proposed)*** — The proposed Paxton Creek Greenway is a multiuse greenway along the Paxton Creek from north of McIntosh Road to the Susquehanna River—a distance of 5.5 miles. In addition, the greenway includes a 1.5-mile spur extending eastward from a point south of McIntosh Road to the Colonial Country Club. The greenway passes through Susquehanna and Lower Paxton Townships.

The Paxton Creek Watershed and Education Association has proposed a system of trails along branches of the creek. The system would begin by extending the trail on the grounds of the Harrisburg State Hospital that begins at the Capital Area Greenbelt. The trails would connect all four municipalities in the watershed (Harrisburg City, Penbrook Borough, Lower Paxton Township, and Susquehanna Township) and would total more than 30 miles of trails.

- ***Powell Creek Greenway (proposed)*** — The Powell Creek Greenway is one of several proposed, east-west conservation greenways along streams that flow into the Susquehanna River. The proposed greenway is approximately 20.8 miles long and flows through Jefferson, Wayne, and Halifax Townships.
- ***Stony Creek Greenway and Trail (proposed)*** — The proposed Stony Creek Greenway and Trail includes both the Stony Creek and the Stony Valley Rail Trail. The multiuse greenway is approximately 14.7 miles long, beginning at the Borough of Dauphin and extending past the Dauphin-Lebanon County line through Middle Paxton and East Hanover Townships.

Fort Indiantown Gap has proposed a land swap with a portion of the adjacent State Game Land 211. The proposal is controversial and faces resident opposition. The final decision on the use of the land may have an effect on the alignment of a proposed Stony Creek Greenway and Trail.

- ***Susquehanna River Greenway and Water Trail*** — The study designates the entire length of the Susquehanna River along the western border of Dauphin County as a multiuse greenway. The greenway stretches the entire 49.7 miles from the Mahantango Creek along the county's northern border to the Conewago Creek along the southern border. The Susquehanna River is the subject
-

of a greenway partnership⁴³ and has been identified in the Pennsylvania state greenways plan as a major greenway. Furthermore, on 3 June 2008, the middle and lower sections of the Susquehanna Water Trail were designated by the National Park Service as National Recreation Trails. The Susquehanna River Greenway is a planned green landscape connecting cities, towns, rural areas, conserved natural lands, and forests in Pennsylvania — along the main stem of the river from Great Bend, NY through Dauphin County to the Chesapeake Bay and along the West Branch of the river from North Cambria Borough (Cambria County) to Northumberland Borough (Northumberland County). The concept for the greenway includes linkages, way points, and river access and can be seen at: http://www.susquehannagreenway.org/greenway/lib/greenway/DesignMapRevisions/MainStem/Panel_5_edited_Feb_72.JPG.

- ***Swatara Creek/Union Canal Greenway and Water Trail*** — The Swatara Creek/Union Canal Greenway and Water Trail recognizes several significant features in eastern Dauphin County. The Swatara Creek begins in Schuylkill County and empties into the Susquehanna River at Middletown, connecting several destinations and recreation sites in Dauphin County, including Boat House Road Park in Derry Township. The Hummel Nature Trail, along the creek in the Borough of Hummelstown, is part of the greenway/water trail. The greenway/water trail meanders 21.0 miles through Londonderry, Lower Swatara, South Hanover, East Hanover, and Derry Townships and the Boroughs of Hummelstown, Middletown, and Royalton. The historic Union Canal was a towpath canal connecting Philadelphia to the Susquehanna River in the 19th and 20th centuries.
- ***Victoria Trail Greenway*** — The Victoria Trail Greenway is a small switchback across the Appalachian Trail in Middle Paxton and Wayne Townships. The 1.9-mile multiuse greenway connects PA 325 to the Appalachian Trail.
- ***Wiconisco Creek Greenway (proposed)*** — The proposed Wiconisco Creek Greenway is a conservation greenway along the winding Wiconisco from the Lebanon County line to the Susquehanna River at Millersburg—a distance of 20.7 miles. The Wiconisco connects the hubs of Millersburg, Lykens, and Williamstown, passing near the Borough of Elizabethville as well.

PROPOSED OPEN SPACE CONCEPT

The proposed Open Space Concept (Map 4.2) identifies both current open spaces and lands that should be protected. The concept includes state open spaces, agricultural easements, and environmentally sensitive areas, each of which is discussed below.

- ***State open spaces*** — State open spaces include large, open areas under state control. In Dauphin County, state open spaces comprise 66,024 acres (103.2 square miles) and include:

⁴³ The Susquehanna Greenway Partnership is a nonprofit corporation formed to implement the greenway concept along the Susquehanna River in Pennsylvania. More information is available at: www.susquehannagreenway.org

Dauphin County Parks, Recreation, Open Space, and Greenways Study

- Boyd Big Tree Conservation Area – Middle and Lower Paxton Townships; 949 acres
 - Joseph Ibberson Conservation Area – Wayne and Middle Paxton Townships; 350 acres
 - State Game Land (SGL) 210 – Jefferson, Jackson, and Rush Townships; 11,124 acres
 - SGL 211 (also known as St. Anthony’s Wilderness) – Middle Paxton, Jefferson, and Rush Townships; 44,342 acres
 - SGL 246 – Londonderry Township; 423 acres
 - SGL 264 – Wiconisco, Williams, Washington, Lykens Townships; 8,836 acres
- ***Agricultural Easements***⁴⁴ — The Open Space Concept includes agricultural easements. From the inauguration of the Dauphin County Agricultural Security Program in 1990 until September 2008, 11,569 acres of farmland have been permanently preserved through the use of 114 conservation easements (Map 4.2).⁴⁵ Most of the farmland under agricultural easement is in Lykens Township (31 easements; 3,498 acres) and Mifflin Township (23 easements; 2,284 acres). The Open Space Concept strongly supports the continuation and expansion of land preservation through agricultural easements.

In order to have development rights purchased on a farm by having an Agricultural Conservation Easement placed on the land, the landowner must first enroll in an Agricultural Security Area (ASA). The Dauphin County Conservation District reported that, as of September 2008, 1,280 parcels comprising 67,461 acres had been placed in ASAs. The municipality with the greatest number of parcels and amount of land in ASAs is Lykens Township (249 parcels; 11,423 acres). Landowners who enroll parcels in ASAs are eligible for property tax benefits for the enrolled land. However, participation in ASAs is voluntary, and land can be withdrawn from an ASA, subject to repayment of the tax benefits received. Land enrolled in an ASA is not protected from development. Only a permanent easement placed on the land in perpetuity will conserve the land.

- ***Environmentally Sensitive Areas*** — Environmentally sensitive areas are important areas to recognize for land preservation efforts. The *Dauphin County Parks, Recreation, Open Space, and Greenway Study* recognizes the importance of environmentally sensitive areas by including the following areas in the plan (Map 4.2):

⁴⁴ data from the Dauphin County Conservation District as of September 2008

⁴⁵ As of September 2008, an additional seven easements on 571 acres had been approved and are awaiting finalization. Also, an additional three easements on 248 acres were expected to be finalized in early 2009.

- 100-year floodplains
- Wetlands
- Slopes greater than 25%
- Sites from the *Natural Areas Inventory*
- Forest blocks from the *Natural Areas Inventory*
- Important Bird Areas

GREENWAY PRIORITIES

The *Dauphin County Parks, Recreation, Open Space, and Greenways Study* includes an evaluation of the proposed greenways. The evaluation:

- Recognizes the characteristics of each greenway and identifies corridors that require more immediate protection and/or attention.
- Focuses planning efforts on areas that possess the characteristics of a successful greenway or open space project.
- Helps promote the level of support needed to advance a project from planning to implementation. To perform the evaluation, the consultant prepared draft criteria important to the greenway concept. The committee reviewed and finalized the criteria through a discussion of factors that have been used in successful greenway planning efforts elsewhere in the state and modified to reflect conditions in Dauphin County.

After all factors were developed, the committee scored each criterion in the greenway evaluation—from five points being very important to zero points being not important. The factor with the highest score in evaluating greenways is identification as a Major Greenway Corridor by DCNR (Table 4.2). The lowest scoring factor is the inclusion of or connection to historic resources.

After the evaluation criteria and weights were established, the consultant prepared a draft examination of each proposed greenway (or greenway segment) against each criterion. The committee reviewed the draft examination and finalized the analysis. The sum of the criteria points yielded a score for the greenway: higher scores indicating more and/or more important characteristics and, therefore, a higher priority for greenway development and/or preservation.

The committee also recognized that some of the criteria are inherently oriented to recreation. For instance, conservation greenways would not provide alternative transportation opportunities because one of the purposes of conservation greenways is to minimize human contact to conserve natural resources. In other words, only recreation/cultural or multiuse greenways would receive points for potential transportation opportunities—one of the two criteria that ranked second highest in value. Therefore, conservation greenways as a group will score lower than either recreation/conservation greenways or multiuse greenways and should be considered separately for priority identification.

Table 4.2
Greenway Evaluation Criteria Weights

Criterion	Average (Mean)
– Identified as a Major Greenway Corridor by DCNR	4.82
– Connects county, regional, state, and/or national recreation resources.	4.45
– Provides alternative transportation opportunities (e.g., canoeing, biking, hiking).	4.45
– Contains an area for preservation identified in the Natural Areas Inventory.	4.30
– Fills a gap in the county greenways network	4.18
– Connects to/extends existing trails.	4.09
– Provides natural corridor/connector for wildlife.	4.09
– Provides significant water quality benefits	4.00
– Contains a stream with a DEP Chapter 93 rating (Exceptional Value, High Quality, or Cold Water Fishery).	3.73
– Located in area under high development pressure or in identified growth area.	3.73
– Connects populated areas (e.g., Harrisburg, boroughs).	3.64
– Designated a Scenic Byway or State Bike Route by PennDOT.	3.45
– Connects urban areas to rural countryside.	3.45
– Contains significant scenic resources.	3.45
– Contains or connects historic resources.	3.00

Source: Dauphin County Parks, Recreation, Open Space, and Greenway Study Committee; July 2008

The three highest ranking recreational/cultural or multiuse greenways in the *Dauphin County Parks, Recreation, Open Space, and Greenway* system, in order, are: (Table 4.3)

1. Susquehanna Greenway and Water Trail from Reed Township to Highspire.
2. Swatara Creek Greenway and Water Trail
3. (tie) Susquehanna Greenway and Water Trail from Northumberland County to Reed Township
Susquehanna Greenway and Water Trail from Highspire to Lancaster County

Three of the four highest ranking recreational/cultural or multiuse greenways are parts of the Susquehanna Greenway and Water Trail. Other high-ranking recreational/cultural or multiuse greenways include State Bike Route J and the Stony Creek Greenway.

**Table 4.3
Greenway Priorities**

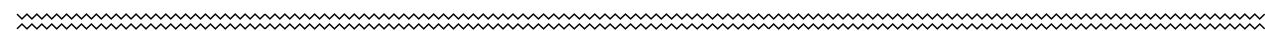
Greenway	CRITERION (VALUE)															TOTAL	RANK ¹
	Identified as a Major Greenway Corridor by DCNR. (4.82)	Connects county, regional, state, and/or national recreation resources. (4.45)	Provides alternative transportation opportunities. (4.45)	Contains an area identified in the Dauphin County Natural Areas Inventory. (4.30)	Fills a gap in the county greenways network. ¹ (4.18)	Connects to/extends existing trails. (4.09)	Provides natural corridor/connector for wildlife. (4.09)	Provides significant water quality benefits. (4.00)	Adjacent to stream with DEP Chapter 93 rating. (3.73)	Includes area under high development pressure or in identified growth area. (3.73)	Connects populated areas to each other. (3.64)	Designated Scenic Byway or State Bike Route. (3.45)	Connects urban areas to rural countryside. (3.45)	Contains significant scenic resources. (3.45)	Contains/connects historic resources. (3.00)		
Multiuise Greenways																	
Susquehanna Greenway and Water Trail (e)	4.82	—	4.45	4.30	—	—	4.09	4.00	3.73	3.73	3.64	3.45	3.45	3.45	3.00	46.11	3 (t)
— Northumberland Co. to Reed Twp.	4.82	4.45	4.45	4.30	—	4.09	4.09	4.00	3.73	3.73	3.64	3.45	3.45	3.45	3.00	54.65	1
— Reed Township to Highspire	4.82	—	4.45	4.30	—	—	4.09	4.00	3.73	3.73	3.64	3.45	3.45	3.45	3.00	46.11	3 (t)
— Highspire to Lancaster County																	
Appalachian Trail (e)	4.82	4.45	—	4.30	—	4.09	4.09	—	—	—	—	—	—	3.45	—	25.20	10
Paxton Creek Greenway (p)	—	4.45	4.45	4.30	—	4.09	4.09	4.00	3.73	3.73	3.64	—	—	3.45	—	39.93	5
Stony Creek Greenway and Trail (p)	—	4.45	4.45	4.30	—	4.09	4.09	4.00	3.73	—	—	—	—	3.45	—	32.56	7
Swatara Ck./Union Canal Greenway/Water Trail (e)	—	4.45	4.45	4.30	—	4.09	4.09	4.00	3.73	3.73	3.64	3.45	3.45	3.45	3.00	49.83	2
Recreational/Cultural Greenways																	
Lykens Valley Rail Trail (p)	—	4.45	4.45	4.30	—	4.09	—	—	—	3.73	3.64	—	—	3.45	3.00	31.11	8
Horse Shoe Trail (e)	4.82	4.45	4.45	4.30	—	4.09	—	—	—	—	—	—	—	3.45	—	25.56	10
Darlington Trail (e)	—	4.45	—	4.30	—	4.09	—	—	—	—	—	—	—	3.45	—	16.29	13
Victoria Trail (e)	—	4.45	—	—	—	4.09	—	—	—	—	—	—	—	3.45	—	11.99	14
Capital Area Greenbelt (e)	—	4.45	4.45	—	—	4.09	—	—	—	3.73	3.64	—	—	3.45	3.00	26.81	9
Conewago Creek Greenway (part) (p)	—	4.45	—	4.30	—	4.09	4.09	4.00	—	—	—	—	—	3.45	—	24.38	11
State Bike Route J (e)	—	4.45	4.45	—	—	4.09	—	—	—	3.73	3.64	3.45	3.45	3.45	3.00	33.71	6
Derry Township Bike and Pedestrian Trail (e)	—	—	4.45	4.30	—	4.09	—	—	—	—	—	—	—	3.45	3.00	19.29	12
Conservation Greenways																	
Wiconisco Creek Greenway (p)	—	4.45	—	4.30	—	—	4.09	4.00	3.73	—	3.64	—	—	3.45	3.00	30.66	2
Armstrong Creek Greenway (p)	—	4.45	—	4.30	—	—	4.09	4.00	3.73	—	—	—	—	3.45	3.00	27.02	3(t)
Powells Creek Greenway (p)	—	4.45	—	4.30	—	—	4.09	4.00	3.73	—	—	—	—	3.45	3.00	27.02	3 (t)
Clarks Creek Greenway (p)	—	4.45	—	4.30	—	—	4.09	4.00	3.73	—	—	—	—	3.45	—	24.02	7 (t)
Fishing Creek Greenway (p)	—	4.45	—	4.30	—	—	4.09	4.00	3.73	—	—	—	—	3.45	—	24.02	7 (t)
Manada Creek Greenway (p)	—	4.45	—	4.30	—	—	4.09	4.00	3.73	—	—	—	—	3.45	—	24.02	7 (t)
Beaver Creek Greenway (p)	—	—	—	4.30	—	—	4.09	4.00	3.73	3.73	3.64	3.45	3.45	3.45	—	33.84	1
Nyes Run Greenway (p)	—	—	—	4.30	—	—	4.09	4.00	3.73	3.73	3.64	—	—	3.45	—	26.94	5
Conewago Creek Greenway (part) (p)	—	4.45	—	4.30	—	4.09	4.09	4.00	—	—	—	—	—	3.45	—	24.38	6

(e) existing (p) proposed (t) tie placement

¹ No points were awarded for filling gaps because a gaps analysis is beyond the scope of the current study. Filling a gap in the proposed system should be a significant factor in assessing potential greenways at the local level.

² Conservation greenways have been ranked separately from recreational/cultural and multiuse greenways because several criteria are inherently oriented to recreation.

Sources: *Dauphin County Parks, Recreation, Open Space, and Greenways Study* committee; URDC



The three highest ranking conservation greenways in the proposed system, in order, are: (Table 4.3)

- Beaver Creek Greenway
- Paxton Creek Greenway
- Wiconisco Creek Greenway

ACTION PROGRAM

The *Dauphin County Parks, Recreation, Open Space, and Greenways Study* recognizes the distinction between projects and programs. **Projects** typically have a well-defined end product and usually involve physical construction. **Programs** frequently evolve over time, often centered on either funding, education, or administration.

The evaluation provides a framework to identify and pursue projects or programs to develop or improve the county parks, recreation, open space, and greenway system and to assist in land use decisions. Any project or program that supports one or more of the proposals should receive some priority status. Potential projects should receive a priority status in funding applications if the project is on a high ranking greenway. Projects and programs that do not appear in the study but still support study proposals should not be penalized in any competitive ranking process and should be included in future updates to the *Dauphin County Parks, Recreation, Open Space, and Greenway Study*. In addition, projects can be further analyzed in funding applications by applying the criteria for evaluation to the individual project. Therefore, the application would clearly illustrate the high correlation between the project and the greenway priority as established in the *Dauphin County Parks, Recreation, Open Space, and Greenways Study*.

Timing is another critical component of priority—one which carries an element of flexibility. If funding is available at the moment for a project that would otherwise rank below other projects, the project for which funding is available should be given additional weight or elevated to highest priority in order to take advantage of the funding opportunity. Likewise, if preliminary studies have been completed and the project is ready to go to construction, additional weight might also be given.

The action program for the *Dauphin County Parks, Recreation, Open Space, and Greenways Study* includes valuable information to help Dauphin County achieve the Parks and Greenways Vision and Open Space Vision identified earlier. The action program includes:

- Specific recommendations with time frames and responsible entities
- Information on effective land preservation techniques
- Generalized costs and information on potential funding sources
- Information on appropriate roles for various parks, recreation, and greenway stakeholders

OPEN SPACE PRIORITIES

Priorities for obtaining open space are based on many factors, some of which are out of public control. For instance, an owner's willingness to sell the land or an easement on the land is one of the most important criteria for open space preservation. Location, funding availability, and characteristics of the land are other key factors. Therefore, every opportunity to preserve open space must be evaluated individually.

The background data for *Dauphin County Parks, Recreation, Open Space, and Greenways Study* includes information on natural features and natural areas that are important to consider in determining preservation priorities. When considering land characteristics, lands that have more characteristics should be considered a higher priority than lands that have fewer characteristics (Map 4.3)

The *Dauphin County Parks, Recreation, Open Space, and Greenways Study* also supports the efforts of the City of Harrisburg to provide open space within the county's largest and most dense urban environment. Specifically, the plan supports the planning and provision of open space in the city's Southern Gateway and Northern Gateway projects, both of which are designed concentrations of sustainable development with residential, business, and transportation elements.⁴⁶

RECOMMENDATIONS

The study committee identified recommendations for the study, which appear in the action program. The recommendations can be separated into five basic categories:

- Physical Projects
- Outreach/Education/Information Programs
- Detailed Planning Projects/Studies
- Other Potential Projects and Programs
- Guidelines for Future Actions

The action program includes more detailed information about specific projects/ programs,⁴⁷ including a time frame for implementation, an estimated cost (if available and applicable), and the entity(ies) that should lead the project to implementation. The action program includes four different time frames: (Table 4.4)

- Immediate: within 1–2 years
- Short-range: within 3–5 years
- Medium-range: within 5–10 years
- Ongoing: begin as soon as possible and continue indefinitely; usually policy-oriented

⁴⁶ The national Arbor Day Foundation has awarded the City of Harrisburg a Tree City USA designation for 21 straight years.

⁴⁷ Many of the physical projects suggested by the committee require additional study before proceeding to implementation. Alignments, costs, ownership, and other issues must be resolved before some projects can proceed. Therefore, several projects identified by the committee as physical projects have been identified in the action program for more detailed study.

