

**WARREN COUNTY OPEN SPACE AND RECREATION PLAN**

**1999**  
**June 2, 2008 Update**

Prepared for  
Warren County Planning Board

Prepared by  
Warren County Planning Department

I hereby certify that the Warren County Open Space Plan Update 2008 was adopted by resolution of the Warren County Planning Board at a meeting held on \_\_\_\_\_, 2008.

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## **EXECUTIVE SUMMARY**

The Open Space Plan provides a blueprint of what the County Planning Board recommends as areas that should be preserved as public open space in the county, irrespective of the jurisdiction or ownership of the land. The County Open Space Plan discusses specific projects and target areas that should be pursued by the county's land preservation program. These target areas are intended to be pursued by the county, and where possible, as partnerships with other jurisdictions, non-profit groups, and other county agencies to meet the objectives of this plan.

The Open Space Plan meets the requirements specified in the Open Space Trust Fund legislation that allows counties to establish trust funds. Specifically, N.J.S.A. 40:12-15.2d(1)a states that the "selection of lands for acquisition for recreation and conservation purposes shall be in accordance with an open space and recreation plan prepared and adopted by the county".

The goals of the plan are similar to the 1999 Plan and are described in Chapter II.

Chapter III discusses the roles of federal, state, county, municipal and non-profit agencies. It states that the County has the role to acquire open space lands for public use and to maintain, manage, and develop them in a manner that is consistent with this Open Space Plan. The purpose of County owned open spaces is broader than municipal levels, can extend across municipal boundaries, but are generally less in total acreage than statewide acquisitions. The county system integrates outdoor recreation with environmental protection, farmland preservation, historic preservation, natural resource and historic resource education.

Chapter IV contains a complete inventory of land areas currently owned by all governmental levels, non-profit groups, and private owners. It provides an overview of the funding sources available for acquisition including the county open space trust fund, bond issues, and grants. A discussion on acquisition partners and acquisition methods is included in the chapter.

Chapter V contains a needs analysis to describe why Warren County needs public open space and how much it should have by region and jurisdiction. Population and development trends are reviewed and the social, health, and economic benefits of public open space are described.

Using the balanced land use method, it is estimated that there should be 46,690 acres of public open space in the County. Currently, over 44,000 acres have been acquired by governmental agencies for public open space with close to  $\frac{3}{4}$  of it owned by federal and state agencies. The analysis shows that the central and the southern regions are lacking in the amount of preserved public open space while the northern region has a surplus. The balanced land use method calculations reveal that there should be 9,790 acres of open space in County ownership while the county owns 1,624 acres currently. It is noted that while there may be an over abundance of state and federal lands in one region, it should not preclude the county from acquiring additional lands in that particular region.

Chapter VI is the Resource Assessment and Open Space Plan. To meet the goals of the Open Space Plan, the land areas targeted in this 2007 Plan are classified into two tiers.

Tier I properties are those for which the Department of Land Preservation and the Board of

Recreation Commissioners (BRC) would be more proactive pursuing by initiating contact with landowners, securing additional funding sources, and partnering with other agencies.

Tier II properties are those for which the Dept. of Land Preservation would take a reactive approach toward acquisition where the property owner or partnering agency contacts the County first. If the property is consistent with the Open Space Plan, the acquisition may be pursued.

The 2007 Warren County Open Space Plan envisions the County investing in four broad types of open space areas; Greenways, Special Use Areas, Conservation/Natural Resource Areas, and Open Space Lands.

Tier I Greenways include the Morris Canal, the Warren Trail, Ridge and Valley Trail, Inter-connecting Trail Systems such as the Morris Canal – Warren Trail Connections, Morris Canal – Musconetcong River Connections, and the Jenny Jump – Paulinskill Trail Connection.

Tier II Greenways include railroad corridors, Delaware River Greenway Trail, Musconetcong River Greenway Trail, and the Liberty Water Gap Trail.

Special Use areas include significant features of the Morris Canal that have been acquired and need special attention for the management, maintenance, and future development. Tier I special use areas include Inclined Plane #9 west in Greenwich Township, and Bread Lock Park (Lock #7 west). Other special use areas in the County are Florence Kuipers Park in Hackettstown, the Port Murray Boat Basin property and the Consumers Water Company Pump House property.

Conservation Areas are acquired for the preservation and enhancement of valuable natural resources and are generally managed for that purpose. Tier I areas would include those areas that function as a link in a Tier I greenway or special use area as defined in this plan. Existing Conservation/Natural Resource Areas include White Lake Natural Resource Area, Oxford Mountain Natural Resource Area, and the Marble Hill Natural Resource Area.

Open Lands are lands that are acquired to advance regional objectives for watershed protection, farmland preservation, and to enhance regional quality of life by preserving certain lands of county significance in an essentially unimproved condition. Tier I lands would include those that form part of a link in a Tier I greenway project or are adjacent to a Tier I Conservation/Natural Resource Area. County lands that fall within this category include the Nabozny Tract in Franklin Township.

Chapter VI also contains a description of sites identified by municipalities and non-profit agencies and the state's open space acquisition plans affecting Warren County. They include, Garden State Greenways, Pequest River Greenway, Delaware River Greenway, Highlands Greenway, Historic Resources, Jenny Jump State Forest Musconetcong River/Pohatcong Creek Greenway, Natural Areas, Paulins Kill Greenway, Watershed Lands.

Chapter VII contains the Action Plan which discusses the methods and means to accomplish the goals of the Open Space Plan. The recommendations are:

1. The Board of Chosen Freeholders should approve of the Plan and charge the Department of Land Preservation, BRC, Planning Board, Morris Canal Committee, Planning Department with

the directive to carry it out.

2. A five year acquisition program should be developed to guide the Dept of Land Preservation and the BRC in the selection of properties and the allocation of financial and staff resources.

3. Interagency coordination within the county government is needed. In 1999 an Open Space Task force was created by the Board of Freeholders to prepare a report that identified ways to improve on cooperation and coordination among the BRC, County Agriculture Development Board (CADB), and the Municipal & Charitable Conservancy Trust Fund Committee (MCCTF). Those strategies are endorsed in this plan. The major interagency coordination tasks include:

A. The BRC and CADB should work together on properties of mutual interest. Farms that are proposed for preservation that contain the Morris Canal are ideal for joint purchases.

B. To help guide the MCCTF and other county agencies in providing financial assistance to municipalities and non-profit groups it is recommended that the Open Space Plan be consulted to determine how the proposed acquisition fits in with the County's vision for open space. It is recommended that the MCCTF transmit the applications it receives to the County Planning Department to determine consistency with the Open Space Plan.

C. In 2006 an interdepartmental process was instituted with the Department of Land Preservation, where sites proposed for preservation through the BRC, CADB and MCCTF are forwarded to Planning and Engineering for review and comment. The purpose of the review process is for the Department of Land Preservation to obtain recommendations on where properties or easements would be desired for open space, roadway, and bridge maintenance purposes.

4. 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.

5. It is recommended that, at least once per year, an Open Space Preservation Forum be held. 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.

6. There will be opportunities for Warren County to acquire land with technical and financial assistance from the State Green Acres Program. Periodically, the Green Acres Program receives offers of land that do not meet the criteria for state agencies to acquire and manage. Some of these lands may meet the County's site selection criteria and, through a cooperative agreement, the land could be purchased utilizing State resources and assigned to the county for administration and management.

7. Through the Warren County Planning Board's development review process, subdivisions and site plans are reviewed for consistency with the county open space plan. Special attention is



afforded to properties containing or adjacent to the Morris Canal. Through the review process, and in conjunction with the Morris Canal Committee, recommendations are made to conserve, protect, and potentially acquire the Morris Canal.

8. National Heritage Corridor designation should be pursued with the Morris Canal and Musconetcong River as its basis. A National Heritage Area is a place designated by the Congress where natural, cultural, historic and recreational resources combine to form a distinctive landscape. The NHA is a collaborative strategy where residents, government agencies, non-profit groups and other private partners plan and implement programs and projects that recognize and preserve the designated area. The National Park Service becomes involved in the process because it is the federal agency responsible for preserving nationally significant resources and National Heritage designation allows the NPS to accomplish its mission without acquiring or managing more land.

9. The 25 Year Morris Canal Greenway Action Plan should be completed. On October 24, 2007, the Board of Freeholders passed a resolution to develop a 25 year action plan for the Morris Canal Greenway. The resolution calls for the establishment of a vision for the Greenway, establish goals and milestones, propose projects necessary to meet the goals, define the strategies and methods to be employed, project the costs and the funding sources, propose the organizational structure and interrelationships of public and private entities needed to meet the vision, and to project the economic and public benefits that will be realized when the Action Plan is completed.

#### Organizational Structure for Managing Open Space

Currently, the County owns over 1,600 acres of open space land. Prior to August 2002, management of these areas was the responsibility of the Warren County Planning Department under the advice and guidance of the BRC and the Morris Canal Committee. The Planning Department had a Chief of Land Acquisition and a Park Ranger to acquire, manage, maintain, monitor and patrol the properties.

In August 2002, the Department of Land Preservation was created to coordinate land acquisition and management responsibilities for public open space and farmland preservation. As part of the restructuring the Park Ranger position was eliminated, the Sheriff's Office was given the duty of processing hunting permits and patrolling the lands. Assisting the Morris Canal Committee and certain management activities remained with the Planning Department. The Department of Land Preservation is responsible for coordinating the acquisition of properties recommended by the BRC. Most maintenance projects are processed through the Department of Land Preservation, with the Planning Department and Morris Canal Committee focusing mostly on limited maintenance and educational projects and tours.

After four years under this organizational structure, the County Planning Board recommends that the County reevaluate the structure and develop an organizational and action plan that will carry the county open space program into the future.

Organizationally, the county may realize efficiencies if the three open space trust fund programs are looked at simultaneously rather than independently. Preserved farms must be inspected at least once per year to ensure that they are in compliance with the development

easement. One inspector could be hired to conduct the farm inspections, inspect and patrol open space sites and issue hunting permits.

It is recommended that a coordinator of management activities be added within the Department of Land Preservation whose responsibility would be to coordinate and supervise maintenance, development, and other activities of county, private, and non-profit groups on county lands. The coordinator could seek out participants and direct the activities of these groups and others that may be interested in maintaining and using county lands in the future.

#### Potential Responsibilities of Warren County Open Space Coordinator

1. Post property boundaries and rules of conduct signs
2. Ensure that information kiosk signs are placed at trail heads and at other key points
3. Oversee standard contracts for lawn mowing and farming
4. Monitor conservation easements on Morris Canal and other properties
5. Oversee and assist volunteer tenants occupying buildings:
6. Work with and assist volunteer groups for the clean up of properties, educational seminars etc. Includes the Morris Canal Bus Tour, Ecological and Educational Seminars at White Lake and at the county owned Lopatcong Creek Corridor that are often organized by the Rutgers Cooperative Extension Service, NJ Youth Corps, and AmeriCorps.
7. Routinely monitor and visit properties and inspect for litter, damage, downed trees, and other problems that need correction or enforcement action
8. Respond to visitor questions, be the county's public representative on the properties
9. Write and file reports of daily activities and site inspections
10. Monitor Morris Canal Reconstruction in Lopatcong/Greenwich as part of the ISTE A Project
11. Assist in the preparation of site management and maintenance plans
12. Inspect farm preserved properties
13. Contact landowners for prospective interest in selling property for open space

#### Safety

As more lands are acquired for public open space and in particular the establishment of trails, the need for trail security and policing becomes more of an issue. The issues that typically arise

stem from the use of off-road vehicles such as ATVs and dirt bikes on public hiking trails.

Trail networks also require policing in case of emergencies such as when a user becomes lost or injured. A partnership between the county and local police and emergency response teams is needed to mitigate security related issues as they develop. One way to help a trail user identify where he is to use a trail marking system that incorporates a colored marker with a number at a prescribed interval. If an individual requires assistance their location on the trail network can be pinpointed more accurately and the responding rescue team can enter the trail network at the best possible location.

### Visibility and Accessibility

Accessibility of public lands is important to many segments of the population and in particular to the elderly, the handicapped, and the young. This issue surfaced in the Warren County Community Health Improvement Plan where lack of physical activity was identified as one of the contributing causes of obesity. One of the obstacles to allowing for a range of physical activity is that there are facilities located at schools and other public areas that are inaccessible to the general public because they are fenced in or otherwise considered to be off limits for public use. It is recommended that these areas be opened for public use.

In addition, some trails are not marked adequately nor are they maintained properly. In some cases, land areas have been acquired but trail development stalled because of the lack of money or man-power. To address this issue it is recommended that a program priority be set using the county open space trust fund as a source of funding for grants to municipalities or non-profit agencies to acquire, construct, maintain and/or mark trails. The grant funding could be made available through the MCCTC process or through a special grant program earmarked for this purpose that could be administered through the MCCTF or the BRC.

# CHAPTER I

## INTRODUCTION

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.

The sprawling development experienced throughout New Jersey 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, 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 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 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.

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 near your home where one could walk for leisure or exercise or explore and share the rich history of our county. You may also want to visit one of the last two 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 it was like there before the houses and shopping malls were built. This is all possible if we, the citizens of Warren County, work together to preserve open space.

The open space element of the Warren County Master Plan is intended to provide a framework for open space preservation through state, county and municipal planning. Open space can be defined as land acquired and dedicated to remain undeveloped for public use and access. 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 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 suggests ways to preserve open space in Warren County.

The Open Space Plan provides a blueprint of what the County Planning Board recommends as areas that should be preserved as public open space in the county, irrespective of the jurisdiction or ownership of the land. The County Open Space Plan discusses specific projects and target areas including greenways that should be pursued by the county's land preservation program. These target areas are intended to be pursued by the county, and where possible, as partnerships with other jurisdictions, non-profit groups, and other county agencies to meet the objectives of this plan.

The Open Space Plan is only a part of the overall planning effort of Warren County. The Plan must be coordinated with other facets of the County's planning program, including farmland preservation, general development, transportation, utilities, stormwater, 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.

Another purpose of the Open Space Plan is to meet the requirements specified in the Open Space Trust Fund legislation that allows counties to establish trust funds. Specifically, N.J.S.A. 40:12-15.2d(1)a states that the "selection of lands for acquisition for recreation and conservation purposes shall be in accordance with an open space and recreation plan prepared and adopted by the county". The maintenance of open space land is also an eligible expenditure of the County Open Space Trust Fund. County Trust Fund money may be used to fund historic preservation and farmland preservation projects. Pursuant to section d. of the same section, the county trust fund maybe used for projects selected for historic or farmland preservation shall be in accordance with a historic or farmland preservation plan prepared and adopted by the county.

To meet the intention of the Act, and to qualify for state funding for land acquisition for recreation and conservation, Green Acres requires the Open Space Plan to be adopted by the County Planning Board. Similarly the State Agriculture Development Committee requires the County Planning Board to adopt the county's farmland preservation plan as well.

### **MAJOR MILESTONES IN THE WARREN COUNTY OPEN SPACE PROGRAM**

- The first Open Space Plan was adopted by the Warren County Planning Board in 1974.
- The Open Space Plan was updated in 1980 and then again in 1981.
- The Warren County Morris Canal Committee was created by the Board of Chosen Freeholders in April 1981 as a special committee of the County Planning Board. The purpose of the committee was to explore ways to identify and protect the Morris Canal as an irreplaceable feature of our culture and history.
- To further the work of the Canal Committee, the Board of Chosen Freeholders created a Board of Recreation Commissioners in 1986 to administer a matching grant in the amount of \$1.5 million from the New Jersey Green Acres Program that was being applied for to acquire Morris Canal lands for preservation. The grant was later reduced to \$1 million.

- In 1992, the County Planning Board began work to create a new Warren County Open Space Plan coinciding with efforts to establish a dedicated open space trust fund tax. Meetings were held with the general public and potential properties for acquisition were obtained from municipalities. County officials met with individuals from Morris County to learn how to start an open space trust fund and to learn how to conduct a public information campaign.
- On November 2, 1993, the citizens of Warren County passed a public question on the general election ballot to create the Warren County Open Space Trust Fund. The trust fund was to be funded by a tax, not to exceed two cents (\$.02) per one hundred dollars (\$100) of total county equalized real property valuation. A trust fund was implemented by the Warren County Board of Chosen Freeholders by resolution, dated October 26, 1994, and began collecting in 1995. The ballot question is included in the Open Space Trust Fund Rules and Procedures as Appendix A.
- On November 14, 1994, the Warren County Planning Board held a public hearing on a draft Open Space Plan. On December 19, 1994, the Open Space Plan was adopted by the Planning Board.
- On June 26, 1996, the Board of Chosen Freeholders passed a resolution to approve the Warren County Open Space and Farmland Preservation Trust Fund Procedures and Rules, which were established to regulate the use of the trust fund including the percentage allocation to each purpose, and to create the committee to review projects submitted by municipalities for county grant funding using 25% of the Open Space Tax. The most recent version of the rules are found in Appendix A.
- In 1997, White Lake was acquired at a county cost of \$1.5 million through a Green Acre grant/loan agreement. The entire acquisition was a partnership between the NJ Division of Fish and Wildlife, the County, and the Ridge and Valley Conservancy.
- In the 1998 ballot referendum, the citizens voted to add maintenance as an eligible Open Space Tax expenditure. Up to 10% of the amount collected was to be used for this purpose. Two other questions were on the ballot as well. One asked to raise the tax by 1 cent for farmland preservation only. The other asked to raise the tax by 1 cent for open space, farmland, and historic preservation. Only the maintenance question passed. The approved ballot question is included in the Open Space Trust Fund Rules and Procedures in Appendix A.
- In February 1999, the Board of Chosen Freeholders created an Open Space Trust Fund Task Force. Their assignment was to explore ways to improve coordination and cooperation of agencies using the trust fund (County Agriculture Development Board, County Board of Recreation Commissioners, County Municipal and Charitable Conservancy Trust Fund Committee), to leverage and increase funding for land acquisition, to recommend staffing levels to adequately oversee the acquisition process, and to recommend changes to the "Trust Fund Procedures and Rules". A report of their findings and recommendations was prepared and submitted to the Board of Chosen Freeholders in June 1999. A copy of the report is in Appendix B.

- On March 24, 1999 The Board of Freeholders adopted “Regulations Governing Conduct in Public, Historical and Preserve Recreation Areas of the County of Warren. They were amended on June 14, 2000, and September 13, 2000. A copy is found in Appendix C.
- On April 26, 1999, the Warren County Planning Board held a public hearing on its Open Space Plan. On May 25, 1999, the Warren County Planning Board adopted the Plan with changes after the Board considered the testimony given at the public hearing.
- On July 14, 1999, the Freeholder Board passed a resolution approving portions of the Open Space Task Force Report. A copy of the resolution is in Open Space Task Force Report in Appendix B.
- In the 1999 ballot referendum, the citizens voted to increase the amount of tax money collected from two cents (\$.02) to four cents (\$.04) per one hundred dollars (\$100) of total county equalized real property valuation. In addition to the existing approved purposes, historic preservation was approved as an eligible expense. The ballot question is included in the Open Space Trust Fund Rules and Procedures in Appendix A.
- On March 8, 2000, the Board of Freeholders held a public hearing on the filing of a planning incentive grant application to the Green Acres program for the acquisition of properties discussed in the Warren County Open Space Plan in 1999. The application contained an estimated cost of \$39.7 million for the county to acquire a total of 9,312 acres of land in fee simple.
- On May 16, 2001, the Board of Freeholders adopted revisions to the Rules and Procedures to change funding allocations, clarify budgeting procedures, and to limit historic preservation applications to the Municipal and Charitable Conservancy to acquisition and stabilization only. Funding allocation became 37.5% farmland, 37.5% open space, 25% Trust Fund Committee.
- On June 12, 2002, the Board of Freeholders created a Department of Land Preservation to administer the Open Space and Farmland Preservation Programs and relieve the Planning Department and Soil Conservation District from these duties.
- In 2002, the citizens voted to increase the amount of money collected from \$.04 to \$.06 to fund the acquisition of farmland, open space, historic site preservation, maintenance, and debt service. The ballot question is included in the Open Space Trust Fund Rules and Procedures in Appendix A.
- By Freeholder resolution and effective January 1, 2003, the funding allocation and rules and procedures were changed to 55% for County Agriculture Development Board for farmland preservation, 25% for Municipal and Charitable Conservancy Trust Fund Committee for grants to municipalities and non-profit agencies, and 20% for the Board of Recreation Commissioners for the county’s open space preservation effort in concert with the Open Space Plan. A copy of the current Rules and Procedures are in Appendix A.

- On May 14, 2003 the Board of Chosen Freeholders adopted a bond ordinance in the amount of \$5.5 million to acquire land for open space preservation purposes. Open space preservation as defined in the body of the resolution includes open space, recreation, farmland and historic preservation purposes. The ordinance identified over 50 properties for acquisition.
- On May 26, 2004 the Board of Chosen Freeholders amended the 2003 bond ordinance to remove properties from the acquisition list because they were “no longer available for purchase, or no longer considered for acquisition”. The excess proceeds were re-appropriated and new properties were added to the acquisition list.
- On August 9, 2006 the bond ordinance was amended again to remove properties from the acquisition list because they were “no longer available for purchase, or no longer considered for acquisition”. With this action the available proceeds were reprogrammed for the purchase of a newly added farm property. A copy of the bond ordinance and amendments are in Appendix D.



