

**WARREN COUNTY OPEN SPACE PLAN**

**1999**

Prepared for

Warren County Planning Board

Prepared by

Warren County Planning Department

I hereby certify that the Warren County Open Space Plan 1999 was adopted by resolution of the Warren County Planning Board at a meeting held on May 24, 1999.

David K. Dech, Planning Director

## **Warren County Board of Chosen Freeholders**

Susan A. Dickey, Director  
Stephen J. Lance, Deputy Director  
Ann M. Stone

## **Warren County Planning Board**

William Hann, Chairman  
Robert Shandor, Vice Chairman  
Gary Pohorely, Secretary  
David B. Hicks, County Engineer  
Cheryl Burket  
Susan A. Dickey  
Desiree Dunn  
Robert Frey  
Ann Rhinesmith  
Ann M. Stone  
Anthony W. Wyhopen  
Guy R. Wilson, Attorney

## **Warren County Planning Department**

David D. Dech, Planning Director  
Bernard T. Rooney, Principal Planner/Transportation  
Richard A. Miller, Senior Planner  
\*Gregory A. Sipple, Senior Planner  
Albert J. Krouse, Assistant Planner  
Norma A. Weinzettle, Principal Drafting Technician  
Marie E. Chisamore, Office Supervisor  
Tracy L. Matlock, Senior Clerk Typist  
Jennifer L. Stasak, Clerk Typist

\*Project Planner

## TABLE OF CONTENTS

I.	Introduction .....	1
II.	Open Space Inventory .....	3
III.	Open Space Needs .....	9
IV.	Goals and Objectives .....	20
V.	Governmental, Non-Profit, and Private Roles .....	21
VI.	Warren County Open Space and Farmland Preservation Trust Fund .....	24
VII.	Methods of Open Space Preservation .....	26
VIII.	Evaluation Criteria for Open Space Selection .....	33
IX.	Acquisition Programs .....	45
	A. Three Year Program .....	45
	B. Five Year Program .....	45
X.	Sites of Special Interest .....	47
XI.	Interagency Coordination .....	48
XII.	Proposed County Open Space Plan .....	50

## LIST OF MAPS

	Following Page
Existing Open Space .....	4
Planning Regions .....	12
Composite Environmental Features .....	34
Steep Slopes .....	34
Non-Agricultural Soils .....	34
Freshwater Wetlands, Lakes, and Streams .....	36
Stream Corridors .....	36
Aquifers and Community Wellhead Buffer Zones .....	36
Forested Land .....	38
Historic and Cultural Resources .....	40
Special Interest Sites .....	44
Existing and Proposed Open Space .....	52

## **Forward**

Warren County's introduction to open space planning began in 1974 with the first open space element to the Warren County Master Plan. Back then, however, the perception of many county residents was that an abundance of open space existed. Unfortunately, this was common throughout the state, and now, land that once was perceived by many people to be "open space" has been developed.

Now imagine, hiking from Storm King Mountain on the Hudson River to Phillipsburg on the banks of the Delaware River, canoeing down rivers and streams that our ancestors used, exploring unique geological lakes formed during the Ice Age, or having trails next to your house where one could walk for leisure or exercise or explore and share the rich history of our county, such as, the Morris Canal, White Lake and West Oxford Mountain Natural Resource Areas. One may also want to visit one of the two of the last remaining steam engines of its size in the northern hemisphere, or show your children or grandchildren the farm you grew up on, or the woods, fields and streams that you played in as a youngster instead of just telling them what was there before the houses and shopping malls. This is all possible if we, the citizens of Warren County, work together to preserve open space.

As you read this updated open space plan, you will see that the Warren County Planning Board presents ways to provide for conservation easements, provides insight into creative subdivision layouts with innovative preservation techniques through the use of "transfer of development rights" or the clustering on non-contiguous parcels, and provides a format for interagency coordination in preserving open space.

Last, but not least, the Warren County Planning Board invites the citizens of Warren

County to become involved with all aspects of open space issues that lie before us, from the smallest neighborhood play lot to the largest open space parcel. Together, we can make a difference.

# **CHAPTER I**

## **INTRODUCTION**

The rapid and largely unanticipated development experienced throughout New Jersey, particularly in the metropolitan areas, has focused the attention of most people on the pressing need to conserve open space for future generations, and, for that matter, for the present generation. As new growth in many areas of the state devours acres, and even square miles, for residential, commercial and industrial uses, at an ever-increasing rate, less and less land remains available to meet the growing demands of society for outdoor recreation and public open space areas. The consequence of this is that many political jurisdictions lose their opportunity to save open space and will, perhaps, never be able to provide a reasonable minimum amount of open space, or, if they can, only at exorbitant prices produced by soaring land values. The perception of an abundance of open space exists to many Warren County citizens, but one only has to look to the east to see how fast the reality of open space can be lost.

As the demand for land increases, Warren County runs the risk of losing unusual opportunities for the preservation of open space that will be of immeasurable benefit to future generations. This situation is inevitable as vacant land in counties closer to the metropolitan core becomes more scarce, forcing developers and home seekers to outlying areas offering abundant land at less expensive prices. Faced with this prospect, only timely action on the part of the State of New Jersey, the County, and its various municipalities can assure proper direction of new growth and a proper balance of open space and recreational land.

The open space element of the Warren County Master Plan is intended to provide a framework for open space preservation through county and municipal planning. Open space can be



defined as land acquired and dedicated to remain undeveloped. These land areas may include streams, corridors, lakes, ridge tops, steep slopes, woodlands, grasslands, and agricultural lands. These features make up the character of the area and should be considered whenever sites are evaluated for acquisition. Areas designated for open space can protect many county natural resources, such as the quality and quantity of surface and groundwater, cultural and historic areas, and view sheds associated with ridge tops. Open space acquired now can serve to satisfy the recreational needs of county residents as development occurs in the future. This plan identifies areas and gives suggestions on ways to preserve open space in Warren County.

Open space planning is only a part of the overall planning effort of Warren County. The Warren County Open Space Plan must be coordinated with other facets of the County's planning program, including general development, transportation, utilities, and capital planning. As plans for these elements become more firmly established, and as population growth occurs, periodic review of open space objectives will be required. This will provide the necessary guarantee of continued preservation of the County's natural beauty and heritage for generations to come.

## **CHAPTER II**

### **OPEN SPACE INVENTORY**

In order to establish a basis for developing open space and recreation areas, an inventory of all existing federal, state, county, municipal and private open space and recreation areas was made. The location of all public, non-profit, and private open space is found on Map 1 (Existing Open Space).

#### **Federal Open Space**

The Delaware Water Gap National Recreation Area is the only federal land reserve in Warren County. The Water Gap covers 9,984 acres, which includes all of the Pahaquarry section of Hardwick Township and portions of Blirstown and Knowlton Townships.

#### **State Open Space**

The largest state-owned open space site in Warren County is Worthington State Forest in Hardwick, Blirstown and Knowlton Townships. The forest covers 5,824 acres and is within the Delaware Water Gap National Recreation Area.

Allamuchy Mountain State Park and Stephens State Park in Allamuchy Township and Hackettstown share common boundaries and account for 3,390 acres of open space in Warren County. These two state parks extend into Sussex and Morris Counties.

The tracts of land that comprise the Jenny Jump State Forest totals 967 acres. These tracts are located in the Townships of Frelinghuysen, Independence, Hope, Liberty, and White.

Other large areas of state-owned land includes 1,574 acres associated with the Pequest Trout Hatchery and Natural Resource Education Center in Mansfield, Liberty, and Oxford Townships; 440 acres of land at the Rockport State Game Farm in Mansfield Township; the Hackettstown State Fish Hatchery, with 340 acres in Hackettstown; White Lake, with 265 acres in Hardwick Township; and

the Paulinskill State Park in Knowlton Township, with 92 acres.