Dauphin County Parks, Recreation, Open Space, and Greenways Study

**Table 4.4
Action Program**

Recommendation (not listed in priority order)	Time Frame	Estimated Cost	Lead Entity(ies)*	Primary Funding**
<i>Physical Projects</i>				
1. Build the Lykens Valley Rail Trail. <ul style="list-style-type: none"> 20.5 miles; Susquehanna River to Schuylkill County line Users to include pedestrians, persons with disabilities, bicyclists, equestrians, hikers, nature enthusiasts, and cross-country skiers 10 potential trailheads (MYO Park, Lenkerville, Wiconisco Creek County Park, Woodside Station, Elizabethville Borough Park, Oakdale Station, Lykens Borough Park, Lykens Station, Wiconisco, Williamstown) 	Immed.	\$100,000–\$200,000 per mile ⁴⁸	Elizabethville, Lykens, Millersburg, Upper Paxton, Washington, Wiconisco, Williams, Williamstown DCPRD TCRPC	2, 3
2. Implement the Susquehanna Greenway by: <ul style="list-style-type: none"> Enhancing trailhead facilities in the riverfront parks of the Boroughs of Middletown, Steelton, and Millersburg. Increasing the connectivity of community land-based and Susquehanna Water Trail efforts. Adding interpretive and wayfinding signage. 		pending scope	SGP Municipalities	4, 5, 27
3. Relocate two sections of the Capital Area Greenbelt in Paxtang Borough. <ul style="list-style-type: none"> Derry Street to a point near Brisbane Street Section north of Rutherford Street 	Short	\$20,000 – \$30,000	Paxtang Borough CAGA SGP	2, 22
4. Enhance and expand local trails and projects to connect to the Dauphin County Parks and Greenway system.	Ongoing	various	Municipalities	2
<i>Outreach/Education/Information Programs</i>				
5. Inform local municipalities about the recently enacted law requiring zoning ordinances to include provisions to protect the Appalachian Trail (HB 1281, PA Act 24, 2008, The Appalachian Trail Protection Act).	Immed.	admin. only	Conservancies DCPC	1 —
6. Encourage the Pennsylvania Game Commission to keep state game lands open on Sundays throughout the year for passive recreation.	Immed.	admin.	Conservancies DCPRD TCRPC Municipalities	—
7. Convene a “greenways summit” for Dauphin County elected and appointed officials, property owners, and the general public to generate a greater understanding and stronger support for greenways.	Immed.	\$2,000–\$3,000	DCPRD TCRPC DCPC Conservancies SGP	County

⁴⁸ DCNR staff estimate

Dauphin County Parks, Recreation, Open Space, and Greenways Study

Recommendation (not listed in priority order)	Time Frame	Estimated Cost	Lead Entity(ies)*	Primary Funding**
8. Review each municipality's land use regulations to identify opportunities to improve/enhance land conservation and recreation provisions.	Immed.	admin. only	DCPC TCRPC Municipalities	—
9. Develop a "Friends..." organization to advocate for greenways in Dauphin County.	Short	admin. only	DCPRD TCRPC Conservancies Property owners	—
10. Work with local municipalities, conservancies, and others to protect environmentally sensitive areas through education/information programs, local ordinances, and a focus on priority natural areas.	Ongoing	admin. only	DCPC TCRPC DCPRD Municipalities Conservancies	—
11. Prepare municipal-level greenway plans and identify projects that support the <i>Dauphin County Parks, Recreation, Open Space, and Greenways Study</i> , such as the greenway plans completed for Lower Paxton and Londonderry Townships and the Swatara Creek. Municipal plans should include local greenways that connect to county greenways, additional hubs/spokes, and more detailed greenways alignments within municipal borders.	Ongoing	admin. only	Municipalities SGP	2 (for municipalities)
12. Encourage municipalities to use open space preservation techniques (e.g., Growing Greener concepts) in local ordinances.	Ongoing	admin. only	DCPC TCRPC Conservancies	—
13. Encourage municipalities to adopt official maps as an effective tool for land preservation. Consider hosting an official map workshop for local elected officials and staff using the Governor's Center for Local Government Services to provide trainers.	Ongoing	admin. only	DCPC TCRPC Conservancies	—
14. Educate property owners about the benefits of conservation easements.	Ongoing	admin. only	DCCD Conservancies TCRPC DCPC	—
15. Educate and encourage local municipal officials regarding greenways by visiting successful project sites and talking to sponsoring municipal agencies about the benefits of the completed project.	Ongoing	admin. only	Municipalities	—
<i>Detailed Planning Projects/Studies</i>				
16. Define and develop a connection between the northern reaches of the Capital Area Greenbelt, Wildwood Park, and Fort Hunter Park.	Immed.	\$35,000– \$75,000	Harrisburg, Susquehanna DCPRD	2
17. Perform a "gaps analysis" to identify key "missing links" in the county greenway system and methods to begin discussions with key landowners regarding conservation easements on the key parcels.	Short	\$50,000– \$100,000	DCPRD TCRPC DCPC Conservancies SGP	2

Dauphin County Parks, Recreation, Open Space, and Greenways Study

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| Recommendation (not listed in priority order)                                                                                                   | Time Frame | Estimated Cost    | Lead Entity(ies)*                                                        | Primary Funding** |
|-------------------------------------------------------------------------------------------------------------------------------------------------|------------|-------------------|--------------------------------------------------------------------------|-------------------|
| 18. Perform trail feasibility studies for:                                                                                                      |            |                   |                                                                          |                   |
| a. Alternative connections between the Appalachian Trail and points north.                                                                      | Short      | \$25,000–\$50,000 | Northern Dauphin municipalities<br>TCRPC<br>DCPRD                        | 2                 |
| b. Relocation of the Capital Area Greenbelt off of Derry Street in Paxtang. <i>(Note: separate project from #3)</i>                             | Short      | \$10,000–\$20,000 | Paxtang Borough<br>CAGA                                                  | 2, 42             |
| 19. Prepare a study to determine the feasibility, type, and cost of improvements to enhance the Park and Greenway Concept in Fort Halifax Park. | Short      | pending scope     | Halifax Township<br>DCPRD                                                | 2                 |
| 20. Perform trail feasibility studies for:                                                                                                      |            |                   |                                                                          |                   |
| a. Additional connections to Hershey and the Derry Township trail system.                                                                       | Medium     | pending scope     | Derry Township<br>TCRPC<br>DCPRD                                         | 2                 |
| b. Potential trails within the PA 39 corridor.                                                                                                  | Medium     | \$25,000–\$50,000 | Susquehanna,<br>Lower Paxton,<br>West Hanover,<br>South Hanover<br>DCPRD | 2                 |
| c. Redevelopment/extension of the Victoria Trail as a north-south connector.                                                                    | Medium     | \$15,000–\$30,000 | Middle Paxton Township<br>SGP                                            | 2                 |
| d. Connection to the Conewago Rail-Trail trailhead between Middletown in Dauphin County and Elizabethtown in Lancaster County.                  | Medium     | \$15,000–\$30,000 | Conewago Twp.,<br>W. Donegal Twp.<br>TCRPC                               | 2                 |
| e. Trail along the former Pennsylvania Canal down the west bank of the Susquehanna River.                                                       | Medium     | pending scope     | West bank municipalities<br>SGP                                          | 2                 |
| f. Connections between Derry Township bike/pedestrian pathway system and Conewago Creek Greenway along SR 743/Old Hershey Road corridor.        | Medium     | pending scope     | Derry Twp.,<br>Conewago Twp.<br>HATS<br>MHST                             | 2                 |
| g. Connections between Derry Township bike/pedestrian pathway system and Milton Hershey School campus pathways.                                 | Medium     | pending scope     | Derry Twp.,<br>Conewago Twp.<br>MHST                                     | 2                 |
| 21. Prepare studies to determine the feasibility, type, and cost of improvements to enhance the Park and Greenway Concept, including:           |            |                   |                                                                          |                   |
| a. Improvements to the former Union Canal.                                                                                                      | Medium     | pending scope     | Municipalities                                                           | 2, 18             |
| b. Enhancements to Wiconisco Canal Aqueduct #3, which carries PA 147 over Powell Creek.                                                         | Medium     | pending scope     | Reed Township<br>TCRPC (HATS)                                            | 42                |

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Dauphin County Parks, Recreation, Open Space, and Greenways Study

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| Recommendation (not listed in priority order)                                                                                                                                                                                                                                                                                                                                                                          | Time Frame | Estimated Cost        | Lead Entity(ies)*                                                                            | Primary Funding** |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-----------------------|----------------------------------------------------------------------------------------------|-------------------|
| c. Proposed trails along the Paxton Creek and tributaries                                                                                                                                                                                                                                                                                                                                                              | Ongoing    | pending scope         | Harrisburg City<br>Lower Paxton Twp.<br>PCWEA<br>Penbrook Borough<br>Susquehanna Twp.        | 2, 46             |
| d. Projects proposed in the <i>Lower Paxton Township Greenway Plan</i>                                                                                                                                                                                                                                                                                                                                                 | Ongoing    | pending scope         | Lower Paxton Twp.                                                                            | 2, 46             |
| e. Projects proposed in the rivers conservation plans prepared for Dauphin County waterways:<br>– Susquehanna River<br>– Swatara Creek<br>– Wiconisco Creek                                                                                                                                                                                                                                                            | Ongoing    | pending scope         | Municipalities                                                                               | 2, 46             |
| <b>Other Projects and Programs</b>                                                                                                                                                                                                                                                                                                                                                                                     |            |                       |                                                                                              |                   |
| 22. Consider a bond issue or some other countywide funding mechanism to provide financing for local open space and land preservation projects.                                                                                                                                                                                                                                                                         | Immed.     | to be determined      | Dauphin County                                                                               | County            |
| 23. Conduct a study to identify key viewsheds in the county for preservation either as a separate study or as part of municipal greenway plans.                                                                                                                                                                                                                                                                        | Short      | pending scope         | TCRPC<br>DCPC<br>Municipalities<br>Conservancies                                             | 2                 |
| 24. Solicit and organize volunteers to support greenway efforts, including preparing and offering education programs, constructing and maintaining trails, preparing grant applications, speaking/lobbying on behalf of greenways, and many other tasks.                                                                                                                                                               | Short      | admin. only           | Conservancies<br>Municipalities                                                              | —                 |
| 25. Conduct a study to identify and promote local scenic roadways, possibly in coordination with the proposed countywide bike trail network. Potential candidates include:<br>– U.S. 11/15 corridor      – Fishing Creek corridor<br>– PA 147 corridor          – Dehart Dam/PA 325 corridor (including iron works and brick works)<br>– PA 39 corridor<br>If desired, apply to PennDOT for designation as a PA Byway. | Medium     | \$25,000–<br>\$50,000 | TCRPC<br>DCPC<br>Municipalities<br>SGP                                                       | 2                 |
| 26. Work with the Capital Area Greenbelt Association (CAGA) to complete the greenbelt and improve signage.                                                                                                                                                                                                                                                                                                             | Medium     | to be determined      | DCPRD<br>Municipalities                                                                      | —                 |
| 27. Study the possibility of a countywide bike trail network that would serve as both a recreational resource and transportation alternative, possibly in coordination with the proposed scenic roadways study.                                                                                                                                                                                                        | Medium     | pending scope         | DCPRD<br>Municipalities                                                                      | 2                 |
| 28. Work with the Horse-Shoe Trail Club to develop permanent, off-road easements for the trail between Hershey and Manada Gap.                                                                                                                                                                                                                                                                                         | Ongoing    | admin. only           | Derry Township,<br>East Hanover,<br>South Hanover<br>DCPRD<br>Conservancies<br>DCPC<br>TCRPC | —                 |

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Dauphin County Parks, Recreation, Open Space, and Greenways Study

Recommendation (not listed in priority order)	Time Frame	Estimated Cost	Lead Entity(ies)*	Primary Funding**
29. Endorse/support efforts by municipalities—individually, in multi-municipal regions, or in public/private partnerships—to provide new parks to meet the parkland deficits identified in chapter 3 of the plan.	Ongoing	admin. only	Dauphin County TCRPC	—
30. Use the information in Table 4.3 as a guide to help determine project priorities and support project funding applications.	Ongoing	admin. only	Municipalities DCPC DCPRD TCRPC	—
31. Use “Complete Streets” guidelines as a model for roadway improvements wherever possible.	Ongoing	various	Municipalities PennDOT	PennDOT
<i>Guidelines for Future Actions</i>				
32. Continue meetings of the study committee or form a new committee charged with meeting semiannually or annually to review progress in implementing the <i>Dauphin County Parks, Recreation, Open Space, and Greenways Study</i> and make recommendations for changes to the study based on implementation progress and changing conditions.	Ongoing	—	DCPRD TCRPC Dauphin County Municipalities	—
33. Develop links between county greenways and municipal greenways	Ongoing	—	Municipalities DCPRD SGP	—
34. Establish attractive county entrance corridors (enhance gateways areas)	Ongoing	pending scope	Dauphin County HATS Municipalities PennDOT	—
35. Incorporate provisions in municipal regulations to preserve environmentally sensitive open space areas identified in the Open Space Concept (Map 4.2).	Ongoing	—	Municipalities TCRPC DCPC	—
36. Work with local land owners to promote the benefits of land preservation and to place more conservation easements on land, particularly in the northern and southern parts of the county, where some agricultural easements have already been placed.	Ongoing	—	DCCD Conservancies TCRPC	—
37. Identify and construct stream stabilization projects, restore riparian buffers, and develop enhancement projects along conservation greenways	Ongoing	pending scope	DCCD Municipalities Property owners Conservancies	39, 40, 41
38. Encourage local municipalities to meet local recreation needs through land acquisition and park development programs, including local ordinance provisions that require developers to provide for the recreational needs generated by development proposals.	Ongoing	—	Municipalities TCRPC DCPRD	—
39. Provide information about funding resources for parks, greenways, and open space areas.	Ongoing	—	TCRPC Conservancies	—
40. Provide maps, signs, historical information, and information on attractions and sponsors to better identify trails and inform trail users.	Ongoing	—	Municipalities DCPRD “Friends...” groups	—

Dauphin County Parks, Recreation, Open Space, and Greenways Study

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| Recommendation (not listed in priority order)                                                                                                                             | Time Frame | Estimated Cost | Lead Entity(ies)*                                        | Primary Funding** |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|----------------|----------------------------------------------------------|-------------------|
| 41. Prepare stream conservation plans.                                                                                                                                    | Ongoing    | —              | DCCD<br>Conservancies<br>Municipalities                  | 2, 34             |
| 42. Identify key parcels and make select land acquisitions for additional parks and/or buffers, as opportunities arise.                                                   | Ongoing    | —              | Conservancies<br>Municipalities<br>DCCD                  | —                 |
| 43. Use land preservation techniques (presented below) as appropriate, including municipal ordinance provisions and innovative techniques such as Open Space Development. | Ongoing    | —              | Municipalities<br>Conservancies                          | —                 |
| 44. Encourage protection of north-south wildlife migration corridors.                                                                                                     | Ongoing    | —              | Conservancies<br>Municipalities<br>DCCD                  | —                 |
| 45. Encourage woodland protection for carbon sequestration.                                                                                                               | Ongoing    | —              | Municipalities<br>Conservancies<br>DCCD<br>DCPC<br>TCRPC | —                 |
| 46. Focus land and easement acquisitions along major waterway corridors and connectors.                                                                                   | Ongoing    | —              | Conservancies<br>Municipalities                          | —                 |
| 47. Work to establish Environmental Advisory Councils (EACs) in each Dauphin County municipality.                                                                         | Ongoing    | —              | Municipalities<br>Conservancies<br>DCPC<br>TCRPC         | —                 |

- |                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>* CAGA      Capital Area Greenbelt Association</p> <p>DCCD      Dauphin County Conservation District</p> <p>DCPC      Dauphin County Planning Commission</p> <p>DCPRD    Dauphin County Parks and Recreation Dept.</p> <p>HATS      Harrisburg Area Transportation Study</p> | <p>MHST      Milton Hershey School Trust</p> <p>PCWEA    Paxton Creek Watershed and Education Assoc.</p> <p>SGP        Susquehanna Greenways Partnership</p> <p>TCRPC     Tri-County Regional Planning Commission</p> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

\*\* Funding sources are listed by number in Table 4.6

## LAND PRESERVATION TECHNIQUES

One of the most important purposes of greenways, as noted throughout the *Dauphin County Parks, Recreation, Open Space, and Greenways Study*, is preserving land. The techniques used to preserve the land must be available to and feasible for the landowner. Since landowners have many different financial needs and circumstances, techniques that are appropriate for some owners will not be useful to others. The following section describes many of the tools that can be effective in preserving land in Dauphin County.

- **Fee Simple Acquisition** — The most effective means of preserving land is through fee simple purchase. Fee simple purchase gives the owner complete control of the land, including all public access and conservation practice decisions. In most situations, fee simple acquisition is also the

most expensive method of land control. Therefore, many entities interested in land preservation, particularly public agencies or land conservancies with limited budgets, will explore other, less expensive options for land control.

- **Conservation Easements** — Conservation easements place restrictions or an outright prohibition on development at a lower cost than fee simple acquisition. Under a conservation easement, land could (and usually does) remain in current ownership, but the property owner voluntarily agrees to donate or sell the right to develop the land. The property owner agrees to place a restriction in the deed of the property, which becomes binding on all future owners of the land. The easement is held by the municipality, county, or a private, nonprofit conservancy, such as the Manada Conservancy. Conservation easements often provide the property owner with federal income tax and estate tax benefits.
- **Other Easements** — Conservation easements may be used to preserve many types of resources. For example, easements may be placed on historic lands or buildings, open space, forests, or farmland. Conservation easements are frequently used for environmental preservation without providing for public use of the land. However, a conservation easement can also be combined with a *pedestrian easement* or *right of public access easement* to allow public access for walking, hiking, horseback riding, bicycling, and other activities with established rules and restrictions. With such an easement, the landowner is not held liable for any injuries, crimes, or death associated with public use of the land.

Another easement type is the *joint-use easement*, which accommodates multiple uses under one easement. Joint-use easements are particularly appropriate for public utility corridors. Electric transmission lines, sanitary sewer lines, petroleum or gas pipelines, and other such corridors may be ideal for trail connections, as they often contain a cleared pathway. Joint-use easements are advantageous in that landowners will know the exact purposes of the singular easement, rather than dealing with multiple easements.

*Agricultural conservation easements* may be appropriate in areas with prime farmland adjacent to greenways. The action preserves additional contiguous land and helps to maintain the scenic character of both the greenway and the area as a whole. Local, county, or state governments may purchase easements from owners of prime farmland if the owner agrees to keep the land in agricultural use. The land must meet certain acreage, soil, and production criteria to qualify for the program.<sup>49</sup>

The Pennsylvania Land Trust Association (PALTA) is the statewide organization of nonprofit, land conservation groups. PALTA has developed model easements that are available on the association website (<http://www.conserveland.org>) and include:

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<sup>49</sup> Additional information about agricultural conservation easements is available from the Dauphin County Conservation District.

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- Pennsylvania Conservation Easement
- Riparian Forest Buffer Protection Agreement
- Trail Easement Agreement
- Fishing Access Agreement
- Water Quality Improvement Easement

- **Purchase and Leaseback or Resale** — An entity interested in preservation, such as a local government or conservancy, can purchase land in fee simple, place restrictions on the deed prohibiting certain uses (e.g., residential development), and sell or lease the land to interested parties. The original buyer gains the potential for future use at the current price and may recover some or all of the purchase price through leasing. The land is maintained in open space and may be developed as a park if and when future demand warrants. Resale of some or all of the land with deed restrictions may maintain open space, relieve the municipality of maintenance obligations, and return the land to the tax rolls.
- **Donations** — Frequently, land can be acquired through donations from private owners, organizations, and corporations. Local governments should encourage land donations by pointing out benefits of such actions, such as federal income and estate tax benefits and the public relations value. Prior to accepting a donation, a municipality should consider two points:
  - Location of the parcel and the anticipated development and maintenance costs. If the location is poor and/or projected costs will be excessive, the municipality should strongly consider accepting a fee rather than the land.
  - If the land is suitable, the municipality should encourage the donor to provide an endowment fund along with the land to assist with development and/or maintenance costs.

In addition to land, corporations and other private parties also frequently provide cash donations for worthy causes, including land preservation.

- **Land Exchange** — A land exchange, or land swap, is useful when a development interest and a conservation interest both own a piece of land more appropriate to the mission of the other. For example, a residential developer may own a wetland area next to a park while a township government owns a vacant tract near an existing developed area. With the land exchange, the environmentally-sensitive land is preserved by the township, and the developer builds houses in an appropriate location. Any mismatches in land value can be negotiated.
  - **Municipal Ordinances** — Municipal zoning ordinances and subdivision and land development ordinances (SALDOs) offer one of the least expensive methods to protect environmentally-sensitive land is through. Local ordinances contain provisions that prohibit or limit activities on or near environmentally sensitive areas. The following provisions are most important with regard to greenways.
    - *Riparian buffers* are the areas within a specified distance (or “setback”) of a waterway within which development or other activities is prohibited or restricted. Most township ordinances establish riparian buffers between 50 and 100 feet, while many borough and city ordinances do not contain any riparian buffer provisions. The most appropriate buffer size depends on
-

the size of the stream, and the existing natural and human features along the stream. A two-tiered buffer can set different standards for two different setbacks (e.g. no development within 100 feet, and no mowing within 50 feet).

- *Floodplain regulations* prohibit development and certain other activities within the 100-year floodplain, frequently in a separate floodplain ordinance. The 100-year floodplain corridor is composed of a *floodway* and *flood fringe* area. State floodplain regulations form a bare minimum of floodplain protection. All floodplains should be kept in open space. Activities such as tree-cutting, clearing of vegetation, storage of hazardous materials, and landfill operations would have a negative effect during flood events and should be prohibited. In places where existing structures are located within the floodplain, regulation options include establishing a lowest floor level for buildings, requiring floodproofing, and prohibiting further development or improvements.
- *Wetlands, high water table soils, and hydric soils* are areas containing permanently or frequently saturated soil conditions or standing water. The three features often coincide. Most zoning ordinances take a site-by-site approach to wetlands regulation, requiring a zoning officer or engineer to determine if wetland indicators are present on a parcel being developed. If the site contains wetland indicators, the applicant must have a qualified wetland specialist delineate wetlands, on which development must be prohibited. Alternatively, a municipality may have a complete wetlands map database prepared for the jurisdiction by a wetlands specialist.
- *Steep slopes* are usually divided into two categories: 15–25% and 25% and greater. Development densities and buildings sites are typically restricted in slopes between 15 and 25 %, and restricted or prohibited on slopes 25% and greater. Keeping steep slopes in open space is a benefit to ridge-based greenways as well as stream-based greenways, where the riparian zone is surrounded by slopes.
- *Woodlands* — Most SALDOs contain tree-cutting provisions, permitting unlimited tree-cutting in areas necessary to accommodate home sites and road right-of-ways, and providing a maximum tree extraction number or rate for other areas. A more protective option is to declare a maximum percentage of tree removal per lot. To protect woodlands along stream corridors and ridges, cutting restrictions can be placed on floodplain forests and upland forests, respectively.
- *Agricultural zoning* — “Effective agricultural zoning” limits the amount of development on key prime farmland tracts so that most of the land remains in large lots that can still be viable for farming. Agricultural zoning must consider soils, physical features, current land use patterns, and other matters. Limiting water and sewer extensions, transfer of development rights, and other techniques may also help to conserve farmland.
- **Public Dedication** — The Pennsylvania Municipalities Planning Code (Act 247, as amended) enables municipalities to require that residential developers dedicate land, or fees in lieu of land, for public recreation. Municipalities must have an adopted recreation plan and an adopted ordinance relating to public dedication before land or fees can be accepted. The amount of land

required must be related to the demand for recreation land typically created by new development. The required land dedication should be in addition to the preservation of natural features on the land, such as floodplains, wetlands, steep slopes, woodlands, or other sensitive areas. Further information is available at: [http://conserveland.org/lpr/one?lpr\\_id=23142](http://conserveland.org/lpr/one?lpr_id=23142)

- ***Open Space Development*** — Open space development, similar in some respects to “cluster development”, is very useful in areas where greenways pass through land that is zoned for development. When a tract is developed in the open space scheme, increased development densities are allowed in exchange for mandatory open space. As an example, under standard suburban development schemes, a 100-acre lot adjacent to a stream might be subdivided into 100 one-acre lots. Under open space development:
  - The natural features of the site are identified and preserved first (10 acres, for example).
  - Open space is then set aside near the stream (40 acres, for example).
  - The remaining area is subdivided into the 100 lots originally allowed under conventional zoning, but the lots are only 0.5 acres each.