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## CHAPTER II

### GOALS AND POLICIES

1. Land bank as much land as possible for future use or conservation.

Land banking is a term to define the concept of acquiring the targeted land areas now when they are available and at today's values. Under land banking active management of the land is not needed. The purpose of land banking is to buy the land now before it is too late and lost to development or the seller is no longer willing to sell. Minimal maintenance is needed except in special cases.

2. Acquire properties along established and proposed trails specifically the Highlands/Warren Trail, abandoned railroad rights-of-way, and the Morris Canal, to create greenways as a high priority.

The Morris Canal has been a high priority of the county for years. Created in 1981 by the Board of Chosen Freeholders, the Morris Canal Committee has been instrumental in recommending properties for purchase, educating the public, and preserving existing properties. The Morris Canal Greenway is described in the Warren County Directory as a major county preservation effort. As well, Morris Canal preservation offers recreation, conservation, historic preservation, and educational opportunities for residents and students.

3. Acquire properties along streams and rivers to establish greenways and linear parks.

The acquisition of properties along streams and rivers provide the public with opportunities for fishing access, hiking trails and nature exploration. Additionally, preserving these areas prevent development from occurring in flood prone areas thereby providing a flood control benefit.

4. Acquire environmentally sensitive sites.

These areas may be protected under recent laws. However, some of the more significant environmental sites should be protected because they may be in danger of being destroyed by development occurring on or adjacent to the site. In addition, acquiring environmentally sensitive sites open the possibility for scientific research, education, study, and public enjoyment of the county's natural resources.

5. Acquire cultural, historical, and archeological open space sites.

Open Space acquisition should consider the cultural, historical, and archeological features that may evident on a site. Once lost to development, they can never be recovered. As with environmental sites, these sites can open the possibility for education, study, and public enjoyment of the county's man made features.

6. Act as a facilitator in the coordination of land purchases among all levels of government and non-profit agencies.

The Open Space Plan's purpose is to act as a blueprint for open space acquisition in Warren County regardless of the agency or jurisdiction carrying out the effort. If an area is shown in the plan as one targeted for acquisition, any agency should feel empowered to make the acquisition for the purpose described in the Open Space Plan. Coordination with farmland preservation programs at the state, county and local level are highly encouraged and needed to achieve multiple goals and stretch the preservation dollar.

7. In the short term, develop a modest, passive recreation system that allows activities like walking, hiking, sight seeing, bird watching, etc.

With a modest county supported open space system, properties that require minimal county resources in time and money are desired in the short term.

8. Where appropriate, give consideration to providing opportunities for traditional uses, such as hunting and fishing.

Some county properties are appropriate in size and location to allow hunting. It is important to continue to allow hunting on those properties to control the herd, and to make additional lands open to all hunters. Currently the Sheriff's office issues hunting permits for county lands to gain an understanding of how many hunters may be on county lands. If it is determined that the land is over hunted then limits on the number of permits issued may have to be considered. Another consideration may be to charge hunters a small fee.

Access to fishing spots should be provided through the provision of parking facilities and trails to streams, lakes, and ponds.

9. If necessary, in the long term, develop active recreation sites, such as ball fields and other similar recreational facilities.

If the other agencies fail to provide a sufficient number of active recreational sites, the county may consider filling the void.

10. Interconnect various open space reserves.

As the blueprint for open space in Warren County, the plan envisions an interconnected system of open space lands that are accessible to one another. In this way one could walk for one reserve to another.

11. Interagency Coordination.

In some cases, in consideration of other county or municipal interests additional right of way or easements may be needed along roadways or bridges for future improvements and maintenance purposes. In addition, coordination is needed to accomplish the goals of farmland preservation, and municipal and state acquisition programs with the Open Space plan. For example, where properties are acquired that affect Morris Canal and farmland properties, the programs should be coordinated to allow for both the preservation of farmland and the preservation and public access along the Morris Canal corridor.

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## **CHAPTER III**

### **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 10,749 acres in the former Pahaquarry Township, now part of Hardwick Township, and portions of Blairstown 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 role 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.

### **The County Role**

The County has the role to acquire open space lands for public use and to maintain, manage, and develop them in a manner that is consistent with this Open Space Plan. The purpose of County owned open spaces is broader than municipal levels, can extend across municipal boundaries, but are generally less in total acreage than statewide acquisitions. The county system integrates outdoor recreation with environmental protection, farmland preservation, historic preservation, natural resource and historic resource education.

In Warren County, county owned open spaces should be managed to provide for activities such as hiking, fishing, picnicking, bicycling, nature study, touring and traditional uses, such as hunting, where appropriate. The protection of any cultural and historic areas should be incorporated into any planned open space site that may include them. If warranted in the long term, the county system could evolve into one that has a county staffed department that would acquire land, develop parklands, and administer activities and programs for the full use and enjoyment of our residents.

### **The 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 provide. Many times, the local schools will provide the recreational athletic facilities for the community.

### **The Non-Profit Role**

Non-profit organizations usually have a specific mission as set forth in its charter and bylaws. They may be established to preserve and protect certain land characteristics regardless of the political jurisdiction, or to acquire land areas located within specified jurisdictions. Non profits have a funding base consisting of membership fees, charitable contributions, donations, and government grants and can qualify for certain grants that governmental agencies are ineligible to receive. Non-profits can fill a void that governmental agencies are unable to fill because of time, lack of funding or policy.

In addition to land preservation, non-profits have played a role in maintaining properties acquired by the county for little or no cost. The county benefits because the non-profit occupies and cares for the land and buildings, and the non-profit benefits because office and work space is provided, and in some cases provides a hands on class room experience for the individuals that the non-profit desires to help.

Active non-profits in Warren County include the Highlands Project, the Friends of the NJ Transportation Museum, the Morris Land Conservancy, the Nature Conservancy, the Ridge and Valley Conservancy, the Canal Society of NJ, the Phillipsburg Riverview Organization, the NY-NJ

Trail Conference, the Trust for Public Lands, Wildlife Preservation, Inc., and the Heritage Conservancy.

### **Private Role**

The private sector role in open space preservation can take four forms. The first is that the private sector provides for the use of land usually for a fee. Private campgrounds and lands owned by special groups such as the YMCA, Boy and Girl Scouts, and religious institutions are examples.

The second form is through the land development process where the developer of a project will dedicate land to a governmental entity in accordance with an adopted Open Space and Recreation Plan.

The third form is where a developer provides for common open space for use only by the residents of the development and their guests. The common areas contribute to the overall goal of open space preservation although it may serve a limited population.

The fourth form is through the responsible management of land by private land owners. While the land may not be legally accessible by the general public, having the land remain in undeveloped state preserves scenic vistas, forest areas, farmland and protects water recharge, water quality, as well as the habitats of flora and fauna. Incentives for land owners to permanently preserve land areas through the use of conservation easements, development easements, etc are available. Use of the easements does not require the land to be accessible for public use.



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## **CHAPTER IV**

### **INVENTORY OF LAND AREAS, FUNDING, PARTNERS, AND ACQUISITION METHODS**

#### **LAND AREAS:**

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 Open Space Inventory. Table I titled Amount of Open Space in Public, Non Profit, Private and other Ownership is provided on the following page.

#### **Federal Open Space**

The Delaware Water Gap National Recreation Area is the only federal land reserve in Warren County and contains the Appalachian Trail. In Warren County, the DWGNRA contains 10,749 acres which is the Pahaquarry section of Hardwick Township, and includes the northern portions of Blirstown and Knowlton Townships. In total the DWGNRA is over 67,000 acres along 40 miles of the Delaware River in New Jersey and Pennsylvania. Allowable activities include hiking, biking, boating, rock climbing, fishing, back country camping.

#### **State Open Space**

State owned open space areas can be classified into two major categories Wildlife Management Areas, and Parks and Forests. State owned open space in Warren County increased from 13,797 acres in 1999 to 28,595 acres in 2007 due mostly to the expansion of existing wildlife management areas and parks and forests and the through the establishment of new WMA's.

TABLE I - AMOUNT OF OPEN SPACE ACREAGE IN PUBLIC, NON-PROFIT, PRIVATE AND OTHER OWNERSHIP

Municipality	Federal	State	County	Municipal Open and Recreation Space	*Actual Amount of School Rec. Space Provided (2002)	Non-Profit Preserved	Sub-Total Open Space Preserved	Non-Profit Not Preserved	Semi Public	*Private and other non-government non-profit	Sub-total Open Space not Preserved	Grand Total
<b>Northern Region</b>												
Blairstown township	426	1,501	0.0	50	25.0	179	2,181	436	1,200	151	1,787	3,968
Frelinghuysen township	0	807	0.0	12	5.0	868	1,692	0	0	457	457	2,149
Hardwick township	9,352	6,451	386.0	9	0.0	1,080	17,278	623	0	0	623	17,901
Hope township	0	1,660	0.0	120	1.0	0	1,781	101	0	20	121	1,902
Knowlton township	971	1,843	0.0	62	3.0	0	2,879	36	0	52	88	2,967
Regional total (Acres)	10,749	12,262	386	253	34	2,127	25,811	1,196	1,200	680	3,076	28,887
Percent of Total	100.0%	43.6%	23.6%	6.4%	13.2%	79.1%	54.5%	85.0%	30.0%	43.4%	44.1%	53.1%
<b>Central Region</b>												
Allamuchy township	0	4,662	0.0	744	6.0	205	5,617	0	0	106	106	5,723
Belvidere town	0	34	4.0	46	23.0	0	107	0	0	4	4	111
Hackettstown town	0	327	6.0	67	55.0	0	455	0	0	40	40	495
Independence township	0	615	32.0	219	8.0	175	1,049	85	0	5	90	1,139
Liberty township	0	1,653	0.0	50	5.0	0	1,708	0	0	9	9	1,717
Mansfield township	0	3,159	97.0	196	10.0	0	3,462	37	0	25	62	3,524
Oxford township	0	727	170.0	495	3.0	0	1,395	0	0	18	18	1,413
Washington borough	0	0	0.0	24	18.0	0	42	0	0	0	0	42
Washington township	0	259	305.0	878	38.0	0	1,480	0	0	224	224	1,704
White township	0	2,459	0.0	128	5.0	0	2,592	0	0	88	88	2,680
Regional (Acres)	0	13,895	614	2,847	171	380	17,907	122	0	519	641	18,548
Percent of Total	0.0%	49.4%	37.5%	72.3%	66.5%	14.1%	37.8%	8.7%	0.0%	33.1%	9.2%	34.1%
<b>Southern Region</b>												
Alpha borough	0	0	0.0	97	2.0	0	99	0	0	0	0	99
Franklin township	0	235	195.0	17	5.0	0	452	47	0	5	52	504
Greenwich township	0	0	84.0	266	5.0	0	355	0	0	20	20	375
Harmony township	0	1,345	142.0	101	7.0	0	1,595	37	2,800	150	2,987	4,582
Lopatcong township	0	62	217.0	114	6.0	0	399	5	0	172	177	576
Phillipsburg town	0	6	0.0	30	24.0	0	60	0	0	16	16	76
Pohatcong township	0	308	0.0	211	3.0	181	703	0	0	4	4	707
Regional total (Acres)	0	1,956	638	836	52	181	3,663	89	2,800	367	3,256	6,919
Percent of Total	0.0%	7.0%	38.9%	21.2%	20.2%	6.7%	7.7%	6.3%	70.0%	23.4%	46.7%	12.7%
Total Municipal Warren County	10,749	28,113	1,638.0	3,936.0	257.0	2,688	47,381	1,407	4,000	1,566	6,973	54,354

Prepared by Warren County Planning Department 11/20/07

\* From the 2002 NJDEP Land Use Coverage Date

\* Includes ballfields, golf courses, and common areas that may be owned by homeowner associations, religious institutions, non-profit organizations.

## NJ WILDLIFE MANAGEMENT AREAS

New Jersey's Wildlife Management Area System is administered by the Division of Fish and Wildlife's Bureau of Land Management that preserves and enhances a diversity of fish and wildlife habitats as well as providing a variety of compatible recreational and educational opportunities for New Jersey residents and visitors. Statewide WMA's range in size from the .68 acre Delaware River Fishing Access Site in Pennsauken to the 30,000-acre Greenwood Forest Tract in Burlington and Ocean counties. WMA acreage represents more than 44% of New Jersey's state-owned public open space.

In Warren County the Wildlife Management Areas are the following:

WMA 1/NP 11. Alpha Grasslands Preserve in Pohatcong Township, 128 acres, the state has a 44% interest in the site. The balance is owned by the Phillipsburg Riverview Organization

WMA 2. Beaver Brook Wildlife Management Area in White and Knowlton Township, 606 acres

WMA 3. Belvidere Boat access with 7.02 acres in Town of Belvidere,

WMA 4. Buckhorn Creek Wildlife Management Area 711 acres in White and Washington Townships,

WMA 5. Columbia Lake Wildlife Management Area with 1,260 acres in Knowlton,

WMA 6. Hackettstown State Fish Hatchery, Hackettstown, 235 acres

WMA 7. Harmony Access Points (north and south on Delaware River) 26 acres in Harmony Township

WMA 8. Honey Run Wildlife Management Area, 79 acres in Hope Township,

WMA 9. Hummers Beach Access (Delaware River) 3.20 acres in Lopatcong Township,

WMA 10. Knowlton access (car top only) 12 acres in Knowlton Township,

WMA 11. Musconetcong River Wildlife Management Area in Mansfield, Washington Township, Franklin and Pohatcong Townships in Warren County and areas in Hunterdon and Morris County for a total of 1,332 acres.

WMA 12. Pequest Wildlife Management Area (east and west), 4,609 acres in Liberty, Mansfield and White Townships. The WMA contains programs about the raising of trout and the importance of natural resources, self-guided tours, and group programs are held by arrangement. The center offers an ongoing series of educational programs and special events.

WMA 13. Pohatcong Creek Wildlife Management Area (north and south) 129 acres in

## Pohatcong Township

WMA 14. Rockport Wildlife Management Area, 1,062 acres, Mansfield Township, NJ Division of Fish and Wildlife facility where 50,000+ pheasants are raised for stocking on publicly accessible lands each year. Also features pens of exotic fowl, a section of the historic Morris Canal, and a short hiking loop.

WMA 15. Ratzman access with 7.42 acres in White Township.

WMA 16. White Lake Wildlife Management Area, total 923 acres in Hardwick Twp and Frelinghuysen Twp. The County of Warren owns 397 acres of the WMA in Hardwick Township.

## **NJ PARKS AND FORESTS**

Statewide the Division of Parks & Forestry provides for the operation, management, maintenance and protection for 40 state parks, 11 state forests, three state recreation areas, 42 natural areas, four state marinas and more than 50 historic sites. Together, these sites total over 403,000 acres and are a critical component of New Jersey's open space and recreation infrastructure. Over 66 million people visited state park system facilities between FY 2003 and FY 2006, an average of close to 17 million a year. In FY 2006, the state park attendance was 17.8 million people (draft SCORP).

### In Warren County the State Parks and Forests are:

SPF 1. Allamuchy Mountain State Park accounts for a total of 8,683 acres of open space in Warren, Sussex and Morris Counties. 3,390 acres are located in Allamuchy Township. Allowable activities include boating, hunting, fishing, hiking, biking, mountain biking, horseback riding trails, nature trails, birding, cross-country skiing, rock climbing area. The park includes the Allamuchy Natural Area, historic Waterloo Village and Saxton Falls, with remnants of the Morris Canal.

SPF 2. Stephens State Park contains 327 acres in Hackettstown and extends into Morris County. The total size of the park is 805 acres. Picnic areas, picnic shelter, playgrounds, fishing, boating/kayaking, hiking, biking, mountain biking, horseback riding trails, nature trails, birding, camping, cross-country skiing, seasonal nature programs. The Wild and Scenic Musconetcong River runs through the park.

SPF 3. Jenny Jump State Forest totals 4,288 acres on various tracts of land located in the Townships of Frelinghuysen, Independence, Hope, Liberty, and White. Allowable activities include picnic area, playground, overlook/viewing points, fishing, boating, hiking, mountain biking, nature trails, and camping.

SPF 4. Worthington State Forest is in Hardwick, Blirstown and Knowlton Townships. The forest covers 6,584 acres and is within the Delaware Water Gap National Recreation Area. It contains picnic areas, playgrounds, overlook/viewing points, boating/boat launch, fishing, hiking, camping.

SPF 5. Paulinskill State Park in Knowlton Township, with 92 acres and functions as the trail head to the Paulinskill Valley Trail.

SPF 6. 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**

Since 1999 County-owned open space increased from 670 acres to over 1,600 acres today. 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 Chosen Freeholders have on the recommendation of the Board of Recreation Commissioners acquired 4,181 feet of the historic Morris Canal in Franklin, Greenwich, and Independence Townships on properties totaling nine acres. From 1995 to 1999, the Warren County Board of Freeholders based on the recommendation of the Board of Recreation Commissioners acquired 568 acres of open space lands and 57 acres of the historic Morris Canal totaling 11,229 feet or 2.13 miles. From 1999, when the last Open Space Plan was adopted, through 2006, the County acquired an additional 1,174 acres of Warren Trail and Morris Canal property, 14,179 feet or 2.69 miles of the Morris Canal were acquired during this time period. Of the 1600 acres acquired by the county 384 acres were for the Morris Canal Greenway, 797 acres were for the Warren Trail. A total of 31,250 feet or 5.9 miles of the Morris Canal are in county ownership currently. A comprehensive inventory of the properties acquired by the county since 1824 including the municipality, location, year acquired and cost, and held for public open space is found in Appendix E. Photographs of county open space properties are found in Appendix N.

### The major land areas owned currently by the County of Warren include:

WMA 16 White Lake in Hardwick Township, contains unimproved hiking trails, car-top boat access, a 386-acre tract including a 69-acre glacial lake and adjoins 276 acres owned by New Jersey Division of Fish and Wildlife. The Warren County owned portion is managed by the Nature Conservancy in accordance with the White Lake Management Plan. The White Lake tracts are envisioned to be links in the Ridge and Valley Trail that would link the Paulinskill Trail to the Appalachian Trail. White Lake Natural Resource Area is characterized by rocky fertile farm fields, rocky exposures of the Kittatinny Limestone, sinkhole ponds, deciduous hardwood forest, and mature hemlock forest. The shores of White Lake are known to be home to as many as eight endangered plant species listed by the state and globally imperiled wetland plant community. The clarity of the water reveals the chalky “marl” bottom, which is an accumulation of shelled organisms and clay. These calcium-rich white clay marls give the lake its identity. The lake itself is a large, prolific, pristine, spring fed, limestone lake. These springs produce such large quantities of water that there

are no visible inlets that recharge the lake. Because of this quality and quantity of water, the whole area is classified as a trout maintenance watershed.

This site also offers historical and cultural resources. Found on the site is the stone wall remnants of a building used in the processing of marl into fertilizer for soils deficient in lime. Marl, a mineral more commonly known as calcium carbonate or dolomite, is a loose or crumbling earthy deposit of sand, silt, or clay. The lake was also used for ice harvesting, which was used for refrigeration in the early 1900's. Both commodities were shipped out of the area via railroad spur linked to the New York-Western-Susquehanna Railroad, now the Paulinskill Trail.

#### Warren Trail properties consisting of:

WT 1. Marble Hill in Harmony and Lopatcong Townships contains 272 acres of unimproved hiking trails and overlook/viewing points. These properties provide watershed protection to the Delaware River and because its contiguous forested areas provide coverage for neo-tropical song birds and other migratory song birds that use the Delaware River as a flyway during migration. The site also offers a wide biodiversity of upland deciduous forests, along with a major buffer for the Delaware River corridor. The site is also rich with cultural resources. It offers a glimpse of early iron ore exploration and houses one of the last two remaining steam engines of its size in the Northern Hemisphere.

These properties provide for approximately 2.25 miles of the Warren Trail which includes land areas owned by Lopatcong Township and the State. A trail head can be provided at the Delaware River at the pump house property.

#### WT 1.1 Pumphouse

The pumphouse property contains a 1913 Allis Chambers steam engine that supplied power to pump potable water to Phillipsburg and surrounding areas. The Friends of the NJ Railroad and Transportation Museum occupy the area and use it as an interim storage area of various types of transportation vehicles and equipment for placement at a future site of the NJ Transportation Museum. The Friends have cleaned and restored the pumphouse and steam engine and open the property to the public once per year.

#### WT 2. West Oxford Mountain

West Oxford Mountain in Oxford and Washington Townships, contains 428 acres of unimproved hiking trails, and overlook/viewing points. These properties provide for approximately 2.5 miles of the Warren Trail. The site offers a view of unique geological features, mature woodlands, note-worthy plant and wildlife habitats. Historical research has shown that the site was once used for mining and remnants of the operations remain. There are no existing structures or buildings of any sort remaining on the parcel except for the remains of an old school building lost in a fire, old mining roads and railroads, a circular stone-walled reservoir and an abandoned wood water tank adjacent to Mine Hill Road, once used to supply water to the Town of Oxford. The properties can be tied into the Historic Village of Oxford, enabling those visiting the village to venture to the W. Oxford Mountain properties and see the remnants of Oxford's historic past.