The New Jersey Department of Environmental Protection, Green Acres State Acquisition Program, has targeted land areas throughout Warren County for acquisition. Among these targeted areas are the expansion of the Jenny Jump State Forest in Frelinghuysen, Hope, Liberty, and White Townships; the expansion of the Allamuchy State Park in Allamuchy Township; the expansion of Worthington State Park in Hardwick and Knowlton Townships; the expansion of the Pequest Trout Hatchery in Oxford, Liberty and Mansfield Townships; and acquisitions along the Musconetcong, Delaware, Paulinskill Rivers, Mountain Lake Brook, Lopatcong Creek, Beaver Brook and Pequest Rivers, as well as the focus areas of Scotts Mountain and Montana Mountain in Washington and Harmony Townships, Pohatcong Mountain, the Highlands Trail corridor, Morris Canal, and the abandoned railroad rights-of-way throughout Warren County.

The Paulinskill Valley Trail traverses the Townships of Knowlton, Hardwick, Frelinghuysen, and Blairstown and continues into Sussex County. This is part of what was once the route of the New York, Susquehanna, and Western Railroad. The trail is conducive to multiple uses. It has a flat, cinder base and can be used safely for various trail uses, such as hiking, horseback riding, cross-country skiing, and bicycling. It also provides access for fishing, canoeing, and individuals in wheelchairs.

### **County Open Space**

County-owned open space now totals over 670 acres. Until 1990, the County owned approximately four acres of open space, which is the County Courthouse Park in the Town of Belvidere.

From 1990 to 1995, the Warren County Board of Recreation Commissioners acquired nine acres of the historic Morris Canal in Franklin, Greenwich, and Independence Townships. Since 1995,

the Warren County Board of Recreation Commissioners has acquired White Lake in Hardwick Township, West Oxford Mountain in Oxford Township, and 20 acres of the 60-acre Hamlen farm in Greenwich and Lopatcong Townships that contains the Morris Canal and the Lopatcong Creek Stream Corridor. The Warren County Board of Recreation Commissioners has been responsible for acquiring 568 acres of open lands and 57 acres of the historic Morris Canal.

### **Municipal Open Space**

Few municipalities in Warren County have lands dedicated for the single purpose of open space. Generally, municipal-owned land needs to be cost effective and serve multiple uses. Intensely used small parks, such as playgrounds, playing fields, and picnic areas, are combined and closely linked with the community.

Many Warren County municipalities have combined open space and recreation facilities with local Boards of Education or a state sponsored program like Green Acres.

### **Semi-Public Open Space**

The largest area of semi public open space in Warren County is the Merrill Creek Reservoir and Environmental Resource Center in Harmony and Franklin Townships. The site encompasses 2,800 acres, including a 650-acre reservoir.

Another reservoir in Warren County considered semi-public open space is the Yards Creek Station Recreation Area in Blairstown Township. There are 700 acres of open space associated with this site and another 500 acres of water.

The New Jersey Audubon Society was deeded two properties in Independence Township of approximately 175 acres. The site is located along Water Street and Ryan Road. The purpose of the donation is to ensure that a resting place for migrating birds and a suitable habitat for wild birds and other wildlife is preserved in perpetuity. A segment of the Bacon Run Creek flows through this site.

Public access along nature trails for bird watching and passive recreation is planned for the site.

The New Jersey Conservation Foundation owns one property in Warren County totaling one half acre, along with a conservation easement on 47 acres of land in Pohatcong Township. Other non-profit groups that have land holdings throughout the county include The Nature Conservancy, with 327.38 acres; Phillipsburg Riverview Organization, with 140± acres; Ridge and Valley Conservancy, with 6 acres; and Wildlife Preservation, with 180 acres in Frelinghuysen Township.

The following is a listing of properties that have been acquired as open space.

**I.**

<b>A.</b>	<b>Federal</b>	<b>Acres</b>
1.	Delaware Water Gap National Recreation Area	9,984
<b>B.</b>	<b>State</b>	
1.	Finesville State Park	3
2.	Stephens State Park	133
3.	Jenny Jump Forest	967
4.	Worthington State Forest	5,824
5.	Burch Sugar Maple	25
6.	Johnsonburg Natural Area	11
7.	Osman Forest	10
8.	Allamuchy Mountain State Park	3,390
9.	Delaware River Access Areas	190
10.	Hackettstown Fish Hatchery	340
11.	Hackettstown State Game Farm (Rockport)	440
12.	Pequest Fish & Wildlife Area	1,574
13.	Dept. of Transportation Scenic Easement Area	53
14.	NJDEP, Office of Natural Land Management	
	a. Mountain Lake Bog	27
	b. Buckhorn Creek	38
	c. Blairstown, Earl Brugler + Limestone Ridge	411
15.	Paulinskill State Park	92
16.	White Lake	269
	Subtotal	13,797
<b>C.</b>	<b>County</b>	

1.	Garret D. Wall Park	4
2.	Morris Canal	57
3.	Oxford Mountain	170
4.	White Lake	386
5.	Hamlen, Lopatcong Creek Area	12
6.	Hamlen, Farm	40
7.	Oxford Furnace Historic Site	1
8.	Shippen Manor Historic Site	2
	Subtotal	<hr/> 672

**D. Municipal**

1.	Allamuchy	44
2.	Alpha	58
3.	Belvidere	39
4.	Blairstown	15
5.	Franklin	10
6.	Frelinghuysen	3
7.	Hackettstown	33
8.	Harmony	14
9.	Hope	142
10.	Independence	79
11.	Lopatcong	25
12.	Oxford	137
13.	Phillipsburg	43
14.	Pohatcong	182
15.	Washington Borough	39
16.	Washington Township	29
17.	White	65
	Subtotal	<hr/> 957

**E. Non-Profit Groups**

1.	The Nature Conservancy's Mud Pond, Frelinghuysen	327
2.	Wildlife Preserve, Mud Pond, Frelinghuysen	180
3.	New Jersey Conservation Foundation	0.5
4.	Phillipsburg Riverview Organization	
	a. Grasslands in Pohatcong Township	128
	b. Ragged Ridge in Harmony Township	18
5.	New Jersey Audubon Society	
	a. Allamuchy Township	30
	b. Independence Township	132
6.	Lawrenceville Preparatory School Camp	31
7.	Roman Catholic Church, Archdiocese of Newark	100

	8.	The Presbyterian Camp and Conference	345
	9.	Camp Hope	94
	10.	Township of Crawford	7
	11.	Camp Merry Heart, Easter Seal Society of New Jersey	86
	12.	Ridge and Valley Conservancy	6
		Subtotal	<u>1,486</u>
<b>F.</b>		<b>Semi-Public</b>	
	1.	Yards Creek Pumping Station	1,200
	2.	Merrill Creek Owners Group	2,800
		Subtotal	<u>4,000</u>
<b>G.</b>		<b>Total of All Public</b>	<b>25,285</b>
		<b>Total of Non-Profit and Semi-Public</b>	<b>5,486</b>
		<b>GRAND TOTAL</b>	<b><u>30,771</u></b>

## **CHAPTER III**

### **OPEN SPACE NEEDS**

#### **Determinations of Open Space**

There are two methods that can be used to determine the amount of open space that should be acquired by the County. One is the acres per population method, and the other is the Balanced Land Use Method which was used in the New Jersey Open Space and Outdoor Recreation Plan 1994-1999.

The acres per population method generates higher acreage requirements as population increases and land becomes more scarce.

The Balanced Land Use Method recognizes land as an exhaustible resource that is being consumed over time by development. Consequently, the Balanced Land Use Method establishes a long-range goal by establishing a minimum amount of acreage that should be reserved for open space by all jurisdictions based on the amount of developed and developable land in the county or municipality. To establish the long-range goal, the Balanced Land Use Method is the preferred method.

The acres per population method can be used to define shorter-term goals, one to five years, as a means to measure the progress of open space acquisition according to population estimates and projections. Long range population projections are less certain and unreliable for the establishment of long term goals. Actual needs will vary according to local conditions and desires, as well as the availability of other open space areas owned by other levels of government.