Open space development can be facilitated with provisions in the zoning ordinance and SALDO. Open space development provisions are often amendments to existing lot size requirements in each zoning district (e.g. “Low Density Residential District: 1.0 acre minimum lot size, or 0.60 acre with 40% open space.”).

- ***Transfer of Development Rights*** — Transfer of development rights (TDR) is often a voluntary option in a zoning ordinance that provides incentives for private developers to pay to preserve environmentally-sensitive land. Under a typical TDR system, a developer pays a private landowner to permanently preserve the land in return for being able to add the potential development from the preserved parcel to a parcel in another area of the municipality more suitable for intense development. Therefore, the developer receives approval to build on the development parcel at a higher density than would be allowed without the additional development rights from the preserved parcel. The developer and the owner of the sensitive land privately negotiate a price. The municipality approves the higher density development, and, simultaneously, a conservation easement is placed on the sensitive land, eliminating development options on the land in perpetuity.
- ***Purchase of Development Rights (PDR)*** — Under a PDR arrangement, a farmland owner voluntarily sells the development rights to a government agency or private land trust and receives compensation in return for the restrictions placed on the land. The farmer retains title to the land and can sell or pass along the farm, but the land can only be used for farming and open space. An easement is placed on the landowner's deed and “runs with the land”, either in perpetuity or for a period of time specified in the easement document. The easement typically prohibits residential development except for the owner, the owner's children, or farm labor. Public access is not normally allowed, nor is the dumping of garbage or the removal of soil. Normal agricultural practices and structures are permitted as long as they comply with state and federal statutes.



- **Official Map** — An official map formally identifies existing and proposed public lands.<sup>50</sup> The official map can be used to reserve right-of-way for a period of one year, which can be very useful to a municipality for trail development, easement acquisition, or other negotiations with developers. When a greenway plan is adopted by the county and/or municipalities, the proposed greenways should be put on an official map, which should also be adopted. If a development is proposed on a parcel where a greenway is proposed, the municipality has one year to acquire control of all or a portion of the parcel or negotiate other arrangements in accordance with local policies prior to development of the parcel.

## COSTS AND FUNDING

Costs for greenways vary widely depending on ownership circumstances (and, therefore, the price of acquisition/site control, if any), development proposed, such as trails, and maintenance required, if any. Conceivably, a greenway could involve no public cost at all (if the owner voluntarily places a permanent conservation easement on the land, and the land remains in private ownership).

If access is granted and trails are developed, costs will vary depending on the trail length, surface, and amenities. Trail design considerations are the subject of Appendix C. The following information comes from several recently constructed trails in Pennsylvania. The three examples illustrate the wide range of construction cost, depending on trail design, surface, and circumstances: from approximately \$102,000 per mile for crushed stone in Elizabethtown to \$230,000 per mile for paved surface (Lebanon Valley Rail Trail) to \$260,500 per mile for the York County Heritage Rail Trail.

- **Conewago Trail, 5.2 miles, approximately \$530,000 (includes engineering)**  
Elizabethtown, PA — Spring 2007

The Conewago Trail connects PA 230 in Elizabethtown to the Lebanon Valley Rail Trail at the Lancaster-Lebanon county line. The renovation project included a new, crushed stone surface approximately eight feet wide, clearing/grubbing, pipes, signs, and a 5-car parking lot.

- **Lebanon Valley Rail Trail, Phase 4, 2.5 miles, 10' wide. \$575,000 (includes engineering)**  
PA — 2007

The Lebanon Valley Rail Trail is a 12.5-mile trail connecting the Lancaster-Lebanon county line to Whitman Road in Cornwall. Phase 4 of the trail, now under construction, will extend the trail 2.5 miles into the City of Lebanon. The extension will be a 10-foot wide, paved surface.

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<sup>50</sup> Authority for an official map is provided in Article IV of the Pennsylvania Municipalities Planning Code (Act 247 as reenacted and amended).

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- **Heritage Rail Trail County Park, 1.0 miles, 10' wide, \$260,500 (excludes engineering)**  
York, PA — 2007

The northern extension of an existing rail-trail, an approximate one-mile route in an area that is not on existing rail corridor; total construction cost estimates include everything required to complete the trail with crushed stone (drainage, reseeding, curbing & one gate) and ranged from a low of \$260,500 to a high over \$500,000. Engineering costs may be ball-parked at approximately 20%, bringing total cost to approximately \$312,600.

Maintenance costs will also vary significantly depending on the type of trail and the level of volunteer involvement. Carefully planned design and construction will have a significant effect on long-term maintenance costs.<sup>51</sup>

Public-private partnerships can be an ideal way to address maintenance issues on a trail. A commonly seen partnership is one where the trail is owned by a municipality but maintained largely by volunteers with assistance from the county or municipality. Involving the local citizens and service groups in the planning of a trail from the very beginning of a project is a good step toward developing a friends group.

The Capital Area Greenbelt in Harrisburg is one local example of a successful partnership. The greenbelt is a 20-mile trail that loops around and through the city and parallels the Susquehanna River. Primarily constructed with asphalt tread, the greenbelt also includes sections of dirt 'single track' as well as boardwalk. The friends group built and maintains a community Five-Senses garden. The greenbelt includes only two miles of actual rail-trail, with the remainder using existing shoulders, miscellaneous rights-of-way, and shared roadways. The greenbelt maintenance budget (Table 4.5) is a good example of a successful partnership maintaining a trail. In the case of the Capital Area Greenbelt, the 2005 example is worth noting for the fact that the value of donated equipment, materials, and services (\$86,600) amounted to more than 62 percent of the organization's annual budget.

Table 4.5  
Capital Area Greenbelt Budget, 2005

| Maintenance Activity                                  | Labor cost | Donated services | Equipment/material cost | Donated eqpt./materials | Approx. annual cost for activity |
|-------------------------------------------------------|------------|------------------|-------------------------|-------------------------|----------------------------------|
| Resurface non-asphalt trail                           |            | \$2,000          | \$2,000                 | \$3,500                 | \$7,500                          |
| Grade non-asphalt trail                               |            |                  |                         |                         | \$0                              |
| Pothole repair and other patches on non-asphalt trail |            | \$1,000          | \$500                   | \$1,500                 | \$3,000                          |
| Snow removal from non-asphalt trail                   |            |                  |                         |                         | \$0                              |
| Surface cleaning of non-asphalt trail                 |            |                  |                         |                         | \$0                              |
| Keep trailside land clear of trash and debris         |            | \$1,000          | \$1,000                 |                         | \$2,000                          |
| Mowing                                                |            | \$2,000          | \$1,000                 | \$2,000                 | \$5,000                          |

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<sup>51</sup> Many free assistance services are available from web sites managed by Rails-to-Trails Conservancy ([www.railstotrails.org](http://www.railstotrails.org)) and American Trails ([www.americantrails.org](http://www.americantrails.org)).

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**Dauphin County Parks, Recreation, Open Space, and Greenways Study**

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Maintenance Activity	Labor cost	Donated services	Equipment/material cost	Donated eqpt./materials	Approx. annual cost for activity
Leaf removal					\$0
Tree pruning					\$0
Tree removal	\$500	\$800	\$200	\$1,000	\$2,500
Invasive species removal		\$1,000	\$500	\$800	\$2,300
Planting new vegetation		\$3,000	\$2,000	\$3,000	\$8,000
Application of herbicides or pesticides		\$1,000	\$300	\$1,000	\$2,300
Clearing of drainage channels and culverts		\$500	\$200	\$500	\$1,200
Surface maintenance of parking areas	\$2,000	\$1,000	\$300	\$1,000	\$4,300
General maintenance of trailheads (litter clean-up, etc.)		\$200	\$100	\$500	\$800
Landscaping / gardening at trailheads		\$3,000	\$2,000	\$3,000	\$8,000
Empty trash cans at trailheads	\$1,500		\$2,000	\$2,000	\$5,500
Maintenance of stationary toilets at trailheads (clean, empty, etc.)					\$0
Maintenance of portable toilets at trailheads (clean, empty, etc.)					\$0
Empty trash cans along trail					\$0
Maintenance of stationary toilets along trail (clean, empty, etc.)					\$0
Maintenance of portable toilets along trail (clean, empty, etc.)					\$0
Maintenance of informational kiosks (repairs, etc.)					\$0
Maintenance of picnic tables, benches, etc.					\$0
Updating information in informational kiosks		\$300	\$100	\$200	\$600
Installation of signs		\$200	\$300	\$500	\$1,000
Repair/maintenance of signs		\$200	\$300	\$500	\$1,000
Installation of pavement markings					\$0
Maintenance of pavement markings					\$0
Patrols by police agency	\$30,000				\$30,000
Patrols by non-police agency (e.g. trail watch)					\$0
Recovery from illegal acts such as dumping and vandalism					\$0
Installation of lighting	\$100		\$100		\$200
Maintenance of lighting	\$200		\$500		\$700
Installation of emergency call boxes					\$0
Maintenance of emergency call boxes					\$0
Installation of gates, bollards and fencing	\$1,000	\$200	\$100	\$20,000	\$21,300
Maintenance of gates, bollards and fencing	\$300	\$10,000	\$200	\$15,000	\$25,500
Bridge, tunnel, underpass and crossing inspection	\$50	\$50	\$50	\$50	\$200
Bridge redecking					\$0
Paint/stain/treat bridge deck or structure	\$300	\$600	\$300	\$1,000	\$2,200
General bridge maintenance	\$100	\$500	\$1,000	\$1,000	\$2,600
Tunnel lighting maintenance					\$0
Tunnel open/closed status					\$0
Paint tunnel/underpass walls and ceiling					\$0
General tunnel/underpass maintenance					\$0
Railroad grade crossing maintenance					\$0
Road grade crossing maintenance					\$0
Totals	\$36,550	\$28,550	\$16,050	\$58,050	\$139,200

Source: Rails-to-Trails Conservancy, *Rail-Trail Maintenance & Operation*. Rails-to-Trails Conservancy, Camp Hill, PA, July 2005

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**Dauphin County Parks, Recreation, Open Space, and Greenways Study**

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The federal government, state government, county government, private organizations, and foundations provide various opportunities for the funding parks, recreation, open space, and greenway efforts (Table 4.6). Funding sources are always changing. New programs are added. Older programs are revised or deleted. Therefore, any potential applicant should contact the administering agency to determine the exact requirements in effect at the time of application.

**Table 4.6  
Potential Funding Sources**

| <b>Program</b>                                        | <b>General Description of Program</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>Administering Agency</b>                                                      |
|-------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|
| 1 Agricultural Conservation Easement Purchase Program | The Agricultural Conservation Easement Purchase Program provides funds for the purchase of development rights on farmland. The perpetual easement ensures the farmland will be available for agricultural use indefinitely. Funding comes from federal, state, and county sources.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Dauphin Co. Conservation District and PA Bureau of Farmland Preservation         |
| 2 Community Conservation Partnerships Program (C2P2)  | <p>Provides matching grants to eligible entities for projects in the following areas:</p> <ul style="list-style-type: none"> <li>• Planning                             <ul style="list-style-type: none"> <li>– Comprehensive Recreation, Park, and Open Space Plan</li> <li>– Conservation Plan</li> <li>– Feasibility Study</li> <li>– County/Municipal Greenway/Open Space Network Plan</li> <li>– Specific Greenway, Trail, or Rails-to-Trails Plan</li> <li>– Snowmobile/All-Terrain Vehicle Plan</li> <li>– Master Site Plan</li> <li>– Rivers Conservation Plan</li> </ul> </li> <li>• Acquisition                             <ul style="list-style-type: none"> <li>– Park and Recreation Areas</li> <li>– Greenways/Trails/Rivers Conservation</li> <li>– Rails-to-Trails</li> <li>– Snowmobile/All-Terrain Vehicle</li> <li>– Natural and Critical Habitat Areas</li> </ul> </li> <li>• Development                             <ul style="list-style-type: none"> <li>– Park and Recreation Areas</li> <li>– Greenways and Trails</li> <li>– Rails-to-Trails</li> <li>– Snowmobile/All-Terrain Vehicle</li> <li>– Rivers Conservation</li> </ul> </li> <li>• Technical Assistance                             <ul style="list-style-type: none"> <li>– Education, Training, Implementation</li> <li>– Peer-to-Peer Technical Assistance</li> <li>– Circuit Rider</li> </ul> </li> <li>• Pennsylvania Recreational Trails</li> <li>• Land and Water Conservation Fund (LWCF)</li> </ul> | PA DCNR                                                                          |
| 3 Community Development Block Grant (CDBG)            | Offers grants for a wide variety of activities, provided the applicant proves by survey or census that the project will benefit 51% low and moderate income persons or handicapped persons or eliminate "blighted" conditions in officially designated areas. For example, funds can be used for water and sewage improvements, storm drainage, handicapped accessibility, parks / recreation / greenways, street and sidewalk improvements, planning, and historic rehabilitation.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Dauphin County Department of Community and Economic Development (DCED) & PA DCED |
| 4 Community Revitalization Program                    | Very broad grant program. Officially intended to promote community stability, increase tax bases and improve quality of life. Applications may be made by municipalities, authorities, economic development organizations, and nonprofit corporations. Public/non-profit/profit partnerships are encouraged. Generally can be used for infrastructure, community revitalization, building rehabilitation, demolition of blighted structures, public safety, and park and greenways projects.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | PA DCED & governor's office                                                      |
| 5 PA Conservation Corps                               | Provides funding for work crews for community projects, such as trail improvements.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | PA Dept. of Labor and Industry                                                   |

## Dauphin County Parks, Recreation, Open Space, and Greenways Study

| Program                                                                                  | General Description of Program                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Administering Agency                                                   |
|------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|
| 6 Conservation Reserve Program (CRP) and Conservation Reserve Enhancement Program (CREP) | The U.S. Department of Agriculture, through its Farm Service Agency, provides payments to farm operators to plant long-term, stabilizing and filtering vegetation on highly erodible or environmentally sensitive landscapes (such as riparian areas). Contract duration is between 10 and 15 years. The participant, in return for annual payments during this period, agrees to implement a conservation plan approved by the local conservation district. Eligible land must be in cropland or pasture land, have an erosion index of 8 or higher, and may include field margins.                                                                  | Natural Resource Conservation Service (U.S. Department of Agriculture) |
| 7 Environmental Protection Agency (EPA) Watershed Initiative's                           | The Environmental Protection Agency (EPA) provides large Watershed Initiative grants ranging in size from approximately \$300,000 to \$1.3 million. Twenty grants are given out each year. The program is very competitive and requires state endorsement of the proposed project(s).                                                                                                                                                                                                                                                                                                                                                                 | U.S. EPA (Philadelphia)                                                |
| 8 EPA — Water Quality                                                                    | Grants for improving water quality are available for the U.S. EPA.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | U.S. EPA (Phila.)                                                      |
| 9 EPA — Brownfields Program                                                              | Grants for a very limited number of pilot demonstration projects for cleanup of contaminated underused industrial sites.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | U.S. EPA (Philadelphia)                                                |
| 10 Flood Control - Army Corps of Engineers (CoE)                                         | Various types of projects to manage flooding. Typically, the CoE is involved in larger watersheds, while NRCS has primary responsibility for smaller watersheds (see Small Watershed Program).                                                                                                                                                                                                                                                                                                                                                                                                                                                        | U.S. Army CoE                                                          |
| 11 Flood Hazard Mitigation Grant Program                                                 | Provides 75% funding to relieve imminent hazards from flooding, such as voluntary buy-outs and demolitions of highly flood-prone properties.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Federal Emergency Management Agency                                    |
| 12 Flood Protection Program, PA                                                          | Offers design and construction of flood protection projects. The project must be deemed economically justifiable under the state capital budget process.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | PA DEP — Bu. of Waterways Eng.                                         |
| 13 Forest Legacy Program                                                                 | The Forest Legacy Program (FLP), a federal program in partnership with the state, supports state efforts to protect environmentally sensitive forest lands. The FLP directly supports property acquisition and also supports efforts to acquire donated conservation easements. Participation in the FLP is limited to private forest landowners.                                                                                                                                                                                                                                                                                                     | USDA Forest Service in cooperation with state foresters                |
| 14 Growing Greener Program                                                               | As part of Pennsylvania's Growing Greener Program, PA DEP offers various grants that can be used for greenway related projects. They include: Watershed Grants, Technical Assistance Grants, and New or Innovative Technology Grants.                                                                                                                                                                                                                                                                                                                                                                                                                 | PA DEP                                                                 |
| 15 Home Town Streets and Safe Routes to School                                           | The Home Town Streets Program provides funding for a variety of streetscape improvements that are aimed at reestablishing downtown and commercial centers. The Safe Routes to School Program provides grants and is designed to work with both school districts and pedestrian and bicycle safety advocates to make physical improvements that promote safe walking and biking passages to schools. Both programs require a 20% local match.                                                                                                                                                                                                          | PennDOT                                                                |
| 16 Historic Preservation Tax Credits                                                     | Offers federal income tax credits for a percentage of the qualified capital costs to rehabilitate a certified historic building. The program is generally limited to income-producing properties.                                                                                                                                                                                                                                                                                                                                                                                                                                                     | PA Historical and Museum Commission (PHMC)                             |
| 17 Historic Preservation - Certified Local Government Grants                             | Provides modest-sized matching grants to provide technical assistance to municipalities that have official historic districts and meet other criteria to be "certified."                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Federal, administered by PHMC                                          |
| 18 Historic Preservation Survey and Planning Grants                                      | Matching grants for historic surveys, historic preservation planning and National Register nominations. Available to municipalities and nonprofit organizations. Cannot be used for construction.                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Federal, administered by PHMC                                          |
| 19 Heritage Parks Program                                                                | Provides grants up to 75% of costs for projects within state-designated "Heritage Parks" to preserve and interpret the significant contribution that certain areas made upon the industrial heritage of the state and nation. Funds four types of projects: <ul style="list-style-type: none"> <li>• Feasibility studies</li> <li>• Special purpose studies</li> <li>• Management Action Plan</li> <li>• Implementation projects.</li> </ul> Projects are intended to conserve natural, historic and recreational resources relating to industrial heritage to stimulate regional tourism. At present, there are no heritage parks in Dauphin County. | PA DCNR                                                                |

**Dauphin County Parks, Recreation, Open Space, and Greenways Study**

| <b>Program</b>                                                 | <b>General Description of Program</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>Administering Agency</b>                                                                  |
|----------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| 20 Industrial Sites Reuse Program, PA ("Brownfields")          | Provides grants of up to 75% and low-interest loans for assessment of environmental contamination and remediation work at former industrial sites. Available to private companies, nonprofit economic development agencies, or authorities that own the land. Mainly targeted towards cities. Financing is not available to the company that caused the contamination.                                                                                                                                                                                                                                                                                                                                           | PA DCED in cooperation with PA DEP                                                           |
| 21 Intermunicipal Projects Grants                              | Promotes cooperation between neighboring municipalities so as to foster increased efficiency and effectiveness in the delivery of municipal services at the local level.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | PA DCED                                                                                      |
| 22 Keystone Historic Preservation Funds                        | Provides 50% matching grants to fund analysis, acquisition, or rehabilitation of historic sites. The site must be on the National Register of Historic Places or officially determined to be eligible for listing. The site must be accessible to the public after funding. Grants can be made to public agencies or nonprofit organizations.                                                                                                                                                                                                                                                                                                                                                                    | PHMC                                                                                         |
| 23 Land Use Planning and Technical Assistance Program (LUPTAP) | Provides grant funds for the preparation of community comprehensive plans and the ordinances to implement them. It promotes cooperation between municipalities in making sound land use decisions that follow or adhere to the Governor's Executive Order on Land Use. Priority is given to any county government acting on behalf of its municipalities, any group of two or more municipalities, or a body authorized to act on behalf of two or more municipalities. Applicants are to provide a minimum of 50% match consisting of cash or in-kind services. There are no minimum or maximum amounts.                                                                                                        | PA DCED                                                                                      |
| 24 Land & Water Conservation Fund                              | The Land & Water Conservation Fund (LWCF) provides matching grants to state and local governments for the acquisition and development of public outdoor recreation areas and facilities.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | National Park Service in cooperation with PA DCNR                                            |
| 25 Local Government Capital Projects Loan Program              | Provides low-interest loans to municipalities with populations of 12,000 or less for the purchase of equipment and the purchase, construction, renovation or rehabilitation of municipal facilities. Priorities are given to projects that are necessary for public health and safety or involve intergovernmental cooperation.                                                                                                                                                                                                                                                                                                                                                                                  | PA DCED                                                                                      |
| 26 Municipalities Financial Recovery Act, PA                   | Provides technical advice and grants for special purposes (such as studies to improve service efficiency) within municipalities that have been officially designated as "financially distressed." After application and designation, the municipality must follow a financial recovery plan.                                                                                                                                                                                                                                                                                                                                                                                                                     | PA DCED                                                                                      |
| 27 National Recreational Trails Funding (Symms NRTA)           | Provides grants for the acquisition and development of recreation trails (which may include trails for motorized vehicles). A 20% local match is required. Applications may be made by federal, state or local government agencies, and some for-profit entities.                                                                                                                                                                                                                                                                                                                                                                                                                                                | Federal, administered by PA DCNR                                                             |
| 28 Nutrient Management Plan Development Incentive Program      | Grants of \$4 per acre are available to farmers to cover up to 75% of the cost of preparing nutrient management plans. Low-interest loans are also available through the state to help implement nutrient management-related best management practices.                                                                                                                                                                                                                                                                                                                                                                                                                                                          | County Conservation District                                                                 |
| 29 On-Lot Septic System Program                                | Offers low-interest loans to limited income households to repair failing on-lot septic systems.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | PennVest, PHFA                                                                               |
| 30 PA Infrastructure Investment Authority (PennVest)           | Offers low-interest loans for construction and improvement of drinking water and wastewater systems. 100% grants may be available for highly-distressed communities. Mainly intended for public systems, but some private systems may be approved. Water projects are funded through the Drinking Water Revolving Loan Fund. Sewage projects are funded through the Clean Water Revolving Fund. PennVest is also authorized to provide loans for projects to control existing stormwater problems, such as separating stormwater from sanitary sewage. The "Advance Funding Program" provides low-interest loans for feasibility studies and engineering of systems if the utility cannot fund such work itself. | PennVest PA DEP (Bureau of Water Supply Management) — Involves both U.S. EPA and state funds |
| 31 Key 93 — Rails to Trails                                    | Provides grants for feasibility studies, master site plans, acquisition, and improvement of former railroad lines for recreation trails. A 50% local match is required. Open to municipalities, authorities, and non-profit agencies.                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | DCNR                                                                                         |