#### Morris Canal Greenway Properties consisting of :

MC 1. Lopatcong – Greenwich Area contains 5,356 feet of continuous preserved Morris Canal from Rt. 22 to Rt. 519. From Rt. 519 to N. Main Street in Stewartsville there is 3,080 feet of fee simple ownership and an additional 4,189 feet in a conservation easement with right to public access from the Hamlen tract to N. Main Street. In accordance with the easement public access to the easement area shall only occur once a park program has been established by the county in order to oversee the usage of the easement area by the public. A copy of the easements are included in the Appendix F.

Notable features on this segment include 20 acres of the 60-acre Hamlen farm in Greenwich that contains the Lopatcong Creek Stream Corridor, Inclined Plane #9, and a waste weir.

#### MC 1.1 Inclined Plane #9 West

The Morris Canal Incline Plane 9 West is approximately a 4-acre parcel located on the Greenwich Township – Lopatcong Township boundary line. It is designated Block 23, Lot 6 in Greenwich Township and Block 98, Lot 2.01 in Lopatcong Township.

The acquisition of the site was initiated as part of the Morris Canal Greenway Project proposed in the Warren County Open Space Plan. In 1994, the property was purchased by the County of Warren from Mr. James S. Lee and his wife. The land was purchased with the help of a matching grant from the New Jersey Department of Environmental Protection, Green Acres Program.

The site's boundary delineates the limits of the historic plane site and defines a 200 foot-wide band centered on the plane. Toward the west end of the district, the boundaries expand to a 500 foot-wide band to include the archeological sites of the plane's bypass and tailrace channel. Included on the property are the extensive archeological components of the plane in addition to the sites of structures that were associated with the plane. The only extant canal related building is the plane tender's house, which still serves as a dwelling. The old Morris Canal bridge site at the foot of Plane 9 West and just east of Warren County Route 519, forms the western boundary of the plane site.

Morris Canal Incline Plane 9 West was the highest and longest plane on the Morris Canal and was one of three planes with a double set of tracks.

MC 2. Greater Breadlock Park in Franklin Township. Contains 3,960 feet of the Morris Canal with properties totaling 250 acres.

#### MC 2.1 Bread Lock Park

The Bread Lock Park is a 17-acre parcel located on the south side of Route 57 about 2300 feet east of the Greenwich-Franklin Township boundary line in Franklin Township, Warren County, New Jersey. The subject site is designated Block 39, Lots 1.01, 2.01& 3.05. The street address is 2627 Route 57.



The acquisition of the site was initiated as part of the Morris Canal Greenway Project proposed in the Warren County Open Space Plan. In 1999, the property known as Bread Lock Park was purchased by the County of Warren. The land was purchased with the help of a matching grant from the New Jersey Department of Environmental Protection, Green Acres Program.

Morris Canal Lock 7 West was constructed to enable the canal to overcome an elevation change of 10 feet. Initially built in 1831, the lock was known as “Gardener’s Lock”, its name became the “Bread Lock” because a store on the site, run by the lock keeper’s wife, was known for its homemade pies and bread.

Future projects on this property are to restore the lock, rehabilitate the two barns, stabilize the remaining historic features, and rehabilitate the canal’s prism and towpath. There is a former cabinet shop that will be utilized as a site-specific museum for that area, with offices for county administration and to relocate the non-profit group called the Highlands Project into this facility.

MC 3. New Village Property contains a canal property consisting of 2.4 acres totaling 1,080 feet in length.

MC 4. Fancy Farm - Franklin Township contains 74.4 acres and 2,010 feet of Morris Canal

MC 5. Mohawk/Sams Properties, in Mansfield Township consisting of 83 acres and 2,180 feet of the Canal

MC 6. Port Murray Properties, contains 9.5 acres and 1,050 feet of the canal. In addition the property features a 1,500 access easement from Port Murray Road to the county owned properties. The Port Murray Boat Basin is located here, however the county does not own it.

MC 7. Florence Kuipers Memorial Park , Independence and Hackettstown, contains 6,857 feet of the canal. The park is dedicated to the memory of Florence Kuipers, an Independence Township resident and active member of the Morris Canal Committee, who was fatally injured in a horseback riding incident in December 1999. She often rode her horse on this stretch of the Canal.

MC 8. Towpath/Payne properties contains 2,570 feet in county ownership and an additional 2,020 feet in easement around the Towpath Apartments property. These properties provide a connection from CR 517 to over 1,500 feet beyond Bilby Road.

## **Municipal Open Space**

Municipal-owned land often 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. In 1999, 957 acres were in municipal open space. As shown in Table I, currently, there are approximately 3,936 acres in municipal owned space that includes passive open space, athletic fields, and other recreational lands. Some of the land areas include municipal building properties and other vacant properties. A more

detailed review of the property listing should take place to determine how much of the land area is for public recreation and conservation. Local public schools have an additional 257 acres available for athletic fields

### **Semi-Public and Non Profit Open Space**

These areas are owned by private entities or non profit agencies but make the lands available for public use. The largest areas of semi public and non-profit open space in Warren County are:

SP1. The Merrill Creek Reservoir and Environmental Resource Center in Harmony and Franklin Townships. The site encompasses 2,800 acres, including a 650-acre reservoir located atop Scotts Mountain in Harmony Township. Boating, fishing, nature study, and hiking are permitted on the 290-acre wildlife preserve. The visitors center includes displays on area history, mammals, birds and fish found in the area, and offers educational programs.

SP2. Yards Creek Station Recreation Area in Blirstown Township. There are 700 acres of open space and another 500 acres of water (associated with this site).

NP1. Blair Creek Greenway in Hardwick was purchased by the Ridge and Valley Conservancy using funds from the Municipal and Charitable Conservancy in 2004 and contains 124 acres. It is adjacent to Camp NoBeBosCo.

NP2. The YMCA Camp Ralph C. Mason in Hardwick was expanded using money from the Municipal and Charitable Conservancy Trust Fund committee in 2002 and contains 97 acres. It is available for passive recreation.

NP3. Limestone Forest Preserve in Hardwick was purchased by the Ridge and Valley Conservancy in 2001 using funds from the MCCTF and contains 380 acres.

NP4. Hardwick Meadows Preserve in Hardwick was acquired by the Nature Conservancy and contains 142 acres.

NP5. Johnsonburg Swamp Preserve and Mud Pond was acquired by the Nature Conservancy, Wildlife Preservation, Inc. and a land donation in Frelinghuysen Township consisting of 610 acres.

NP6. The Ridge and Valley Conservancy acquired 42 acres in Frelinghuysen.

NP7. Beech Ridge Reserve in Blirstown consisting of 64 acres was acquired in 2003 with funding from the MCCTF.

NP8. Bear Creek Greenway in Frelinghuysen and Allamuchy contains 262 acres was acquired by the Ridge and Valley Conservancy. A portion of it was acquired using MCCTF funds in 1999.

NP9. Tranquility Farms, the Nature Conservancy acquired 127 acres in Allamuchy

Township. Tranquility was acquired through partnerships with Allamuchy Township, Allamuchy School, the Ridge and Valley Conservancy and the County.

NP10. 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. An additional site was acquired by the NJ Audubon Society consisting of 32 acres in Allamuchy Township on Cat Swamp Road.

NP11/WMA 1. Phillipsburg Riverview Organization, owns 140± acres in Pohatcong as part of the grasslands acquisition.

NP12. The Phillipsburg Riverview Organization the New Jersey Conservation Foundation have access and management responsibilities on property consisting of 47 acres containing 15 lime kilns via a conservation easement. The lime kilns are visible from the Pennsylvania side of the Delaware River, and the Black River and Western excursion train run that passes below.

NP13. The Hariton Sanctuary in Harmony Township is owned by the NJ Audubon Society.

### **Private Open Space**

Private open space in Warren County are those places where people pay to recreate or are available only to those who belong to the organization that owns the property. These areas are the private campgrounds found in Knowlton Township, the boy scout camps in Blairstown and Hardwick Townships, the Warren County ARC campground in Knowlton Township, and Camp Merry Heart in Mansfield. Many of these places are not preserved as permanent open space but are listed in the plan as part of the inventory.

P1. Camp NoBeBosCo, Hardwick Township, contains 286 acres and is adjacent to the Delaware River Water Gap National Recreation Area and Blair Creek Greenway acquired by the Ridge and Valley Conservancy.

P2. Ralph C. Mason YMCA camp in Hardwick contains 226 acres of which 97 acres were preserved using funding from the MCCTFC.

P3. Yards Creek/ Central NJ Boy Scout Camp in Blairstown Township contains 436 acres.

P4. Princeton Blairstown Center containing 164 acres.

P5. Happiness is Camping, Hardwick contains 45 acres. An additional 110 acres were preserved using funding from the MCCTF.

P6. Spring Valley Church, Hardwick Township, one acre.

- P7. Roman Catholic Church, Frelinghuysen, contains 118 acres
- P8. Camp Taylor, Knowlton Township 154.5 acres
- P9. Camp Hope Conference and Renewal Center, Hope Township contains 95 acres.
- P10. Presbyterian Camp and Conference Center in Frelinghuysen contains 339 acres
- P11. Triplebrook Campground, Knowlton Township, 81.5 acres
- P12. Delaware River Family Campgrounds, Knowlton Township 40.3 acres
- P13. Warren County ARC, Knowlton Township contains 36 acres.
- P14. Camp Merry Heart of the Easter Seals in Independence and Mansfield Township contains 122 acres.
- P15. Warren County Fair Association, Harmony Township contains 37 acres.
- P16. Lawrenceville School Campgrounds in Franklin contains 47 acres.
- P17. Camp Mohican, Hardwick Township is located within the Delaware Water National Recreation Area and is operated by the Appalachian Trail Group.
- P18. Johnsonburg Swamp/Mud Pond, Frelinghuysen contains a 610 acres of which 144 acres are owned by Wildlife Preservation, Inc. The balance is owned by the Nature Conservancy.

### **Farmland Preservation**

While land acquired by the county, state, and municipality for farmland preservation are not considered “public open space” as defined in this plan, the preserved farms are mapped in this plan. Preserved farmland is not open to the public and the farmer still retains many of the rights conveyed upon private property owners except that the right to develop the property has been acquired by the government. Nevertheless preserved farmland is important to open space preservation inasmuch as preserved farmland provides a permanent buffer to land development and maintains scenic landscapes. In addition, preserved farmland can provide for linkages in the greenway and trail acquisition efforts. Cooperation and coordination with the state, county and local farmland preservation programs is essential to ensuring that a publicly assessable open space network is created.

The location of preserved farmland is shown on the Open Space Inventory map. According to the September 2007 draft County Farmland Preservation Plan, 15,125 acres of farmland have been preserved permanently. Allamuchy contains the most preserved farmland with over 2,000 acres preserved. Regionally, the south has the most farmland preserved with 5,565 acres. The north and central contain 4,825 and 4,734 acres respectively.

## **FUNDING:**

In order to establish a basis for funding open space and recreation areas, an inventory and description of existing county, municipal, federal, state, and private funding sources is provided.

### **A. Warren County Open Space, Recreation, Farmland and Historic 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. Initially, the fund began 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 dedicated tax of \$20 for every \$100,000 of property value. The non-binding referendum gave 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 was set aside for the Warren County Board of Recreation Commissioners to acquire lands in accordance with the open space plan. Annually, \$280,000 was raised for county acquisition of open space lands when 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.

In the 1999 ballot referendum, the citizens voted to increase the amount of tax money collected from two cents (\$.02) to four cents (\$.04) per one hundred dollars (\$100) of total county equalized real property valuation. In addition to the existing approved purposes, historic preservation was approved as an eligible expense.

In 2002, the citizens voted to increase the amount of money collected from \$.04 to \$.06 to fund farmland, open space, and historic preservation, maintenance, and debt service.

Table II shows the amount of revenue that was anticipated each year for each purpose according to the allocation formula as provided for in the adopted rules and procedures from 2000 through 2006. Table III shows the actual expenditures and reimbursements to the Trust Fund for 2000 through 2007.

#### **1. Procedures and Rules**

To balance the needs of farmland, open space, and historic preservation, and to provide an understandable and predictable means to administer the Trust Fund, the Board of Chosen Freeholders adopted a set of Procedures and Rules on June 26, 1996. The Procedures were revised several times with the last revision occurring on November 22, 2005. The revisions were adopted to reflect changes in the Trust Fund statutes, to add purposes, to increase the rate of taxation, to revise the allocation percentages for the purposes, and to clarify county procedures. Any changes to the established procedures must take place via Freeholder resolution.

## **2. Allocation of Funding**

By Freeholder resolution and effective January 1, 2003, the funding allocation was changed to 55% Farmland Preservation through the County Agriculture Development Board (CADB), 25% for projects recommended by the Municipal and Charitable Conservancy Trust Fund Committee (MCCTF), and 20% Open Space through the Board of Recreation Commissioners (BRC). In 2008, approximately \$1.6 million should be available for the acquisition of properties defined in the County Open Space Plan through the BRC.

### **Board of Recreation Commissioners**

The BRC may recommend appropriations in any amount up to 20% of the total annual projected trust fund revenues for the acquisition of land for recreation and conservation purposes, the maintenance of those lands, for historic preservation, and debt service on funds and other loans initiated to acquire lands sooner. The current portion of debt service obligations due and payable during the year, property maintenance cost and program staff salaries and administrative costs shall be deducted from the amount available for these purposes. The balance of the BRC's allocation may be used for recommending additional acquisitions and new projects.

The BRC shall be permitted to recommend expenditures for the maintenance of county lands acquired for recreation and conservation purposes. The Open Space Trust Fund appropriation for annual property maintenance cost may not exceed 10% of the total Open Space Tax Revenue collected.

**TABLE II - Open Space Tax Allocation per Trust Fund Rules & Procedures**

	2000	2001	2002	2003	2004
<b>Farmland Pres. (CADB)</b>	\$937,640	\$1,002,403	\$1,097,223	\$2,683,412	\$3,035,387
<b>MCCTF</b>	\$625,093	\$668,269	\$731,482	\$1,219,733	\$1,379,721
<b>Open Sp. (Bd. Of Rec.)</b>	\$937,640	\$1,002,403	\$1,097,223	\$975,786	\$1,103,777
<b>TOTAL</b>	\$2,500,373	\$2,673,075	\$2,925,928	\$4,878,931	\$5,518,885

	2005	2006	2007	00 - 07 Total
<b>Farmland Pres. (CADB)</b>	\$3,408,867	\$3,871,078	\$4,309,727	\$20,345,737
<b>MCCTF</b>	\$1,549,485	\$1,759,581	\$1,958,967	\$9,892,331
<b>Open Sp. (Bd. Of Rec.)</b>	\$1,239,588	\$1,407,665	\$1,567,173	\$9,331,255
<b>TOTAL</b>	\$6,197,940	\$7,038,324	\$7,835,867	\$39,569,323

**TABLE III - Open Space Trust Fund Expenditures**

	2000	2001	2002	2003	2004	2005	2006	2007	00 - 07 Total
<b>Farmland Pres. (CADB)</b>									
Acquisition & Other Soft Costs	\$1,836,257	\$998,782	\$173,489	\$935,467	\$1,391,191	\$253,824	\$2,688,193	\$2,624,088	\$10,901,291
<b>MCCTF</b>									
Acquisition - Land	\$0	\$587,620	\$406,600	\$92,500	\$1,380,934	\$899,375	\$2,010,590	\$550,000	\$5,927,619
Historic Preservation	\$0	\$36,875	\$87,876	\$220,294	\$426,999	\$518,467	\$305,545	\$351,761	\$1,947,817
<b>Open Sp. (Brd. Of Rec.)</b>									
Maintenance	\$30,007	\$49,932	\$55,054	\$48,492	\$64,580	\$63,464	\$146,819	\$128,176	\$586,524
Acquisition	\$1,123,458	\$826,753	\$1,379,447	\$1,046,040	\$29,173	\$20,543	\$378,505	\$40,188	\$4,844,107
<b>Debt Service &amp; Related Expenses</b>	\$166,156	\$459,812	\$626,757	\$579,692	\$1,306,999	\$1,022,020	\$1,016,611	\$1,005,630	\$6,183,677
<b>Overhead Expenses</b>									
Salaries, etc.	\$48,894	\$107,226	\$116,572	\$161,030	\$211,617	\$209,846	\$217,608	\$197,401	\$1,270,194
<b>TOTAL</b>	\$3,204,772	\$3,067,000	\$2,845,795	\$3,083,515	\$4,811,493	\$2,987,539	\$6,763,871	\$4,897,244	\$31,661,229

**Reimbursements to Trust Fund**

	2000	2001	2002	2003	2004	2005	2006	2007	00 - 07 Total
<b>Reimbursement to Trust Fund</b>									
Recreation Commission	\$0	\$870,972	\$916,630	\$916,630	\$127,215	\$250,000	\$0	\$0	\$3,081,447
Farmland	\$0	\$112,364	\$1,088,811	\$1,088,811	\$5,257,703	\$1,234,200	\$2,976,591	\$1,856,586	\$13,615,066
Local Units	\$0	\$0	\$0	\$0	\$0	\$0	\$540,447	\$582,000	\$1,122,447
<b>TOTAL</b>	\$0	\$983,336	\$2,005,441	\$2,005,441	\$5,384,918	\$1,484,200	\$3,517,038	\$2,438,586	\$17,818,960

Acquisition costs may include surveys, appraisals, and other professional fees.

Maintenance costs include grass cutting, brush clearing, snow plowing, building repair etc.

Debt Service and Related Expenses include the repayment of principal and interest on bonds/notes issued by the County and on repayment of loans issued by other state agencies, down payments on debt, and other short & long term financing arrangements.

Reimbursements to the Trust Fund include those from the Green Acres program, State Agriculture and Development Committee, and municipal governments.



The Board of Recreation Commissioners contains seven members as appointed by the Board of Chosen Freeholders. The Board's responsibilities are to recommend land areas for acquisition in accordance with the county's Open Space Plan, and recommend policies and plans for the use and improvement of county owned lands, and facilitate the cooperation of agencies at the local and state levels.

The current county owned open space inventory totals 1,638 acres for a total cost \$8,714,431 million with a total county cost of \$5,744,315. The county cost averages to \$3,656 per acre.

### **County Agriculture Development Board**

The County Agriculture Development Board may recommend appropriations in any amount up to 55% of the total projected trust fund revenues for the acquisition of land or development easements for farmland preservation purposes. The current portion of debt service obligations due and payable during the year and program staff salaries and administrative costs shall be deducted from the amount available for these purposes. The balance of the CADB's allocation may be used to recommend new projects. The CADB is composed of seven members and five associate members including the Rutgers Cooperative Extension Agricultural Agent, U.S. Natural Resource Conservation Service, County Planning, and representative from the County Planning Board and Freeholder Board.

In addition to the State Agriculture Development Committee traditional program where the SADC funds approximately 70% of the acquisition costs, the CADB assists municipalities in providing up to one half of the difference between the state match and the total cost through the municipal Planning Incentive Grant program.

According to the Draft Farmland Preservation Plan being prepared for the County Agriculture Development Board, 15,125 acres of farmland have been acquired through July 2007 through all programs that the CADB has provided funding. The total cost of the acquisitions totaled \$69 million with a total county cost of \$18.6 million. The county cost averages to \$4,559 per acre.

### **Municipal and Charitable Conservancy Trust Fund Committee**

To assist in providing funding to municipalities and charitable conservancies, the Warren County Board of Chosen Freeholders 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 (MCCTF) consisting of 12 members was established by the

Board of Chosen Freeholders to review and recommend applications from municipalities and charitable conservancies for funding land acquisition.

In accordance with the Warren County Open Space, Recreation, Farmland, and Historic Preservation Trust Fund Procedures and Rules, the MCCTFC may recommend appropriations in any amount up to 25% of the total projected trust fund revenues for the acquisition of land for recreation and conservation purposes, historic preservation, and farmland preservation.

Historic preservation projects are limited to the acquisition, stabilization, and/or renovation of historic properties. Applicants for stabilization and renovation money must either own or have a long-term lease or other legal interest in the property to be eligible for funding.

Since its inception the MCCTF has recommended the funding of projects for acquisition totaling 3,094 acres. In addition, 12 historic sites were approved for acquisition, stabilization, or renovation. The total cost of all of the projects totaled \$23,906,710 with the county cost amounting to \$7,862,188. The county cost for acquisition amounted to \$6,206,868 averaging \$2006 per acre.

Table IV shows the amount of county open space trust fund tax collected from 1995 through 2007 by municipality. Table V shows the net amount of county open space trust fund, bond proceeds, and general funds spent in each county preservation program in each municipality. All municipalities are encouraged to apply to the MCCTF for funding for open space acquisition and historic preservation projects. To expand eligibility for the developed municipalities, consideration may be given to including “development” costs as eligible expenses for the county trust fund.