#### **Land Use Trends**

Table I shows land use distribution in 1960 and in 1996. In 1960, public and semi-public land accounted for 13,048 acres or 5.61 percent of the county's land area. In 1996, public and semi-public



land accounted for 24, 675 acres or 11 percent of the county's land area, an increase of 71 percent. Since 1960, developed land areas have increased 1,006 percent from 4,334 acres, or 1.86 percent of the county, to 47,961 acres, or 22 percent of the county's land area. In 1960, most of the developed land was in the traditional town centers of Alpha, Belvidere, Blirstown, Hackettstown, Oxford, Phillipsburg and Washington. Growth over the 35-year time period has occurred mostly in the rural townships. If the same trend continues for the next 35 years, almost 45 percent of the county could be developed by the year 2035, while only 13 percent of the county would be in public open space.

### **Population Trends and Projections**

A prerequisite to establishing the park and open space objective is a review of past population trends and a projection of future growth.

Warren County is 365 square miles in land area, and because of its historical development and physical characteristics, its development pattern is not uniform and population is not evenly distributed. Various municipalities have closer orientation to one section of the county than to others by way of employment, transportation and other factors. In order to establish a more realistic basis, not only for population projections, but also for park locations that will more efficiently serve the population, the county has been subdivided into three broad planning regions, each comprising several municipalities. These regions are arranged as follows:

**TABLE I**

<b>LAND USE DISTRIBUTION, WARREN COUNTY 1960 AND 1996</b>						
	<b>1960</b>	<b>% of Total</b>		<b>1996</b>	<b>% of Total</b>	<b>% of Change</b>
Agricultural	100,765	43.35%		121,814	52.41%	20.89%
Vacant	109,943	47.30%		24,897	10.71%	-77.35%
<b>Total Agricultural and Vacant</b>	<b>210,708</b>	<b>90.65%</b>		<b>146,711</b>	<b>63.12%</b>	<b>-30.37%</b>
Industrial	984	0.42%		6,125	2.64%	522.46%
Commercial	372	0.16%		4,077	1.75%	995.97%
Residential	2,978	1.28%		37,759	16.24%	1167.93%
<b>Total Developed</b>	<b>4,334</b>	<b>1.86%</b>		<b>47,961</b>	<b>20.63%</b>	<b>1006.62%</b>
Public/Semipublic Schools	13,048	5.61%		24,675	10.62%	89.11%
Streets	4,347	1.87%		13,089	5.63%	201.10%
<b>Total</b>	<b>232,437</b>	<b>100.00%</b>		<b>232,436</b>	<b>100.00%</b>	

Northern Region

Blairstown Township  
Frelinghuysen Township  
Hardwick Township\*  
Hope Township  
Knowlton Township

Central Region

Allamuchy Township  
Belvidere  
Hackettstown  
Independence Township  
Liberty Township  
Mansfield Township  
Oxford Township  
Washington  
Washington Township  
White Township

Southern Region

Alpha  
Franklin Township  
Greenwich Township  
Harmony Township  
Lopatcong Township  
Phillipsburg  
Pohatcong Township

\*Includes former Pahaquarry Township.

The three regions are outlined on Map 2 (Planning Regions).

Naturally, the three regions are not isolated and there are many overlapping influences. These regions, and particularly the Central Region, might be further subdivided; however, it is believed that any further breakdown would serve no meaningful purpose for the broad scope of open space planning.

Regionally, there have been significant population changes. The Northern Region experienced increasing rates of growth from 1980 to 1990 and 1970 to 1980 and exceeded the county's rate in all decades as shown in Table II. The region, however, is the smallest in as much as it accounted for 14 percent of the county's population in 1995, an increase upward from 8.5 percent in 1960. Blairstown had the largest numerical increase since 1960, followed by Knowlton, Frelinghuysen, Hardwick and Hope Townships. Pahaquarry Township merged with Hardwick Township in 1997. All of former Pahaquarry Township is part of the Delaware Water Gap National Recreation Area. Percentage wise, Hardwick Township had the largest increase in population in the 1960-1995 period, followed by Frelinghuysen, Knowlton, Hope, and Blairstown Townships. The



Northern Region has the smallest population and lowest population density of the three regions, but it has the fastest rate of growth.

The Central Region is the largest region geographically and contains the most municipalities. It also contains the largest population and is the second fastest growing of the three regions. Numerically, Hackettstown's population grew the most since 1960. Percentage wise, Allamuchy, Mansfield, Liberty, and Independence Townships, grew the fastest with over 200 percent increases in population. This northeastern quadrant of the region has experienced the most rapid rate of growth since 1960.

In 1960, the population of the Southern Region was more than the other two regions. In 1970, the population of the region was almost equal to that of the Central Region. In 1995, its population was 14,000 people less than the Central Region. Over the 35-year period, the Southern Region grew by only 8.1 percent, compared to the growth rates of 151 percent and 88 percent for the Northern and Central Regions, respectively. The Southern Region contains the least land area, but has the largest population density. Of the seven municipalities in the region, Lopatcong Township has shown the greatest numerical and percentage increase, while Phillipsburg lost almost 2,800 in population since 1960.

Past growth is not the only barometer of future growth and the trends described above may be amplified or reversed by many factors. Highway construction, sewer availability and regional developments are examples. Route I-80 and the Pocono resorts in Pennsylvania have increased development pressures in the Northern Region. In the Southern Region the completion of Route I-78 in 1989 and the lifting of the Phillipsburg sewer moratorium has resulted in an influx of residential and commercial development growth over the past several years.

Future growth projections need to be examined to fully understand the magnitude of growth

in Warren County. Projections of future population have been made by the Warren County Planning Department and are shown in Table III. The County Planning Department has estimated that the population in the year 2010 will reach approximately 108,000, an increase of 11.6 percent from 1995.

As the table shows, the Northern Region will continue to capture more of the county's population by the year 2010, and the Southern Region will continue to lose its share of the overall county population. The Southern Region will, however, continue to contain the highest population density of the three regions.

### **Acres Per Population Method**

Table III also contains a requirement for number of acres that should be in public park use according to a standard of 8 acres per 1,000 population for municipal land, and 12 acres per 1,000 population for county land. Based on the acres per population method, there should be 202 acres of county land in the Northern Region, 644 acres in the Central Region, and 446 acres in the Southern Region, for a total of 1,291 acres by 2010 in County ownership. Depending on the location, a county open space reserve could serve two regions. Additionally, an over abundance of state and federal lands may be used to offset the need for the county to acquire additional lands in a particular region. The provision of open space needs to be timed with population growth. This emphasizes the need for periodic review of population in terms of the pace of land acquisition for parks and open space; therefore, the on-going planning policy should be geared to numbers of people rather than a given year in order to compensate for possible errors in projection.



## **Balanced Land Use Method**

Using the Balanced Land Use Method, The State Open Space and Outdoor Recreation Plan of 1994-1999 indicates that Warren County should have 3,991 acres in municipal-owned land and 9,312 acres in county-owned land. To determine the municipal requirement, the Balanced Land Use Method uses 3 percent of the developable and developed land area in the municipality. The standard for county open space is 7 percent of the developable and developed land area in the county.

“Developable” land is defined as land areas not containing wetlands and slopes of over 15 percent.

The guideline for state-owned lands is 10 percent of the state land area, and for federally-owned lands, it is 4 percent of the state land area. To calculate a "fair share" of state and federal lands in Warren County, one can assume that 10% of the County's land area should be in State ownership which equates to 23,360 acres. Currently, in the county, the state land area is 13,797 acres, leaving a “shortfall” of 9,563 acres of state-owned open space in Warren County. The same assumptions and methods can be employed at reaching a goal for federally-owned land. In Warren County, federally-owned land should amount to 9,344 acres, but it currently amounts to 9,984 acres, representing a surplus of 640 acres.