**Dauphin County Parks, Recreation, Open Space, and Greenways Study**

| <b>Program</b>                                            | <b>General Description of Program</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>Administering Agency</b>                                                        |
|-----------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| 32 Recycling Grants (Act 101 of 1988)                     | Grants for up to 90% of municipal costs to develop and implement recycling programs, such as the purchase of recycling bins and composting equipment. Grants are also available to counties for a recycling coordinator, waste management plans, and pollution prevention education.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | PA DEP<br>Bureau of Land<br>Recycling and<br>Waste<br>Management                   |
| 33 Recycling Market Development Loan Fund                 | Provides low-interest loans to businesses to purchase recycling source-separating equipment.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | PA DEP<br>Bureau of Land<br>Recycling and<br>Waste<br>Management                   |
| 34 Rivers Conservation Program, PA                        | Offers 50% grants to conserve and enhance river resources. Typically, funding is first provided for a conservation plan for a waterway. Grants are available to implement an approved plan. Available to municipalities, authorities, and non-profit.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | PA DCNR                                                                            |
| 35 Rivers, Trails, and Conservation Assistance Program    | The National Parks service operates this program aimed at conserving land and water resources for communities. Eligible projects include conservation plans for protecting these resources, trail development, and greenway development.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | National Park Service                                                              |
| 36 Rural Utilities Service Financing                      | Offers low-interest loans for drinking water and sewage projects for rural areas and small towns. The "Water and Water Disposal Loan Program" provides loans for water supply, wastewater disposal, solid waste disposal, and stormwater management systems for rural areas and towns with a population less than 10,000 persons. Available to municipalities, authorities, and nonprofit corporations. Grants up to 75% of project costs may be available for highly distressed areas. Also guarantee loans by private lenders.<br><ul style="list-style-type: none"> <li>• Provides grants to nonprofit organizations to provide technical assistance to rural communities or for a circuit rider to serve several rural water systems.</li> <li>• Offers emergency grants to communities that have experienced a significant decline in quantity or quality of drinking water.</li> </ul> | U.S. Dept. of Ag.,<br>Rural Utilities<br>Service                                   |
| 37 Shared Municipal Services                              | Provides modest-sized 50/50 matching grants to promote cooperation among municipalities, in order to increase the efficiency of public services. Two or more municipalities may apply, or a council of governments.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | PA DCED                                                                            |
| 38 Sewage Facility Planning Grants                        | Grants to pay up to 50% of the costs to prepare a new sewage facilities plan or update an existing plan, under State Act 537 of 1966.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | PA DEP                                                                             |
| 39 Small Watershed Program (Public Law 566)               | Provides technical and financial assistance in carrying out projects which aim to protect water resources, provide water-related recreation, or protect against flooding. Eligible watersheds must be smaller than 250,000 acres (390 square miles). The program provides up to 100% funding for flood prevention projects, and up to 50% matching for agricultural water management, public recreation, and fish/wildlife purposes. Each year, a state will receive an average of \$650,000 for allocation under P.L. 566.                                                                                                                                                                                                                                                                                                                                                                  | Natural Resource<br>Conservation<br>Service (U.S.<br>Department of<br>Agriculture) |
| 40 Stormwater Management Grants (PA Act 167 of 1978)      | Grants for cooperative efforts at the watershed level among municipalities for stormwater planning and ordinances. Grants are typically made to counties, but may be made to municipalities.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | PA DEP,<br>Bureau of<br>Watershed<br>Conservation                                  |
| 41 Stream Improvement Program                             | Provides design and construction assistance to eliminate imminent threats to flooding and streambank erosion.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | PA DEP<br>Bureau of Water-<br>ways Engineering                                     |
| 42 SAFETEA-LU (part of federal Transportation Equity Act) | Provides grants of up to 80% for: pedestrian and bicycle facilities (including trails), acquisition of scenic easements at scenic or historic sites, development of scenic or historic route programs, landscaping and other scenic beautification along highways, restoration of historic transportation facilities (such as canals), preservation of rail corridors (particularly for multiple-use trails), control and removal of outdoor advertising, archeological research, and mitigation of water pollution due to highway runoff. All projects must have a direct correlation with transportation.                                                                                                                                                                                                                                                                                  | U.S. DOT funds<br>administered by<br>PennDOT                                       |

**Dauphin County Parks, Recreation, Open Space, and Greenways Study**

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| Program                                           | General Description of Program                                                                                                                                                                                                                                 | Administering Agency                  |
|---------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|
| 43 Urban Forestry Grants                          | Provides grants for tree planting projects. Is also a Federal "America the Beautiful" grant program for tree planting.                                                                                                                                         | PA DCNR                               |
| 44 Water Supply Plan & Wellhead Protection Grants | Provides grants to counties to plan for water supplies at the county level and to implement programs to protect the wellheads of public wells.                                                                                                                 | PA DEP, Bureau of Water Supply        |
| 45 Wetlands Reserve Program                       | The U.S. Department of Agriculture also provides direct payments to private land-owners who agree to place sensitive wetlands under permanent easements. The program can be used to fund the protection of open space and greenways within riparian corridors. | U.S. Department of Agriculture (USDA) |
| 46 Pennsylvania Recreational Trails               | Provides matching funds (80/20) to federal state, and local agencies and private organizations to develop and maintain recreational trails and facilities for motorized and nonmotorized use.                                                                  | PA DCNR                               |

Sources: Publications and internet sites of various agencies; *Pennsylvanian* magazine; PA DCED *Resource Directory* PA DCNR and PA Growing Greener websites, URDC

## DAUPHIN COUNTY ROLES

Dauphin County government is an important partner in preserving land and providing leisure services. The *Dauphin County Parks, Recreation, Open Space, and Greenways Study* generally recommends continuing the current roles, as discussed below.

- **Parks** — Dauphin County parks, like county-level parks in many other Pennsylvania counties, are distinct from municipal-level parks. Dauphin County parks are typically larger than local parks or contain specialized facilities, such as Wildwood Park, the Dauphin County Community Gardens, or the historic restorations at Fort Hunter Park. Wiconisco Creek is the only county park with active recreation fields (two softball and one soccer). Dauphin County should continue to offer current facilities and, in the future, should focus only on specialized park facilities (including administration, maintenance, and security functions) rather than on athletic fields and courts. Correspondingly, municipal governments, multimunicipal athletic organizations, and private, nonprofit organizations should continue to provide sites oriented to athletic fields, courts, and pools, including administration, maintenance, and security functions.

The Dauphin County Department of Parks and Recreation offers the following facilities for rent and should continue to do so to generate additional income:

- Fort Hunter Park, west pavilion
- Fort Hunter Park, east pavilion
- Lykens Glen, large pavilion
- Lykens Glen, small pavilion
- Wiconisco Creek pavilion
- Wiconisco Creek softball fields (2)
- Wiconisco Creek soccer field
- Wiconisco Creek concession stand

- **Recreation** — The Dauphin County Department of Parks and Recreation centers programming around special events, which is appropriate for the specialized park facilities owned by the county. The county should continue to sponsor and organize events for a countywide audience,



focusing on the unique facilities at some locations (e.g., county gardens, Wildwood Park, Fort Hunter Park) or on a specific theme, such as the Jazz Festival.

- **Open Space** — Dauphin County can be an important partner in preserving open space in the county. Many counties and municipalities in Pennsylvania<sup>52</sup> have floated bonds to support parks, recreation, open space, and greenway functions. Dauphin County could provide funding support for open space, parks, greenways, and other land acquisition projects through a voter-approved bond. If desired, the money from the bond can be leveraged with state matching grants to increase the impact of the land preservation effort.

The county, through the Tri-County Regional Planning Commission staff, should also provide technical assistance to municipalities regarding land preservation, including aid with ordinance provisions. The county can also work with conservancies to help landowners make the decision to preserve valuable land in the county.

- **Greenways** — The county has prepared the *Dauphin County Parks, Recreation, Open Space, and Greenways Study* to provide a framework for further, more detailed studies at the local level. In addition, county staff can provide guidance to local officials in obtaining and preserving land as part of the county greenway system.

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<sup>52</sup> County examples include Bucks, Chester, Cumberland, Montgomery, Lehigh, Northampton, and Monroe. The Trust for Public Land database on public funding for land conservation can be found at: <http://www.conservation Almanac.org/landvote/cgi-bin/nph-landvote.cgi/000000A/https/www.quickbase.com/db/ba72nhu5n?a=q&qid=-1002586>

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## **APPENDICES**

- A Summary of Public Meetings**
- B Dauphin County Local Parks Inventory**
- C Trail Design Guidelines**



Appendix A

**SUMMARY OF PUBLIC MEETINGS**

The study committee and the staffs of the Tri-County Regional Planning Commission and Dauphin County Parks and Recreation Department sponsored a series of three public meetings to present the draft *Dauphin County Parks, Recreation, Open Space, and Greenways Study* and to solicit comments on the plan from the general public. The meetings were held on:

- 13 November 2008 in Millersburg Borough.
- 18 November 2008 in Derry Township.
- 20 November 2008 in Swatara Township.

Advance notice of the meeting was published in four outlets:

- Upper Dauphin Sentinel (Figure A1)
- Middletown Press and Journal (Figure A2)
- Hummelstown Sun (Figure A3)
- Harrisburg Patriot News (Figure A4)

Summary reports from each meeting, including questions and answers, appear on pages A-4 through A-9.

Figure A1  
Upper Dauphin Sentinel Article

November 4, 2008 • The Upper Dauphin Sentinel • A3

# Public input sought on proposed parks, open space, greenway plan

By Louise James  
STAFF WRITER

**MILLERSBURG** • The Dauphin County Parks and Recreation Department and Dauphin County Planning Commission will conduct a public meeting in Millersburg on the county's draft for a Dauphin County Parks, Recreation, Open Space and Greenways plan.

The plan ultimately will be incorporated into the 2008 Dauphin County Comprehensive Plan.

The meeting will be held Thursday, Nov. 13 at 7 p.m. in the Millersburg municipal building on the square.

The public is invited to ask questions and provide comments on the plan.

Millersburg is the first in a series of public meetings that are scheduled to be held at three different locations throughout the county, to receive public input.

**Purpose.** The purpose of this meeting is to review major findings and recommendations of the working Draft County Parks, Recreation, Open Space and Greenways plan, which includes an Action Program.

The Action Program provides specific recommendations to implement the concepts as well as tools to help in land conservation efforts, a county spokesman said.

Overall objectives of the plan include the preservation and enhancement of

the visual character of Dauphin County's landscapes; protect important habitat areas; preserve migration paths for wildlife; and enhance recreational and exercise opportunities in appropriate settings.

After a presentation by the plan consultant, the public will be invited to ask questions and provide comments.

**Details of plan project.** The Recreation, Parks, and Greenways concept includes three specific types of potential greenways; identifies selected municipalities that can serve as hubs within the greenway system; current and potential trail corridor; and public parks which could become activity centers within the system.

The Open Space Concept is centered on lands that are either preserved or in need of significant preservation efforts. These include state-owned open spaces, agricultural easements, conservancy lands, and environmentally sensitive natural areas.

The Action Program contains four sections identifying land preservation techniques; example costs; potential funding sources; and public/private sector roles in achieving plan recommendations.

The plan also contains a thorough compilation of the existing natural resources; cultural areas; significant

man-made features; recreation sites and facilities; agricultural easement areas; conservancy holdings; historic features; and cultural features of the county, the spokesman said.

**To see plan in advance of meeting.** The full text of the draft plan may be examined at the Millersburg Borough municipal building during regular business hours, 8:00 a.m. to 4:00 p.m.; the Dauphin County Parks and Recreation Office, 100 Fort Hunter Road, at Fort Hunter, between 8:30 a.m. and 4:00 p.m.; and the Tri-County Regional Planning Commission Office, 112 Market St., second floor, in Harrisburg, between 8:30 a.m. and 4:00 p.m.

The Dauphin County Parks and Recreation Department contact person is Carl Dickson, Director, phone 599-5188. The Dauphin County Planning Commission contact person is James W. Szymborski, AICP, Executive Director, 234-2639.

**Background information.** The Dauphin County Parks and Recreation Department and Dauphin County Planning Commission are jointly preparing the plan and the Tri-County Regional Planning Commission/Dauphin County Planning Commission staff is coordinating the project; with technical plan preparation assistance provided by the consulting

team of Urban Research and Development Corp. in association with engineers Herbert Rowland and Grubic Inc. of Harrisburg.

A Project Study Committee has been established to guide direction of the plan as it develops. Representatives from each of Dauphin County's 40 municipalities, as well as the county Parks and Recreation advisory board, Planning Commission, Conservation District, business community, conservancies, and trail clubs were invited to participate as committee members, the spokesman said.

Figure A2  
Middletown Press and Journal Announcement

**ATTENTION  
PUBLIC NOTICE**

Notice is hereby given that the Dauphin County Parks and Recreation Department and Dauphin County Planning Commission will conduct the following public meetings on the Draft Dauphin County Parks, Recreation, Open Space, and Greenways Plan. The plan will be ultimately incorporated into the 2008 Dauphin County Comprehensive Plan.

**November 18, 2008 • 7:00 p.m. prevailing time**  
Derry Township Municipal Building, 600 Clearwater Road, Hershey, PA 17033

**November 20, 2008 • 7:00 p.m. prevailing time**  
Swatara Township Municipal Building, 599 Eisenhower Blvd., Harrisburg, PA 17111

The full text of the Draft Plan may be examined at the Dauphin County Parks and Recreation Office, 100 Fort Hunter Road, Harrisburg, PA 17110 between 8:30 a.m. and 4:00 p.m., and the Tri-County Regional Planning Commission Office, 112 Market Street, 2nd Floor, Harrisburg, PA 17101, between 8:30 a.m. and 4:00 p.m. The document may also be viewed on the Dauphin County Parks and Recreation Department Web site (<http://www.dauphincounty.org/parks-recreation/>). The purpose of the meetings is to review major findings and recommendations of the working Draft County Parks, Recreation, Open Space, and Greenways Plan. The plan is comprised of a Recreation, Parks and Greenway Concept, an Open Space Concept, and an Action Program. The Action Program provides specific recommendations to implement the concepts as well as tools to help in land conservation efforts. Overall objectives of the plan include the preservation and enhancement of the visual character of Dauphin County's landscapes, protect important habitat areas and preserve migration paths for wildlife, and enhance recreational and exercise opportunities in appropriate settings. After a presentation by the plan consultant, the public is invited to ask questions and provide comments. Point of contact for the Dauphin County Parks and Recreation Department is Carl Dickson, Director, 599-5188 and for the Dauphin County Planning Commission, James W. Szymborski, AICP, Executive Director, 234-2639.

Middletown Press & Journal 11/12/08

Figure A3  
Hummelstown Sun Notice

**PUBLIC NOTICE**

Notice is hereby given that the Dauphin County Parks and Recreation Department and Dauphin County Planning Commission will conduct the following public meetings on the Draft Dauphin County Parks, Recreation, Open Space, and Greenways Plan. The plan will be ultimately incorporated into the 2008 Dauphin County Comprehensive Plan.

**Date: November 18, 2008**  
**Time: 7:00 p.m. prevailing time**  
**Location: Derry Township Municipal Building, 600 Clearwater Road, Hershey PA 17033**

**Date: November 20, 2008**  
**Time: 7:00 p.m. prevailing time**  
**Location: Swatara Township Municipal Building, 599 Eisenhower Blvd., Harrisburg, PA 17111**

The full text of the Draft Plan may be examined at the Dauphin County Parks and Recreation Office, 100 Fort Hunter Road, Harrisburg, PA 17110 between 8:30 a.m. and 4:00 p.m., and the Tri-County Regional Planning Commission Office, 112 Market Street, 2nd Floor, Harrisburg, PA 17101, between 8:30 a.m. and 4:00 p.m. The document may also be viewed on the Dauphin County Parks and Recreation Department website (<http://www.dauphincounty.org/parks-recreation/>). The purpose of the meetings is to review major findings and recommendations of the working Draft County Parks, Recreation, Open Space, and Greenway Plan. The plan is comprised of a Recreation, Parks and Greenway Concept, an Open Space Concept, and an Action Program. The Action Program provides specific recommendations to implement the concepts as well as tools to help in land conservation efforts. Overall objectives of the plan include the preservation and enhancement of the visual character of Dauphin County's landscapes, protect important habitat areas and preserve migration paths for wildlife, and enhance recreational and exercise opportunities in appropriate settings. After a presentation by the plan consultant, the public is invited to ask questions and provide comments. Point of contact for the Dauphin County Park and Recreation Department is Carl Dickson, Director, 599-5188 and for the Dauphin County Planning Commission, James W. Szymborski, AICP, Executive Director, 234-2639.

Figure A4  
Harrisburg Patriot News Notice

**PATRIOT NEWS SUNDAY 11/9/08**



**DAUPHIN COUNTY**  
**Parks plan open to comment**

Dauphin County residents may comment on a preliminary plan to create and preserve parks, open space and greenways, as drafted by the County Parks and Recreation Department and the Tri-County Planning Commission.

Public meetings will be held at 7 p.m. Nov. 18 at the Derry Twp. building, 600 Clearwater Road, and on Nov. 20 at the Lower Swatara Twp. building, 599 Eisenhower Blvd.

For more information, call Carl Dickson, director of parks and recreation, at 599-5188, or James Szymborski of the planning commission at 234-2639.

**Public Meeting Summary**

Dauphin County Parks, Recreation, Open Space and Greenway Study

November 13, 2008 7:00 p.m.

Millersburg Borough Hall

A public meeting was held at the Millersburg Borough Hall on Thursday, November 13, 2008 to present the *Dauphin County Parks, Recreation, Open Space and Greenway Study* and obtain public comments. The meeting is one of a series of three public meetings on the study. Handouts included a public meeting agenda and comment sheets for people to write down and hand in comments.

The following is a summary of the major items discussed at the meeting:

- Jim Szymborski, Executive Director of the Tri-County Regional Planning Commission, welcomed everyone and thanked them for coming out to the meeting. He described the background for the study and mentioned that the study committee and the consultants have been working on the plan for nearly one year and have been holding monthly workshop meetings. He reviewed the past related planning efforts and pointed out that the study will be adopted as an addendum to the *Dauphin County Comprehensive Plan* that adopted earlier in 2008. He explained that all municipalities and school districts will be receiving a copy of the plan document for review and comment.
- Mr. Szymborski introduced Carl Dickson, Director of the Dauphin County Parks and Recreation Department, and Bob Kriebel and Tom Palmer of Urban Research and Development Corporation (URDC).
- Mr. Kriebel used a PowerPoint presentation to review the major findings and recommendations of the study.
- Questions and Comments (*Responses in italics*):
  1. There are no tax breaks for being in an Agricultural Security Area—only for “Clean and Green”.  
*Yes, you are correct. We will check the text and make any needed revisions.*
  2. Regarding Map 2.12, why isn’t the Millersburg Ferry listed?  
*We will check and add to document.*
  3. It seems as though we are good shape in regard to park land in the northern section of the county.  
*Yes, you are. All the small towns have a park.*



Dauphin County Parks, Recreation, Open Space, and Greenways Study

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4. What is a conservation greenway? How wide is it?  
*A conservation greenway is a greenway intended for preservation rather than active recreational use. Conservation greenways are often along waterway corridors and often include environmentally sensitive areas (e.g., floodplains). Conservation greenways can vary in width.*
5. The Susquehanna Greenway – is it green?  
*Much of the greenway is in open space. The Susquehanna Greenway was recently honored by being designated as a National Water Trail.*
6. The Lykens Valley Railroad is the 4<sup>th</sup> oldest railroad in the U.S.  
*Thank you.*
7. How is the Capital Area Green Belt categorized?  
*The Capital Area Green Belt is a Recreational/cultural greenway.*
8. What is the Wiconisco Creek Greenway organization?  
*The organization is a group of about 25 volunteers working to protect and enhance the creek corridor.*
9. On page 2-12, Berry Woods is not in Halifax Township.  
*We will check and make revisions as needed.*

Mr. Szymborski thanked everyone for coming out to the meeting. Some meeting participants stayed to review and discuss the maps.

**Public Meeting Summary**

Dauphin County Parks, Recreation, Open Space and Greenway Study

November 18, 2008 7:00 p.m.