## **B. County Bond Funds**

In 2001 the County bonded for farmland preservation projects. In 2003 the County bonded for \$5.5 million to facilitate open space acquisition on properties that were ready for acquisition. The debt service on the bond is paid using revenues from the Open Space Trust Fund. The bond ordinance was amended twice to add and delete properties. Map 2 depicts the location of the properties and the status of each

## **C. Municipal Open Space Trust Funds**

Currently, all municipalities have a dedicated open space trust fund tax except for Belvidere, Hackettstown, Independence, Oxford, Phillipsburg, and Washington Borough. In 2007, over \$2.46 million was anticipated to be raised through the local open space tax levy. In some programs including the State Green Acres program additional weight is given to municipal applications that have a dedicated source of funding for open space. It is recommended that all municipalities establish open space tax and continue those that already have it.

Also, it is noted that under state statute, trust fund money may be used for the maintenance and development of parklands. Municipalities may consider putting the question to the voters to

establish a dedicated source of revenue for maintenance and development purposes.

TABLE IV - COUNTY OPEN SPACE TAX COLLECTED BY MUNICIPALITY 1995 - 2007

Municipality	1995	1996	1997	1998	1999	Sub Total 1995-1999
Allamuchy	\$55,397	\$56,179	\$56,794	\$58,023	\$60,957	\$287,350
Alpha	\$23,032	\$23,933	\$23,597	\$24,546	\$24,753	\$119,861
Belvidere	\$29,730	\$29,925	\$28,741	\$29,281	\$29,738	\$147,415
Blairstown	\$76,030	\$77,974	\$80,291	\$81,296	\$83,442	\$399,033
Franklin	\$36,173	\$37,765	\$37,349	\$38,292	\$38,179	\$187,758
Frelinghuysen	\$27,451	\$28,307	\$29,900	\$29,728	\$30,354	\$145,740
Greenwich	\$33,346	\$37,147	\$41,560	\$47,299	\$54,639	\$213,991
Hackettstown	\$91,658	\$93,594	\$92,549	\$92,549	\$93,154	\$463,504
Hardwick	\$18,318	\$19,961	\$20,668	\$21,059	\$20,753	\$100,759
Harmony	\$67,180	\$70,519	\$73,645	\$74,464	\$73,875	\$359,683
Hope	\$24,334	\$25,694	\$25,290	\$24,913	\$26,009	\$126,240
Independence	\$55,910	\$58,400	\$58,854	\$61,015	\$61,961	\$296,140
Knowlton	\$33,821	\$34,564	\$34,599	\$35,939	\$36,400	\$175,323
Liberty	\$29,299	\$29,698	\$31,226	\$30,645	\$31,788	\$152,656
Lopatcong	\$64,378	\$65,065	\$66,809	\$67,695	\$70,500	\$334,447
Mansfield	\$66,519	\$69,809	\$68,126	\$71,363	\$72,440	\$348,257
Oxford	\$16,769	\$16,722	\$16,074	\$18,180	\$18,907	\$86,652
Pahaquarry	\$111	\$110	\$107	\$0	\$0	\$328
Phillipsburg	\$109,551	\$109,655	\$111,403	\$108,608	\$106,561	\$545,778
Pohatcong	\$46,051	\$46,642	\$46,623	\$46,632	\$49,996	\$235,944
Washington Borough	\$60,095	\$57,557	\$55,721	\$55,458	\$56,068	\$284,899
Washington Twp.	\$78,018	\$77,212	\$78,983	\$78,762	\$79,526	\$392,501
White	\$62,995	\$65,413	\$64,023	\$68,875	\$71,256	\$332,562
TOTAL	\$1,106,166	\$1,131,845	\$1,142,932	\$1,164,622	\$1,191,256	\$5,736,821

Municipality	2000	2001	2002	2003	2004	2005
Allamuchy	\$126,569	\$134,450	\$148,534	\$244,836	\$279,007	\$309,846
Alpha	\$49,859	\$50,083	\$52,250	\$85,138	\$94,574	\$110,318
Belvidere	\$60,732	\$61,083	\$62,457	\$100,732	\$109,813	\$123,796
Blairstown	\$172,613	\$181,310	\$200,753	\$325,778	\$370,165	\$420,388
Franklin	\$83,748	\$82,632	\$101,493	\$174,660	\$209,468	\$225,690
Frelinghuysen	\$63,057	\$65,750	\$71,494	\$117,737	\$133,941	\$151,506
Greenwich	\$127,096	\$152,510	\$179,894	\$329,513	\$356,102	\$394,071
Hackettstown	\$191,735	\$202,285	\$224,497	\$376,709	\$418,877	\$463,622
Hardwick	\$44,760	\$48,196	\$51,906	\$89,392	\$101,570	\$117,007
Harmony	\$151,134	\$165,886	\$172,811	\$284,367	\$313,591	\$341,446
Hope	\$52,416	\$56,409	\$60,556	\$99,235	\$114,944	\$132,348
Independence	\$128,808	\$139,564	\$153,956	\$264,417	\$304,021	\$344,389
Knowlton	\$77,390	\$79,379	\$85,279	\$143,589	\$161,243	\$184,415
Liberty	\$65,885	\$70,830	\$76,584	\$125,951	\$145,015	\$166,051
Lopatcong	\$149,047	\$165,169	\$196,751	\$346,306	\$393,171	\$456,991
Mansfield	\$154,616	\$172,800	\$192,655	\$311,104	\$389,568	\$426,365
Oxford	\$43,223	\$47,307	\$51,962	\$86,083	\$98,542	\$110,533
Pahaquarry	\$0	\$0	\$0	\$0	\$0	\$0
Phillipsburg	\$225,609	\$231,770	\$237,129	\$363,855	\$396,610	\$451,531
Pohatcong	\$104,171	\$109,700	\$113,322	\$180,154	\$201,113	\$227,635
Washington Borough	\$114,378	\$116,153	\$130,373	\$207,676	\$241,793	\$273,711
Washington Twp.	\$163,867	\$182,061	\$194,540	\$321,139	\$368,310	\$410,081
White	\$149,662	\$157,746	\$166,735	\$300,560	\$317,446	\$356,199
TOTAL	\$2,500,374	\$2,517,329	\$2,761,196	\$4,580,374	\$5,203,442	\$5,843,746

Municipality	2006	2007	Sub Total 2000-2007	Grand Total 1995-2007
Allamuchy	\$353,263	\$398,224	\$1,994,729	\$2,282,079
Alpha	\$122,888	\$138,491	\$703,600	\$823,461
Belvidere	\$137,944	\$159,251	\$815,807	\$963,222
Blairstown	\$475,575	\$536,030	\$2,682,611	\$3,081,644
Franklin	\$248,949	\$277,457	\$1,404,097	\$1,591,855
Frelinghuysen	\$166,770	\$188,470	\$958,726	\$1,104,466
Greenwich	\$458,617	\$486,373	\$2,484,175	\$2,698,166
Hackettstown	\$517,040	\$591,178	\$2,985,943	\$3,449,447
Hardwick	\$128,633	\$141,396	\$722,860	\$823,619
Harmony	\$414,007	\$409,876	\$2,253,118	\$2,612,801
Hope	\$149,854	\$171,162	\$836,923	\$963,163
Independence	\$393,475	\$436,843	\$2,165,474	\$2,461,614
Knowlton	\$206,113	\$235,904	\$1,173,312	\$1,348,635
Liberty	\$190,255	\$207,089	\$1,047,661	\$1,200,317
Lopatcong	\$529,345	\$586,972	\$2,823,752	\$3,158,199
Mansfield	\$485,789	\$525,723	\$2,658,620	\$3,006,877
Oxford	\$124,269	\$138,748	\$700,666	\$787,318
Pahaquarry	\$0	\$0	0	\$328
Phillipsburg	\$524,181	\$612,781	\$3,043,465	\$3,589,243
Pohatcong	\$245,606	\$276,481	\$1,458,181	\$1,694,125
Washington Borough	\$306,614	\$345,521	\$1,736,219	\$2,021,118
Washington Twp.	\$464,866	\$521,387	\$2,626,252	\$3,018,753
White	\$394,268	\$450,511	\$2,293,127	\$2,625,689
TOTAL	\$7,038,321	\$7,835,868	\$39,569,321	\$45,306,139

**TABLE V - WARREN COUNTY OPEN SPACE TRUST FUND COLLECTED AND SPENT BY CADB, BRC, MCCTF BY MUNICIPALITY**

Municipality	Total County Trust Fund Tax Collected 1995 thru 2007	Net County Expenditure Farmland Preservation	Net County Expenditure County Open Space	Net County Expenditure MCCTF Projects	TOTAL Trust Fund Spent
Allamuchy	\$2,282,079	\$3,108,687	\$0	\$217,840	\$3,326,527
Alpha	\$823,461	\$218,584	\$0	\$0	\$218,584
Belvidere	\$963,222	\$5,198	\$0	\$0	\$5,198
Blairstown	\$3,081,644	\$1,659,100	\$0	\$1,217,915	\$2,877,015
Franklin	\$1,591,855	\$2,619,786	\$589,077	\$0	\$3,208,863
Frelinghuysen	\$1,104,466	\$1,959,464	\$0	\$249,500	\$2,208,964
Greenwich	\$2,698,166	\$1,526,960	\$387,375	\$694,375	\$2,608,710
Hackettstown	\$3,449,447	\$0	\$155,943	\$557,629	\$713,572
Hardwick	\$823,619	\$420,845	\$1,125,000	\$1,494,350	\$3,040,195
Harmony	\$2,612,801	\$860,709	\$344,922	\$764,222	\$1,969,853
Hope	\$963,163	\$603,107	\$0	\$69,594	\$672,701
Independence	\$2,461,614	\$614,687	\$464,551	\$0	\$1,079,238
Knowlton	\$1,348,635	\$825,564	\$0	\$362,608	\$1,188,172
Liberty	\$1,200,317	\$0	\$0	\$450,000	\$450,000
Lopatcong	\$3,158,199	\$0	\$975,246	\$0	\$975,246
Mansfield	\$3,006,877	\$270,167	\$537,888	\$950,000	\$1,758,055
Oxford	\$787,318	\$0	\$627,192	\$725,000	\$1,352,192
Pahaquarry	\$328	\$0	\$0	\$0	\$0
Phillipsburg	\$3,589,243	\$0	\$0	\$476,155	\$476,155
Pohatcong	\$1,694,125	\$1,811,018	\$0	\$0	\$1,811,018
Washington Boro	\$2,021,118	\$0	\$0	\$250,000	\$250,000
Washington Twp	\$3,018,753	\$1,691,272	\$727,117	\$484,118	\$2,902,507
White	\$2,625,689	\$559,117	\$0	\$70,000	\$629,117
<b>TOTAL</b>	<b>\$45,306,139</b>	<b>\$18,754,265</b>	<b>\$5,934,311</b>	<b>\$9,033,306</b>	<b>\$33,721,882</b>

Source: Department of Land Preservation 2007 Annual Report 8/1/06 – 7/31/07

## **D. State and Federal Programs**

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 through 2008 to be used for land protection efforts.

In June 2007 S-3005, entitled the “Green Acres, Farmland, Blue Acres, and Historic Preservation Bond Act of 2007”, was introduced as a measure to keep the state funding in place in the short term. The voters approved this ballot question on November 6, 2007. It will authorize the issuance of \$200 million in State general obligation bonds for acquiring and developing lands for recreation and conservation purposes, preserving farmland, and funding historic preservation projects and “Blue Acres” projects. Of the total sum authorized: (1) \$109 million will be used for acquiring and developing lands for public recreation and conservation purposes; (2) \$73 million will be used for farmland preservation purposes; (3) \$12 million will be used to fund a new “Blue Acres” bond program by which the State may purchase from willing sellers, for recreation and conservation purposes, properties in the Delaware River, Passaic River, and Raritan River basin floodways that are prone to or have incurred flood or storm damage; and (4) \$6 million will be used for historic preservation purposes.

### 1. Green Acres ( from website)

The Green Acres Program serves as the real estate agent for the Department of Environmental Protection. It acquires land offered for sale by property owners that becomes part of the system of state parks, forests, natural areas, and wildlife management areas. Green Acres works with the DEP's divisions of Parks and Forestry, Fish and Wildlife, and the New Jersey Natural Lands Trust to determine which lands should be preserved. Green Acres does not own the land it acquires; instead land is assigned to the divisions for management.

Green Acres provides low interest (2%) loans and grants to municipal and county governments for acquisition development of outdoor recreation facilities. Green Acres also provides matching grants to nonprofit organizations for the acquisition of land for public recreation and conservation purposes.

The Planning Incentive Program provides grant and loan funding to local governments that have enacted an open space tax and have adopted an open space and recreation plan.

Green Acres administers the \$15 million The Coastal Blue Acres funds. Designated municipalities and counties can receive grants and loans from Green Acres to acquire land for storm protection and recreation purposes in New Jersey coastal areas that have been damaged by storms, are prone to storm damage, or buffer or protect other lands from storm damage.

Green Acres also administers the Tax Exemption Program, which provides exemption from local property taxes to eligible nonprofit organizations that own recreation or conservation lands and permit public use of their private lands. The Tax Exemption Program has protected over 38,000 acres of private lands

2. New Jersey Environmental Infrastructure Trust (from website)

The New Jersey Environmental Infrastructure Trust provides low-cost financing for the construction of environmental infrastructure projects that enhance and protect ground and surface water resources, ensure the safety of drinking water supplies, and make possible responsible and sustainable economic development. The acquisition of open space is an eligible project under this program.

3. New Jersey Natural Lands Trust (from website)

The New Jersey Natural Lands Trust was created in 1968 by the Legislature as an independent agency with the mission to preserve land in its natural state to conserve endangered species habitat, rare features, and significant ecosystems for public and educational use when it will not adversely affect natural communities and biological diversity.

4. The Land and Water Conservation Fund (from website)

Created by Congress in 1964, the Land and Water Conservation Fund (LWCF) provides up to \$900 million to federal, state and local governments to acquire land, water and conservation easements on land and water for the benefit of all Americans. The funding may be used for recreation, scenic landscapes and trails, wildlife habitat, clean water and quality of life.

Lands are purchased from willing sellers at fair-market value or through partial or outright donations of property. Landowners can also sell or donate easements on their property that restrict commercial development while keeping the land in private ownership.

Each year, four federal agencies—the USDA Forest Service, USDI's, National Park Service, Fish and Wildlife Service and Bureau of Land Management—identify important properties available for purchase. The funding for these purchases comes primarily from revenues received from offshore oil and gas drilling.

**E. Non-Profit Organizations**

1. Trust for Public Land (from website)

The Trust for Public Land (TPL) is a national, nonprofit, land conservation organization that conserves land for people to enjoy as parks, community gardens, historic sites, rural lands, and other natural places, ensuring livable communities for generations to come.

TPL helps agencies and communities identify and raise funds for conservation from federal, state, local, and philanthropic sources and structure, negotiate, and complete land transactions that create parks, playgrounds, and protected natural areas.

2. New Jersey Conservation Foundation (from website)

Through acquisition and stewardship, NJCF protects strategic lands; promotes strong land use policies; and forges partnerships to achieve conservation goals. Since 1960, NJCF has protected tens of thousands of acres of open space statewide.

3. Conservation Resources Inc. (from website)

Conservation Resources Inc. features and markets New Jersey's exemplary land conservation and stewardship projects in seven Geographic Funds representing the entire Garden State. These Featured Projects provide a means for philanthropic individuals, foundations, and corporations to efficiently spend charitable capital on conservation projects. CRI pre-screens Featured Projects and provides project oversight and technical assistance to the sponsoring conservation organizations. In addition to technical assistance, CRI helps to administer the NJ Conservation Loan Program, which provides critical bridge financing to non-profit conservation organizations for land conservation projects.

4. Land Trust Alliance (from website)

The Land Trust Alliance is the national organization that promotes voluntary land conservation and strengthens the land trust movement by providing leadership, information, skills, and resources to its members.

5. Morris Land Conservancy (from website)

Land Preservation is the primary focus of Morris Land Conservancy's work. Faced with the quickening pace of development, the MLC set a goal of preserving 26,000 acres over the next decade to help win the race for open space. The Conservancy is taking a lead role in the efforts to preserve the Highlands, a region that includes almost all of Morris County and parts of Sussex, Passaic, Warren, Hunterdon, and Somerset Counties. Other priorities include land critical to protect clean drinking water, diverse plant and wildlife habitat, scenic and historic farmland and woodlands, and important recreation areas throughout northern New Jersey. These natural lands and special places define the quality of life in the region.

6. Heritage Conservancy (from website)

Heritage Conservancy preserves the open spaces and historic places that are essential to the region's quality of life by working with citizens, community groups, private landowners, municipalities, and state and federal agencies to promote and implement open space and natural resource protection, green urban planning, agricultural land protection,



innovative sustainable land use practices, preservation and/or adaptive re-use of historic structures, wildlife habitat restoration and best land management practices

7. The Ridge and Valley Conservancy (from website)

The Ridge and Valley Conservancy was formed to protect and preserve natural areas, including woodlands, meadows, farmlands, wetlands, marshes, ponds, watercourses, and historic sites that constitute the rural character of the Kittatinny Valley and Ridge Region of New Jersey. The Conservancy may acquire important lands by purchase or donation, manage land uses for the benefit of the public, assist in stewardship for public lands and easements, and advise in environmentally sound land development for public or private use.

8. Wildlife Preservation Inc.

Wildlife Preservation Inc. is dedicated to the preservation of natural areas and open space for conservation, education, and research. The land is open to the public for passive recreational use. Hunting, trapping, fishing, dumping and off road vehicles are prohibited on Wildlife Preserves lands. Threatened and endangered flora and fauna exist on every Wildlife Preserve held in the State. In addition to casual strollers and tourists, amateur and professional naturalists, grade school to graduate level students, and scouting organizations use the sites. All land is accessible by foot and parking is available.

## **ACQUISITION METHODS**

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.

### **Installment Purchase**

Land is acquired through a payment plan that provides payments to the landowner over time. Receiving the income from the sale in installments may provide the landowner with financial management and/or tax advantages.

### **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.

## **Clustering**

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.

In 2003 the legislature authorized the State Agriculture Development Committee to establish a program for the statewide transfer of development rights. The Office of Smart Growth and others have been actively promoting the concept although no meaningful statewide program has been established yet.

Similarly, by way of the Highlands Water Protection and Planning Act a TDR program is to be established for all municipalities located in counties in the Highlands Region. The counties are Warren, Sussex, Hunterdon, Morris, Bergen, Passaic, and Somerset. No program has been established yet.

### **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 judgment. 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.

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## **CHAPTER V NEEDS ANALYSIS**

### **Land Use Trends**

A review of land use trends is important in understanding where changes in the land use pattern is occurring to identify where the county may be most threatened by development. When prioritizing land areas for acquisition this data may be used to determine the level of development pressure that the property or region may be under and to identify where additional land areas may be needed to meet the preservation targets.

Table VI, shows land use distribution in the three regions for the years 1986, 1995 and 2002. The data is taken from the New Jersey Department of Environmental Protection digital data coverage. Countywide, the table shows that land in agricultural use declined by 14,060 acres or almost 20% over the 16 year period. While most of the loss is attributed to an increase in urbanized uses (aka new development) a substantial amount of the loss is attributed to the increase in wetlands mapping in the 1995 data set. The conversion of lands to urban use in both periods amounted to about 4000 acres. When factoring out the wetlands, the rate of loss of agriculture land is equivalent in both periods amounting to approximately 4,700 acres. It is probable that wetlands and water areas increased in land area over the 16 year period because of better mapping and interpretation techniques that would make their presence more readily observed. Forested land areas remained stable throughout the 16 year period. In Warren County approximately .8 square miles of mostly agricultural land per year has been converted to development.

Table VII shows that in 2002 15.8% of the county's total area was in urban land use, up from 12.4% in 1986. Regionally, the greatest percentage (21%) of urban land uses are located in the southern portion of the county. The central portion contains 17.5% and the northern contains almost 11%. The land use data also shows that from 1995 to 2002, the percentage of urban uses in the southern portion increased by almost 2.5 percentage points while the central and northern regions increased by almost 2 and 1 percentage points respectively. While the amount of forested lands has remained consistent throughout the county and in each region the amount of agricultural land has been decreasing as a percentage of land use in each region and the county. From 1995 to 2002 agricultural use has declined the most in the southern region, losing 3.8 percentage points. The central region and the northern region lost 2.25 and 1.13 percentage points respectively. Countywide the loss of agricultural land amounted to 2.13 percentage points.

The land distribution figures in Tables VI and VII show that the southern region of the county is being converted to urban land uses at a greater rate than the other regions of the county. The higher conversion rate can be attributed to the existence of public water and sewer, proximity to I-78 that leads to job opportunities in the greater Lehigh Valley in Pennsylvania and the employment sites in Morris, Somerset and Eastern Metropolitan Counties, New Jersey. Because the southern region is under greater development pressure, the need to acquire properties in the targeted areas in this area becomes more acute. Conversely, while the northern region may be experiencing less development pressure, the opportunity to acquire lands at a lower value in this region should be considered as well.