Using the Balanced Land Use Method, approximately 19 percent of the county 's land area should be in permanent public open space. The same methodology is used to calculate open space requirements in each of the three regions of the county and is shown in Table IV.



**TABLE IV**

<b>SUMMARY OF WARREN COUNTY PUBLIC OPEN SPACE REQUIREMENTS</b>											
	Federal		State		County		Municipal		Total		Overall
	Supply	Goal	Supply	Goal	Supply	Goal	Supply	Goal	Supply	Goal	Surplus/(Deficit)
North	9984	3528	6830	8818	386	2750	160	1179	17360	16275	1085
Central	0	3621	6964	9052	234	3487	465	1494	7663	17654	(9991)
South	0	2195	3	5490	52	3075	332	1318	387	12078	(11691)
Warren County	9984	9344	13797	23360	672	9312	957	3991	25410	46007	(20597)

According to the following table, the existing supply of open space is compared to the targeted needs of Warren County using the Balanced Land Use Method.

	<u>Supply</u>	<u>Balanced Land Use Goal</u>	<u>(Deficit)/Surplus</u>
Municipal	957	3,991	(3,034)
County	672	9,312	(8,640)
State	13,797	23,360	(9,563)
Federal	9,984	9,344	640
Sub Total	25,410	46,007	(20,597)
Private/ Semi-Public	5,486	-----	-----
Total	30,896	46,007	(15,111)

If the open space standards using population and the Balanced Land Use Method are compared, there is a wide disparity between the two, but one must remember that the population method is to meet a particular standard at a given time while the Balanced Land Use Method can be viewed as the long-term goal for open space preservation.

Efforts to acquire land for public open space should be made now to take advantage of today's lower land values rather than wait until tomorrow when land values will likely be higher. Land can also be targeted today for acquisition that offers unique scenic and environmental beauty, surface and groundwater protection, as well as recreational activities, such as hunting, fishing, hiking, and biking that could be lost if we wait too long to acquire it.

## **CHAPTER IV**

### **GOALS AND OBJECTIVES**

1. Land bank as much land as possible for future use or conservation.
2. Acquire properties along established and proposed trails, abandoned railroad rights-of-way, and the Morris Canal, as a high priority.
3. Acquire properties along streams and rivers to establish greenways and linear parks.
4. Acquire environmentally sensitive sites.
5. Acquire cultural, historical, and archeological open space sites.
5. Act as a facilitator in the coordination of land purchases among all levels of government and non-profit agencies.
6. In the short term, develop a modest, passive recreation system that allows activities like walking, hiking, sight seeing, bird watching, etc.
7. Where appropriate, give consideration to providing opportunities for traditional uses, such as hunting and fishing.
8. If necessary, in the long term, develop active recreation sites, such as ball fields and other similar recreational facilities.
10. Interconnect various open space reserves.
11. Interagency Coordination.

## CHAPTER V

### GOVERNMENTAL, NON-PROFIT, AND PRIVATE ROLES

The preservation of open space in New Jersey is the responsibility of all levels of government, as well as the private sector. The roles and responsibilities of each level of government vary as well. Although many agency roles differ, overlapping responsibilities and the exchange of data often occur.

#### **The Federal Role**

The federal government's role is to assess management problems in order to meet the recreational needs of the Nation's citizens in addition to managing thousands of acres of open space. Federal agencies supply programs and funding that meet the broad scale needs for open space and outdoor recreation.

The Department of the Interior acts as the principal conservation agency of the federal government. Agencies within this Department include the National Park Service and the Fish and Wildlife Service.

The US Department of Agriculture and Natural Resources Conservation Service lends assistance to all levels of government, conservation districts, and watershed associations. The Natural Resources Conservation Service provides grants, conducts soil surveys, forecasts water supplies, and publishes data useful in resource conservation and development programs, public recreation, fish and wildlife protection.

Other federal agencies, which provide programs in open space preservation, include the Environmental Protection Agency, the Commerce Department, the Department of Defense, and the Department of Transportation. The federal government presence in Warren County is exhibited through the National Park Service management of the Delaware Water Gap National Recreation

Area. The site covers 9,984 acres in the former Pahaquarry Township, now part of Hardwick Township, and portions of Blirstown and Knowlton Townships. The Delaware Water Gap National Recreation Area also extends into Sussex County and across the river in Pennsylvania.

### **The State Role**

The State of New Jersey has the responsibility of planning for the competing pressures and interests on the state's natural resources. This responsibility includes the setting of goals and priorities, as well as the formulation of policy concerning open space and outdoor recreation as set forth in the New Jersey Open Space and Outdoor Recreation Plan.

The Department of Environmental Protection was established to unite state government operations with a mandate for conservation, restoration, and enhancement of the physical environment. Agencies within this Department include the Division of Parks and Forestry, the Division of Fish, Game and Wildlife, the Office of Green Acres, and the State Historic Preservation Office. On November 3, 1998, the voters of New Jersey voted for one of the most resounding open space and farmland preservation referendums that mandate amending the state's constitution to provide \$98 million per year in dedicated funding for the next ten years to be used for land protection efforts.

### **The County Role**

The County has the responsibility to acquire, develop and maintain open spaces and parkland that are broader than municipal levels, can extend across municipal boundaries, but generally, are less in total acreage than statewide acquisitions. Often a county system integrates outdoor recreation with environmental protection.

In Warren County, a park system should be developed to provide for activities such as hiking, fishing, picnicking, ice skating, bicycling, nature study, touring and traditional uses, such as hunting,

where appropriate. Eventually, the park system could provide for more active recreation, such as golf, swimming, ball fields, and boating. Cultural and historic sites should be incorporated into any planned recreation site.

## CHAPTER VI

### WARREN COUNTY OPEN SPACE AND FARMLAND PRESERVATION TRUST FUND

In the November 1993 election, a non-binding referendum was placed on the ballot to provide dedicated revenue for land acquisitions. It polled the residents of Warren County on their sentiment for the creation of an Open Space and Farmland Preservation Trust Fund. Warren County voters approved this referendum by a 2 to 1 ratio. The fund has been collecting revenue by raising the property tax by a rate of \$.02 per \$100 of total county equalized real property valuation. This equates to a tax increase of \$20 for every \$100,000 of property value. This non-binding referendum has given the elected officials of Warren County the opportunity to enact a system for:

- Protecting wetlands, stream corridors, aquifers and aquifer recharge areas.
- Protecting existing park lands and provide outdoor recreation opportunities.
- Protecting and/or preserve areas of scenic, historic, and cultural value.
- Preserving prime farmland, including small operations, which receive low priority from the present state program.

Twenty-five percent of the trust fund is set aside for the Warren County Board of Recreation Commissioners to acquire lands in accordance with this open space plan. Annually, \$280,000 has been raised since the trust fund was established in 1995.

In 1997, the official name of the trust fund was changed to the Warren County Open Space, Recreation and Farmland and Historic Preservation Trust Fund in accordance with the State Statute.

#### **Municipal Role**

Traditionally, municipal parks and recreational areas include ball fields, playgrounds, picnic areas, swimming pools and bike trails. Often, municipal programs are tailored to suit the needs of

preschoolers, teens, adults and senior citizens. These areas are typically smaller in size and focus more on the active recreation that county, state, and federal agencies do not address. Many times, the local schools provide the recreational facilities in a community.

To assist municipalities, the Warren County Board of Chosen Freeholders has set aside 25 percent of the County Open Space, Recreation and Farmland and Historic Preservation Trust Fund for use by municipalities and charitable conservancies. A Municipal and Charitable Conservancy Trust Fund Committee has been established by the Board of Chosen Freeholders to review and recommend applications from municipalities and charitable conservancies for funding land acquisition.

Currently, Alpha, Greenwich, Mansfield, Knowlton, Pohatcong, and Washington Townships have their own dedicated tax, and six others had non-binding referendums approved in November 1998. They are Hardwick, Harmony, Independence, Liberty, Franklin, and White Townships.