Derry Township Municipal Building

A public meeting was held at the Derry Township Municipal Building on Tuesday, November 18, 2008 to present the *Dauphin County Parks, Recreation, Open Space, and Greenway Study* and obtain public comments. The meeting was one of a series of three public meetings. Handouts included an agenda and comment sheets for people to write down and hand in comments.

The following is a summary of the major items discussed at the meeting:

- Jim Szyborski, Executive Director of the Tri-County Regional Planning Commission, welcomed everyone and thanked them for coming out to the meeting. He described the background for the study and mentioned that the study committee and the consultants have been working on the plan for nearly one year and have been holding monthly workshop meetings. He reviewed the past related planning efforts and pointed out that the study will be adopted as an addendum to the *Dauphin County Comprehensive Plan* that adopted earlier in 2008. He explained that all municipalities and school districts will be receiving a copy of the plan document for review and comment.
- Mr. Szyborski introduced Carl Dickson, Director of the Dauphin County Parks and Recreation Department, and Bob Kriebel and Tom Palmer of Urban Research and Development Corporation (URDC) of Bethlehem, PA, who have been retained as consultants for the project.
- Mr. Kriebel used a PowerPoint presentation to review the major findings and recommendations of the study.
- Questions and Comments (*Responses in italics*):
  1. What is the minimum length for a greenway?  
*The length varies depending upon connections and circumstances. Some are very long, such as the Appalachian Trail, and others are short.*
  2. What is the minimum size of a park?  
*Based on guidelines from the National Recreation and Park Association, a minipark could be approximately 1/4-acre for a mini-park .*
  3. Are the municipalities expected to fill the gaps in the greenway concept?  
*Municipalities are **encouraged** to identify gaps and fill gaps to connect to local greenways and hubs.*

Dauphin County Parks, Recreation, Open Space, and Greenways Study

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4. The inclusion of the flyways is great!
  5. Regarding Swatara Creek, trails are nice to talk about but some of the greenway is on private land. People in our area don't want trails on their private property or taking land for trails.  
*Taking of private land for trails is not considered, or even mentioned, in the study. Some of the land along the Swatara Creek is in private land and some is in public land. The study encourages cooperation in identifying lands to be preserved and providing access whenever feasible and appropriate.*
  6. How long ago was the Appalachian Trail moved? The Darlington Trail does not go through my property.  
*We are not sure when the A.T. was moved. Please come up after the meeting and show us your property on the map.*
  7. A suggestion was made that there be a "real effort" to implement this plan. It would be a shame not to implement it.  
*Agreed.*
  8. The school districts should work with the municipalities to provide school areas and facilities for public use. We are taxpayers.  
*There are 10 different school districts in the county, and each district has different policies on the use of school areas and facilities by the public. Top priority is given to the students.*
  9. Derry Township and the Milton Hershey School are good examples of a municipality and school cooperating in parks and recreation.  
*Thank you.*
  10. We need to save the Stoney Creek Valley! The valley is a wilderness area. County, state and federal governments must uphold existing laws. Fort Indiantown Gap should not put a percentage on land for preservation (i.e., 2% vs. 900 acres).  
*Thanks for you comments. (Note - the person thanked the group for listening and left copies of articles and information for review.)*
  11. The plan will be a good tool but should include the schools. Perhaps another chart could be included.  
*The difficulties using the schools was again discussed (different policies, priorities to students, schedules, etc.).*
  12. Are all 67 counties in Pennsylvania doing greenway plans? If so, are you looking at what is happening in the adjacent counties?  
*Yes, PA DCNR has asked all the counties to prepare greenway plans. Many counties have completed plans, and some are in the process. We did look at the adjacent counties.*
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Dauphin County Parks, Recreation, Open Space, and Greenways Study

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13. When copies of the plan are sent to the school districts, you might ask for their cooperation in providing areas and facilities.

*Thank you.*

14. You made a point of possibly connecting the Mantago Creek Greenway with the Conewago Creek Greenway. Why?

*Just an example of connecting the north part of the county to south part of the county.  
Could be a natural area for wildlife.*

Mr. Szymborski thanked everyone for coming out to the meeting. Some meeting participants stayed to review and discuss the maps.

**Public Meeting Summary**

Dauphin County Parks, Recreation, Open Space and Greenway Study

November 20, 2008 7:00 p.m.

Swatara Township Municipal Building

A public meeting was held at the Swatara Township Municipal Building on Thursday, November 20, 2008 to present the *Dauphin County Parks, Recreation, Open Space and Greenway Study* and obtain public comments. The meeting was one of a series of three public meetings on the study. Handouts included a public meeting agenda and comment sheets for people to write down and hand in comments.

The following is a summary of the major items discussed at the meeting:

- Jim Szymborski, Executive Director of the Tri-County Regional Planning Commission, welcomed everyone and thanked them for coming out to the meeting. He described the background for the study and mentioned that the study committee and the consultants have been working on the plan for nearly one year and have been holding monthly workshop meetings. He reviewed the past related planning efforts and pointed out that the study will be adopted as an addendum to the *Dauphin County Comprehensive Plan* that was adopted earlier in 2008. He explained that all municipalities and school districts will be receiving a copy of the plan document for review and comment.
- Jim Szymborski introduced Carl Dickson, Director of the Dauphin County Parks and Recreation Department, and Bob Kriebel and Tom Palmer of Urban Research and Development Corporation (URDC).
- Mr. Kriebel used a PowerPoint presentation to review the major findings and recommendations of the study.
- Questions and Comments (*Responses in italics*):
  1. How do I suggest adding a greenway?  
*You can tell us now or tells us at the end of the meeting. (Note- Mr. Carl Lorence suggested a trail in Wildwood Park. He spoke to URDC and left a completed comment sheet with his suggestion for a trail extending from Linglestown Road to Wildwood Road within the park. The trail could be added as a project.)*
  2. Is the study information on the web?  
*Yes, you can get the study on the Dauphin County Parks and Recreation website.*
  3. Great, comprehensive plan! The City of Harrisburg will be sending in comments after we review the document more thoroughly, but, from what I see tonight, the study includes a lot

**Dauphin County Parks, Recreation, Open Space, and Greenways Study**

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of good ideas that fit into the city's ideas (e.g., the Susquehanna River enhancements, wildlife easements, the Southern Gateway, etc.)

*Thanks.*

4. Landowners and township officials in Londonderry Township do not support the idea of a multiuse greenway along the Conewago Creek and do not want trails along the stream, although riparian buffers are acceptable.

*Trails would only be developed with public support. In the case of the Conewago, the greenway should probably be redesignated as a conservation greenway. We will discuss the idea with the study committee.*

5. What about public education for conservation?

*Yes, the plan does address and include recommendations for public education.*

6. Will the study be mailed out?

*Yes, the study document will be mailed to all municipalities and school districts.*

7. Highspire has a reservoir with a canal. Will the county be doing the proposed \$400,000 recreation project at the site?

*Currently, the county is not looking to develop more county parks. A lot of people have an eye on the project, which is encouraging and indicates that the project will probably be developed at some point.*

8. A new development will provide trails that will be taken over and maintained by the Manada Conservancy. Development regulations in municipal ordinances can be used to provide trails, and park and open space areas.

*Yes, many municipalities are using local ordinances as a tool to develop trails, parks, and open spaces.*

9. Is there a benefit in showing a deficiency in park land and facilities? Will it help in getting grants?

*Yes.*

Mr. Szymborski thanked everyone for coming out to the meeting. Some meeting participants stayed to review and discuss the maps.

Appendix B

Dauphin County Local Parks

| MAP NO.                       | PARK NAME                                           | MUNICIPALITY           | PARK TYPE (1) | ACREAGE (2) | AMOUNT / NUMBER OF FACILITIES |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 | COMMENTS   |                                                                                                      |
|-------------------------------|-----------------------------------------------------|------------------------|---------------|-------------|-------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|------------|------------------------------------------------------------------------------------------------------|
|                               |                                                     |                        |               |             | Softball Fields               | Baseball Fields | Baseball Fields | Baseball Fields | Baseball Fields | Baseball Fields | Baseball Fields | Baseball Fields | Baseball Fields | Baseball Fields | Baseball Fields | Baseball Fields | Baseball Fields | Baseball Fields |            | Baseball Fields                                                                                      |
| <b>NORTH PLANNING SECTION</b> |                                                     |                        |               |             |                               |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |            |                                                                                                      |
| 1                             | Berrysburg Park                                     | Berrysburg Boro.       | C             | 1.0         |                               |                 |                 | 1               | 2 (L)           |                 |                 | 1               |                 |                 |                 |                 | X               |                 |            | Handball court, adjacent to fairground picnic, concession stand, storage                             |
| 2                             | Elizabethville Borough Park                         | Elizabethville Borough | C             | 7.5 *       |                               | 3               |                 |                 |                 |                 | 1               | X               | 3               | 1               |                 |                 | 20              | X               | X          | Bleachers, stage, adjacent to Elizabethville AA, 1 softball field w/bleachers                        |
| 3                             | Borough Park                                        | Gratz Borough          | C             | 2.0         | 1                             |                 |                 |                 | 2               |                 |                 | X               | 1               |                 |                 |                 | 10              |                 |            | Across street from baseball field w/bleachers                                                        |
| 4                             | Scheib Field                                        | Gratz Borough          | C             | 2.0         |                               | 1               |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 | 50              |                 |            | Bleachers                                                                                            |
| 5                             | Veterans Memorial Park Halifax Recreation Authority | Halifax Borough        | C             | 30.0        |                               | 1               |                 | 1L              |                 |                 | 1               | X               | 2               | 1               |                 |                 | 20              | X               | X          | Gazebo, bleachers, stage—adj. to youth ctr. w/baseball, volley, picnic—adj. to Halifax Midget fields |
| 6                             | Halifax Recreational Park HRA                       | Halifax Township       | N             | 55.0 *      |                               |                 | 2               |                 |                 |                 |                 |                 |                 |                 |                 |                 | X               |                 |            |                                                                                                      |
| 7                             | Deppen Park HRA Armstrong Creek Park                | Halifax Township       | N             | 1.0         |                               |                 |                 |                 |                 |                 | 1               | X               | 2               |                 |                 |                 | 25±             |                 | X          |                                                                                                      |
| 8                             | Fort Halifax Park                                   | Halifax Township       | C             | 172.0       |                               |                 |                 |                 |                 |                 |                 | X               |                 |                 | X               |                 | X               |                 |            | site of Fort Halifax                                                                                 |
| 9                             | L&W Park                                            | Lykens Borough         | N             | 50.8        | 1L                            |                 |                 |                 |                 |                 | 1               | X               |                 |                 |                 |                 | 30              | X               |            |                                                                                                      |
| 10                            | Glen Park Dauphin Co.                               | Lykens Borough         |               |             |                               |                 |                 |                 |                 |                 |                 | 1               | X               | 2               |                 |                 |                 |                 | ~50<br>~50 |                                                                                                      |
| 11                            | Borough Park                                        | Lykens Borough         | C             | 7.3         |                               |                 | 2               | 2               |                 |                 | 1               | X               | 1               |                 |                 |                 | 32              |                 | X          | 1 Multipurpose court                                                                                 |
| 12                            | West Borough Park and Pool                          | Lykens Borough         |               |             |                               |                 |                 |                 |                 |                 |                 |                 | X               | 1               | 1               |                 |                 |                 |            | X                                                                                                    |
| 13                            | MYO Park                                            | Millersburg Boro.      | N             | 4.2         |                               | 1               |                 |                 |                 |                 | 1               | X               | 2               |                 |                 |                 | ~50             |                 | X          | Auto access floods; bleachers                                                                        |
| 14                            | Riverfront Park                                     | Millersburg Boro.      | N             | 3.8         |                               |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |            | Millersburg Ferry                                                                                    |
| 15                            | Market Square Park                                  | Millersburg Boro.      | M             | 1.0         |                               |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |            |                                                                                                      |
| 16                            | Bram - Bradenbaugh                                  | Millersburg Boro.      | N             | 1.3         | 1                             |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 | X               |            |                                                                                                      |

| MAP NO.                                  | PARK NAME                                                   | MUNICIPALITY                         | PARK TYPE (1) | ACREAGE (2)  | AMOUNT / NUMBER OF FACILITIES |                 |                          |                   |                   |             |            |             |             |           |           |                |                          |                 | COMMENTS  |                                                      |           |
|------------------------------------------|-------------------------------------------------------------|--------------------------------------|---------------|--------------|-------------------------------|-----------------|--------------------------|-------------------|-------------------|-------------|------------|-------------|-------------|-----------|-----------|----------------|--------------------------|-----------------|-----------|------------------------------------------------------|-----------|
|                                          |                                                             |                                      |               |              | Softball Fields               | Baseball Fields | Football/Soc./Lax Fields | Basketball Courts | Tennis Courts     | Auditoriums | Gymnasiums | Playgrounds | Disc Courts | Tables    | Pavilions | Swimming Pools | Trail/Path (type length) | Handball Courts |           | Competition Stands                                   | Restrooms |
| 17                                       | Seal Park / Millersburg Area Pool                           | Millersburg Boro.                    | C             | 7.7          |                               |                 |                          | 2                 |                   |             | 1          | X           | 3           |           |           |                | 13                       |                 | X         | Adjacent to MAHS; pool; adj. to Millersburg LL field |           |
| 17                                       | Millersburg Area Pool                                       | Millersburg Boro.                    | C             | 2.0          | 1                             |                 |                          |                   |                   |             |            |             |             | 1         |           |                |                          |                 | X         |                                                      |           |
| 18                                       | Borough Park                                                | Pillow Borough                       | C             | 6.0          | 1                             |                 | 1                        |                   |                   |             | 1          |             |             |           |           |                |                          |                 | X         | Bleachers                                            |           |
| 19                                       | Wiconisco Creek County Park                                 | Upper Paxton Township                | C             | 35.0         | 2                             |                 | 1                        |                   |                   |             | 1          | X           | 1           |           |           |                | ~60<br>~65               | X               | X         | Volleyball court                                     |           |
| 20                                       | Loyalton Field                                              | Washington Twp.                      | C             | 11.0         |                               |                 |                          |                   |                   |             | 1          | X           | 1           |           |           |                |                          |                 |           | Under construction                                   |           |
| 21                                       | Henninger Farm Covered Bridge                               | Washington Twp.                      | N             | 1.0          |                               |                 |                          |                   |                   |             |            | X           |             |           |           |                | 5                        |                 |           | Covered bridge; owned by Dauphin Co.                 |           |
| 22                                       | Ibberson Conservation Area                                  | Wayne Township<br>Middle Paxton Twp. | C             | 350.0        |                               |                 |                          |                   |                   |             |            |             | 1           |           | X         |                | 2                        |                 | X         | 7 trails; amphitheater w/bench seating for 60        |           |
| 23                                       | Mountain Street Park                                        | Wiconisco Twp.                       | M             | 2.0          |                               |                 |                          |                   |                   |             | 1          | X           | 1           |           |           |                |                          |                 |           | Building, possibly Boy Scout sign                    |           |
| 24                                       | Walnut Street Park                                          | Wiconisco Twp.                       | M             | 0.5          |                               |                 |                          |                   |                   |             | 1          |             |             |           |           |                |                          |                 |           |                                                      |           |
| 25                                       | L&W Athletic Park                                           | Wiconisco Twp.                       | C             | 6.0          | 2L                            |                 | 1L                       |                   |                   |             |            |             |             |           |           |                | 100                      | 2               | X         | Fields overlaid; Stadium w/bleachers                 |           |
| 26                                       | Williams Township Field                                     | Williams Township                    | N             | 2.0          | 1                             |                 |                          |                   |                   |             |            |             |             |           |           |                |                          |                 |           |                                                      |           |
| 27                                       | Stoney Park                                                 | Williamstown Bo                      | N             | 10.0 *       | 1                             |                 |                          |                   |                   |             |            |             |             |           |           |                | X                        | X               |           |                                                      |           |
| 28                                       | WYAA Girls Softball Gun Club Field                          | Williamstown Borough                 | N             | 10.0 *       | 2                             |                 |                          |                   |                   |             |            |             |             |           |           |                | ~50                      | X               | X         | Bleachers                                            |           |
| 29                                       | Borough Park                                                | Williamstown Bo.                     | C             | 10.0         |                               |                 |                          |                   |                   |             | 1          | X           | 1           | 1         |           |                |                          | X               | X         | Bandstand                                            |           |
| 30                                       | Veterans Memorial Park                                      | Williamstown Bo.                     | N             | 0.5          |                               |                 |                          | 1                 |                   |             |            |             |             |           |           |                |                          |                 |           | Community Center                                     |           |
| <b>Subtotal — North Planning Section</b> |                                                             |                                      |               | <b>792.6</b> | <b>10 +<br/>3L</b>            | <b>6</b>        | <b>3 +<br/>1L</b>        | <b>4 +<br/>1L</b> | <b>7 +<br/>2L</b> | <b>0</b>    | <b>0</b>   | <b>15</b>   | <b>16</b>   | <b>22</b> | <b>5</b>  | <b>2</b>       | <b>0</b>                 | <b>635+</b>     | <b>12</b> | <b>13</b>                                            | <b>0</b>  |
| <b>SOUTHWEST PLANNING SECTION</b>        |                                                             |                                      |               |              |                               |                 |                          |                   |                   |             |            |             |             |           |           |                |                          |                 |           |                                                      |           |
| 31                                       | Market Street Boat Ramp                                     | Dauphin Borough                      | C             | 0.1          |                               |                 |                          |                   |                   |             |            |             |             |           |           |                |                          |                 |           | Old boat ramp, end of Market St.; 1 grill            |           |
| 32                                       | Market Square Park Market St. between Allegheny and Juniata | Dauphin Borough                      | M             | 0.5          |                               |                 |                          |                   |                   |             |            |             |             |           |           |                |                          |                 |           | 1 gazebo, benches, flag pole                         |           |
| 33                                       | Old School Grounds northwest corner Allegheny / Church      | Dauphin Borough                      | M             | 1.5          |                               |                 | 1                        |                   |                   |             | 1          |             |             |           |           |                |                          |                 |           | Stage, old school building                           |           |
| 34                                       | Veterans Memorial Park                                      | Dauphin Borough                      | M             | 1.0          |                               |                 |                          |                   |                   |             |            |             |             |           |           |                |                          |                 |           | Memorial, benches, grills                            |           |



| MAP NO. | PARK NAME                               | MUNICIPALITY      | PARK TYPE (1)   | ACREAGE (2) | AMOUNT / NUMBER OF FACILITIES |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 | COMMENTS                                              |
|---------|-----------------------------------------|-------------------|-----------------|-------------|-------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-------------------------------------------------------|
|         |                                         |                   |                 |             | Softball Fields               | Baseball Fields | Baseball Fields | Baseball Fields | Baseball Fields | Baseball Fields | Baseball Fields | Baseball Fields | Baseball Fields | Baseball Fields | Baseball Fields | Baseball Fields | Baseball Fields | Baseball Fields | Baseball Fields |                                                       |
| 35      | Dauphin - Middle Paxton Community Park  | Dauphin Borough   | C               | 19.0        | 1                             | 4<br>1L         | 1               | 2 x ½<br>1x1 L  | 3               |                 |                 | 1               | X               | 2               | 1               | 1/3<br>mi.      | 75<br>60        | X               | X               | Bleachers 2, recreation assoc. bldg., fields overlaid |
| 61      | Highspire Memorial Park                 | Highspire Borough | N               | 7.5         |                               | X               |                 | 2               | 1               |                 |                 | 1               | X               | 1               |                 |                 | ~15<br>~35      |                 |                 |                                                       |
| 62      | Ann Street Ballfield                    | Highspire Borough | N               | 1.1         | 1                             |                 |                 | 1               | 1               |                 |                 |                 |                 |                 |                 |                 | 10              |                 |                 | Multipurpose field                                    |
| 63      | Reservoir Park                          | Highspire Borough | N               | 3.0         |                               |                 |                 |                 |                 |                 |                 | X               | 1               |                 |                 |                 | 10              |                 |                 | Open space                                            |
| 64      | Eshelman Street Playground              | Highspire Borough | M               | 0.3         |                               |                 |                 |                 |                 |                 |                 | 1               |                 |                 |                 |                 |                 |                 |                 | Adjacent to Borough Hall                              |
| 65      | Charles Street Park                     | Highspire Borough | M               | 1.0         |                               |                 |                 |                 |                 |                 |                 | 1               | X               |                 |                 |                 |                 |                 |                 | Gazebo—adjacent to Steelton Marina                    |
| 66      | Paxton Park                             | Highspire Borough | M               | 0.3         |                               |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 | Gazebo                                                |
| 67      | Hocker Park                             | Lower Paxton Twp. | N               | 12.0        |                               |                 |                 |                 |                 |                 |                 |                 | X               |                 |                 | X               |                 |                 |                 | Nature trail                                          |
| 68      | Centennial Acres Park                   | Lower Paxton Twp. | N               | 4.0         |                               |                 |                 | 1               |                 |                 |                 | 1               | X               | 1               |                 |                 | 16              |                 |                 | Bridge over stream                                    |
| 69      | Forest Hills Park                       | Lower Paxton Twp. | N               | 8.0         |                               |                 |                 | 1               | 1               |                 |                 | 1               | X               |                 |                 |                 |                 |                 |                 | Kiddie climbing wall; multipurpose field              |
| 70      | Koons Park                              | Lower Paxton Twp. | C               | 33.0        | 1L<br>4                       | 1               | 1               | 3L              | 3L              |                 |                 | 1               | X               |                 | X               |                 | ~200<br>~50     |                 | 1               | 2 volleyball courts; 2 bocci courts                   |
| 71      | Kings Crossing                          | Lower Paxton Twp. | N               | 5.0         | 1                             |                 |                 |                 |                 |                 |                 | 1               | X               | 1               |                 |                 | 25              |                 | 1               | Multipurpose field, 2 volleyball courts               |
| 72      | Hodges Heights Park                     | Lower Paxton Twp. | N               | 4.0         | 1                             |                 |                 | 1               | 1L              |                 |                 | 1               | X               | 1               |                 |                 | 10              |                 |                 | Adjacent to closed municipal landfill                 |
| 73      | Lingle Park                             | Lower Paxton Twp. | C               | 20.0        | 3                             |                 |                 |                 |                 |                 |                 | 1               | X               | 1               |                 | X               | 100             |                 | 1               | Nature trail, 2 volleyball courts                     |
| 74      | Kohl Park                               | Lower Paxton Twp. | C               | 19.0        | 2                             |                 | 1               | 1x1L<br>2x½     | 2L              |                 |                 | 1               | X               | 1               |                 | 2               | 100             |                 | X               |                                                       |
| 75      | Friendship Community Center             | Lower Paxton Twp. | C               | 41.0        |                               |                 |                 |                 |                 |                 | 1               |                 |                 |                 | 2               |                 | 150+            |                 |                 | Fitness center, classrooms, social hall               |
| 75      | Brightbill Park                         | Lower Paxton Twp. | C               |             | 5<br>1L                       |                 |                 | 3L              | 4L              |                 |                 | 1               | X               | 1               |                 | X               |                 | ~90<br>~65      | 3               | 1                                                     |
| 76      | Meadowbrook Park                        | Lower Paxton Twp. | N               | 4.0         |                               |                 |                 | ½               |                 |                 |                 | 1               | X               |                 |                 |                 |                 |                 |                 | Multipurpose field                                    |
| 77      | Lamplight Park                          | Lower Paxton Twp. | N               | 5.0         |                               |                 |                 | 1               |                 |                 |                 | 1               | X               | 1               |                 |                 |                 |                 |                 | Multipurpose field                                    |
| 78      | Thomas B. George Park Possibility Place | Lower Paxton Twp. | C               | N/A         |                               |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 | Under construction                                    |
| 79      | Wolfensberger Park                      | Lower Paxton Twp. | to be completed |             |                               |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 | Undeveloped – future park                             |