**TABLE VI - LAND USE DISTRIBUTION 1986, 1995, 2002 BY REGION (ACRES)**

Northern Region	1986	1995/97	# Change 86-95		2002	# Change 95-02		2002	# Change 86-02	
			95	% Change 86-95		95-02	% Change 95-02		86-02	% Change 86-02
Agriculture	18,463	16,627	-1,836	-9.94%	15,626	-1,001	-6.02%	2002	-2,837	-15.37%
Forest	51,898	51,764	-134	-0.26%	51,969	205	0.40%	2002	71	0.14%
Urban	7,807	8,771	964	12.35%	9,474	703	8.02%	2002	1,667	21.35%
Athletic Fields	42	55	13	30.95%	64	9	16.36%	2002	22	52.38%
Recreation	341	546	205	60.12%	609	63	11.54%	2002	268	78.59%
Water	2,556	2,507	-49	-1.92%	2,541	34	1.36%	2002	-15	-0.59%
Wetlands	6,745	7,640	895	13.27%	7,578	-62	-0.81%	2002	833	12.35%
Total North	87,852	87,910	58	0.07%	87,861	-49	-0.06%	2002		

Central Region	1986	1995/97	# Change 86-95		2002	# Change 95-02		2002	# Change 86-02	
			95	% Change 86-95		95-02	% Change 95-02		86-02	% Change 86-02
Agriculture	25,270	20,591	-4,679	-18.52%	18,576	-2,015	-9.79%	2002	-6,694	-26.49%
Forest	40,897	40,987	90	0.22%	41,089	102	0.25%	2002	192	0.47%
Urban	12,677	14,002	1,325	10.45%	15,791	1,789	12.78%	2002	3,114	24.56%
Athletic Fields	153	201	48	31.37%	208	7	3.48%	2002	55	35.95%
Recreation	357	499	142	39.78%	775	276	55.31%	2002	418	117.09%
Water	1,160	1,156	-4	-0.34%	1,265	109	9.43%	2002	105	9.05%
Wetlands	9,570	12,648	3,078	32.16%	12,410	-238	-1.88%	2002	2,840	29.68%
Total Central	90,084	90,084	0	0.00%	90,114	30	0.03%	2002		

Southern Region	1986	1995/97	# Change 86-95		2002	# Change 95-02		2002	# Change 86-02	
			95	% Change 86-95		95-02	% Change 95-02		86-02	% Change 86-02
Agriculture	26,702	23,948	-2,754	-10.31%	22,173	-1,775	-7.41%	2002	-4,529	-16.96%
Forest	16,620	16,094	-526	-3.16%	16,964	870	5.41%	2002	344	2.07%
Urban	8,210	10,023	1,813	22.08%	11,470	1,447	14.44%	2002	3,260	39.71%
Athletic Fields	51	86	35	68.63%	91	5	5.81%	2002	40	78.43%
Recreation	243	354	111	45.68%	512	158	44.63%	2002	269	110.70%
Water	815	1,479	664	81.47%	1,499	20	1.35%	2002	684	83.93%
Wetlands	1,251	1,904	653	52.20%	1,829	-75	-3.94%	2002	578	46.20%
Total South	53,892	53,888	-4	-0.01%	54,538	650	1.21%	2002		

Warren County	1986	1995/97	# Change 86-95		2002	# Change 95-02		2002	# Change 86-02	
			95	% Change 86-95		95-02	% Change 95-02		86-02	% Change 86-02
Agriculture	70,435	61,166	-9,269	-13.16%	56,375	-4,791	-7.83%	2002	-14,060	-19.96%
Forest	109,415	108,845	-570	-0.52%	110,022	1,177	1.08%	2002	607	0.55%
Urban	28,694	32,796	4,102	14.30%	36,735	3,939	12.01%	2002	8,041	28.02%
Athletic Fields	246	342	96	39.02%	363	21	6.14%	2002	117	47.56%
Recreation	941	1,399	458	48.67%	1,896	497	35.53%	2002	955	101.49%
Water	4,531	5,142	611	13.48%	5,305	163	3.17%	2002	774	17.08%
Wetlands	17,566	22,192	4,626	26.33%	21,817	-375	-1.69%	2002	4,251	24.20%
Total Warren County	231,828	231,882	54	0.02%	232,513	631	0.27%	2002		

**TABLE VII - LAND USE DISTRIBUTION 1986, 1995, 2002 BY REGION**

<b>Northern Region</b>	1986	% of Region	% of County	1995/97	% of Region	% of County	2002	% of Region	% of County
Agriculture	18,463	21.02%	7.96%	16,627	18.91%	7.17%	15,626	17.78%	6.72%
Forest	51,898	59.07%	22.39%	51,764	58.88%	22.32%	51,969	59.15%	22.35%
Urban	7,807	8.89%	3.37%	8,771	9.98%	3.78%	9,474	10.78%	4.07%
Athletic Fields	42	0.05%	0.02%	55	0.06%	0.02%	64	0.07%	0.03%
Recreation	341	0.39%	0.15%	546	0.62%	0.24%	609	0.69%	0.26%
Water	2,556	2.91%	1.10%	2,507	2.85%	1.08%	2,541	2.89%	1.09%
Wetlands	6,745	7.68%	2.91%	7,640	8.69%	3.29%	7,578	8.62%	3.26%
<b>Total North</b>	<b>87,852</b>		<b>37.90%</b>	<b>87,910</b>		<b>37.91%</b>	<b>87,861</b>		<b>37.79%</b>

<b>Central Region</b>	1986	% of Region	% of County	1995/97	% of Region	% of County	2002	% of Region	% of County
Agriculture	25,270	28.05%	10.90%	20,591	22.86%	8.88%	18,576	20.61%	7.99%
Forest	40,897	45.40%	17.64%	40,987	45.50%	17.68%	41,089	45.60%	17.67%
Urban	12,677	14.07%	5.47%	14,002	15.54%	6.04%	15,791	17.52%	6.79%
Athletic Fields	153	0.17%	0.07%	201	0.22%	0.09%	208	0.23%	0.09%
Recreation	357	0.40%	0.15%	499	0.55%	0.22%	775	0.86%	0.33%
Water	1,160	1.29%	0.50%	1,156	1.28%	0.50%	1,265	1.40%	0.54%
Wetlands	9,570	10.62%	4.13%	12,648	14.04%	5.45%	12,410	13.77%	5.34%
<b>Total Central</b>	<b>90,084</b>		<b>38.86%</b>	<b>90,084</b>		<b>38.85%</b>	<b>90,114</b>		<b>38.76%</b>

<b>Southern Region</b>	1986	% of Region	% of County	1995/97	% of Region	% of County	2002	% of Region	% of County
Agriculture	26,702	49.55%	11.52%	23,948	44.44%	10.33%	22,173	40.66%	9.54%
Forest	16,620	30.84%	7.17%	16,094	29.87%	6.94%	16,964	31.10%	7.30%
Urban	8,210	15.23%	3.54%	10,023	18.60%	4.32%	11,470	21.03%	4.93%
Athletic Fields	51	0.09%	0.02%	86	0.16%	0.04%	91	0.17%	0.04%
Recreation	243	0.45%	0.10%	354	0.66%	0.15%	512	0.94%	0.22%
Water	815	1.51%	0.35%	1,479	2.74%	0.64%	1,499	2.75%	0.64%
Wetlands	1,251	2.32%	0.54%	1,904	3.53%	0.82%	1,829	3.35%	0.79%
<b>Total South</b>	<b>53,892</b>		<b>23.25%</b>	<b>53,888</b>		<b>23.24%</b>	<b>54,538</b>		<b>23.46%</b>

<b>Warren County</b>	1986	% of County	1995/97	% of County	2002	% of County
Agriculture	70,435	30.38%	61,166	26.38%	56,375	24.25%
Forest	109,415	47.20%	108,845	46.94%	110,022	47.32%
Urban	28,694	12.38%	32,796	14.14%	36,735	15.80%
Athletic Fields	246	0.11%	342	0.15%	363	0.16%
Recreation	941	0.41%	1,399	0.60%	1,896	0.82%
Water	4,531	1.95%	5,142	2.22%	5,305	2.28%
Wetlands	17,566	7.58%	22,192	9.57%	21,817	9.38%
<b>Total Warren County</b>	<b>231,828</b>	<b>100.00%</b>	<b>231,882</b>	<b>100.00%</b>	<b>232,513</b>	<b>100.00%</b>

Tables VIII and IX show the countywide property assessment changes for 1990, 2000, 2005 based on the MODIV database obtained from the county tax administrator's office. It shows the assessed value, and number of items in each major tax assessment category. Table X shows the changes in assessed values per item.

Table VIII is showing the valuation decrease of the farm and vacant properties since 1990. In 1990, 13.31% of the county's total valuation was assessed as farm and vacant. By 2005, the value had fallen to 8.16%. Conversely, the value of developed land, including industrial, commercial and residential, increased from 86.69% in 1990 to 91.84% in 2005. While the figures indicate that more of the county's valuation is relying on developed properties, the tax burden is falling mostly on the residential and farm regular tax base. As a percentage of the total, industrial and commercial uses comprise of less of the assessment value tax base. This is an indicator suggesting that the added value is attributed mostly to new residential development.

Regionally, the northern region contains the greatest valuation share of farm and vacant lands at 19.33%. The central and southern region's share of farm and vacant uses are 6.64% and 5.88% respectively. In 1990 the central and southern valuation was 10.82% and 11.87% of the regional total and the northern region was 23.94%. This indicates that valuation increases in developed land were more prevalent in the central and southern regions indicating a greater level of development.

Table IX. is showing the number of properties (items) in each assessment category. Again the number of farm and vacant parcels are decreasing over time when in 1990 the number of farm and vacant parcels represented 28.84% of the county total to 22.25% of the county total in 2005. Developed parcels accounted for 71.16% of the properties in 1990 when in 2005 account for 77.75% of the total. The loss occurred in the count of vacant properties. It is likely that the decrease in the number of vacant parcels were due to development, preserved as open space or converted to farmland.

Regionally, the percentage of properties assessed as farm and vacant were the highest in the northern region. The number and percentage of developed properties are highest in the central and southern region as well. The percent change in the total number of properties may suggest that more subdivision activity occurred in the southern region of the county than in the northern or central from 2000 to 2005. The percentage increase in the south is 6.54% vs. 2.99% and 2.03% for the central and northern regions respectively.

Table X provides comparative statistics of assessed valuation and number of properties in 1990, 2000, and 2005. What is apparent in this table is that the assessment on farm regular properties, those with the house and supporting farm structures has increased the most from 2000 to 2005 in percentage. The second highest is residential. It is realized that the Highlands Act may reduce assessment values.

Regionally, on a per item basis, the central and southern regions gained the most in farm regular while second highest was farm qualified lands in the southern region. This is an indicator that the value of farm properties is increasing as they become more scarce. Contrary to countywide trends, on a per item basis, the northern region gained the most percentage wise from industrial properties and then farm regular properties.

## **Proposed Development Activity**

Proposed development activity in each of the planning regions by municipality from January 2000 through February 2008 is shown in the tables below. Maps 3A, 3B, and 3C show the locating of the major development applications filed with the Warren County Planning Board since 2000.

<b>Proposed Subdivision Activity in Warren County by Region, 2000 through 2007</b>							
	# Major Subdivision Applications	# New Lots	Land Area	Ave. Lot Size	# Minor Subdivisions	# New Lots	Total # New Lots
South	46	2,245	2,818	1.25	153	345	2,590
Central	52	2,250	3,569	1.58	189	448	2,698
North	9	79	351	4.4	147	382	461
Total	107	4,574	6,738		489	1,175	5,749

<b>Proposed Site Plan Activity in Warren County by Region, 2000 through 2007</b>						
	# Major Site Plans	New Sq.ft.	Land Area	# New Residential Units	# Minor Site Plans	# Sq. ft.
South	80	3,415,315	1,774	512	110	170,602
Central	75	2,099,163	2,200	1,652	88	155,654
North	26	417,025	1,002	0	48	64,868
Total	181	5,931,503	4,976	2,164	246	391,124

### **Southern Region**

There have been 126 major development applications in the Southern Development Region since 2000. Two thousand - two hundred and forty-five lots have been proposed through 46 major subdivision applications. These applications used approximately 2,818 acres. A density of 1.25 acres per lot. Another 153 applications for minor subdivisions have proposed 345 lots. Major and minor subdivisions have proposed a total of 2,590 lots.

There have been 80 significant site plan applications of 5,000 square feet or more in the Region since 2000. A total of 3,415,315 square feet of industrial, retail and office space was proposed on 1,774 acres. Five hundred and twelve residential dwelling units were proposed in three applications. Another 110 applications under 5,000 square feet each proposed to create 170,602 square feet of industrial, retail and office space.

Total land affected by major development in the Southern Development Region was approximately 4,533 acres.

### **Alpha Borough**

There have been 8 major development applications proposed in Alpha Borough since 2000. One hundred and seventeen lots have been proposed through 2 major subdivision applications.

These applications used approximately 51 acres at a density of .44 acres per new lot created. Another 14 applications for minor subdivisions have proposed 37 lots. Major and minor subdivision applications are proposing a total of 154 lots.

There have been 6 significant site plan applications of 5,000 square feet or more in the Borough since 2000. A total of 149,850 square feet of industrial, retail and office space was proposed on 30 acres. Sixteen residential units were proposed on approximately 1.5 acres. Another 14 applications created 9,692 square feet of industrial, retail and office space.

Total land used by major development was 82.5 acres.

### **Franklin Township**

There have been 25 major development applications proposed in Franklin Township since 2000. One hundred and eighty-one lots have been proposed through 15 major subdivision applications. These applications used approximately 940 acres. It's important to note that one application (M.R.C. at Brandywine, L.L.C.) proposed for 120 units on 59 acres is on hold due to litigation. The density for the proposed development is 5.2 acres per new lot created. Another 18 applications for minor subdivisions have proposed 40 lots. Major and minor subdivision applications are proposing a total of 221 lots.

There have been 10 significant site plan applications of 5,000 square feet or more in the Township since 2000. A total of 422,325 square feet of industrial, retail and office space was proposed on 30 acres. Another 8 applications created 8,300 square feet of industrial, retail and office space.

Total land used by major development was 970 acres.

### **Greenwich Township**

There have been 24 major development applications proposed in Greenwich Township since 2000. One hundred and ninety-three lots have been proposed through 7 major subdivision applications. These applications use approximately 470 acres at a density of 2.4 acres per new lot created. Another 9 applications for minor subdivisions have proposed 20 lots. Major and minor subdivision applications are proposing a total of 213 lots.

There have been 17 significant site plan applications of 5,000 square feet or more in the Township since 2000. A total of 1,363,092 square feet of industrial, retail and office space was proposed on 741 acres. Another 20 application created 27,685 square feet of industrial, retail and office space.

Total land used by major development was 1,211 acres.

## **Harmony Township**

There have been 14 major development applications proposed in Harmony Township since 2000. Three hundred and thirty-three lots have been proposed through 3 major subdivision applications. One application (Centex Homes, LLC) is for 303 lots. This 186 acre lot is proposed to meet the Townships' COAH obligation. It is currently under litigation. The remaining two subdivisions are situated on approximately 75 acres. The density of these newly created lots is one per .78 acres. Another 34 applications for minor subdivisions have proposed 89 lots. Major and minor subdivision applications are proposing a total of 422 lots.

There have been 11 significant site plan applications of 5,000 square feet or more in the Township since 2000. A total of 418,423 square feet of industrial, retail and office space was proposed on 362 acres. It should be noted that one site plan application (Harmony Greenhouses LLC) is for a 201,600 square feet green house. Another 9 applications created 26,960 square feet of industrial, retail and office space.

Total land used by major development was 548 acres.

## **Lopatcong Township**

There have been 24 major development applications proposed in Lopatcong Township since 2000. Six hundred and forty-six lots have been proposed through 11 major subdivision applications. These applications use 679 acres at a density of 1.05 acres per lot. Another 23 applications for minor subdivisions created 51 lots. Major and minor subdivisions are proposing a total of 697 lots.

There have been 13 significant site plan applications of 5,000 square feet or more in the Township since 2000. A total of 765,377 square feet of industrial, retail and office space was proposed on 465 acres. A large amount of this development occurs with the Phillipsburg Board of Education High School proposal. That alone proposes a 350,000 square feet facility on 127 acres. Another site plan (Warren Heights) proposed 414 dwelling units on 20.5 acres. Another 20 site plan applications created 41,083 square feet of industrial, retail and office space.

Total land used by major development was 1,146 acres.

## **Town of Phillipsburg**

There have been 22 major development applications proposed in Phillipsburg since 2000. Forty-one lots have been proposed through 5 major subdivision applications. These applications used approximately 214 acres. Two hundred and six acres was involved with one application (Preferred Real Estate Investments, Inc) an 8 lot subdivision of the Ingersoll Rand site for industrial purposes. This leaves 33 lots dividing up 8 acres at a density of 4.125 lots per acre. There have been 28 minor subdivisions in this time frame proposing 65 lots. Phillipsburg exhibits classic signs of a community nearing build-out with smaller in-fill development taking place and fewer large subdivisions occurring. Major and minor subdivisions are proposing a total of 98 lots.

There have been 17 significant site plan applications of 5,000 square feet or more in the

Town of Phillipsburg since 2000. A total of 168,639 square feet of industrial, retail and office space was proposed on 46 acres. There were two residential site plan applications totaling 496 dwelling units on 35.7 acres. Another 17 site plan applications creating 49,710 square feet of industrial, retail and office space.

Total land used by major development was 295 acres.

### **Pohatcong Township**

There have been 9 major development applications proposed in Pohatcong Township since 2000. Seven hundred and thirty-four lots have been proposed through 3 major subdivisions. These applications use approximately 203 acres at a density of 3.6 dwelling units per acre. Two applications (Regency at Pohatcong and Hamptons at Pohatcong) account for 728 lots and 191 acres. Another 22 applications for minor subdivisions have occurred creating 43 lots. Major and minor subdivisions are proposing a total of 777 lots.

There have been 6 significant site plan applications of 5,000 square feet or more since 2000. A total of 344,432 square feet of industrial, retail and office space was proposed on approximately 100 acres. The Laneco site is proposed to be redeveloped by a new Wal-Mart super store. The new site is proposed to have 220,882 square feet retail on approximately 78 acres. Another 22 site plan applications creating 7,172 square feet of industrial, retail and office space.



Total land used by major development was 281 acres.

### **Central Region**

There have been 127 major development applications in the Central Development Region since 2000. Two thousand – two hundred and fifty lots have been proposed through 52 major subdivision applications. These applications are situated on approximately 3,569 acres. A density of 1.58 acres per lot. Another 189 applications for minor subdivisions have proposed 448 lots. Major and minor subdivisions are proposing a total of 2,698 lots.

There have been 75 site plan applications of 5,000 square feet or more since 2000. A total of 2,099,163 square feet of industrial, retail and office space and 1,652 residential units were proposed on 2,200 acres. Another 88 applications less than 5,000 square feet each proposed to create 155,654 square feet of industrial, retail and office space.

Total land affected by major development in the Central Development Region was 5,769 acres.

### **Allamuchy Township**

There have been 13 major development applications in Allamuchy Township since 2000. Nine hundred and sixty lots have been proposed through 11 major subdivision applications. These applications used approximately 794 acres at a density of .83 acres per lot. The majority of these applications (7) and lots (725) involve development associated with Panther Valley. Another 15 applications for minor subdivisions have proposed 35 lots. Major and minor subdivisions are proposing a total of 995 lots.

There have been 2 significant site plan applications in the Township since 2000. Five hundred and forty-one dwelling units have been proposed on 219 acres all associated with the Panther Valley area of Allamuchy. No large scale industrial, retail and office space applications have been submitted. Another 7 applications under 5,000 square feet each proposed 830 square feet for cellular communications equipment and 7,842 square feet of retail/service space.

Total land used by major development was 1,013 acres.

### **Town of Belvidere**

There were 3 major development applications in the Town of Belvidere since 2000. Twenty lots have been proposed through 2 major subdivision applications. These applications use approximately 15 acres. Another 4 applications for minor subdivisions have proposed 8 lots. However in-fill of existing vacant or under utilized lots will continue. Major and minor subdivisions are proposing a total of 28 lots.

There was one significant site plan application of 5,000 square feet or more in the Town since 2000. Kasson Belvidere has proposed 259 dwelling units on 43 acres. Another 4 site plan applications under 5,000 square feet each, created 2,880 square feet of retail/service space. Belvidere exhibits the characteristics of a mature town that has little land for large development available.

Total land used by major development was 58 acres.

### **Town of Hackettstown**

There were 30 major development applications in the Town of Hackettstown since 2000. Two hundred and seventy-seven lots were proposed through 2 major subdivision applications. These applications use approximately 117 acres. The density for these projects is 2.37 dwelling units per acre. Another 6 applications for minor subdivisions have proposed 13 lots. Major and minor subdivisions are proposing a total of 290 lots.

There have been 28 significant site plan applications of 5,000 square feet or more in the Town since 2000. A total of 1,058,529 square feet of industrial, retail and office space was proposed on 164 acres. Hackettstown Hospital and Centenary College had major additions proposed to their facilities in this time frame. There were three residential site plan applications totaling 117 dwelling units. Another 10 applications for under 5,000 square feet each are proposing 28,176 square feet of



industrial, retail and office space. Total area involved with major site plan activity in the Town was approximately 240 acres

Total land used by major development was 357 acres.