## CHAPTER VII

### METHODS OF OPEN SPACE PRESERVATION

A listing and brief description of various alternative methods of land acquisition and open space preservation are presented below.

#### **Fee Simple**

Probably the most commonly used technique for acquisition is outright purchase with fee simple ownership. In recent years, counties and municipalities in New Jersey have been assisted financially in such acquisition by the State Green Acres Program and other open space programs. In many instances, these programs have provided as much as 100 percent of the cost of acquisition; however, the amount of land required for open space and the mounting land costs makes public purchase of all needed land financially impractical. Many times, acquisition costs are spread out over a period of time and debt is incurred. The advantage is that more land can be purchased immediately rather than waiting for cash build up to pay all costs outright.

#### **Fee Simple Installment Buying/Action Agreement Plan**

This is a variation of fee simple, except that full title is not taken immediately; instead, the land is obtained in blocks of predetermined acreage over a fixed number of years. This approach avoids large public expenditures in any one year while, at the same time, reserving the entire area. The landowner benefits by spreading capital gains over a period of years.

#### **Less Than Fair Market Value**

Some landowners are willing to sell their land at less than fair market value. The difference between an agreed upon sale price and the higher market value can be deducted as a charitable contribution on the seller's federal income tax. For the buyer, the advantage is the reduced cost of

acquiring land for open space.

### **Lease Back Agreement**

This method can be an effective tool for land acquisition when the land is not needed for immediate use. An agency purchases a parcel of land and then leases it to either the original owner or someone else. This method has two benefits to the public – the partial reimbursement of the purchase price through rental fee and the reduction or elimination of maintenance costs, since the renter takes care of the property.

### **Lease/Rental of Private Land**

Government agencies and private conservation groups may choose to lease or rent private land. This may be less desirable than ownership, but depending on circumstances, may be beneficial. If a landowner has agreed to sell, or if they have agreed to donate the land to an agency, a lease agreement can be arranged until the transaction is finalized.

### **Donation and Bequest**

The most simple and certainly one of the least expensive methods of acquiring land is by donation. Either individuals or large corporations will donate land to a public body; usually for either philanthropic reasons or for tax incentives offered by the Internal Revenue Service. The recipient of the property is usually obligated only for legal and engineering costs. Of course, the public agency cannot be assured of receiving gifts of land nor would it have a choice of time and location. Some landowners may bequest property through their wills. These methods should be promoted whenever possible.

### **Pre-Emptive Purchasing**

This method involves acquisition, usually by a private group, to reserve land for later public purchase when it becomes financially feasible. It could also involve acquisition in advance of actual

need in order to avoid rampant speculation. Under either approach, cost is lower to the public body than it normally would be. The more common approach is by a private tax-exempt group established for the purpose of holding land in trust for later sale to the public body. It allows for the establishment of a revolving fund so that when resold, funds can be used for purchase of other properties.

### **Eminent Domain**

Eminent domain is the power of government to acquire private property from a landowner who is unwilling to sell. The property must be used in the interest of the public health and welfare. When it is determined that a parcel should be taken, the government agency must obtain appraisals of the fair market value of the property and any structures involved in the taking and the courts through an appointed condemnation commission to determine the price to be paid to the owner. Substantial additional costs arise from the legal fees involved in the process of condemnation. Care and forethought should be used prior of invoking acquisition of property through eminent domain.

### **Deed Restrictions**

Restrictions guiding the future use of property may be placed in the deed at the time the property is transferred. At this time, the landowner may impose practically any restriction they consider necessary or significant. These restrictions, when placed into the deed, become binding upon future owners of that property.

### **Easements**

Owning land is similar to owning a bundle of rights. With easements, the landowner gives away or sells some of the rights, such as the right to subdivide, to cut down trees, or to build on the property, in order to protect the natural aspects of the land. An easement enables the landowner to protect the land in perpetuity while retaining ownership. If an easement is placed on land, the owner

may continue to use the property just as in the past, as long as the use does not conflict with the terms of the easement.

Easements are created to suit the needs of the parties involved. Easements protect land and allow activities that are desirable, and can cover a few acres to several thousand acres.

There are two categories of easements, affirmative or negative. An affirmative easement is when the landowner grants limited use of this property to another. For example, Warren County may obtain an easement permitting public access across a section of privately owned property containing a section of the historic Morris Canal. A negative easement takes some of the landowner's rights to use the property away from him. An example of this type of easement is to protect a view shed by purchasing the landowner's right to build a multi-story structure. Farmland preservation is another example of a negative easement.

### **Stream Encroachment and Wetland Permits**

Stream encroachment and wetland permits issued by New Jersey Department of Environmental Protection have helped to control adverse impacts to a stream or waterway from development. A consistent effort to enforce compliance with this permitting process enhances a municipality's ability to preserve open space along streams when incorporated into a municipal ordinance requiring stream corridor buffer zones.

### **Cluster Zone Permits**

The cluster concept permits reduction in residential lot size from that normally required in a given zone district, while maintaining the same density or number of lots that would normally be permitted. The land remaining after the development of reduced size lots would be reserved as permanent open space, either through dedication to the municipality, the establishment of an organization or homeowner's association to ensure maintenance, or the lease or sale to a non-profit

conservancy or farmer.

The most practical use of the cluster design is when it is applied to large lot areas (one acre or more) and lots size reduction of fifty percent or more. Cluster zoning offers advantages to the developer and the municipality, as well as to the homeowner. The developer benefits through reduced road and utility improvements. The municipality saves on road and utility maintenance costs and can gain needed open space for recreation. Land less suitable for development, such as flood prone areas, steep slopes or other environmentally sensitive areas is preserved. Homeowners enjoy smaller lots to maintain convenience to recreation facilities and nearness to an open space environment.

### **Planned Unit Development**

A Planned Unit Development or PUD can assume a variety of forms, but usually it involves the planning and development of a large tract of land on a comprehensive basis rather than the common practice of lot by lot development. Planned Unit Development usually exhibits the following characteristics: large tract development, mixed uses of land (residential, commercial land, light industry), varying residential types and densities, clustering of development and large amounts of open space.

Because of the large area involved, it is possible to provide a full range of services and utilities in a PUD. Although a higher density than normally allowed is usually involved, it is possible to create large areas of open space and to use the land in the most appropriate way based on natural or physical limitations.

### **Transfer of Development Rights**

This concept requires that a municipality identifies areas of open space and then prohibits development with the permission of the landowners. Although the landowners lose the right to

develop the land, ownership is retained. The development rights of the landowners are then treated as a commodity, permitting the owner the opportunity to profit from the sale of what can be called the development potential of the land or development rights. This development potential is transferred to another area in the municipality where construction can occur at a higher density according to the master plan and development regulations. Only the buyer of the development rights can build at this higher density. The buyer of the development rights benefits from the increased savings attributed to higher density development. The total density of the municipality is kept the same as planned, and large open space reserves can be retained.

To date, the New Jersey Legislature has only enacted enabling legislation of this concept in Burlington County and it is cited as a demonstration act. No Transfer of Development Rights legislation is being contemplated by the Legislature elsewhere in New Jersey.

### **Clustering on Non-Contiguous Parcels**

The Legislature amended the Municipal Land Use Law in 1996 to allow clustering on non-contiguous parcels of land. Prior to this amendment, clustering projects were required to be contiguous with one another. In effect, the new statute allows transfer of development rights within a municipality provided that the master plan and an appropriate ordinance are adopted. A landowner must own both the open space parcel and the parcel receiving the increased density that is transferred from the sending or open space parcel.

### **Purchase of Development Rights**

The Farmland Preservation Program is funded by the NJ Department of Agriculture. Under general guidelines established at the state level, county and local agricultural retention programs are established. These county level agricultural boards, working in conjunction with municipalities, are responsible for planning, and implementing a series of land use techniques to preserve farmland and

enhance agricultural operations. One technique used is the purchase of development rights. Landowners that are in a farmland preservation program may voluntarily apply to a county agricultural development board to sell a development easement of their property.