| MAP NO. | PARK NAME                 | MUNICIPALITY           | PARK TYPE (1) | ACREAGE (2) | AMOUNT / NUMBER OF FACILITIES |                 |                          |                   |               |             |                   |             |               |           |                |                          |                 |                |           | COMMENTS |                                                                                                           |
|---------|---------------------------|------------------------|---------------|-------------|-------------------------------|-----------------|--------------------------|-------------------|---------------|-------------|-------------------|-------------|---------------|-----------|----------------|--------------------------|-----------------|----------------|-----------|----------|-----------------------------------------------------------------------------------------------------------|
|         |                           |                        |               |             | Softball Fields               | Baseball Fields | Football/Soc./Lax Fields | Basketball Courts | Tennis Courts | Auditoriums | Community Centers | Playgrounds | Picnic Tables | Pavilions | Swimming Pools | Trail/Path (type length) | Handball Courts | Compassing (S) | Restrooms |          | Campsites                                                                                                 |
| 80      | Rockford Heights          | Lower Paxton Twp.      | N             | 3.0         |                               |                 |                          |                   |               |             |                   |             |               |           |                |                          |                 |                |           |          | Undeveloped drainage swales and detention ponds                                                           |
| 81      | Georgetown Playground     | Lower Swatara Twp.     | M             | 1.5         |                               |                 |                          |                   |               |             | 1                 |             |               |           |                |                          |                 |                |           |          |                                                                                                           |
| 82      | Old Reliance Farms        | Lower Swatara Twp.     | N             | 4.0         |                               |                 | 1                        |                   |               |             | 1                 | X           | 1             |           |                |                          | 12              |                | 1         |          |                                                                                                           |
| 83      | Little Hollywood Park     | Lower Swatara Twp.     | C             | 16.1        | 3                             | 1L              | 1                        | 2                 |               |             | 2                 | X           | 2             |           |                |                          | 2<br>~10<br>~15 | 1              | 2         |          |                                                                                                           |
| 84      | Woodridge Park            | Lower Swatara Township | N             | 3.0         | 1                             |                 |                          |                   |               |             | 1                 | X           | 1             |           |                |                          | 12              |                |           |          |                                                                                                           |
| 85      | Shope Gardens Park        | Lower Swatara Township | N             | 3.0         | 1                             |                 | 1                        |                   |               |             | 1                 | X           | 1             |           |                |                          | 20              |                | 1         |          |                                                                                                           |
| 86      | Rosedale Park             | Lower Swatara Twp.     | N             | 2.0         |                               |                 | 1                        |                   |               |             | 1                 | X           | 1             |           |                |                          | 13              |                | 1         |          |                                                                                                           |
| 87      | Greenwood Hills Park      | Lower Swatara Twp.     | M             | 1.0         |                               |                 |                          |                   |               |             | 1                 | X           | 1             |           |                |                          |                 |                |           |          |                                                                                                           |
| 88      | Hagy Park                 | Middle Paxton Township | C             | 27.7        | 1                             | 1               | 2<br>OL                  | 1                 | 1             |             | 1                 | X           | 1             |           |                |                          | 100±            |                |           |          |                                                                                                           |
| 89      | Fishing Creek Park        | Middle Paxton Twp.     | N             | 2.5         |                               |                 |                          |                   |               |             |                   |             |               |           |                |                          |                 |                |           |          |                                                                                                           |
| 90      | Colston Park              | Middletown Boro.       | M             | 0.3         |                               |                 | 1                        |                   |               |             | 1                 | X           | 1             |           |                |                          |                 |                |           |          |                                                                                                           |
| 91      | Etnoyer's Park            | Middletown Boro.       | N             | 3.0         | 1                             |                 |                          |                   |               |             | 1                 | X           |               |           |                |                          | 10              |                |           |          |                                                                                                           |
| 92      | Susquehanna St. Park      | Middletown Boro.       | C             | 6.0         | 2                             |                 | 1 L                      |                   |               |             | 1                 | X           | 1             |           |                |                          | ~30<br>~20      | X              |           |          | 1 volleyball court; adjacent to boat ramp                                                                 |
| 93      | Susquehanna St. Boat Ramp | Middletown Boro.       | C             | 5.0         |                               |                 |                          |                   |               |             |                   |             |               |           |                |                          | 27              |                | X         |          | Boat ramp                                                                                                 |
| 94      | Middletown Community Pool | Middletown Boro.       | C             | 2.8         |                               |                 |                          |                   |               |             |                   |             |               |           | 1              |                          | 29              |                | 1         |          |                                                                                                           |
| 95      | Emaus Street Park         | Middletown Boro.       | M             | 0.2         |                               |                 |                          |                   |               |             | 1                 | X           |               |           |                |                          |                 |                |           |          |                                                                                                           |
| 96      | Hoffer Park               | Middletown Boro.       | C             | 12.5        |                               |                 | 2                        | 1                 | 2L            |             | 2                 | X           | 4             |           |                |                          | 100             |                | X         |          | 1 sand volleyball, 1 shuffleboard. 1 skateboard area; large, wooden pgd. structure is older and well-worn |
| 97      | Oak Hills Park            | Middletown Boro.       | C             | 6.0         |                               | 1               |                          | 1                 |               |             | 1                 | X           | 1             |           |                |                          | 50              |                |           |          | Both sides of street                                                                                      |
| 98      | Frey Manor Park           | Middletown Boro.       | N             | 4.0         | 2                             |                 | 1                        | 1                 |               |             | 1                 |             |               |           |                |                          | 10              |                |           |          | Fields overlain                                                                                           |
| 99      | William R. Saussaman Park | Paxtang Borough        | N             | 2.5         | 1                             |                 |                          |                   | 2             |             | 1                 | X           | 1             |           |                |                          |                 | X              | X         |          |                                                                                                           |

| MAP NO. | PARK NAME                                    | MUNICIPALITY     | PARK TYPE (1) | ACREAGE (2) | AMOUNT / NUMBER OF FACILITIES |                 |                          |                   |               |             |                   |             |               |           |                |                          |                         |                    |           | COMMENTS |                                                                                          |
|---------|----------------------------------------------|------------------|---------------|-------------|-------------------------------|-----------------|--------------------------|-------------------|---------------|-------------|-------------------|-------------|---------------|-----------|----------------|--------------------------|-------------------------|--------------------|-----------|----------|------------------------------------------------------------------------------------------|
|         |                                              |                  |               |             | Softball Fields               | Baseball Fields | Football/Soc./Lax Fields | Basketball Courts | Tennis Courts | Auditoriums | Community Centers | Playgrounds | Picnic Tables | Pavilions | Swimming Pools | Trail/Path (type length) | Handball Courts         | Competition Stands | Restrooms |          | Campsites                                                                                |
| 100     | Paxtang Park                                 | Paxtang Borough  | N             | 1.2         | 1                             |                 |                          |                   |               |             |                   | 1           |               |           |                |                          |                         |                    |           |          | Owned by City of Harrisburg                                                              |
| 101     | Penbrook Community Park Enders Memorial Park | Penbrook Borough | C             | 11.0        |                               | 2 1L            | 1                        |                   |               |             | 1                 | X           | 1             |           |                |                          |                         |                    |           | X        | 2 multipurpose courts                                                                    |
| 102     | Elm Street Station                           | Penbrook Borough | M             | 0.1         |                               |                 |                          |                   |               |             | 1                 | X           |               |           |                |                          |                         |                    |           |          | Gazebo                                                                                   |
| 103     | Little Valley Park                           | Penbrook Borough | N             | 1.6         | 1                             |                 | 1                        |                   |               |             | 1                 | X           |               |           |                |                          |                         |                    |           | X        |                                                                                          |
| 104     | Steelton Municipal Park                      | Steelton Borough | N             | 1.9         |                               |                 | 2                        | 1 L               |               |             | 1                 | X           | 1             |           |                |                          | 12                      |                    |           |          | 1 volleyball court<br>1 multipurpose court                                               |
| 105     | Bailey Street Playground                     | Steelton Borough | M             | 0.5         |                               |                 | 2                        |                   |               |             | 1                 |             |               |           |                |                          |                         |                    |           |          |                                                                                          |
| 106     | Mohn Street Tennis Courts                    | Steelton Borough | N             | 1.1         |                               |                 |                          | 3L                |               |             |                   |             |               |           |                |                          |                         |                    |           |          |                                                                                          |
| 107     | Frank J. Kocevar Memorial Park               | Steelton Borough | N             | 2.0         |                               |                 |                          |                   |               |             |                   |             |               |           |                |                          |                         |                    |           |          | Open space, steep slopes; both sides of street                                           |
| 108     | Poplar Street Playground                     | Steelton Borough | M             | 0.3         |                               |                 |                          |                   |               |             | 1                 |             |               |           |                |                          | 9                       |                    |           |          |                                                                                          |
| 109     | Steelton Marina                              | Steelton Borough | C             | 2.9         |                               |                 |                          |                   |               |             |                   |             |               |           |                |                          | ~40 +10 trailer         |                    | 1         |          | Boat launch – adjacent to                                                                |
| 110     | Cottage Hill Park                            | Steelton Borough | M             | 0.4         |                               |                 |                          |                   |               |             |                   | X           | 1             |           |                |                          |                         |                    |           |          | Adjacent to War Veterans Memorial Field school district                                  |
| 111     | East End Park                                | Steelton Borough | M             | 1.0         |                               |                 | 1                        |                   |               |             | 2                 | X           | 1             |           |                |                          | 10                      |                    | 1         |          |                                                                                          |
| 112     | Christian McNaughton Mem. Park               | Susquehanna Twp. | N             | 7.5         |                               | 1               | 1                        |                   |               |             | 1                 | X           | 1             |           |                |                          | 41                      | 1                  |           |          | multipurp. field                                                                         |
| 113     | Beaufort Hunt Playground                     | Susquehanna Twp. | N             | 2.8         |                               |                 |                          |                   |               |             | 1                 |             | 1             |           |                |                          |                         |                    |           |          | multipurp. field                                                                         |
| 114     | Fort Hunter Park Dauphin Co.                 | Susquehanna Twp. | C             | 50.0        |                               |                 |                          |                   |               |             | 2                 | X           | 2             |           | X              |                          | ~30<br>~60<br>~34<br>~9 |                    | 2         |          | Historic building, Co. Parks dept. offices, covered bridge, small stage, memorial museum |
| 115     | Donald B. Stabler Memorial Park              | Susquehanna Twp. | C             | 7.9         | 1                             | 1               | 1                        |                   |               |             | 1                 | X           |               |           |                |                          | 32                      | 1                  | 1         |          |                                                                                          |
| 116     | Crown Point Park                             | Susquehanna Twp. | N             | 4.3         |                               |                 |                          |                   |               |             | 1                 | X           | 1             |           |                |                          | 10                      |                    | X         |          | multipurp. field                                                                         |
| 117     | Olympus Heights Park                         | Susquehanna Twp. | M             | 1.5         |                               |                 | 1                        |                   |               |             |                   |             |               |           |                |                          |                         |                    |           |          |                                                                                          |
| 118     | Shutt Mill Park                              | Susquehanna Twp. | N             | 5.0         |                               |                 | 1                        |                   |               |             |                   | X           | 1             |           |                |                          |                         |                    |           |          |                                                                                          |
| 119     | Dauphin County Community Gardens             | Susquehanna Twp. | C             | 8.0         |                               |                 |                          |                   |               |             |                   |             |               |           |                |                          |                         |                    |           |          | Community garden plots–adjacent to Harrisburg Area Flying Society                        |

| MAP NO.                                     | PARK NAME                                                     | MUNICIPALITY     | PARK TYPE (1) | ACREAGE (2)  | AMOUNT / NUMBER OF FACILITIES |                 |                          |                     |                 |             |            |             |               |           |                |                          |                 |                    |           | COMMENTS  |           |                                                                                                                                                                                         |
|---------------------------------------------|---------------------------------------------------------------|------------------|---------------|--------------|-------------------------------|-----------------|--------------------------|---------------------|-----------------|-------------|------------|-------------|---------------|-----------|----------------|--------------------------|-----------------|--------------------|-----------|-----------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                             |                                                               |                  |               |              | Softball Fields               | Baseball Fields | Football/Soc./Lax Fields | Basketball Courts   | Tennis Courts   | Auditoriums | Gymnasiums | Playgrounds | Picnic Tables | Pavilions | Swimming Pools | Trail/Path (type length) | Handball Courts | Competition Stands | Restrooms |           | Campsites |                                                                                                                                                                                         |
| 120                                         | Veterans Park                                                 | Susquehanna Twp. | C             | 26.0         | 1 L                           | 1 L             | 4                        | 1                   | 2 L             |             |            | 1           | X             | 1         |                |                          |                 | ~50                | 1         | X         |           | Sand volleyball L                                                                                                                                                                       |
| 121                                         | Edgemont Park                                                 | Susquehanna Twp. | N             | 11.0         | 1                             |                 |                          | 2                   |                 |             |            | 1           | X             | 2         |                |                          |                 | 20                 |           | X         |           | Multipurpose field                                                                                                                                                                      |
| 122                                         | Plum Alley Park                                               | Susquehanna Twp. | M             | 0.6          |                               |                 |                          |                     |                 |             |            | 1           | X             | 1         |                |                          |                 |                    |           |           |           |                                                                                                                                                                                         |
| 123                                         | Richard E. Plesic Memorial Park<br>Bressler Recreation Center | Swatara Township | M             | 0.5          |                               |                 |                          |                     |                 |             |            | 1           |               |           |                |                          |                 |                    |           |           |           | Recreation building                                                                                                                                                                     |
| 124                                         | Enhaut Park                                                   | Swatara Township | N             | 6.3          | 1                             |                 |                          | 1L                  | 2L              |             |            | 1L          |               | 1         |                |                          |                 |                    |           |           |           | Both sides of street                                                                                                                                                                    |
| 125                                         | Robert W. Horner Memorial Park                                | Swatara Township | N             | 1.6          | 1                             |                 |                          | 1                   |                 |             |            | 1           | X             | 1         |                |                          |                 |                    |           | X         |           |                                                                                                                                                                                         |
| 126                                         | Capital Area Greenbelt                                        | Swatara Township | Sp            | n/a          |                               |                 |                          |                     |                 |             |            |             |               |           |                | X                        |                 |                    |           |           |           |                                                                                                                                                                                         |
| 127                                         | Lenker Manor Park II Harrisburg Estates                       | Swatara Township | M             | 0.7          |                               |                 |                          |                     |                 |             |            | 1           |               |           |                | X                        |                 |                    |           |           |           | Volleyball court, shuffleboard court, garden                                                                                                                                            |
| 128                                         | Donald M. Taylor Memorial Park                                | Swatara Township | C             | 4.7          | 2                             |                 |                          | 2L                  | 1L              |             |            | 1L          | X             | 1         |                | X                        |                 |                    | X         | X         |           | 2 footbridges across ck.; 1 volleybl. court                                                                                                                                             |
| 129                                         | Gerald H. Vanetta Park                                        | Swatara Township | C             | 8.3          |                               | 2               |                          | 2 L                 | 2 L             |             |            | 1           | X             | X         |                | X                        |                 | ~14<br>~20<br>~18  | X         | X         |           | Dog walking area                                                                                                                                                                        |
| 130                                         | Earl R. Long Memorial Parak                                   | Swatara Township | C             | 4.2          | 1                             |                 |                          | 1L                  |                 |             |            | 1           | X             | 1         |                |                          |                 | 27                 | X         | X         |           |                                                                                                                                                                                         |
| 131                                         | Howard Randolph Memorial Park                                 | Swatara Township | C             | 3.0          | 1                             |                 |                          |                     | 2               |             |            | 1           | X             | 1         |                | X                        |                 | 16                 | X         | X         |           |                                                                                                                                                                                         |
| 132                                         | Chambers Hill Park                                            | Swatara Township | C             | 10.4         |                               | 1               |                          |                     | 1 L             |             |            | 1           | X             | 1         |                | X                        |                 | 27                 | X         | X         |           |                                                                                                                                                                                         |
| 133                                         | Chambers Hill Crest                                           | Swatara Township | N             | 5.5          | 1                             |                 |                          | 1                   |                 |             |            | 1           | X             | 1         |                |                          |                 | ~25                | X         | X         |           |                                                                                                                                                                                         |
| <b>Subtotals—Southwest Planning Section</b> |                                                               |                  |               | <b>490.2</b> | <b>41 + 3L</b>                | <b>13 + 5L</b>  | <b>9 + 3L</b>            | <b>31 + 16L 5x½</b> | <b>13 + 24L</b> | <b>0</b>    | <b>1</b>   | <b>61</b>   | <b>50</b>     | <b>49</b> | <b>5</b>       | <b>11</b>                | <b>2</b>        | <b>2,041+</b>      | <b>16</b> | <b>41</b> | <b>0</b>  |                                                                                                                                                                                         |
| 36                                          | Wildwood Park / Olewine Nature Center                         | Harrisburg City  | C             | 210.0        |                               |                 |                          |                     |                 |             |            | 1           | X             | 1         |                | X                        |                 | ~30<br>~10<br>~75  |           | 2         |           | Wetlands/lake, nature center, trails; To address flood control in the City of Harrisburg, the plan recognizes the future need to desilt the lake in an ecologically responsible manner. |