### **Independence Township**

There have been 16 major development applications in Independence Township since 2000. One hundred and sixty-five lots were proposed through 8 major subdivision applications. These applications use approximately 548 acres. The density for these projects is 3.3 acres per lot. Another 25 applications for minor subdivisions have proposed 63 lots. Major and minor subdivisions are proposing a total of 228 lots.

There have been 8 significant site plan applications of 5,000 square feet or more in the Township since 2000. A total of 204,972 square feet of industrial, retail and office space was proposed on 436 acres. Another 9 applications under 5,000 square feet each are proposing a total of 14,704 square feet of industrial, retail and office space.

Total land used by major development was 984 acres.

### **Liberty Township**

There have been 6 major development applications in Liberty Township since 2000. One hundred lots have been proposed through 6 major subdivisions on 410 acres. The density for these projects is 4.1 acres per lot. Another 19 minor subdivision applications have proposed 44 lots. Major and minor subdivisions are proposing a total of 144 lots.

Liberty Township has had no site plan activity since 2000.

Total land used by major development was 410 acres.

### **Mansfield Township**

There have been 21 major development applications in Mansfield Township since 2000. Three hundred and twenty-two lots have been proposed through 7 major subdivision applications on 464 acres. The density for these applications is one lot per 1.4 acres. Another 28 minor subdivision applications have proposed 64 lots. Major and minor subdivisions are proposing a total of 386 lots.

There have been 14 site plan applications of 5,000 square feet or more since 2000. A total of 467,867 square feet of industrial, retail and office space was proposed on 173 acres. Another 17 applications under 5,000 square feet each are proposing 18,755 square feet of industrial, retail and office space. Ten of these applications were for cellular telecommunication towers and equipment sheds.

Total land used by major development was 637 acres.

### **Oxford Township**

There have been 2 major developments in Oxford Township since 2000. Forty-eight lots have been proposed through 2 subdivision applications on 90 acres. The density for these projects is 1.9 acres per lot. Another 16 minor subdivision applications have proposed 35 lots. Major and minor subdivisions are proposing a total of 83 lots.

Oxford Township had one site plan since 2000. It was for a 30 square foot cellular communication shed.

Total land used by major development was 90 acres.

### **Washington Borough**

There have been 8 major development applications proposed in Washington Borough since 2000. Thirty-eight lots have been proposed through 3 major subdivision applications. These applications are situated on approximately 20 acres. The density of these projects is 1.9 lots per acre. Another 6 minor subdivision applications have proposed 11 lots. Major and minor subdivisions are proposing a total of 49 lots.

There have been 5 site plan applications of 5,000 square feet or more since 2000. A total of 34,270 square feet of industrial, retail and office space was proposed on 161 acres. Another 9 applications under 5,000 square feet each are proposing 6,089 square feet of industrial, retail and office space. There were 376 residential units proposed through the site plan process. One application (Baker Residential) had two hundred and twenty-five units on 125 acres. This application was disapproved and no resubmittal of plans by the applicant has been received since 2001.

Total land used by major development was 181 acres.

### **Washington Township**

There have been 17 major developments in Washington Township since 2000. Three hundred lots have been proposed through 9 major subdivision applications. These applications are situated on approximately 956 acres. The density of these projects is 3.2 acres per proposed lot. Another 35 minor subdivision applications are proposing 83 lots. Major and minor subdivisions are proposing a total of 383 lots.

There have been 8 site plan applications of 5,000 square feet or more since 2000. A total of 166,329 square feet of industrial, retail and office space and 10 residential units were proposed on approximately 295 acres. Another 13 applications under 5,000 square feet each are proposing 41,868 square feet of industrial, retail and office space.

Total land used by major development was 1,251 acres.

## **White Township**

There have been 11 major developments in White Township since 2000. Twenty lots have been proposed through two major subdivision applications. These applications are situated on 154 acres. The density of these projects is 7.7 acres per lot. Another 35 minor subdivision applications are proposing 92 lots. Major and minor subdivisions are proposing a total of 112 lots.

There have been 9 site plan applications of 5,000 square feet or more since 2000. A total of 167,196 square feet of industrial, retail and office space and 379 residential units were proposed on 709 acres. Another 18 applications under 5,000 square feet each are proposing 34,480 square feet of industrial, retail and office space.

Total land used by major development was 863 acres.



Under construction is the expansion of the Brookfield complex on Rt 519 in White Township

## **Northern Region**

There have been 35 major development applications in Northern Development Region since 2000. Seventy-nine lots have been proposed through 9 major subdivision applications. These applications are situated on 351 acres. A density of 4.4 acres per lot. Another 147 applications for minor subdivisions have proposed 382 lots. Major and minor subdivisions are proposing a total of 461 lots.

There have been 26 site plan applications of 5,000 square feet or more since 2000. A total of 417,025 square feet of industrial, retail and office space was proposed on 1,002 acres. Another 48 applications under 5,000 square feet each are proposing 64,868 square feet of industrial, retail and office space.

Total land used by major development in the Northern Development Region was 1,302 acres.

## **Blairstown Township**

There have been 15 major development applications in Blairstown Township since 2000. Thirty-one lots have been proposed through two major subdivision applications. These applications used 133 acres at a density of 4.3 acres per lot. Another 37 applications for minor subdivisions have proposed 89 lots. Major and minor subdivisions are proposing a total of 120 lots.

There have been 13 site plan applications of 5,000 square feet or more since 2000. A total of 205,428 square feet of industrial, retail and office space was proposed on 441 acres. Another 14 applications under 5,000 square feet each are proposing 11,238 square feet of industrial, retail and office space.

Total land used by major development was 574 acres.

### **Frelinghuysen Township**

There have been six major development applications in Frelinghuysen Township since 2000. Twenty-three lots have been proposed through 3 major subdivision applications situated on 74 acres near Johnsonburg. A five lot project (North Warren Properties) may be integrated into the Frelinghuysen open space program. Another 51 applications for minor subdivisions have proposed 137 lots. Major and minor subdivisions are proposing a total of 160 lots.

There have been 3 site plan applications of 5,000 square feet or more since 2000. A total of 71,650 square feet of industrial, retail and office space was proposed on 267 acres. The type of business associated with these site plans are not land intensive. Over 200 acres is associated with improvements to a proposed YMCA camp and 50 acres to a riding stable. Another 9 applications under 5,000 square feet each are proposing 10,249 square feet of industrial, retail and office space. Five of these applications deal with wireless communication towers and equipment.

Total land used by major development was 290 acres.

### **Hardwick Township**

There have been 4 major development applications in Hardwick Township since 2000. A five lot subdivision on 21 acres was the only major subdivision. The density for this site is 4.2 acres per lot. Another 15 applications for minor subdivisions have proposed 38 lots. Major and minor subdivisions are proposing a total of 43 lots.

There have been 3 site plan applications of 5,000 square feet or more since 2000. A YMCA camp add to it's facility by 7,488 square feet, and a private foundation added 23,049 square feet to it's facility with two separate application. Three major site plans totaling 30,537 square feet, situated on 130 acres. Another 12 applications under 5,000 square feet each are proposing 16,973 square feet of industrial, retail and office space.

Total land used by major development was 151 acres.

### **Hope Township**

There have been 7 major development applications in Hope Township since 2000. Thirteen lots have been proposed through two major subdivisions. These applications are situated on 82 acres at a density of 6.3 acres per lot. Another 12 applications for minor subdivisions have proposed 29 lots.

There have been 5 site plan applications of 5,000 square feet or more since 2000. A total of 98,620 square feet of industrial, retail and office space was proposed on 141 acres. Another 7

applications under 5,000 square feet each are proposing 13,542 square feet of industrial, retail and office space.

Total land used by major development was 223 acres.

### **Knowlton Township**

There have been 3 major development applications in Knowlton Township since 2000. One subdivision of seven lots on 41 acre. The density of that project is 5.86 acres per lot. And two site plan applications associated with Travel Center of America for a total of 10,790 square feet. This site is 23 acres. Another 32 applications for minor subdivisions have proposed 89 lots. Major and minor subdivisions are proposing a total of 96 lots.

Another 6 applications under 5,000 square feet each are proposing 12,866 square feet of industrial, retail and office space.

Total land used by major development was 64 acres.

### **Residential Building Permit Activity**

Appendix M contains a table and a graph showing the number of residential building permits issued in each municipality from 1999 through 2007. In terms of residential building permits, the highest numbers were issued in Lopatcong, White, Greenwich, and Hackettstown. Countywide, since 1999, the number of permits issued have declined with 2007 representing the fewest number issued since 1991.

TABLE VIII - CHANGE IN ASSESSMENT VALUE BY PROPERTY CLASS AND REGION 1990, 2000, 2005									
	Farm Reg.	Farm Qual.	Vacant	TOTAL FARM REG., FARM QUAL. & VACANT	Industrial	Commercial	Residential	TOTAL INDUSTRIAL, COMMERCIAL & RESIDENTIAL	GRAND TOTAL
<b>2005</b>									
<b>WARREN COUNTY</b>	<b>\$488,899,000</b>	<b>\$39,276,620</b>	<b>\$198,332,890</b>	<b>\$726,508,510</b>	<b>\$664,085,450</b>	<b>\$919,463,503</b>	<b>\$6,594,395,477</b>	<b>\$8,177,944,430</b>	<b>\$8,904,452,940</b>
% of Grand Total	5.49%	0.44%	2.23%	8.16%	7.46%	10.33%	74.06%	91.84%	100.00%
% change 2000-2005	71.94%	29.08%	-8.34%	36.78%	31.44%	41.86%	58.56%	53.94%	52.38%
<b>Northern Region</b>									
<b>Sub-Total</b>	<b>193,917,300</b>	<b>\$10,629,529</b>	<b>\$37,750,150</b>	<b>\$242,296,979</b>	<b>\$7,682,200</b>	<b>\$77,350,803</b>	<b>\$926,357,200</b>	<b>\$1,011,390,203</b>	<b>\$1,253,687,182</b>
% of Region	15.47%	0.85%	3.01%	19.33%	0.61%	6.17%	73.89%	80.67%	100.00%
% change 2000-2005	56.75%	20.54%	-19.10%	35.21%	10.29%	14.25%	28.86%	27.45%	28.88%
<b>Central Region</b>									
<b>Sub-Total</b>	<b>\$179,204,500</b>	<b>\$13,568,915</b>	<b>\$108,295,000</b>	<b>301,068,415</b>	<b>\$263,354,300</b>	<b>\$422,296,300</b>	<b>\$3,548,882,031</b>	<b>\$4,234,532,631</b>	<b>\$4,535,601,046</b>
% of Region	3.95%	0.30%	2.39%	6.64%	5.81%	9.31%	78.25%	93.36%	100.00%
% change 2000-2005	100.73%	21.37%	17.76%	56.47%	27.58%	54.26%	71.91%	66.42%	65.72%
<b>Southern Region</b>									
<b>Sub-Total</b>	<b>\$115,777,200</b>	<b>\$15,078,176</b>	<b>\$52,287,740</b>	<b>\$183,143,116</b>	<b>\$393,048,950</b>	<b>\$419,816,400</b>	<b>\$2,119,156,246</b>	<b>\$2,932,021,596</b>	<b>\$3,115,164,712</b>
% of Region	3.72%	0.48%	1.68%	5.88%	12.62%	13.48%	68.03%	94.12%	100.00%
% change 2000-2005	62.27%	44.56%	-32.76%	14.79%	34.67%	36.89%	54.03%	48.51%	45.99%
<b>2000</b>									
<b>WARREN COUNTY</b>	<b>\$284,340,750</b>	<b>\$30,427,418</b>	<b>\$216,388,133</b>	<b>\$531,156,301</b>	<b>\$505,242,800</b>	<b>\$648,139,772</b>	<b>\$4,159,037,527</b>	<b>\$5,312,420,099</b>	<b>\$5,843,576,400</b>
% of Grand Total	4.87%	0.52%	3.70%	9.09%	8.65%	11.09%	71.17%	90.91%	100.00%
% change 1990-2000	11.27%	17.47%	-40.81%	-17.91%	2.85%	31.40%	28.81%	26.09%	20.23%
<b>Northern Region</b>									
<b>Sub-Total</b>	<b>123,712,700</b>	<b>\$8,817,915</b>	<b>\$46,665,450</b>	<b>\$179,196,065</b>	<b>\$6,965,600</b>	<b>\$67,701,650</b>	<b>\$718,873,300</b>	<b>\$793,540,550</b>	<b>\$972,736,615</b>
% of Region	12.72%	0.91%	4.80%	18.42%	0.72%	6.96%	73.90%	81.58%	100.00%
% change 1990-2000	25.78%	35.41%	-45.66%	-6.06%	11.54%	18.58%	32.43%	30.91%	22.06%
<b>Central Region</b>									
<b>Sub-Total</b>	<b>\$89,278,600</b>	<b>\$11,179,446</b>	<b>\$91,959,435</b>	<b>192,417,481</b>	<b>\$206,425,550</b>	<b>\$273,748,570</b>	<b>\$2,064,381,101</b>	<b>\$2,544,555,221</b>	<b>\$2,736,972,702</b>
% of Region	3.26%	0.41%	3.36%	7.03%	7.54%	10.00%	75.43%	92.97%	100.00%
% change 1990-2000	31.05%	25.95%	-52.15%	-28.52%	-6.38%	18.26%	16.91%	14.74%	10.06%
<b>Southern Region</b>									
<b>Sub-Total</b>	<b>\$71,349,450</b>	<b>\$10,430,057</b>	<b>\$77,763,248</b>	<b>\$159,542,755</b>	<b>\$291,851,650</b>	<b>\$306,689,552</b>	<b>\$1,375,783,126</b>	<b>\$1,974,324,328</b>	<b>\$2,133,867,083</b>
% of Region	3.34%	0.49%	3.64%	7.48%	13.68%	14.37%	64.47%	92.52%	100.00%
% change 1990-2000	-19.88%	-0.81%	-11.18%	-14.74%	10.35%	49.83%	49.51%	42.11%	35.36%
<b>1990</b>									
<b>WARREN COUNTY</b>	<b>\$255,536,344</b>	<b>\$25,903,306</b>	<b>\$365,608,267</b>	<b>\$647,047,917</b>	<b>\$491,218,645</b>	<b>\$493,270,463</b>	<b>\$3,228,736,919</b>	<b>\$4,213,226,027</b>	<b>\$4,860,273,944</b>
% of Grand Total	5.26%	0.53%	7.52%	13.31%	10.11%	10.15%	66.43%	86.69%	100.00%
<b>Northern Region</b>									
<b>Sub-Total</b>	<b>98,359,935</b>	<b>\$6,512,032</b>	<b>\$85,880,685</b>	<b>\$190,752,652</b>	<b>\$6,244,700</b>	<b>\$57,094,600</b>	<b>\$542,847,740</b>	<b>\$606,187,040</b>	<b>\$796,939,692</b>
% of Region	12.34%	0.82%	10.78%	23.94%	0.78%	7.16%	68.12%	76.06%	100.00%
<b>Central Region</b>									
<b>Sub-Total</b>	<b>\$68,124,100</b>	<b>\$8,876,437</b>	<b>\$192,175,645</b>	<b>269,176,182</b>	<b>\$220,501,200</b>	<b>\$231,485,852</b>	<b>\$1,765,714,050</b>	<b>\$2,217,701,102</b>	<b>\$2,486,877,284</b>
% of Region	2.74%	0.36%	7.73%	10.82%	8.87%	9.31%	71.00%	89.18%	100.00%
<b>Southern Region</b>									
<b>Sub-Total</b>	<b>\$89,052,309</b>	<b>\$10,514,837</b>	<b>\$87,551,937</b>	<b>\$187,119,083</b>	<b>\$264,472,745</b>	<b>\$204,690,011</b>	<b>\$920,175,129</b>	<b>\$1,389,337,885</b>	<b>\$1,576,456,968</b>
% of Region	5.65%	0.67%	5.55%	11.87%	16.78%	12.98%	58.37%	88.13%	100.00%

TABLE IX - CHANGE IN NUMBER OF ITEMS BY PROPERTY CLASS BY REGION, 1990, 2000, 2005									
	Farm Reg.	Farm Qual.	Vacant	TOTAL FARM REG., FARM QUAL. & VACANT	Industrial	Commercial	Residential (Inc. Apartments)	TOTAL INDUSTRIAL, COMMERCIAL & RESIDENTIAL	GRAND TOTAL
<b>2005</b>									
<b>WARREN COUNTY</b>	<b>1,848</b>	<b>3,987</b>	<b>4,200</b>	<b>10,035</b>	<b>197</b>	<b>1,832</b>	<b>33,047</b>	<b>35,076</b>	<b>45,111</b>
% of County	4.10%	8.84%	9.31%	22.25%	0.44%	4.06%	73.26%	77.75%	100.00%
% change 2000-2005	11.80%	3.37%	-26.19%	-10.40%	4.79%	2.69%	9.51%	9.11%	4.07%
<b>Northern Region</b>									
<b>Regional Total</b>	<b>749</b>	<b>1,526</b>	<b>777</b>	<b>3,052</b>	<b>10</b>	<b>235</b>	<b>4,406</b>	<b>4,651</b>	<b>7,703</b>
% of Region	9.72%	19.81%	10.09%	39.62%	0.13%	3.05%	57.20%	60.38%	100.00%
% change 2000-2005	14.88%	5.61%	-25.07%	-2.62%	-28.57%	2.17%	5.61%	5.32%	2.03%
<b>Central Region</b>									
<b>Regional Total</b>	<b>663</b>	<b>1,391</b>	<b>2,206</b>	<b>4,260</b>	<b>95</b>	<b>909</b>	<b>15,911</b>	<b>16,915</b>	<b>21,175</b>
% of Region	3.13%	6.57%	10.42%	20.12%	0.45%	4.29%	75.14%	79.88%	100.00%
% change 2000-2005	10.50%	1.76%	-23.06%	-11.87%	15.85%	1.56%	7.87%	7.55%	2.99%
<b>Southern Region</b>									
<b>Regional Total</b>	<b>436</b>	<b>1,070</b>	<b>1,217</b>	<b>2,723</b>	<b>92</b>	<b>688</b>	<b>12,730</b>	<b>13,510</b>	<b>16,233</b>
% of Region	2.69%	6.59%	7.50%	16.77%	0.57%	4.24%	78.42%	83.23%	100.00%
% change 2000-2005	8.73%	2.39%	-31.86%	-15.75%	0.00%	4.40%	13.12%	12.54%	6.54%
<b>2000</b>									
<b>WARREN COUNTY</b>	<b>1,653</b>	<b>3,857</b>	<b>5,690</b>	<b>11,200</b>	<b>188</b>	<b>1,784</b>	<b>30,176</b>	<b>32,148</b>	<b>43,348</b>
% of County	3.81%	8.90%	13.13%	25.84%	0.43%	4.12%	69.61%	74.16%	100.00%
% change 1990-2000	16.49%	21.79%	-17.89%	-2.74%	-7.39%	0.06%	14.17%	13.13%	8.55%
<b>Northern Region</b>									
<b>Regional Total</b>	<b>652</b>	<b>1,445</b>	<b>1,037</b>	<b>3,134</b>	<b>14</b>	<b>230</b>	<b>4,172</b>	<b>4,416</b>	<b>7,550</b>
% of Region	8.64%	19.14%	13.74%	41.51%	0.19%	3.05%	55.26%	58.49%	100.00%
% change 1990-2000	15.40%	27.76%	-30.73%	-1.85%	-12.50%	-1.29%	12.36%	11.46%	5.52%
<b>Central Region</b>									
<b>Regional Total</b>	<b>600</b>	<b>1,367</b>	<b>2,867</b>	<b>4,834</b>	<b>82</b>	<b>895</b>	<b>14,750</b>	<b>15,727</b>	<b>20,561</b>
% of Region	2.92%	6.65%	13.94%	23.51%	0.40%	4.35%	71.74%	76.49%	100.00%
% change 1990-2000	29.03%	29.45%	-26.30%	-10.66%	-6.82%	1.47%	15.60%	14.54%	7.42%
<b>Southern Region</b>									
<b>Regional Total</b>	<b>401</b>	<b>1,045</b>	<b>1,786</b>	<b>3,232</b>	<b>92</b>	<b>659</b>	<b>11,254</b>	<b>12,005</b>	<b>15,237</b>
% of Region	2.63%	6.86%	11.72%	21.21%	0.60%	4.32%	73.86%	78.79%	100.00%
% change 1990-2000	3.08%	6.63%	15.75%	10.99%	-7.07%	-1.35%	13.03%	11.95%	11.74%
<b>1990</b>									
<b>WARREN COUNTY</b>	<b>1,419</b>	<b>3,167</b>	<b>6,930</b>	<b>11,516</b>	<b>203</b>	<b>1,783</b>	<b>26,430</b>	<b>28,416</b>	<b>39,932</b>
% of County	3.55%	7.93%	17.35%	28.84%	0.51%	4.47%	66.19%	71.16%	100.00%
<b>Northern Region</b>									
<b>Regional Total</b>	<b>565</b>	<b>1,131</b>	<b>1,497</b>	<b>3,193</b>	<b>16</b>	<b>233</b>	<b>3,713</b>	<b>3,962</b>	<b>7,155</b>
% of Region	7.90%	15.81%	20.92%	44.63%	0.22%	3.26%	51.89%	55.37%	100.00%
<b>Central Region</b>									
<b>Regional Total</b>	<b>465</b>	<b>1,056</b>	<b>3,890</b>	<b>5,411</b>	<b>88</b>	<b>882</b>	<b>12,760</b>	<b>13,730</b>	<b>19,141</b>
% of Region	2.43%	5.52%	20.32%	28.27%	0.46%	4.61%	66.66%	71.73%	100.00%
<b>Southern Region</b>									
<b>Regional Total</b>	<b>389</b>	<b>980</b>	<b>1,543</b>	<b>2,912</b>	<b>99</b>	<b>668</b>	<b>9,957</b>	<b>10,724</b>	<b>13,636</b>
% of Region	2.85%	7.19%	11.32%	21.36%	0.73%	4.90%	73.02%	78.64%	100.00%
1. On July 1, 1997, Pahaquarry Township was dissolved and its lands attached to Hardwick Township.									