Once a development easement has been purchased, a restriction is attached to the deed, which permanently prohibits any non-agricultural development from occurring on these lands. This deed restriction runs with the land and is binding upon every successor.

Permanently retaining lands in agricultural use will benefit all New Jersey citizens by providing a local food source and retaining agricultural tax paying, privately-owned open space. Although the farmland preservation program uses Purchase of Development Rights, the method can also be used to protect forested areas, stream corridors, scenic views or even air rights to limit the height of buildings.

### **Sheriff Sales**

Sometimes, open space properties may become available at a public sale because of a foreclosure on a mortgage, unpaid taxes, or judgement. Properties may be acquired at a lower cost if the amount being sought is for unpaid taxes or the balance of a mortgage.

### **Bank Foreclosure**

Sometimes, open space properties may become available at a bank foreclosure. By putting the local banks on notice, properties may be acquired at a lower cost if the amount being sought is for unpaid taxes or the balance of a mortgage.

## CHAPTER VIII

### EVALUATION CRITERIA FOR OPEN SPACE SELECTION

#### **Natural Environment: The Initial Evaluation**

An important objective of open space planning is the identification of unique environmental features of the natural environment that are not suitable for development or which pose problems or limitations to development and to incorporate them into areas of dedicated open space. Due to their particular physical characteristics, these environmentally sensitive areas may be greatly impaired by development activities. This requires a very close relationship between land use planning and open space planning with the goal being to guide development to areas that will have the least impact on environmentally sensitive areas. Frequently, areas that are not suitable for development are appropriate for recreation and other open space uses.

For the purposes of open space planning, environmentally sensitive areas include all terrain in excess of fifteen percent slope, freshwater wetlands, stream corridors, aquifer recharge areas, wellhead protection zones, areas of endangered and threatened species, scenic vistas, lakes, and areas of special interest, including historic and scenic sites. These areas provide value to the region's economic, historic and recreation base, as well as provide identity to host communities. Map 3 (Composite of Environmental Features) is a composite of four major environmental features that are discussed, steep slopes, ridgelines, stream corridors and freshwater wetlands. The other environmental features, due to their complexity and overlapping with each other, are shown on individual maps, preceded by a written narrative. This composite map is used as the first screen in evaluating land areas for acquisition. Following each county map, is a map of each region depicting the following features.



## **Steep Slopes**

Slope is defined as the amount of vertical change in altitude over a horizontal distance, usually expressed in percent. Steep slopes are areas with a fifteen percent grade or greater. They are generally covered with vegetative growth. The leaf cover and root system hold the soil to the slope and provide cover and food supply for many forms of native wildlife. These areas have severe limitations to development, including building and road construction and septic effluent disposal. Development on steep slopes disturbs vegetation, which increases storm water runoff causing soil erosion, stream and river pollution, siltation, and lowers groundwater filtration, that then increases the danger of flooding. Often, at the apex of steep slopes are scenic view sheds. Map 4 (Steep Slopes) shows the areas of the county with over 15 percent slope, and major ridgelines and watersheds.

## **Soils and Agriculture**

The US Department of Agriculture, Natural Resources Conservation Service, Soil Survey of Warren County provides basic soils data to be used as a guide for planning and land use and management for the benefit of the county and its residents. Areas designated as having severe limits, based on development due to poorly suited soils can be considered for open space reserves. They are shown on Map 5 (Non-Agricultural Soils).

Sixty percent of Warren County is deep, non-stony soil, well suited for farming and community development etc. These areas also provide scenic vistas and watershed protection. Agricultural landowners should be encouraged to participate in the Farmland Preservation Program, to help ensure the viability of agriculture as a land use and economic activity while preserving them as open or undeveloped land areas. The remaining 40 percent is soil so stony, steep, shallow or wet that it is not suited for development.

The distribution of the soil is not uniform throughout the county. More than half of the deep,

non-stony soil, which is well suited for farming and development, is in the southern part of the county. The northern section of the county has less than half of the stony, steep and shallow soil. Map 5 also shows the location of non-agricultural soils.

### **Freshwater Wetlands, Lakes, and Streams**

A freshwater wetland is described in the 1993 New Jersey Freshwater Wetlands Protection Act (N.J.A.C. 7:7A et seq.) as “an area inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances does support, a prevalence of vegetation typically adapted for life in saturated soil conditions, commonly known as hydrophytic vegetation.” The freshwater wetland systems are shown in Map 6 (Freshwater Wetlands, Lakes, and Streams). Depending on the specific wetlands involved, the Act calls for buffers of 25 to 150 feet from the edge of the wetland. The buffer areas or greenways can meet a variety of community needs, including environmental and scenic protection, endangered and threatened species, open space and historic preservation while including some forms of passive recreation.

#### **Stream Corridors**

A stream corridor contains the stream channel and associated wetlands, floodplains, and forests. The establishment of buffers along stream corridors provides for the removal of sediment and pollutants in overland flow. Buffers help reduce stream bank erosion, prevent activities from occurring that may contribute to non point source pollution and, if forested, shade surface waters so that they are not excessively warmed. A large percentage of New Jersey’s endangered species rely on stream corridors and wetlands for survival. The associated wetlands and floodplains help recharge groundwater aquifers, help prevent flood damage by providing flood storage capacity, and help maintain surface water level during low rainfall periods.

Stream buffer areas should include a minimum of 100 feet beyond the 100 year floodplain.

If slopes greater than 15 percent correspond to the outer boundary of the stream corridor, the area of slopes should be included in the stream corridor buffer area. Stream corridors are shown on Map 7 (Stream Corridors).

### **Aquifers Recharge Areas and Wellhead Protection Zones**

Aquifers are defined as geological formations containing sufficient saturated permeable material to yield significant quantities of water to wells and springs. Aquifers and the recharge areas are significant because of their water supply potential. The amount of development permitted upon recharge areas should be guided by soil conditions and threat of pollutants reaching the aquifer. Municipal planning for aquifer recharge areas should, therefore, encourage open space and clean development to occur at relatively low densities.

Wellhead protection zones involve delineating protection areas around public community water supply wells. These areas represent the land around a well from which infiltrating rainwater and runoff water may come in contact with any water born contaminants thus polluting the well. Designated protected zones of open space is an effective means of reducing the risk of groundwater contamination. Known aquifers, recharge areas, and wellhead protection areas are shown in Map 8 (Aquifers and Community Wellhead Buffer Zones).

### **Endangered and Threatened Species**

Endangered and threatened species are plants and animals which have been designated by the New Jersey Non-Game and Endangered Species Act (N.J.S.A. 23:2A-1 et seq.) or the Federal Endangered Species Act (16 U.S.C.A. 1531043) to be in a jeopardized state of existence.

### **Undisturbed Forest Tracts**

Additionally, large undisturbed forested tracts often support biodiversity and should be

considered for preservation as well. Forested areas are shown on Map 9 (Forested Land). The presence and variety of wildlife and plants are excellent indicators of the overall health of the environment, while the disappearance of endangered species can act as an indicator of habitat loss and the instability of the environment. Identifying and locating these species is necessary to ensure protection for their environments. This necessitates environmentally sound development standards and land use decisions to secure a high quality environment. These decisions will, by nature, promote open space.

### **Scenic Vistas**

Passive recreation can take many forms. The roads of Warren County can give the pleasure driver many scenic views. Steps should be taken by the county and municipalities to protect the view, as well as the points along all roads, which afford optimal views of these areas. Roadside development of these areas should be discouraged in order not to obstruct views. Ordinances can be enacted to control adjacent land use and insure property setbacks, buffers, signs, and billboard control. Where practical, small pull-off parking areas can be built where a panoramic view can be driven to and enjoyed safely. Watching migrating birds, the changing color of leaves in the fall, or the sunset can be enjoyable passive events.