| MAP NO. | PARK NAME                                          | MUNICIPALITY                         | PARK TYPE (1) | ACREAGE (2) | AMOUNT / NUMBER OF FACILITIES |                 |                          |                   |               |             |                   |             |             |        |           |                |                          |                 | COMMENTS |                                                                                    |
|---------|----------------------------------------------------|--------------------------------------|---------------|-------------|-------------------------------|-----------------|--------------------------|-------------------|---------------|-------------|-------------------|-------------|-------------|--------|-----------|----------------|--------------------------|-----------------|----------|------------------------------------------------------------------------------------|
|         |                                                    |                                      |               |             | Softball Fields               | Baseball Fields | Football/Soc./Lax Fields | Basketball Courts | Tennis Courts | Auditoriums | Community Centers | Playgrounds | Disc Courts | Tables | Pavilions | Swimming Pools | Trail/Path (type length) | Handball Courts |          | Compassing (S)                                                                     |
| 37      | Italian Lake                                       | Harrisburg City                      | C             | 9.5         |                               |                 |                          |                   |               |             |                   |             |             |        |           | X              |                          |                 | 2        | Gardens, bandstand                                                                 |
| 38      | 7 <sup>th</sup> & Radnor                           | Harrisburg City                      | N             | 4.2         | 1 L                           |                 | 1 L<br>2x½L              |                   |               |             | 1                 |             |             |        |           |                | 53                       | 1               | 1        | Plus multipurpose field, bleachers                                                 |
| 39      | Gorgas Park                                        | Harrisburg City                      | M             | 0.4         |                               |                 |                          |                   |               | 1           | X                 | 1           |             |        |           |                |                          |                 |          | Tot lot                                                                            |
| 40      | 4 <sup>th</sup> & Emerald                          | Harrisburg City                      | M             | 1.7         |                               |                 | 1                        |                   |               | 2           | X                 | 1           |             |        |           |                |                          |                 |          |                                                                                    |
| 41      | Lottsville Playground                              | Harrisburg City                      | M             | 0.3         |                               |                 |                          |                   |               | 1           |                   | 1           |             |        |           |                |                          |                 |          | Tot lot                                                                            |
| 42      | Jackson Lick Pool                                  | Harrisburg City                      | M             | 0.9         |                               |                 | 0                        |                   |               |             |                   |             |             | 2      |           |                |                          |                 | 1        |                                                                                    |
| 43      | 4 <sup>th</sup> & Dauphin                          | Harrisburg City                      | M             | 1.0         |                               |                 | 1 L                      |                   |               | 1 L         |                   |             |             |        |           |                |                          |                 |          | 2 horseshoe pits, 2 checkers tables                                                |
| 44      | Penn & Dauphin                                     | Harrisburg City                      | M             | 0.3         |                               |                 |                          |                   |               | 1           |                   |             |             |        |           |                |                          |                 |          | Tot lot                                                                            |
| 45      | Penn & Sayford                                     | Harrisburg City                      | M             | 0.3         |                               |                 |                          |                   |               | 1           |                   |             |             |        |           |                |                          |                 |          | Tot lot                                                                            |
| 46      | Riverfront Park                                    | Harrisburg City                      | C             | 54.5        |                               |                 |                          |                   |               |             |                   |             |             | X      |           |                |                          |                 |          | Bike. Fitness, walking, jogging, part of Capital Area Greenbelt                    |
| 47      | Shipoke Playground                                 | Harrisburg City                      | M             | 1.0         |                               |                 |                          |                   |               | 1           | 1                 | 1           |             |        |           |                |                          |                 |          | Tot lot                                                                            |
| 48      | Clarence C. Morrison Park<br>Sunshine Park         | Harrisburg City                      | N             | 9.1         | 1 L                           |                 | 2 L                      | 3 L               |               | 1           | X                 | 1           |             |        |           | 24             |                          |                 |          | Tennis wall, sand 2 volleyball courts, 2 checkers tables, bleachers                |
| 49      | Pleasantview Playground 19 <sup>th</sup> & Forster | Harrisburg City                      | M             | 0.3         |                               |                 |                          |                   |               | 1           |                   |             |             |        |           |                |                          |                 |          | Tot lot                                                                            |
| 50      | Reservoir Park                                     | Harrisburg City                      | C             | 90.0        |                               |                 | 4 L                      | 2 L               |               | 1           | X                 |             |             |        |           | ~10*<br>~150** |                          | X               |          | Artists' village, bandshell, gardens<br>*scattered<br>** National Civil War Museum |
| 51      | 14 <sup>th</sup> & Shoop                           | Harrisburg City                      | M             | 0.6         |                               |                 |                          |                   |               | 1           |                   |             |             |        |           |                |                          |                 |          | Tot lot                                                                            |
| 52      | Vernon Street                                      | Harrisburg City                      | M             | 0.8         |                               | 1               |                          |                   |               | 1           | X                 | 1           |             |        |           |                |                          |                 |          | Practice soccer field                                                              |
| 53      | Norwood Park                                       | Harrisburg City                      | M             | 0.4         |                               |                 |                          |                   |               | 1           |                   |             |             |        |           | 2              |                          |                 |          | Tot lot                                                                            |
| 54      | Wilson Park                                        | Harrisburg City                      | M             | 1.1         |                               |                 |                          |                   |               | 1           |                   | 1           |             |        |           | 3              |                          |                 |          | Fitness equipment                                                                  |
| 55      | Royal Terrace                                      | Harrisburg City                      | M             | 0.5         |                               |                 | 1                        |                   |               | 1           | X                 |             |             |        |           |                |                          |                 |          | Tot lot                                                                            |
| 56      | Braxton Playground                                 | Harrisburg City                      | M             | 0.3         |                               |                 |                          |                   |               | 1           | X                 |             |             |        |           |                |                          |                 |          | Tot lot                                                                            |
| 57      | McCormick Island                                   | Harrisburg City,<br>Susquehanna Twp. | RR            | 100.0       |                               |                 |                          |                   |               |             |                   |             |             |        |           |                |                          |                 |          | Open space — owned by Central Pennsylvania Conservancy                             |

| MAP NO.                           | PARK NAME                                                 | MUNICIPALITY    | PARK TYPE (1) | ACREAGE (2)  | AMOUNT / NUMBER OF FACILITIES |                 |                          |                           |               |             |            |             |             |           |           |                |                          |                   |                |           | COMMENTS |                                                                                                                                                          |
|-----------------------------------|-----------------------------------------------------------|-----------------|---------------|--------------|-------------------------------|-----------------|--------------------------|---------------------------|---------------|-------------|------------|-------------|-------------|-----------|-----------|----------------|--------------------------|-------------------|----------------|-----------|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                   |                                                           |                 |               |              | Softball Fields               | Baseball Fields | Football/Soc./Lax Fields | Basketball Courts         | Tennis Courts | Auditoriums | Gymnasiums | Playgrounds | Disc Courts | Tables    | Pavilions | Swimming Pools | Trail/Path (type length) | Handball Courts   | Compassing (S) | Restrooms |          | Campsites                                                                                                                                                |
| 58                                | City Island                                               | Harrisburg City | C             | 63.0         |                               | 1               | 1                        |                           |               |             |            | 1           | X           | mult      |           | X              |                          | 300+              | X              | X         |          | Commerce Bank Pk. baseball stadium L, football stadium L, 4 sand volleyball L, train marinas, Skyline Sports Complex, beach, swimming, fitness equipment |
| 59                                | Cloverly Heights Playground                               | Harrisburg City | M             | 0.6          |                               |                 |                          | 1                         |               |             |            | 1           |             | 1         |           |                |                          |                   |                |           |          | 1 shuffleboard court                                                                                                                                     |
| 60                                | Penn National Insurance Pool & Pgd. Cloverly Heights Pool | Harrisburg City | N             | 2.3          |                               |                 |                          |                           |               |             |            | 1           |             |           | 2         |                |                          | 30                | X              | X         |          |                                                                                                                                                          |
| <b>Subtotals—Harrisburg City</b>  |                                                           |                 |               | <b>553.1</b> | <b>2L</b>                     | <b>0</b>        | <b>2</b>                 | <b>4+<br/>8L<br/>2x½L</b> | <b>6L</b>     | <b>0</b>    | <b>0</b>   | <b>22</b>   | <b>10</b>   | <b>11</b> | <b>4</b>  | <b>4</b>       | <b>0</b>                 | <b>687+</b>       | <b>3</b>       | <b>9</b>  | <b>0</b> |                                                                                                                                                          |
| <b>SOUTHEAST PLANNING SECTION</b> |                                                           |                 |               |              |                               |                 |                          |                           |               |             |            |             |             |           |           |                |                          |                   |                |           |          |                                                                                                                                                          |
| 134                               | Danny Fisher Memorial Field                               | Conewago Twp.   | N             | 1.5          | 1                             |                 |                          |                           |               |             |            |             | X           |           |           |                |                          |                   |                |           |          | Adjacent to Township Bldg.                                                                                                                               |
| 135                               | Boathouse Road Park                                       | Derry Township  | C             | 8.0          |                               |                 |                          |                           |               |             |            |             |             |           |           |                |                          | 6                 |                |           |          | Boat launch                                                                                                                                              |
| 136                               | Palmdale Park                                             | Derry Township  | C             | 10.0         | 1                             |                 | 2                        | 1                         |               |             |            | 1           | X           | 1         |           | X              |                          | 40                |                |           |          | Bike trail paved, 11.5 miles                                                                                                                             |
| 137                               | Hershey Recreation Center                                 | Derry Township  | C             | 14.0         | 1                             |                 |                          |                           | 6L            |             | 1          | 1           | X           | 1         | 2         | X              |                          | 300               |                |           |          |                                                                                                                                                          |
| 138                               | Founders Park                                             | Derry Township  | C             | 41.0         | 2                             |                 | 4                        |                           |               |             |            |             |             |           |           |                |                          | 100               |                | X         |          |                                                                                                                                                          |
| 139                               | Bullfrog Valley Park                                      | Derry Township  | N             | 3.0          |                               |                 |                          |                           |               |             |            |             | X           | 1         |           | X              |                          | 30                |                |           |          | Fishing pond                                                                                                                                             |
| 140                               | Shank Park                                                | Derry Township  | C             | 90.0         | 5                             |                 | 2                        |                           |               |             |            | 2           | X           | 1         |           |                |                          | ~40<br>~85<br>~90 | 1              | X         |          | Historic barn                                                                                                                                            |
| 141                               | Koons Park                                                | Derry Township  | N             | 4.0          | 1                             |                 |                          |                           |               |             |            | 1           | X           | 1         |           |                |                          | ~8<br>~15         |                |           |          |                                                                                                                                                          |
| 142                               | Brookside Park                                            | Derry Township  | N             | 10.0         |                               |                 |                          | 1                         |               |             |            | 1           | X           | 1         |           |                |                          | 50                |                |           |          | Fields 2 foot-ball, 2 softball, not marked & located in detention basin, not counted                                                                     |
| 143                               | Gelder Park                                               | Derry Township  | C             | 15.0         | 1                             |                 | 2                        | 1                         | 1             |             |            | 1           | X           | 1         |           |                |                          | 85                | 1              | 2         |          | Two sand volleyball; exercise trail                                                                                                                      |
| 144                               | East Hanover Township Community Park                      | E. Hanover Twp. | C             | 66.0         | 1                             |                 | 2                        | 1                         | 2             |             |            | 2           | X           | 2         |           | X              |                          | ~150<br>~50       |                | X         |          | Adjacent to Twp. Bldg.; multipurp. fld.; multipurp. ct.; 1 sand volley.; 1 sandbox; shuffleboard; 1-room schoolhouse                                     |
| 145                               | Herbert A. Schaffner Mem. Park                            | Hummelstown Bo. | N             | 4.0          | 2                             |                 |                          | 2                         |               |             |            | 1           | X           | 2         |           |                |                          | 22                | 2              |           |          | Bandshell                                                                                                                                                |

| MAP NO. | PARK NAME                                    | MUNICIPALITY           | PARK TYPE (1) | ACREAGE (2) | AMOUNT / NUMBER OF FACILITIES |                 |                          |                   |               |             |             |           |                |                          |                 |                    |                   |           | COMMENTS |  |  |   |  |                                                                    |
|---------|----------------------------------------------|------------------------|---------------|-------------|-------------------------------|-----------------|--------------------------|-------------------|---------------|-------------|-------------|-----------|----------------|--------------------------|-----------------|--------------------|-------------------|-----------|----------|--|--|---|--|--------------------------------------------------------------------|
|         |                                              |                        |               |             | Softball Fields               | Baseball Fields | Football/Soc./Lax Fields | Basketball Courts | Tennis Courts | Auditoriums | Playgrounds | Disc Golf | Swimming Pools | Trail/Path (type length) | Handball Courts | Competition Stands | Restrooms         | Campsites |          |  |  |   |  |                                                                    |
| 146     | Mehaffie Park                                | Hummelstown Bo.        | N             | 2.0         | 1                             |                 | 1                        |                   |               |             | 1           | X         | 1              |                          |                 |                    |                   |           |          |  |  |   |  |                                                                    |
| 147     | Chester S. Shope Park                        | Hummelstown Bo.        | N             | 1.5         | 1L                            |                 |                          |                   |               |             |             |           |                |                          |                 |                    | 20                | 1         | X        |  |  |   |  |                                                                    |
| 148     | Hummel Nature Trail                          | Hummelstown Bo.        | C             | 2.0 *       | 1                             |                 |                          |                   |               |             |             | X         | 1              |                          |                 |                    | 10                |           |          |  |  |   |  |                                                                    |
| 149     | Marion F. Alexander Park                     | Hummelstown Bo.        | N             | 1.5         |                               |                 | 1                        |                   |               |             | 1           | X         | 1              |                          |                 |                    | 7                 |           | X        |  |  |   |  |                                                                    |
| 150     | Dock Street Boat Ramp                        | Hummelstown Bo.        | C             | 0.2         |                               |                 |                          |                   |               |             |             |           |                |                          |                 |                    | 15                |           |          |  |  |   |  | Boat ramp                                                          |
| 151     | United Water Trail                           | Hummelstown Bo.        | C             | 1.0         |                               |                 |                          |                   |               |             |             |           |                | 0.75                     |                 |                    |                   |           |          |  |  |   |  | Gravel; adjacent to United Water Co.                               |
| 152     | Sunset Golf Course                           | Londonderry Twp.       | C             | 112.0       |                               |                 |                          |                   |               |             |             |           |                |                          |                 |                    |                   |           |          |  |  |   |  | Golf Course                                                        |
| 153     | Sunset Park                                  | Londonderry Twp.       | C             | 11.0        | 3                             |                 | 1                        |                   |               |             | 3           | X         | 3              |                          | X               |                    | ~50<br>~85        | 1         | 2        |  |  |   |  | 2 bocci courts<br>horseshoe pit                                    |
| 154     | Canal Lock Recreation Area                   | Londonderry Twp.       | C             | 3.0         |                               |                 |                          |                   |               |             |             | X         |                |                          |                 |                    | 65*               |           | 1        |  |  |   |  | *for trailers, Owned by York Haven Power Co., Boat ramp            |
| 155     | Braeburn Park Col. Stinson Park              | Londonderry Twp.       | C             | 6.0         | 1                             |                 | 1                        | 1<br>L            | 2<br>L        |             |             |           |                |                          |                 |                    | ~75<br>~6         | 1         | 1        |  |  |   |  | Fields overlain                                                    |
| 156     | Celebration Park Market St.                  | Royalton Borough       | M             | 1.2         |                               |                 |                          | ½                 |               |             | 1           |           |                |                          |                 |                    |                   |           |          |  |  |   |  |                                                                    |
| 157     | Kiwanis Park                                 | Royalton Borough       | C             | 5.4         | 1L                            |                 |                          | 1L                |               |             | 1           | X         | 1              |                          |                 |                    | 25                | X         |          |  |  |   |  |                                                                    |
| 158     | Royalton Borough Hall<br>Northumberland Park | Royalton Borough       | N             | 0.5         |                               |                 |                          |                   |               |             | 1           |           |                |                          |                 |                    |                   |           |          |  |  |   |  | Adjacent to Borough Hall– multipurpose field                       |
| 159     | The Meadows Park                             | South Hanover Twp.     | C             | 15.0        | 3                             |                 |                          |                   |               |             | 1           |           |                |                          |                 |                    |                   |           |          |  |  | 1 |  |                                                                    |
| 160     | Greenbriar Park                              | South Hanover Twp.     | N             | 2.3         | 2                             |                 | 1                        |                   |               |             | 1           | X         |                |                          |                 |                    | 15                |           | 1        |  |  |   |  | Fields are midget-size 45'                                         |
| 161     | Swatara Creek Park                           | South Hanover Twp.     | N             | 25.1        |                               |                 | 1                        |                   |               |             | 1           | X         | 1              |                          |                 |                    | 20                |           | 2        |  |  |   |  | Multipurpose field                                                 |
| 162     | Keller Field                                 | South Hanover Township | C             | 48.2        | 1                             |                 | 3                        |                   |               |             | 2           | X         | 2              |                          | X               |                    | ~20<br>~50<br>~10 | 1         | 2        |  |  |   |  | Multipurpose field, fitness trail                                  |
| 163     | Little Meadow Park                           | South Hanover Township | N             | 2.0         |                               |                 |                          |                   |               |             |             | X         | 1              |                          |                 |                    |                   |           |          |  |  | 1 |  | Adjacent to “Clawson-Vandehei Conservation Area                    |
| 164     | Fireman’s Memorial Fields                    | West Hanover Twp.      | N             | 2.0         | 3                             |                 |                          |                   |               |             |             |           |                |                          |                 |                    | 100+              | 1         |          |  |  |   |  | Adjacent to fire station                                           |
| 165     | Fairville Park                               | West Hanover Twp.      | N             | 24.5        | 1                             |                 |                          |                   |               |             | 1           | X         | 1              |                          | X               |                    | 25                |           |          |  |  |   |  | Remnants of log cabin & lighted horseshoe pits– wild flower garden |

| MAP NO.                                          | PARK NAME            | MUNICIPALITY          | PARK TYPE (1) | ACREAGE (2)    | AMOUNT / NUMBER OF FACILITIES |                    |                    |                                        |                       |               |             |            |             |             |           |           |                |                          |                 |                    | COMMENTS |                                                       |
|--------------------------------------------------|----------------------|-----------------------|---------------|----------------|-------------------------------|--------------------|--------------------|----------------------------------------|-----------------------|---------------|-------------|------------|-------------|-------------|-----------|-----------|----------------|--------------------------|-----------------|--------------------|----------|-------------------------------------------------------|
|                                                  |                      |                       |               |                | Softball Fields               | Baseball Fields    | Baseball Fields    | Basketball Courts                      | Foot./Soc./LaX Fields | Tennis Courts | Auditoriums | Gymnasiums | Playgrounds | Disc Courts | Tables    | Pavilions | Swimming Pools | Trail/Path (type length) | Handball Courts | Competition Stands |          | Restrooms                                             |
| 166                                              | Lenker Park          | West Hanover Twp.     | N             | 2.5            |                               |                    |                    | 2<br>L                                 | 2<br>L                |               |             | 2          | X           | 1           |           | X         |                | 30                       |                 |                    |          | Adjacent to Mountain View Swim Club—sand volleyball   |
| 167                                              | Houck Memorial Field | West Hanover Twp.     | C             | 6.5            | 4                             |                    |                    |                                        |                       |               |             |            |             |             |           |           |                | 15                       | 2               | 2                  |          | Adjacent to West Hanover Elem. School                 |
| 168                                              | Skyline Commons Park | West Hanover Township | C             | 5.0            |                               |                    |                    |                                        |                       |               |             | 2          | X           | 2           |           | X         |                | ~20<br>~50               |                 | 1                  |          | Includes short Street Pedestrian Trail—outdoor screen |
| <b>Subtotal—Southeast Planning Section</b>       |                      |                       |               | <b>546.9</b>   | <b>35 +<br/>2L</b>            | <b>0</b>           | <b>17</b>          | <b>10 +<br/>4L<br/>1 x ½</b>           | <b>3 +<br/>10L</b>    | <b>0</b>      | <b>1</b>    | <b>28</b>  | <b>23</b>   | <b>26</b>   | <b>2</b>  | <b>10</b> | <b>0</b>       | <b>1,787</b>             | <b>12</b>       | <b>21</b>          | <b>0</b> |                                                       |
| <b>GRAND TOTALS — DAUPHIN COUNTY LOCAL PARKS</b> |                      |                       |               | <b>2,382.8</b> | <b>86 +<br/>10L</b>           | <b>19 +<br/>5L</b> | <b>31 +<br/>4L</b> | <b>49 +<br/>29L<br/>6x½ +<br/>2x½L</b> | <b>23 +<br/>42L</b>   | <b>0</b>      | <b>2</b>    | <b>126</b> | <b>99</b>   | <b>108</b>  | <b>16</b> | <b>27</b> | <b>2</b>       | <b>5,150+</b>            | <b>43</b>       | <b>8<br/>5</b>     | <b>0</b> |                                                       |

Notes: (1) Park types: N Neighborhood C Community Sp Special Use RR Regional Reserve  
(2) Park sizes are taken from the *Dauphin County Comprehensive Plan*, unless noted with an asterisk (\*), in which case the acreage comes from the municipal response to the survey herein or is an estimate from field views or Dauphin County maps.  
(3) Number of parking spaces, where listed, is approximate. Multiple parking listings indicate multiple parking sites with approximate capacity for each site.  
(L) indicates number of facilities that are lighted  
n/a information not available

Sources: URDC  
*Dauphin County Comprehensive Plan (2008)*



## Appendix C

# TRAIL DESIGN GUIDELINES

Trails proposed in *Dauphin County Parks, Recreation, Open Space, and Greenways Study* may vary from primitive earthen tracks to paved, graded pathways. Some trails exist in the form of bicycle lanes, bicycle routes, and sidewalks. Trail users will vary from hikers and equestrians to road bicyclists and in-line skaters. When designing a trail, layout, surface, road crossings, signs, landscaping, and other infrastructure are all important considerations.

The following information should serve as a guide for municipalities, which will be spearheading the implementation of the *Dauphin County Parks, Recreation, Open Space, and Greenways Study* and developing greenways within municipal borders and multimunicipal regions.

## TRAIL LAYOUT

Trail layout should be sensitive to the environment the greenway intends to preserve. The trail should be compatible with the natural landscape and follow elevation contours where possible. If the trail cannot accommodate the intended user groups without having a negative impact on surroundings, the location and design of the trail should be reevaluated. The trail should also be routed to increase environmental awareness, and be built and maintained in a sustainable, cost-effective, and timely fashion. Improper trail implementation can lead to long-term maintenance problems, which are often difficult to fix.<sup>53</sup>

Trails should also be compliant with design criteria established by the *Americans with Disabilities Act (ADA)*. At this time, trails must meet the following technical provisions in order to be considered accessible:

- Surface - the trail surface shall be firm, stable and slip resistant
- Clear Tread Width - 36" minimum
- Tread Obstacles - 2" high maximum (up to 3" high where running and cross slopes are 5% or less)
- Cross Slope - 5% maximum
- Passing Space - provided at least every 1,000' where the trail width is less than 60" (5'-0")
- Signs - shall be provided indicating the length of accessible trail segment
- Running Slope (trail grade) shall meet one or more of the following:
  - 5% or less for any distance

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<sup>53</sup>Flink, Charles A. and Robert M. Searns. *Greenways, A Guide to Planning, Design and Development*. Island Press, Washington, D.C. 1993. P 198.

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**Dauphin County Parks, Recreation, Open Space, and Greenways Study**

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- Up to 8.33% for 200' maximum with resting intervals no more than 200' apart
- Up to 10% for 30' maximum with resting intervals no more than 30' apart
- Up to 12.5% for 10' maximum with resting intervals no more than 10' apart.
- No more than 30% of the total trail length may exceed a running slope of 8.33%

Trail tread width recommendations have been developed for bicycle trails in urban, suburban and rural settings. Furthermore, the American Association of State Highway Transportation Officials (AASHTO) provides recommendations for trail widths (Table C1).