**TABLE X - ASSESSMENT VALUE PER ITEM BY REGION 1990, 2000, 2005**

		Farm Regular Assessed Value per Item	Farm Qualified Assessed Value per Item	Vacant Assessed Value per Item	Total Farm Reg. Qual. And Vacant Assessed Value per Item	Industrial Assessed Value per Item	Commercial Assessed Value per Item	Residential Assessed Value per Item	Total Ind., Comm, Residential Assessed Value per Item	Grand Total Assessed Value per Item
<b>2005</b>										
<b>WARREN COUNTY</b>		<b>\$264,556</b>	<b>\$9,851</b>	<b>\$47,222</b>	<b>\$72,397</b>	<b>\$3,370,992</b>	<b>\$501,891</b>	<b>\$199,546</b>	<b>\$233,149</b>	<b>\$197,390</b>
% change 2000-2005		53.80%	24.87%	24.17%	52.66%	25.43%	38.15%	44.78%	41.09%	46.42%
<b>Northern Region</b>										
<b>Regional Total</b>		<b>\$258,902</b>	<b>\$6,966</b>	<b>\$48,584</b>	<b>\$79,390</b>	<b>\$768,220</b>	<b>\$329,152</b>	<b>\$210,249</b>	<b>\$217,457</b>	<b>\$162,753</b>
% change 2000-2005		36.45%	14.15%	7.96%	38.85%	54.40%	11.82%	22.02%	21.01%	26.32%
<b>Central Region</b>										
<b>Regional Total</b>		<b>\$270,293</b>	<b>\$9,755</b>	<b>\$49,091</b>	<b>\$70,673</b>	<b>\$2,772,151</b>	<b>\$464,572</b>	<b>\$223,046</b>	<b>\$250,342</b>	<b>\$214,196</b>
% change 2000-2005		81.65%	19.28%	53.05%	77.55%	10.12%	51.89%	59.37%	54.73%	60.91%
<b>Southern Region</b>										
<b>Regional Total</b>		<b>\$265,544</b>	<b>\$14,092</b>	<b>\$42,964</b>	<b>\$67,258</b>	<b>\$4,272,271</b>	<b>\$610,198</b>	<b>\$166,469</b>	<b>\$217,026</b>	<b>\$191,903</b>
% change 2000-2005		49.24%	41.19%	-1.32%	36.25%	34.67%	31.12%	36.17%	31.96%	37.03%
<b>2000</b>										
<b>WARREN COUNTY</b>		<b>\$172,015</b>	<b>\$7,889</b>	<b>\$38,030</b>	<b>\$47,425</b>	<b>\$2,687,462</b>	<b>\$363,307</b>	<b>\$137,826</b>	<b>\$165,249</b>	<b>\$134,806</b>
% change 1990-2000		-4.48%	-3.55%	-27.92%	-15.59%	11.06%	31.32%	12.82%	11.45%	10.76%
<b>Northern Region</b>										
<b>Regional Total</b>		<b>\$189,743</b>	<b>\$6,102</b>	<b>\$45,000</b>	<b>\$57,178</b>	<b>\$497,543</b>	<b>\$294,355</b>	<b>\$172,309</b>	<b>\$179,697</b>	<b>\$128,839</b>
% change 1990-2000		8.99%	5.98%	-21.56%	-4.29%	27.48%	20.12%	17.86%	17.45%	15.67%
<b>Central Region</b>										
<b>Regional Total</b>		<b>\$148,798</b>	<b>\$8,178</b>	<b>\$32,075</b>	<b>\$39,805</b>	<b>\$2,517,385</b>	<b>\$305,864</b>	<b>\$139,958</b>	<b>\$161,795</b>	<b>\$133,115</b>
% change 1990-2000		1.57%	-2.71%	-35.07%	-19.98%	0.47%	16.54%	1.14%	0.17%	2.46%
<b>Southern Region</b>										
<b>Regional Total</b>		<b>\$177,929</b>	<b>\$9,981</b>	<b>\$43,540</b>	<b>\$49,363</b>	<b>\$3,172,301</b>	<b>\$465,386</b>	<b>\$122,248</b>	<b>\$164,459</b>	<b>\$140,045</b>
% change 1990-2000		-22.28%	-6.98%	-23.27%	-23.18%	18.75%	51.88%	32.28%	26.94%	21.14%
<b>1990</b>										
<b>WARREN COUNTY</b>		<b>\$180,082</b>	<b>\$8,179</b>	<b>\$52,757</b>	<b>\$56,187</b>	<b>\$2,419,796</b>	<b>\$276,652</b>	<b>\$122,162</b>	<b>\$148,269</b>	<b>\$121,714</b>
<b>Northern Region</b>										
<b>Regional Total</b>		<b>\$174,088</b>	<b>\$5,758</b>	<b>\$57,369</b>	<b>\$59,741</b>	<b>\$390,294</b>	<b>\$245,041</b>	<b>\$146,202</b>	<b>\$153,000</b>	<b>\$111,382</b>
<b>Central Region</b>										
<b>Regional Total</b>		<b>\$146,503</b>	<b>\$8,406</b>	<b>\$49,402</b>	<b>\$49,746</b>	<b>\$2,505,695</b>	<b>\$262,456</b>	<b>\$138,379</b>	<b>\$161,522</b>	<b>\$129,924</b>
<b>Southern Region</b>										
<b>Regional Total</b>		<b>\$228,926</b>	<b>\$10,729</b>	<b>\$56,741</b>	<b>\$64,258</b>	<b>\$2,671,442</b>	<b>\$306,422</b>	<b>\$92,415</b>	<b>\$129,554</b>	<b>\$115,610</b>

1. On July 1, 1997, Pahaquarry Township was dissolved and its lands attached to Hardwick Township.



## 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:

### 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

The three regions are outlined on Map 4 Planning Regions contained in Appendix K.

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. As shown in Table XI the Northern Region experienced increasing rates of growth from 1980 to 1990 and 1970 to 1980. However in the 1990 to 2000 decade the rate of growth in the northern region slowed by almost half to 12% making the northern region the second to the central region whose growth consistently remains at about 14% per decade. One will see that the rate of growth in the southern region increased during the 1990 to 2000 decade and is now the fastest growing region through 2007 in real numbers and by percentage growth according the WC Planning Department's latest population estimates.

**TABLE XI**  
**Population Growth Trends**  
**Warren County NJ**  
**1970-2007 (Estimate)**

MUNICIPALITIES	Area in sq. mi.	1970	1980			1990			2000			2007 Estimate			Increases 1970-2007	
		Population	Population	Numerical Change	Percent Change	Population	Numerical Change	Percent Change	Population	Numerical Change	Percent Change	Population	Numerical Change	Percent Change	Numerical	Percent
<b>REGION 1</b>																
Blairstown	30.9	2,189	4,360	2,171	99.2%	5,331	971	22.3%	5,747	416	8%	6,139	392	7%	3,950	180.4%
Frelinghuysen	23.6	1,118	1,435	317	28.4%	1,779	344	24.0%	2,083	304	17%	2,284	201	10%	1,166	104.3%
Hardwick	17.8	548	947	399	72.8%	1,235	288	30.4%	1,464	229	19%	1,677	213	15%	1,129	206.0%
Hope	19.2	1,140	1,468	328	28.8%	1,719	251	17.1%	1,891	172	10%	2,020	129	7%	880	77.2%
Knowlton	25.4	1,738	2,074	336	19.3%	2,543	469	22.6%	2,977	434	17%	3,258	281	9%	1,520	87.5%
Pahaquarry *	20.0	71	26	-45	-63.4%	20	-6	-23.1%	*			*			*	
Region Total	136.9	6,804	10,310	3,506	51.5%	12,627	2,317	22.5%	14,162	1,535	12%	15,378	1,216	9%	8,574	126.0%
Percent of County	37.55%	9.2%	12.2%	33.5%		13.8%	32.3%		13.8%	14.2%		13.7%	12.4%		22.38%	
<b>REGION 2</b>																
Allamuchy	20.3	1,138	2,560	1,422	125.0%	3,484	924	36.1%	3,877	393	11%	4,201	324	8%	3,063	269.2%
Belvidere	1.35	2,722	2,475	-247	-9.1%	2,669	194	7.8%	2,771	102	4%	2,797	26	1%	75	2.8%
Hackettstown	3.5	9,472	8,850	-622	-6.6%	8,120	-730	-8.2%	8,984	864	11%	9,394	410	5%	(78)	-0.8%
Independence	20.4	2,057	2,829	772	37.5%	3,940	1,111	39.3%	5,603	1,663	42%	5,900	297	5%	3,843	186.8%
Liberty	12.0	1,229	1,730	501	40.8%	2,493	763	44.1%	2,765	272	11%	3,006	241	9%	1,777	144.6%
Mansfield	30.5	3,546	5,780	2,234	63.0%	7,154	1,374	23.8%	8,072	918	13%	8,612	540	7%	5,066	142.9%
Oxford	6.2	1,742	1,659	-83	-4.8%	1,790	131	7.9%	2,307	517	29%	2,678	371	16%	936	53.7%
Washington Borough	1.95	5,943	6,429	486	8.2%	6,474	45	0.7%	6,712	238	4%	7,024	312	5%	1,081	18.2%
Washington Twp.	17.9	3,585	4,243	658	18.4%	5,367	1,124	26.5%	6,248	881	16%	6,744	496	8%	3,159	88.1%
White	28.6	2,326	2,748	422	18.1%	3,603	855	31.1%	4,245	642	18%	5,420	1,175	28%	3,094	133.0%
Region Total	142.7	33,760	39,303	5,543	16.4%	45,094	5,791	14.7%	51,584	6,490	14%	55,776	4,192	8%	22,016	65.2%
Percent of County	39.14%	45.6%	46.6%	52.9%		49.2%	80.7%		50.4%	59.9%		49.7%	42.6%		57.46%	
<b>REGION 3</b>																
Alpha	1.8	2,829	2,644	-185	-6.5%	2,530	-114	-4.3%	2,482	(48)	-2%	2,520	38	2%	(309)	-10.9%
Franklin	24.25	1,973	2,341	368	18.7%	2,404	63	2.7%	2,768	364	15%	3,229	461	17%	1,256	63.7%
Greenwich	11.15	1,482	1,738	256	17.3%	1,899	161	9.3%	4,365	2,466	130%	5,381	1,016	23%	3,899	263.1%
Harmony	24.1	2,195	2,592	397	18.1%	2,653	61	2.4%	2,729	76	3%	2,872	143	5%	677	30.8%
Lopatcong	7.45	3,144	4,998	1,854	59.0%	5,052	54	1.1%	5,765	713	14%	8,374	2,609	45%	5,230	166.3%
Phillipsburg	3.2	17,849	16,647	-1,202	-6.7%	15,757	-890	-5.3%	15,166	(591)	-4%	15,268	102	1%	(2,581)	-14.5%
Pohatcong	13.0	3,924	3,856	-68	-1.7%	3,591	-265	-6.9%	3,416	(175)	-5%	3,476	60	2%	(448)	-11.4%
Region Total	85.0	33,396	34,816	1,420	4.1%	33,886	-930	-2.7%	36,691	2,805	8%	41,120	4,429	12%	7,724	23.1%
Percent of County	23.30%	45.2%	41.2%	13.6%		37.0%	-13.0%		35.8%	25.9%		36.6%	45.0%		20.16%	
<b>COUNTY TOTAL</b>	364.55	73,960	84,429	10,469	14.2%	91,607	7,178	8.5%	102,437	10,830	12%	112,274	9,837	10%	38,314	51.8%

\*Pahaquarry became part of Hardwick Township in 1997

Source: US Census Bureau, Census 2000  
Prepared by: Warren County Planning Department, August 2007

Percentage wise, since 1970, the northern region grew the most. However numerically, the central region grew the most, 22,016 persons as compared to approximately 8,000 persons for each of the other two regions. 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, Lopatcong's population grew the most since 1970 followed by Mansfield Township, Blirstown, Greenwich and Independence. Most of Greenwich and Lopatcong's growth has occurred over the last decade, Independence's growth occurred from 1989 to 2000, and Blirstown growth occurred from 1970 to 1980. Today's fastest growing municipalities are Lopatcong, White, Greenwich, Mansfield and Washington Township. These communities are located in the southern and central regions.

Past growth is not the only barometer of future growth and the trends described above may be amplified or reversed by many factors. Good highways, central water and sewer availability, and proximity to central cities are primary growth drivers. Route I-80 and the Pocono resorts in Pennsylvania had increased development pressures in the Northern Region during the 1970s and 1980s. In the Southern Region the completion of Route I-78 in 1989 and the lifting of the Phillipsburg sewer moratorium resulted in an influx of residential and commercial development growth over the past twenty 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 as part of the Cross Acceptance process of the State Development and Redevelopment Plan. They are shown in Table XII and organized by open space region.

The population projections show that in the year 2020 the population will reach almost 127,000 persons, an increase of 12.9 percent from 2007. As the table shows, the percent geographic distribution of the population will remain about the same through 2020. The growth rate in each region is very different with the southern region growing at a faster rate (14.81% than the county average, and much faster than the northern region which is projected to grow by 8% over the next 13 years. However these population projections do not reflect the stringent standards of the Highlands Preservation Area which will have the effect of curtailing growth within the areas boundaries. The municipalities in the northern region contain no highlands preservation area. The northern region municipalities of Hope and Frelinghuysen are in the Highlands Planning Area and will be subject to policies of the Highlands Regional Master Plan if they choose to opt in to it.

The population projections should be updated to reflect the Highlands Preservation Area standards of 25 acre and 88 acre septic densities. The draft Highlands Master Plan of November 2007 contains the number of septic systems that may be permitted in each HUC 14 watershed in the Planning Area. In the planning area median lot sizes range from 26 acres in the Protection zone and is 11 acres in the Conservation zone.

TABLE XII - POPULATION PROJECTIONS BY REGION AND MUNICIPALITY 2010, 2015, 2020, 2025, 2030

Municipality	Population April 1, 2000	Population Estimate 2007	Projected Total Population 2010	Projected Total Population 2015	Projected Total Population 2020	Percent Change 2007 to 2020	Projected Total Population 2025	Projected Total Population 2030
<b>Northern Region</b>								
Blairstown township	5,747	6,139	6,193	6,472	6,714	9.36%	7,005	7,214
Frelinghuysen township	2,083	2,284	2,266	2,368	2,456	7.54%	2,563	2,639
Hardwick township	1,464	1,677	1,684	1,741	1,791	6.77%	1,849	1,891
Hope township	1,891	2,020	2,015	2,106	2,185	8.15%	2,279	2,347
Knowlton township	2,977	3,258	3,264	3,375	3,471	6.55%	3,585	3,667
Region Total	14,162	15,378	15,423	16,062	16,617	8.05%	17,281	17,757
Percent of County	13.83%	13.7%	12.92%	13.00%	13.10%		13.22%	13.31%
<b>Central Region</b>								
Allamuchy township	3,877	4,201	5,286	5,506	5,698	35.63%	<b>5,865</b>	5,946
Belvidere town	2,771	2,797	3,278	3,426	3,554	27.05%	3,708	3,818
Hackettstown town	8,984	9,394	9,721	<b>9,759</b>	9,931	5.71%	<i>10,133</i>	<i>10,275</i>
Independence township	5,603	5,900	5,937	6,140	6,315	7.03%	6,523	6,671
Liberty township	2,765	3,006	3,005	3,075	3,135	4.29%	3,206	3,255
Mansfield township	8,072	8,612	9,418	9,711	9,961	15.67%	10,259	10,471
Oxford township	2,307	2,678	2,760	2,856	2,939	9.75%	3,038	<b>3,079</b>
Washington borough	6,712	7,024	7,157	7,478	7,758	10.45%	8,094	8,336
Washington township	6,248	6,744	7,049	7,338	7,589	12.53%	7,889	8,104
White township	4,245	5,420	5,688	5,905	6,091	12.39%	6,315	6,474
Region Total	51,584	55,776	59,299	61,194	62,971	12.90%	65,029	66,430
Percent of County	50.36%	49.7%	49.67%	49.54%	49.66%		49.74%	49.79%
<b>Southern Region</b>								
Alpha borough	2,482	2,520	2,797	2,923	<b>3,000</b>	19.05%	<i>3,065</i>	<i>3,111</i>
Franklin township	2,768	3,229	3,583	3,730	3,857	19.46%	4,010	4,119
Greenwich township	4,365	5,381	5,683	5,897	6,081	13.01%	6,301	<b>6,410</b>
Harmony township	2,729	2,872	3,751	3,888	4,006	39.48%	4,147	4,247
Lopatcong township	5,765	8,374	<b>8,282</b>	<i>8,435</i>	8,535	1.93%	8,687	<i>8,793</i>
Phillipsburg town	15,166	15,268	15,354	16,044	<b>16,263</b>	6.52%	<i>16,615</i>	<i>16,863</i>
Pohatcong township	3,416	3,476	5,225	5,356	5,467	57.29%	5,599	5,692
Region Total	36,691	41,120	44,676	46,272	47,210	14.81%	48,424	49,235
Percent of County	35.82%	36.6%	37.42%	37.46%	37.23%		37.04%	36.90%
Total Warren County	102,437	112,274	119,397	123,528	126,798	12.94%	130,734	133,422
Total State Population	8,414,350		9,062,800	9,470,200	9,824,500		10,250,100	10,555,900

Prepared by Warren County Planning Department

Assumes Year 2000 Occupancy Rates and Average Persons per Household are held constant

Assumes Highlands Preservation Area and Large Lot zoning (10 acre) reduction factors

**Bold** Population Numbers indicate when buildout is reached

*Italic* Population Numbers indicate projection after buildout is reached at a reduced rate

January 19, 2005  
 March 29, 2005  
 September 20, 2005

## **The Need for Public Open Space**

A number of documents are available that discuss why open space and recreational facilities are needed. However, this section contains a brief discussion of the findings and recommendations of county and state plans concerning the need and provisions for open space.

### **Warren County Community Health Improvement Plan**

The Warren County Health Department released its Community Health Improvement Plan on January 30, 2007. The document creates a blueprint for health improvement in Warren County and calls on the county and local communities to collaborate on ways to improve health status. One of the health issues identified in the plan is the need for good nutrition and physical activity. A Quality of Life Survey that was conducted in 2005 as part of the health plan revealed that 74% of the respondents have access to recreational areas such as parks, fitness facilities, hiking trails and pools although they said there were more hiking trails in the northern regions of the county vs. the southern region. In focus groups that were conducted, participants wanted recreational areas other than sports oriented fields and commented that all recreational and open space areas were not readily accessible. One of the barriers to providing sufficient recreational facilities was that no county parks system existed.

### **Senior Citizens and the Handicapped**

The needs of these citizens should not be overlooked. According to the SCORP, the increasing population of senior citizens will pose challenges to open space and park providers. As seniors become more physically fit and more active than today's seniors, they will demand additional recreation services that will need to be designed to consider their special needs. A publication by the AARP pertaining to livable communities, states that the provision of walkways, benches, and picnic areas in safe and inviting environments are important. Public tennis courts, and safe walking, jogging, and bicycle trails are important for a livable community.

Accessibility to these facilities are important to seniors and the handicapped as well. Where possible, the access should be made wheelchair accessible and the trails kept free of safety hazards and other obstacles.

### **Handicap Accessibility for Trails**

The Americans with Disabilities Act (ADA) requires that trails be accessible, however it does not provide guidelines for construction. The Access Board has proposed accessibility guidelines for outdoor developed areas in an effort to provide guidance on design and constructing accessible facilities. A Notice of Proposed Rulemaking (NPRM) provides guidance on the design and construction of newly constructed and altered trails, outdoor recreation access routes, picnic and camping facilities, and beach access routes. Comments were due on October 17, 2007.