### **Additional Criteria for Open Space Site Selection**

- **Located Away from Other Large Reserves of Open Space**

Open space should be acquired in regions of the county lacking large reserves of open space or in areas of environmental sensitivity with the goal of preserving unique natural features. Using the open space regions contained in this plan, conservation should be given to projects located in the southern region where very little open space has been acquired by any governmental entity.

- **Facilitate Linkage with Other Open Spaces**

Lands adjacent to or in close proximity to existing parkland and public open spaces that facilitate the linkage of open space parcels should be considered for acquisition.

- **Open Space Reserves Should Be at Least 75 Acres in Size**

County-owned open space should be large enough to fill the needs of residents that smaller municipal parks do not meet.

This size criteria will afford the county residents large reserves of open space that they may not find in their municipality without the inconvenience of travelling longer distances to state or federal open space. Open space sites should be conveniently located throughout the county, thus providing the user the opportunity to enjoy the area in less than a full day.

The exceptions are stream corridors, ridgelines, the Morris Canal, inter- and intra- county trails, areas of unique features (both manmade or natural) and abandoned railroad rights-of- way. They may not be over 75 acres in size, but they do provide ideal opportunities for passive recreation while providing environmental protection and linkage to larger parcels of open space.

- **Associated with Streams, Lakes, and Ridge Tops**

Open space sighting should consider the unique natural features, which will make the area a more desirable place to visit. Stream corridors are ideal for hiking/walking trails and fishing. Lakes are also ideal for passive recreation, as well as for boating, fishing, and swimming. Areas surrounding lakes also provide an ideal area for trails. A trail system and picnic areas can be developed along ridge tops, in association with scenic vistas.

- **Near Population Centers**

Sighting open space should take into consideration the users and how far they will travel to the open space facility. The potential number of users from an area should influence the type and

location of open space facilities. Easy access by foot, bicycle, car, and public transportation is essential so people can enjoy the park as often as possible. Consideration should be given to sighting open space areas around centers as designated in the New Jersey State Development and Redevelopment Plan and in the County General Development Plan. The open space areas will serve as natural buffers, as well as provide the line of transition from a center to the environs surrounding the center.

- **Correlated with Historic and Cultural Resources**

Historic and cultural resources significant or unique to the development of Warren County should be preserved. The Warren County Historic Resources Survey of 1990-1991 and the National/State Registers of Historic Places should be consulted to determine a site's historic significance. Warren County's National and State Registers of Historic Places are shown on Map 10 (Historic and Cultural Resources).

- **Located where Future Growth Anticipated**

With municipal assistance, the County should identify the areas where development is likely to occur and plan sufficient open space reserves accordingly. These areas should be consistent with the County General Development Plan and municipal master plans.

- **Complement Farmland Preservation**

The county should identify undeveloped, non-agricultural areas adjacent to properties in the farmland preservation program. These areas should be examined for their potential to be acquired as open space which will complement the adjacent farmland or provide buffers to separate a farming operation from incompatible development, such as residential, commercial, and industrial.

- **Associated with Aquifers**

Aquifers, which supply potable water, should be protected from contamination. By

selectively acquiring these areas as open space, the aquifer can be protected from pollutants associated with development.

## Historic and Cultural Resources Inventory

County Id	NAME	TYPE	County Id	NAME	TYPE
3	Morris Canal	District	41	Beattystown Historic District	District
4	Central Railroad of NJ - Main	District	42	Miller Farmstead	Site
5	Hamlen Historic District	District	44	Mount Bethel Methodist Church	Site
6	Still Valley District	District	45	Penwell Lime Kiln	Site
7	Belvidere Historic District	District	46	Port Murray Historic District	District
8	Blair Academy	Site	47	Oxford Industrial District	District
9	DL&W Railroad Cutoff	District	48	Oxford Furnace	Site
10	Roy's Theatre	Site	49	Oxford Historic District	District
11	Asbury Historic District	District	50	Shippen Manor	Site
14	Johnsonburg Historic District	District	51	Appalachian Trail	District
15	Allshouse/Oberly Property	Site	52	Old Mine Road Historic Dist.	District
18	North Bloomsbury Historic Dist	District	53	Andover Iron Furnace	Site
19	Stewartsville Historic Dist.	District	55	P. Coal Site	Site
21	Voorhees/Shimer Property	Site	56	Dormida House	Site
22	Kennedy House & Mill	Site	57	Doughty House	Site
25	Clarendon Hotel	Site	58	Main Street Historic District	District
26	Hackettstown Historic District	District	60	John Roseberry Homestead	Site
27	H'town Main St. Comm. Dist.	District	61	U.S. Post Office	Site
28	Hackettstown Iron	Site	62	Vargo House	Site
30	Seay Hall	Site	65	Hixson - Skinner Mill Complex	Site
31	Spring Valley Christian Chruch	Site	66	George Hunt House	Site
32	Scotts Mt. Historic District	District	67	Seigle Homestead	Site
33	Hope Historic District	District	70	162 East Washington Ave.	Site
34	Great Meadows Railroad Station	District	73	Bowerstown Historic District	District
35	Camp Weygadt	Site	74	Carhart Farmstead	Site
36	Delaware Village Historic Dist.	District	75	Imlaydale Historic District	District
38	Fairview Schoolhouse	Site	77	New Hampton Bridge	Site
39	Warrington Bridge	Site	78	Pleasant Valley Historic Dist.	District
			79	Port Colden Historic District	District



- **Associated with Trails**

Railroad Corridors

Abandoned or inactive railroad corridors offer citizens an excellent way of enjoying open space without having to purchase large blocks of land. Several railroads in Warren County are inactive and cross some of the county's most scenic regions. Since railroad corridors are flat, they are ideal for many uses, such as bicycling, walking, jogging, horseback riding, cross-country skiing, and wheelchair recreation. Preserving these corridors also creates agricultural and wildlife habitat buffers.

Rail-to-Trail programs link parks and create greenways through developed areas. It should be pointed out, however, that all railroad corridors cannot or should not be acquired for various reasons, such as economic, safety, and functional reasons.

As corridors, or portions of corridors, become available, additional analysis should be completed.

Morris Canal

The Warren County Morris Canal Committee was created in 1981 as an extension of the Warren County Planning Department. The goals of the Committee are preservation and protection of the Morris Canal, as well as increasing the awareness of its great historical significance. The greatest single accomplishment was that the Morris Canal overcame more elevation than any other canal constructed in the world. Through a grant from the State of New Jersey, Green Acres Program, the County has purchased 57 ± acres of the canal throughout the county.

Highlands Trail

This trail highlights the natural beauty of the New Jersey and New York Highlands Trail region, and draws the public 's attention to this endangered resource. It is a cooperative effort of the New York-New Jersey Trail Conference, conservation organizations, state and local governments, and local businesses. When completed, it will extend over 150 miles from Storm King Mountain on the Hudson River in New York south to Phillipsburg, New Jersey, on the Delaware River. This route will connect major scenic attractions in both states. Ultimately, a network of trails, including alternate routes and multi-use paths, is envisioned.

#### Ridge and Valley Trail

Although still in the planning stage, The Ridge and Valley Trail will offer a unique opportunity for the weekend hikers. This trail will connect the State of New Jersey, Paulinskill Trail with the Appalachian Trail, traversing the White Lake Natural Resource Area, the adjoining Division of Fish, Game and Wildlife property, Ridge and Valley Conservancy property and finally connecting at the Ralph Mason YMCA camp.

#### Delaware River Greenway Trail

The Delaware River Greenway Trail will connect both the Delaware and Raritan Canal on the New Jersey side with the Delaware Canal on the Pennsylvania side, both reaching their apexes at the Delaware Water Gap.