**Table C1  
Standard Trail Width Recommendations<sup>54</sup>**

| <i>AASHTO Standard Tread Width for Bicycle-only Trails</i>      |                                  |                 |              |
|-----------------------------------------------------------------|----------------------------------|-----------------|--------------|
| <i>AASHTO Standards</i>                                         | <i>Recommended Minimum Width</i> |                 |              |
| One way, single lane                                            | 5'                               |                 |              |
| Two way, dual lanes                                             | 10'                              |                 |              |
| Three lanes of bicycle travel                                   | 12.5' minimum                    |                 |              |
| <i>Recommended Trail Tread Widths for User-Specific Trails</i>  |                                  |                 |              |
| <i>Trail User Type</i>                                          | <i>Recommended Tread Width</i>   |                 |              |
| Bicyclist                                                       | 10' (2-way travel)               |                 |              |
| Hiker/walker/jogger/runner                                      | 4' rural; 5' urban               |                 |              |
| Cross-country skier                                             | 8-10' for 2-track trail          |                 |              |
| Equestrian                                                      | 4' tread; 8' cleared width       |                 |              |
| <i>Minimum Recommended Tread Widths for Multiple Use Trails</i> |                                  |                 |              |
| <i>Tread Type</i>                                               | <i>Urban</i>                     | <i>Suburban</i> | <i>Rural</i> |
| Pedestrian, non-motorized                                       | 12'                              | 10'             | 10'          |
| Pedestrian, equestrian                                          | 16'                              | 12'             | 10'          |

Source: AASHTO

In certain environments, certain user groups, such as cyclists and equestrians, may require some restrictions to minimize environmental impacts. Trail design details may also be warranted to reduce the impacts caused by specific site characteristics. Boardwalks near wetlands are one example of a restrictive trail option that attempts to minimize environmental impacts.

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<sup>54</sup>Flink, Charles A. and Robert M. Searns. *Greenways, A Guide to Planning, Design and Development*. Island Press, Washington, D.C. 1993. P 200-201.

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## TRAIL CONSTRUCTION

A highly-developed trail is made of three components: the sub-grade, the sub-base and the trail surface. The sub-grade is the trail's foundation, which is made up of the native soils that bears the load generated by trail users. The sub-base distributes the weight of the trail surface and users to the sub-grade. The trail surface is the point of contact between the trail and the users. The surface can be either soft or hard, depending on its ability to absorb or repel water.

### SUB-GRADE

The sub-grade provides the foundation for the trail to be developed. Any imperfections in the sub-grade will eventually become apparent in the final trail surface. The characteristics of the sub-grade that provide a good foundation are susceptibility to freezing, weight bearing, and shrink/swell characteristics. Adequate drainage is a requirement to maintain a sound sub-grade and can be accomplished with surface or sub-surface drainage systems, or a combination of the two.<sup>55</sup>

### SUB-BASE

The sub-base distributes the load of the trail surface and trail users to the sub-grade and provides drainage. The design load of the trail, or the maximum weight able to be carried by the trail, along with the type of material used for the sub-base and the use of geotextiles, will determine the depth of the sub-base necessary.

### TRAIL SURFACE

The surface of the trail can be constructed of either soft or hard materials. Soft materials are defined as those that are able to absorb moisture, such as earth and wood chips. Hard materials repel moisture and include crushed stone, bituminous concrete, soil cement, resin-based stabilized material and concrete. The type of trail surface can encourage or discourage different types of use. Trails surfaced with soft materials are preferred by equestrians because horses are less susceptible to injury on soft materials. Hard materials with a smooth finished surface such as bituminous concrete are preferred by inline skaters as more conducive to the sport. The surface of the trail (Table C2) should be chosen conservatively when first installed and can be upgraded as use and demand increase.

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<sup>55</sup>Flink, Charles A., Kristine Olka and Robert M. Searns. *Trails for the Twenty-First Century*. Island Press, Washington, D.C. 2001. P 62-65.

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Table C2  
Trail Surface Synopsis

| <i>Surface Material (longevity)</i>                              | <i>Advantages</i>                                                                                                                                                       | <i>Disadvantages</i>                                                                                                                                                                                 |
|------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Hard Materials</i>                                            |                                                                                                                                                                         |                                                                                                                                                                                                      |
| Soil Cement, medium                                              | Uses natural materials, more durable than native soils, smoother surface, low cost, accommodates multiple use                                                           | Surface wears unevenly, not a stable all-weather surface, erodes, difficult to achieve the correct mix                                                                                               |
| Granular Stone, medium-long (7-10 years)                         | Soft but firm surface, natural material, moderate cost, smooth surface, accommodates multiple use                                                                       | Surface can rut or erode with heavy rainfall, regular maintenance needed to keep consistent surface, replenishing stones may be a long-term expense, not for areas prone to flooding or steep slopes |
| Bituminous Concrete (asphalt), medium-long (7-15 years)          | Hard surface, supports most types of use, all-weather, accommodates most users simultaneously, smooth surface to comply with ADA guidelines, low maintenance            | High installation cost, costly to repair, not a natural surface, freeze/thaw an crack surface, heavy construction vehicles need access                                                               |
| Concrete, long (20 years plus)                                   | Hardest surface, easy to form to site conditions, supports multiple use, lowest maintenance, resists freeze/thaw, best cold weather surface, most resistant to flooding | High installation cost, costly to repair, not a natural-looking surface, construction vehicles will need access to the trail corridor                                                                |
| Boardwalk, medium-long                                           | Necessary in wet or ecologically sensitive areas, natural-looking surface, low maintenance, supports multiple use                                                       | High installation cost, costly to repair, can be slippery when wet                                                                                                                                   |
| Resin-stabilized, medium-long depending on type of application   | Aesthetics, less environmental impact, possible cost savings if soil can be used, can be applied by volunteers                                                          | Need to determine site suitability and durability, may be more costly in some cases                                                                                                                  |
| <i>Soft Materials</i>                                            |                                                                                                                                                                         |                                                                                                                                                                                                      |
| Native Soil, short to long depending on local use and conditions | Natural material, lowest cost, low maintenance, can be altered for future improvements, easiest for volunteers to build and maintain                                    | Dusty, ruts when wet, not an all-weather surface, can be uneven and bumpy, limited use, possibly not accessible                                                                                      |
| Wood Chips, short (1-3 years)                                    | Soft, spongy surface good for walking, moderate cost, natural material                                                                                                  | Decomposes under high temperature and moisture, requires constant replenishment, not typically accessible, limited availability, not appropriate for flood prone areas                               |
| <i>Other</i>                                                     |                                                                                                                                                                         |                                                                                                                                                                                                      |
| Recycled Materials, varies                                       | Good use of recyclable materials, surface can vary depending on materials                                                                                               | Design appropriateness and availability varies.                                                                                                                                                      |

Source: Flink, Charles A., Kristine Olka and Robert M. Searns. *Trails for the Twenty-First Century*. Island Press, Washington, D.C. 2001. P 74-75.

## SIMPLE HIKING TRAILS

More rugged trails developed in Dauphin County need not follow all of the above-mentioned design guidelines. Trails intended for walking (and in some cases, equestrian, mountain bike, and bicycle use) could be kept in a primitive state, with natural surfaces three to four feet wide. The trail surface may be completely unimproved, consisting of native soil, grasses, forest litter, and occasional bed-rock. Muddy sections may be treated with wood mulch or small, compacted logs.

Unlike the highly-developed recreation trails, simple hiking trails can be built largely with volunteer labor. Regular maintenance will ensure that the hiking trails are not blocked by fallen trees, overgrown with vegetation, erosion, or flooding.

## CROSSINGS<sup>56</sup>

Trails may cross roads or rail lines at-grade, above-grade or below-grade. At-grade crossings are the most common although certain situations may present the opportunity to provide a bridge or tunnel. Crossings are site specific and require careful evaluation and planning.

### At-Grade

The most ideal at-grade road crossing will experience very light traffic or provide a traffic signal that can be activated by trail users to allow for safe passage. A professional should be employed to evaluate the intersection and establish a safe method of crossing. Ideally, the crossing should take place as close to an intersection as possible, preferably in the location of the crosswalk. "Trail Crossing" signs should be installed along the road and, if necessary:

- A painted crosswalk should be installed.
- Curb cuts should be as wide as the trail itself.
- Access to the trail can be controlled if the need arises. The most common method is the installation of bollards, which can be removable or hinged to allow access for authorized vehicles, such as emergency and maintenance vehicles, while preventing unauthorized vehicle access to the trail. Another effective vehicle barrier are gates extending completely across the trail. Barriers preventing unauthorized vehicle access must be easily visible under all conditions to avoid becoming a hazard and otherwise conflicting with trail use. Barriers should be placed on straightaways instead of curves in order to maintain satisfactory sight distance. Barriers should meet current ADA guidelines and allow for ease of trail use by users with disabilities.

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<sup>56</sup>Flink, Charles A., Kristine Olka and Robert M. Searns. *Trails for the Twenty-First Century*. Island Press, Washington, D.C. 2001. P 85-88.

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Alternative methods to alert users of an intersection include warning signs, a change in surface pavement, or a centerline along paved trails. Stop signs should be placed 4–5 feet from the road to allow time for users, especially cyclists, to stop. Site stopping distances should be evaluated by a professional, and adequate warning should be given to allow cyclists to stop. AASHTO guidelines, which incorporate curves, slopes, and other factors, have been developed to help determine the necessary warning distances needed for cyclists to stop.

### Above- or Below-Grade Crossings

Crossing above- or below-grade minimizes conflicts between trail users and vehicles but can also be very costly. When dealing with roadways that have a large volume of high-speed traffic, the only feasible alternative may be an above- or below-grade crossing. Above-grade crossings, such as pedestrian overpasses, are perceived to be less threatening and safer by users than below-grade crossings, or tunnels. Above-grade crossings can be extremely expensive and may require long access ramps in order to meet ADA requirements.

### Railroad Crossings

Any proposed railroad crossings must be safe. If an at-grade railroad crossing is necessary, the trail should cross perpendicular to the tracks to prevent the front tire of a bicycle or in-line skate from becoming lodged in the track. If a right angle crossing is not possible, another safety alternative should be used, such as:

- A compressible flangeway filler could be installed to reduce the chance of an accident for a cyclist.
- The trail could be widened, giving cyclists the opportunity to approach the crossing at a right angle to the tracks.

Signs requiring cyclists to dismount when crossing the tracks, which would be used in conjunction with track crossing warning signs, should also be installed. The railroad company must be consulted prior to installing any crossing.

## SIGNS FOR GREENWAY TRAILS<sup>57</sup>

Signs portray vital information and play an important role in the success of greenway trails. Signs can serve to regulate, warn, inform, and educate trail users. The Federal Highway Administration (FHWA) has outlined the size, shape and color criteria for signs in the *Manual on Uniform Traffic Control Devices* (MUTCD). Where feasible, and to reduce exposure to liability and promote safe trail

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<sup>57</sup>Flink, Charles A., Kristine Olka and Robert M. Searns. *Trails for the Twenty-First Century*. Island Press, Washington, D.C. 2001. P 88-93.

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use, the standard color and shapes should be followed. Signs need to be designed and placed appropriately within the greenway but done so in a manner that does not lead to cluttering of the landscape. The materials chosen for a sign system should be consistent and take into account budget, aesthetics, durability, and maintenance costs. Some options for materials include plastics, fiberglass, wood, aluminum, steel, brass, bronze, stone, fabric and recycled products. Selected materials should give the sign prominence but still blend well with the surrounding environment.

### Identification and Directional Signs

Creating a uniform signage system will help define the identity of the trail system. The county, through the Dauphin County Planning Commission and the Tri-County Regional Planning Commission, should help municipalities develop uniform identification signage for the greenway trails within the municipality. Numbers are recommended for Dauphin County trails because PennDOT has already established *Bicycle PA*, a statewide network of bicycle routes with letters assigned to the routes. Directional signs should be used in conjunction with route identification signs, providing distances and directional arrows to nearby destinations.<sup>58</sup>

The Susquehanna River shore line includes access areas that provide ideal locations for orientation signs to the river resource, the Susquehanna River Water Trail, and some of Dauphin County's major recreational assets, as part of the Susquehanna Greenway. Existing water orientation and safety signs are installed at City Island, the Fort Hunter PA Fish and Boat Commission (PFBC) access, Halifax PFBC access, and Millersburg Riverfront Park. The current signs can be enhanced and the message expanded upon using complementary orientation and interpretive signage that identifies the larger Susquehanna Greenway system.

### Regulatory Signs

Regulatory signs describe the laws and regulations that apply within the greenway, such as stop signs, speed limit signs, and permitted use signs. Regulatory signs are usually posted where the regulation applies.

### Warning Signs

Warning signs inform the users of existing or potentially hazardous conditions along the trail and are mounted prior to the condition to allow time to make the necessary preparations, such as reducing speed. Signs should be used near intersections, bridges and tunnels. Warning signs can also be used to bring attention to changes in the trail's grade or surface.

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<sup>58</sup> One good example of a plan for consistent signage is the signage manual developed for the Schuylkill River Heritage Area in Montgomery and Berks Counties, Pennsylvania.

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## Educational Signs

Educational signs point out areas of interest that make the trail unique, including natural or cultural features. Interpretive displays for greenways can provide educational information about the significant environmental or historic qualities of the area. Educational signs, often more detailed and ornate than other signs, should be made of weather-proof materials. Sign placement along the trail is important because a poorly located sign may not properly inform the trail user and could become hazardous. Signs located on posts should be at least three feet off the edge of the trail and be raised four to five feet off the ground. Information or education signs that do not contain traffic-oriented material should be placed a minimum of four feet off the edge of the trail, allowing people to view the sign while keeping a clear travel area on the trail.

## SUPPORT FACILITIES

Support facilities are the additional amenities in the greenway network to provide users with a pleasant experience. The location and amount of support facilities provided will depend on the trail's popularity, the resources of the managing agency, and the infrastructure that is already in place. Restrooms and large trailhead parking areas should not be initial investments, but may become warranted as trail popularity increases.

### Access Points, Trailheads, and Parking Facilities

Access to the greenway trail system can occur from a variety of locations, the most common being road crossings. Access points may contain identification signs, trail maps, and other signs. Road crossings, especially in urban and suburban environments, can provide an easily accessible means for local residents to reach greenway trails. Trailheads can be located near public parks, shopping centers or other prominent sites near the greenway trail system. Access points, trailheads, and parking areas are often the first and last impression of the greenway, so design, appearance, and function are all important. Facilities should be convenient for people to use the trail system.

Virtually all of the greenways proposed in the *Dauphin County Parks, Recreation, Open Space, and Greenways Study* will involve private property. Whenever a private landowner is involved in the process of establishing access points, or any part of a greenway, establishing a positive working relationship by making contact early and often in the process is crucial to the success of the greenway.<sup>59</sup> Conversely, the lack of strong communication will make a public/private greenway partnership much more difficult.

Prior to undertaking the construction of additional parking areas, an evaluation of existing facilities should be completed. Existing parking areas should be used wherever possible, which reduces the

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<sup>59</sup>The importance of communication in public/private greenway projects is almost universal. See, for example, Flink, Charles A. and Robert M. Searns. *Greenways, A Guide to Planning, Design and Development*. Island Press, Washington, D.C. 1993. P 268.

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need to develop new parking areas and promotes a “preserve and conserve” concept of establishing greenways. New parking facilities, when required, should be located at the edge of the greenway, away from environmentally sensitive areas. Providing a small number of parking spaces will minimize initial development impacts and costs and allow for future expansion, if demand increases. Parking areas should be no larger than 10–20 spaces. Parking areas should be constructed using natural materials, such as stone, or from surfaces such as porous asphalt or concrete and grid pavers. Handicap-accessible spaces will be required to have firm, stable, and slip-resistant surfacing. Parking areas should have an obvious connection to the trail. Convenient pedestrian access to the trails is important and can be in the form of an accessible route from the handicap spaces and drop-off area. Obvious access minimizes the desire to create shortcuts to the trail, which can result in negative environmental impacts or trespassing on private property. In parking areas where equestrian use is allowed, larger spaces must be provided for horse trailers.

### Bicycle Parking

No network of bicycle trails would be complete without safe, secure places to lock bikes. In fact, most people will not consider using the bicycle as a mode of transportation unless some form of bicycle parking is provided at destination points. As bicycle trails become more common throughout Dauphin County, municipalities, either individually or in multimunicipal regions, perhaps coordinated with the help of the Tri-County Regional Planning Commission, should seek funding and negotiate with landowners to provide bicycle racks at common destinations, such as the following:

- Parks and recreation centers (Table 2.5)
- Municipal buildings
- Public and private schools (Table 2.2)
- Libraries
- Post offices
- Major shopping destinations (Table 2.3)

For maximum security and effectiveness, a *fixed* bicycle rack design should be used, either bolted or embedded in concrete. Where possible, sheltered areas (awnings, breezeways, etc.) can help keep bicycles dry during inclement weather. Many municipalities have incorporated bicycle racks into streetscape designs, and in some cases, employed unique bicycle rack shapes as public art.

### Benches, Rest Areas, and Receptacles

Benches and rest areas along the greenway trail system provide a place for users to rest, gather, picnic, or view nature. Benches come in numerous designs and, along with rest areas, should be located at regular intervals along the trail, as well as at trailheads. Benches, like signs, should be located three feet from the trail’s edge.

The issue of receptacles on trails is a matter of policy. Trails that are strongly oriented toward environmental preservation and nature observation, such as those envisioned in the *Dauphin County Parks, Recreation, Open Space, and Greenways Study*, should have a strict “carry in-carry out” policy: whatever the user carries in to the trail, the user should also carry out. Therefore, no receptacles should be provided along the trails.

## Landscaping<sup>60</sup>

Landscaping helps to beautify the trail, provide visual screening of adjacent land uses, and enhance the ecological value of the greenway corridor. Using native vegetation can help strengthen the environment and restore areas that have been degraded, such as riparian buffers. The type of landscaping implemented along the greenway trail depends on the desired goals and the conditions of the area. An inventory of the environmental features of the area will help to determine if remediation measures are necessary. Site conditions will help to determine the types of plants most suitable, such as wetland or drought-tolerant species. Furthermore, using native plants in designs compatible with site characteristics can help to minimize maintenance costs.

Large trees and shrubs can be used to create shade, define spaces, provide a visual screen for adjacent properties, block wind, and frame views. Smaller shrubs and plants help to reduce maintenance by crowding out weeds and provide additional visual interest for the trail users. Ground cover, in the form of native grasses, vines, and other perennial plants provides food and cover for wildlife. A maintenance schedule should be established in urban, suburban, and rural settings for mowing and trimming to keep the trail corridor free of encroaching plant material. Safety is an important element along any trail and visibility is an important factor regarding safety. A safe sight distance should be maintained along urban and suburban trails.

## Fencing

In some instances, a vegetative buffer may not suffice to provide the desired separation or barrier between the greenway trail and adjacent land use. If no satisfactory alternative solution can be reached, a fence may be needed. Fences come in different styles, which perform different functions, and can be constructed from various materials, including wood, metal, and stone. Fences should be constructed to enhance the greenway corridor—not to create barriers to wildlife or be visually unattractive.

Sometimes a landowner perceives a need to have a fence installed because of fear related to trail use near the property. Most of the time, the fear dissipates after the trail has been in place for a few months. If an agreement can be reached at the beginning of a project to forego fence construction for a specified period of time, the landowner may relent. After the allotted time, if the landowner is not persuaded otherwise, the fence may be constructed.<sup>61</sup>

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<sup>60</sup>Flink, Charles A., Kristine Olka and Robert M. Searns. *Trails for the Twenty-First Century*. Island Press, Washington, D.C. 2001. P 105-109.

<sup>61</sup>Flink, Charles A. and Robert M. Searns. *Greenways, A Guide to Planning, Design and Development*. Island Press, Washington, D.C. 1993. P 267-268.

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## Restrooms

Restrooms require careful consideration prior to installation. Expensive to install and maintain, restrooms are also often the target of vandalism. Access to public, central water and sewer is an important component of the decision to install restroom facilities. If either or neither utility is available, alternatives may include wells, septic systems, portable toilets, or composting toilets, depending on local codes. Restroom facilities can be an opportunity to exercise “green architecture” practices when designing, locating, and constructing the building. As with parking, agreements with adjacent establishments to use existing facilities may be negotiable and may reduce or eliminate the need to create new facilities. Signs should be installed indicating the location of the restroom facilities.<sup>62</sup>

## BICYCLE ROUTES

Some portions of the Dauphin County greenways system require travel on or along roads, where bicyclists will use the roadway and pedestrians will use shoulders or, where available, sidewalks, with a few exceptions. Bicyclists are accommodated in one of three types of facilities, depending on the volume and width of each road segment:<sup>63</sup>

- Bicycle lanes—dedicated lanes on the same cartway as other vehicles.
- Shared roadways—signage indicating joint use of the same cartway without dedicated lanes.
- Sidepaths—separate pathway parallel to the cartway, similar to a sidewalk.

The plan envisions the possibility of bicycles on some of the greenway trails along the major creeks in the county. However, the primary accommodation for bicycle travel in the greenway system will be shared roadways, which are discussed below. The plan does not propose any separate bicycle lanes on any roadways in the county. Likewise, no separate sidepaths are included in the plan recommendations.

## SHARED ROADWAYS

In some cases, the *Dauphin County Parks, Recreation, Open Space, and Greenways Study* recommends greenway routes on low-volume neighborhood streets and rural roads, with volumes less than 2,000 vehicles per day, and speeds of 25 MPH or less.

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<sup>62</sup>Flink, Charles A., Kristine Olka and Robert M. Searns. *Trails for the Twenty-First Century*. Island Press, Washington, D.C. 2001. P 96-97.

<sup>63</sup> Design guidelines for all three types of bicycle accommodations can be developed from the Manual on Uniform Traffic Control Devices (MUTCD), published by the Federal Highway Administration in 2003.

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On most shared roadways, a motorist will have to move partially into the adjacent travel lane in order to pass a bicyclist. Due to the low traffic volumes, the movement is generally not a safety problem. Paint stripes and pavement markings are not necessary on shared roadways. The roads are simply used in current condition.

## SIGNAGE

While many of the borough and township streets and roads could be considered “shared roadways”, the ones that compose the greenway trail network should be marked with identification and directional signage. As described in the section entitled, *Signs for Greenway Trails*, the signs may be unique to the municipality, coordinated with Dauphin County, or compliant with generic signs found in the MUTCD. On shared roadways with unusually high conflict between automobiles and bicycles, “Share the Road” signs may be installed (Figure C1).

Figure C1  
“Share the Road” Signage



Source: FHWA, MUTCD, Sections 2C.40 and 2C.51