### **Sites Identified by Municipalities, Non-Profit and Private Groups**

In the 1994, County Open Space Plan, the County Planning Board identified twenty-two sites for acquisition after a series of meetings with the public, private, non-profit, and governing agencies. This plan was updated by contacting each municipality and asking if any sites should be added to or

deleted from the plan. Six municipalities, one non-profit and one private firm responded recommending 12 additional sites and one deletion. They are discussed in Section X and are shown on Map 11 (Special Interest Sites).

## **CHAPTER IX**

### **ACQUISITION PROGRAMS**

#### **Three-Year Program**

In qualifying the open space sites in the three-year program, the determining factor is the availability of funding. With a determined yearly allocation from the County's Open Space Tax, the Board of Recreation Commissioners has and will have to continue to develop a financial program that utilizes the Open Space tax as its basis. Once this financial information is charted, the Board needs to develop a three-year financial program utilizing other funding sources that has the flexibility in order to accomplish the goals of this plan. Below is a list of various financial methods available to the County. It should be noted that, as new financial methods become available, the Board should take full advantage of these methods.

- Partnership with other agencies.
- Long term payment plan.
- Using the Open Space tax to finance a bond.
- Seek financial funding from other agencies and/or grants.

#### **Five-Year Acquisition Program**

As with the three-year program, when the five-year program is developed, sites should be scheduled with the highest priority for acquisition. As eligible sites in the areas become available, the Board of Recreation Commissioners should pursue their acquisition using any one or a combination of the methods described in Section VII of this plan. This will allow the greatest flexibility in acquisition while still attaining the long-range goal of establishing a coordinated public open space

system.

The Board of Recreation Commissioners should use the following additional criteria in preparing the five-year acquisition program:

- Anticipated use of property. Is the use needed in this area of the county?
- Parking availability. Is land available at the site?
- Linkages with other facilities.
- Amount of improvements needed to make site accessible.
- Number of daily visitors to use the site once developed.
- Amount of maintenance each site will require when developed for its use.
- Opportunity for multiple use.
- Potential for Active/Passive Recreation.
- Impact on adjacent land use.
- Compatibility with existing open space or plans of other agencies.
- Special circumstances making one site more or less valuable.
- Multiple funding sources are involved.

## CHAPTER X

### SITES OF SPECIAL INTEREST

Sites of special interest include sites that are of special interest to a municipality or a special interest group that meet the criteria for county-owned open space as defined in this plan and may deserve preservation and/or protection from development.

Below is a listing and discussion of the sites identified by municipalities that are consistent with the objectives of the County Open Space Plan and are shown on Map 11.

<u>Municipality</u>	<u>Description of Special Interest Sites</u>
1. Township of Franklin	Block 6, Lot 9; 69.79 acres
2. Town of Hackettstown	Block 119, Lots 81, 82, 108, 109; 95.1 acres Trout Brook, Conservation Easements along Morris Canal.
3. Liberty Township	Beach access to Mountain Lake.
4. Township of Pohatcong	Musconetcong River and Pohatcong corridor, as well as the wooded lands and farms on the mountain between the two.
5. Knowlton Township	Block 5, Lot 10; Block 35, Lot 4.01; Block 34, Lot 23; Block 37, Lot 3; Block 40, Lot 4; Block 29, Lot 1; Block 30, Lot 3; Block 32, Lot 6
6. Greenwich Township	Route 78 Corridor

#### Non-Profits

- |  |                      |
|--|----------------------|
| 1. Phillipsburg Riverview Organization | Pohatcong Grasslands |
|--|----------------------|

#### Private

- |                           |  |
|---------------------------|--|
| 1. The Cotton Group, Inc. | 700 acres located North of Alphano Road in<br>Allamuchy Township |
|---------------------------|--|

## **CHAPTER XI**

### **INTERAGENCY COORDINATION**

State, county, municipal, and non-profit agencies should work together to coordinate open space preservation efforts and to pool financial and technical resources to help ensure that large and possibly more difficult acquisitions can be attained. The acquisition of White Lake in Hardwick Township is one example of interagency coordination. The purchase pooled the financial resources of the County of Warren, the State of New Jersey, and the Ridge and Valley Conservancy, through private donations. Working with the Township of Hardwick to support the acquisition, the \$3.5 million purchase was accomplished. Without this coordination and cooperation, the acquisition may never have happened.

It is recommended that, at least once per year, the Warren County Planning Board and the Warren County Board of Recreation Commissioners sponsor an Open Space Preservation Forum. All players involved with open space preservation will be invited to share with each other the past year's successes and failures, and discuss the following year's activities. This forum will become the catalyst for formal and informal contacts to be made.

In addition to this, interagency cooperation can be taken a step further. With the recent overwhelming support of the \$98 million dedicated source of funding for open space and farmland preservation, there will be opportunities for Warren County to acquire land with technical and financial assistance from the State Green Acres Program. Periodically, the New Jersey Department of Environmental Protection, Green Acres Program, has received offers of land that do not meet the criteria for state agencies to acquire and manage. Some of these lands, however, may meet the County's site selection criteria and, through this cooperative agreement, the land could be purchased

utilizing all available resources and assigned to the county for administration and management.



## CHAPTER XII

### PROPOSED COUNTY OPEN SPACE PLAN

The proposed update of the 1994 Warren County Open Space Plan is a combination of mapping the existing county open space and the stream corridors, ridgelines, abandoned railroad rights-of-way, the Morris Canal, and other interagency open space sites throughout the county.

To summarize the proposed open space plan, it is evident, that Warren County, on the whole, is not meeting the demand in preserving open space. As we review the two methods for determining the acreage needed for open space, as outlined previously, let's first analyze the acres per population method.

Regionally, in 1960, the population of the Southern region was more than the other two regions; however, in 1995, in comparison to both the Northern and Central regions, the Southern region grew by only 8.1 percent, compared to the growth rates of 151 percent and 88 percent for the Northern and Central regions, respectively.

From Table III, based on the projected county's population, by the year 2010, and using the acres per population method, a total of 1,291 acres should be in county ownership. Since the first County Open Space Plan in 1968, the County, to date, has only acquired 671.93 acres. The one major drawback in using this method is that, once the population has increased, so has the value of land increased, but more importantly, land becomes more scarce.

There are other contributing factors that influences growth. Factors, such as the current and planned road systems, adjacent regional growth, prime agricultural soils, and the availability of either or both of water and sewer, have a direct influence on growth and should be taken into account when planning for open space when using the acres per population method.

With these factors taken into consideration, the Warren County Planning Board has selected to use the second method, as outlined previously, which is the Balanced Land Use method. As we review the summary of acreage, found on page 17, only the federal government has met their goal in Warren County. Both the municipalities and the state have taken an aggressive role in meeting their goals; however, Warren County has a significant deficit, estimated to be 9, 312 acres needed, as compared to the current 671.93 acres under county ownership.

When planning for open space in a rural county like ours, it is sometimes difficult to envision the need of open space planning, since there is the perception that there is so much open space already existing in Warren County. This is another reason why the Balanced Land Use method has an advantage over the population per acres method, in that it allows for a predetermined acreage when Warren County becomes fully developed in the future. Furthermore, this method recognizes land as an exhaustible resource, and therefore, Warren County needs to take steps now to insure that there is adequate open space preserved for future generations.

In using the Balance Land Use method, the revised plan becomes generic in the approach to open space planning, as compared to the 1994 plan, which was site specific. This approach for open space planning will result in:

- Greater flexibility to acquire land that becomes available in designated areas as described in the plan.
- Allow for more interagency coordination in achieving the goals of this plan and also the local and state plans as well.
- Due to the sites being identified by regions, which includes stream corridors, ridgelines, the Morris Canal, abandoned rail road rights-of-way, existing and proposed trails, and other interagency open space sites, smaller acreage parcels can now be acquired because they will fit into the overall regions.
- Identify open space sites now and be able to purchase them while land values are lower, rather than wait, when the areas become developed and the land values become

escalated.

The proposed open space is shown on Map 12 (Existing and Proposed Open Space).

jls

c:\my documents\open space\open space plan-1999.doc