The proposed ADA accessibility guidelines apply to trails that are designed and constructed for pedestrian use. These guidelines are not applicable to trails primarily designed and constructed for recreational use by equestrians, mountain bicyclists, snowmobile users, or off-highway vehicle

users, even if pedestrians may occasionally use the same trails. However, a multi-use trail specifically designed and designated for hiking and bicycling would be considered a pedestrian trail. The proposed guidelines apply only to areas of newly designed or newly constructed and altered portions of existing trails.

### **Warren County Planning Board Public Opinion Survey, 1998**

In 1998, the Warren County Planning Board conducted a public opinion survey as part of the cross acceptance process of the State Development and Redevelopment Plan. It was a mail out survey to a random sampling of 10% of registered voters in each municipality of Warren County. Twenty nine percent of the surveys were returned. The survey asked 21 questions about land and transportation issues facing Warren County.

A few questions asked respondents about their thoughts on open space and farmland preservation. 85% and 74% of the respondents indicated that they would like to see more farmland and public open space preserved in the county. Respondents were willing to pay higher taxes for a clean natural environment, the preservation of farmland and the preservation of open with over 52% of the respondents being in favor.

The same general sentiment of population was revealed through a public opinion survey that was conducted as part of the Warren County Strategic Growth Plan process. The goal “To preserve and enhance rural character as well as agricultural, natural, environmental, historic, and open space resources and provide incentives to achieve this goal” was the highest ranked among the people responding.

### **Warren County Strategic Growth Plan**

The Warren County Strategic Growth Plan was adopted by the County Planning Board on October 31, 2005. One of the goals of the plan is to “Preserve and enhance rural character as well as agricultural, natural, environmental, historic and open space resources and provide incentives to achieve this goal”. One of the indicators approved to measure the goal is the amount of land permanently protected as open space and farmland. Of the 12 goals provided in the plan, this one ranked the highest in a public opinion survey that was distributed as part of the planning process. A close second was goal to “Protect and enhance water quality and quantity” The plan contains recommendations on open space preservation stating that preservation efforts should target areas critical to the protection of ground and surface waters to include aquifer recharge areas and stream and river corridors. It is noted that the preservation of the Morris Canal satisfies the goal of preserving open space and historical resources while providing recreational opportunities. Acquiring these areas fulfill the public need and desires to have them protected and preserved.

### **State Development and Redevelopment Plan, 2001**

One of the goals of the plan is to “Preserve and Enhance Areas with Historic, Cultural, Scenic, Open Space, and Recreation Value”. The vision of the State Plan for the year 2020 is:

## **Greenways, Trails and Walkways**

Greenways are corridors of protected open space managed for conservation and recreation purposes. They often follow natural land and water features and link nature reserves, parks, cultural features and historic sites with each other and with populated areas. They are composed of permanently preserved farmland, public parks and reserves, and privately owned land with preservation easements. Parts of the greenways system are set up for recreation, but much of it is set aside for farming, habitat and wildlife preservation and other conservation uses. In the Year 2020, the New Jersey trail system, a statewide network of trails and walkways (including stretches along city streets) laces together national, state, county and municipal parks, educational facilities, museums and historic areas throughout the state. It coincides with the greenways in many places, but whereas parts of greenways also serve as farmland or other protected purposes, the trail system is used for commuting and recreation, as scenic and historic corridors, and as networks of learning. It also serves as a focus for redevelopment efforts in the state's river towns, including restoring existing parks and acquiring additional land along the waterways. Each municipality has what it considers "its" portion of the network and ensures that it is a safe and respected community resource.

## **Scenic, Open Space and Recreational Resources**

Children in all the state's cities and older towns can walk to playgrounds in their neighborhoods. The goal, established by Governor Whitman and the Legislature and affirmed by the voters in 1998, has been achieved. Nearly two million acres of open space and farmland have been preserved. State, local and private funding has helped build a multi-purpose regional system of facilities integrating recreation and open space planning with land use and other infrastructure planning. Like the trail system, development of new open space and recreation facilities is planned to reinforce other goals, especially urban revitalization and beneficial economic growth. The value that New Jersey places on everyday vistas can be seen from roads and sidewalks all over the state. "

## **The NJ Division of Fish and Wildlife website**

The number of people in search of wildlife-oriented recreational opportunities has grown significantly in the last 35 years as shown by the National Survey of Fishing, Hunting and Wildlife-Associated Recreation, conducted every five years by the US Fish and Wildlife Service. In New Jersey, the 2001 National Survey found that 135,000 people hunted, 806,000 people fished, and more than 2,328,000 people participated in other wildlife-oriented recreational activities (bird feeding, wildlife observation, photography, etc.). The survey includes only people 16 years of age and older.

While demand continues to increase, the overall amount of land available for the pursuit of wildlife-oriented recreation is declining. New Jersey loses roughly 45-sq. mi. of wildlife habitat to development every year. In view of this reality, acquiring and managing Wildlife Management

Areas is an important part of management programs conducted by the Division to provide for the public's wildlife-related recreation.

### **The 2008-2012 draft Statewide Comprehensive Outdoor Recreation Plan**

An excerpt from the 2008-2012 draft Statewide Comprehensive Outdoor Recreation Plan reads as follows:

Natural resource based outdoor recreation requires the continued protection of these resources to ensure their public use. A 2005 recreation trends analysis study published by the Outdoor Industry Foundation found growth in individual activities is focused on activities that can be “done in day”. The study also noted a decline in commitment heavy activities. Considering that two income earners is common throughout the nation, these findings are not surprising. The study also noted the Northeast region had the lowest participation rate, 69%, in outdoor recreation activities in the United States. However, compared to the North Central region (72%) and the South Central region (70%) the differences appear not to be dramatic even when compared with the West region, which had the highest outdoor recreation participation rate of 78%. All four regions saw increased participation rates in outdoor recreation between 1999 and 2005. The Northeast region participation in outdoor recreation increased from 60% in 1999 to 69% in 2005.

Hiking has remained one of the most popular outdoor recreation activities in the United States and in New Jersey. The New Jersey Trail Plan Update provides an insight into hiking as a recreational activity. As part of the Trails Plan Update, a survey was conducted in September 2006 to gauge public opinion regarding trails in New Jersey. The survey identified topics, issues and concerns to inform the planning process for the Trails Plan.

The survey was conducted informally and the results cannot claim to be statistically representative. Participants were self-selecting. Regardless, the survey provided an important opportunity to hear from thousands of New Jersey residents who care about trails. The results provide significant insight into the perspectives and priorities of New Jersey’s trail users.

Some of the findings of the survey are as follows:

- A plurality of trail users’ use trails more than 30 days per year. A significant majority of trail users use them over eight times per year.
- Trails use is a four season phenomenon in New Jersey.
- Using trails on foot (hiking, walking, jogging, backpacking) are by far the most popular trails activities. Off Road Vehicle (ORV) use was mentioned second most by almost half the respondents. Mountain biking, bicycling, canoeing/kayaking, horseback riding and winter sports are significant trail uses.
- Trails are predominately experienced in rural or remote areas. (*although they are also located in urban areas*)
- Skylands and Delaware River areas are the most popular (frequently mentioned) locations for trails activities.
- A majority travel more than 10 miles (each way) for the purpose of using a trail; almost a quarter travel more than 30 miles.



- The D&R Multi-use Path is the most frequently used trail in the state. Other frequently used trails include: Wharton State Forest, NJ Off-Road Vehicle Park, Delaware Water Gap National Recreation Area and Brendan Byrne State Forest. The preponderant reason for the frequent use is the proximity to where the user lives.
- Most trail users learn about trails by word of mouth and from clubs; the internet is increasingly used as an information resource.
- Trails are a significant economic force. Almost half of respondents spend more than \$1000 annually on these purchases and almost a quarter of respondents spend more than \$5000.
- A significant percentage of respondents indicated that trails and their use of trails influenced the purchase of their home.
- On their most recent trails outing, most trail users purchased food and beverages, including meals at a restaurant en-route.
- Lack of trails and the quality of the facilities were identified as the two most important trails concerns. Lack of information about trails, overcrowding, the adequacy of support facilities, accessibility and safety and security were mentioned as significant concerns.
- Most users rarely if ever experience conflicts with other trail users.
- A plurality of trail users think that trails for specific types of trails activity should be emphasized; but significant numbers mention that trails connections, trails for multiple users type and trails in natural landscapes should be emphasized.
- Trail users overwhelmingly want an outcome of the Trails Plan Update to be more trails to use.
- Respondents to the survey overwhelmingly believe that trails rank high in importance when compared to other forms of outdoor recreation.
- New Jersey trails users most like the variety and diversity of trails facilities, the availability and convenience of trails, their maintenance and freedom from crowds.

The publication *Projections of Outdoor Recreation Participation to 2050* examines future recreation participation trends. The report identifies future recreational use of participants age 16 and over. Participation trends such as these provide direction for future planning. The following are national recreation participation trends highlighted in the report:

- Non Pool swimming (*which would include swimming in lakes, ponds, and rivers*) will continue to be the most popular water based recreation activity with an anticipated increase of 25% by 2050.
- Walking remains one of the top recreational activities in the county
- Non-consumptive wildlife recreation such as birding is expected to increase 61%
- Picnicking is projected to see an increase of 54% by 2050

Keeping the above discussion in mind, the Warren County Open Space Plan is attempting to meet the needs and desires of the people who currently use and will use public open space lands in the future. The plan recommends the acquisition of the Morris Canal and properties for the Warren Trail to create new trails in settings never experienced by the public before.

### **Highlands Act**

The Highlands Act establishes specific goals relating to land preservation, including the preservation of “contiguous areas of land in its natural state”, the protection of “natural, scenic, and other resources of the Highlands Region, including but not limited to contiguous forests, wetlands, vegetated stream corridors, steep slopes, and critical habitat for fauna and flora”, the preservation of “farmland and historic sites”, of “outdoor recreation opportunities”, and of “environmentally sensitive lands and other lands needed for recreation and conservation purposes”.

A draft Highlands Regional Master Plan was released in November 2006 and was subject to numerous public comments. A revised plan was released on November 19, 2007. The November Plan contains a section on conservation and preservation priorities. In general forested lands with in forest resource areas and other land areas that are deemed important to protecting the region’s water resources and critical habitat protection, and connections to currently preserved areas are high priority.

### **Economic Need for Public Open Space**

The economic impacts of public open space can be expressed in two ways. The effect on property taxes and the tax base and secondly on the public benefits. In terms of property taxes, according to the Table VIII, Assessed Valuation, from 1990, 2000, and 2005, in 2005 farm qualified and vacant lands accounted for 2.67% of the total assessed valuation in the County. Farm qualified accounted for less than ½ percent of the total value and vacant land just over 2%. One can observe from the tables that assessed valuation increased in all taxable categories since 1990 with the exception of vacant lands which decreased by over 8%. Individual municipal assessed valuations are similar to the countywide figures. The assessed value of vacant lands range from less than 1% of the total municipal valuation in Phillipsburg and Washington Borough, to 4% and 5% in Hope and Hardwick Townships. Similarly with farm qualified assessed lands, the percent total in the municipalities are from less than 1% to just over 1%.

These figures challenge the common belief that acquiring land for public open space significantly reduces the tax base. Because most lands that would be acquired for public open space would be assessed as vacant or farm qualified, the reduction in assessed value due to the loss of these lands would be less significant, since these lands comprise of less than 3% of the total tax base value.

Another belief is that the public lands will require significant public outlay to maintain. An accounting of the Warren County Open Space Trust Fund indicates that since the year 2000 through 2006, \$458,348 was spent for maintenance on county open space properties. This amounts to about \$283 per acre of maintenance costs over the seven year period or about \$41 per year per acre.

From a public benefit point of view, there a number of reasons why public open space should be pursued. According to Parks and Economic Development by John L. Crompton they can be grouped into three categories: Environmental Stewardship, Alleviating Social Problems, and Economic Development.

#### Environmental Stewardship:

Open space preservation in Warren County targets the acquisition of the Morris Canal, a site on the National and State Registers of Historic Places. Preserving historical remnants remind people of what and who was once there. It provides a cultural perspective of how we once lived and feeds people's need for a sense of local history. Preserving the natural environment provides people with something they cannot get from the built environment. It enhances the human being's quality of life through an ecologically sustainable and pleasing environment.

#### Alleviating Social Problems:

Preventing youth crime is cited as a reason for preserving open space. When using open space land areas and facilities, adult leaders work with youths in a structured environment to provide social support, leadership opportunities, individual attention to youth participants, a sense of group belonging, opportunities for community service, and youth input into program decisions. Prime examples of this concept in Warren County is the Highlands Project. The Highlands Project is operated by adult leaders to help youth by teaching them about the Morris Canal and working with them to restore portions of the Canal. The Highlands Project occupies the land and buildings at Bread Lock Park and have made marvelous strides toward improving the buildings, restoring the Canal, providing opportunities for youth. The Youth Corp and Americorp also have volunteered time to help clear portions of the Morris Canal in Greenwich and Lopatcong Township.

The preservation of open space promotes healthy lifestyles. The County Health Department is developing an action plan to improve the health of county residents. One component of this is to encourage more areas for physical fitness. The county open space plan and program can do its part in helping fulfill the Health Department's goal by continuing to acquire lands where hiking trails can be developed. These land areas could address the overall regional need to link parcels together to form the Warren Trail and Morris Canal greenway, as well as provide local trail systems on site.

In turn, open space preservation can help reduce mental stress that is afflicting so many today. A hike or bike ride through a natural area or along the Morris Canal can help one unwind in a stress free environment. Walking or biking along roadways that carry higher volume of vehicles will not relieve stress but may indeed increase it.

#### Economic Development:

Open space and related attractions increase tourism. Warren County is in its infancy in attracting tourists. While there are weekend and weeklong events held during the summertime, such as the Warren County Farmers Fair, Victorian Days, Warren County Heritage Festival, the Phillipsburg bike race etc, more attractions need to be developed to bring in the tourists. The semi

annual Morris Canal bus tour has consistently filled a school bus of 40 persons, eager to learn more about the canal's history. Two stops along the way, Breadlock Park and Inclined Plane # 9 are wonderful remnants of the Canal and are currently open for visitors the first Sunday of the month year round. Currently volunteers dedicate their time on these Sundays.

Expanding the availability of attractions to out of town visitors can help improve the local economy. Typically an out town visitor will patronize a local restaurant, buy souvenirs or other retail item, pay admission fees and concession fees if available, and stay at a local hotel if the area contains enough attractions for a multiple night stay. It is recommended that a county eco-tourism plan be developed to tie together the open space, historic, and cultural attractions, agricultural markets including wineries, Main Street programs, and seasonal events.

Studies have shown that residential property values increase when they are close to natural public open space areas. This means more tax revenue to local government that would offset the assessed value that was "lost" when other land areas are purchased by government agencies.

Businesses are often attracted to areas where the quality of life is high. Park and recreational opportunities often contribute to an areas high quality of life. In addition, businesses can be developed around the open space or cultural attractions available. It would not be unthinkable of a local business capitalizing on products and services related to the attraction. Hiking and biking equipment shops, restaurants, hotels, theme parks, etc.

Lastly, studies have shown that retired people like to live in areas with a higher number of recreational activities. Hiking along the flat Morris Canal opens the door for an influx of these type of communities.

### **Determination of the Amount of Open Space to be Acquired**

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 2008-2012. 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.

## **Acres Per Population Method for Active Recreational Use**

Typically active recreational areas are provided by the municipality and the Board of Education. These uses usually include ball fields, soccer fields, court sports, playgrounds, picnic areas and swimming pools. Hiking and biking trails and golf courses are also provided by some municipalities.

Table XIII contains a requirement for number of acres that should be in active recreation use according to the National Park and Recreation Association using a guideline of 8 acres per 1,000 persons for municipal land, and 12 acres per 1,000 persons for county land. Based on the acres per population method, there should be 185 acres of county land in the Northern Region, 669 acres in the Central Region, and 493 acres in the Southern Region, for a total of 1,347 acres in County ownership. Depending on the location, a county recreational facility could serve two regions.

The following is the amount of land area in athletic and recreational land use according to the 2002 GIS land use coverage from the NJDEP in each municipality by ownership. The acreage does not reflect parcel size. Instead it shows the amount of land area actually used for athletic and recreational purposes.

The provision of active recreation 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.

**TABLE XIII ACTIVE RECREATION GOALS BY MUNICIPALITY AND REGION ( Acres per Population Method)**

Municipality	Population	Targetted Amount Municipal/S chool Owned	Actual Amount of Rec. Space Provided (2002)	Targetted Amount of County Owned Recreation	Amount of County Owned Recreation Space	Amount of non-govt. owned Recreation Space(2002)	Projected Total Population 2015	Goal Active Municipal/S chool Recreation Owned Open Spac	Goal County Owned Recreation Space
	Estimate 2007	Owned Recreation	(2002)	Owned Recreation	Space	Space(2002)	2015	Open Spac	Space
<b>Northern Region</b>									
Blairstown township	6,139	49	70.7	73.7		150.8	6,472	52	78
Frelinghuysen township	2,284	18	7.4	27.4		70.4	2,368	19	28
Hardwick township	1,677	13	0.0	20.1		51.2	1,741	14	21
Hope township	2,020	16	7.9	24.2		20.4	2,106	17	25
Knowlton township	3,258	26	17.3	39.1		122.0	3,375	27	41
Regional Total	15,378	123	103.3	184.5	0.0	414.8	16,062	128	193
Percent of County	13.7%	13.7%	15.3%	13.7%	0.0%	36.5%	13.0%	13.0%	13.0%
<b>Central Region</b>									
Allamuchy township	4,201	34	13.4	50.4		105.7	5,506	44	66
Belvidere town	2,797	22	37.0	33.6		3.5	3,426	27	41
Hackettstown town	9,394	75	64.8	112.7		30.9	9,759	78	117
Independence township	5,900	47	29.5	70.8		10.7	6,140	49	74
Liberty township	3,006	24	14.3	36.1		9.1	3,075	25	37
Mansfield township	8,612	69	46.7	103.3		24.7	9,711	78	117
Oxford township	2,678	21	7.3	32.1		17.8	2,856	23	34
Washington borough	7,024	56	26.0	84.3		0.0	7,478	60	90
Washington township	6,744	54	98.2	80.9		223.5	7,338	59	88
White township	5,420	43	25.1	65.0		88.0	5,905	47	71
Regional Total	55,776	446	362.3	669.3	0.0	513.9	61,194	490	734.3
Percent of County	49.7%	49.7%	53.8%	49.7%	0.0%	45.2%	49.54%	49.5%	49.5%
<b>Southern Region</b>									
Alpha borough	2,520	20	23.0	30.2		0.0	2,923	23	35
Franklin township	3,229	26	5.4	38.7	18.0	4.8	3,730	30	45
Greenwich township	5,381	43	13.1	64.6		17.2	5,897	47	71
Harmony township	2,872	23	41.9	34.5		16.9	3,888	31	47
Lopatcong township	8,374	67	26.3	100.5		150.5	8,435	67	101
Phillipsburg town	15,268	122	77.0	183.2		15.8	16,044	128	193
Pohatcong township	3,476	28	21.2	41.7		2.2	5,356	43	64
Regional Total	41,120	329	207.9	493.4	18.0	207.4	46,272	370	555.3
Percent of County	36.6%	36.6%	30.9%	36.6%	100.0%	18.3%	37.46%	555	37.5%
Total Warren County	112,274	898	673.5	1,347.3	18.0	1,136.1	123,528	988	1,482

Prepared by Warren County Planning Department May 19, 2008

\* Includes ballfields, golf courses, and common areas that may be owned by homeowner associations, religious institutions, non-profit organizations.

## **Balanced Land Use Method**

The State Open Space and Outdoor Recreation Plan of 2008-2013 recommends using the balanced land use method to establish long range open space acquisition goals. The draft SCORP states that to determine the amount of municipal open space, 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 Areas as defined in the SCORP exclude acreage of slopes over 12%, wetlands, and federal and state-owned open space. For purposes of the Warren County Open Space Plan, developed and developable areas are the buildable areas defined in the Warren County Strategic Growth Plan. These areas exclude slopes over 25 percent, wetlands, floodplains, all public open space/parklands, and preserved farmland.

Using the guideline and the county definition for developable lands, there should be 4,196 acres of municipal open space and 9,790 acres of county open space. Based on the figures from Table I, there is a "shortfall" of 260 acres of municipal space and a "shortfall" of 8,152 acres of county open space.

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 28,113 acres, resulting in a surplus of 4,753 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 10,749 acres, representing a surplus of 1,405 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 XIV and XV.

TABLE XIV - OPEN SPACE TARGETS BALANCED LAND USE METHOD			
	Developed and Developable Land*	Municipal Req at 3%	County Req, of 7%
Northern Region			
Blairstown township	13,344	400	934
Frelinghuysen township	9,710	291	680
Hardwick township	6,865	206	481
Hope township	8,062	242	564
Knowlton township	9,474	284	663
Municipal Acreage Regional Total	47,456	1,424	3,322
County Total Region			
Central Region			
Allamuchy township	4,013	120	281
Belvidere town	760	23	53
Hackettstown town	1,752	53	123
Independence township	6,307	189	442
Liberty township	4,951	149	347
Mansfield township	11,838	355	829
Oxford township	2,154	65	151
Washington borough	1,150	34	80
Washington township	8,104	243	567
White township	12,847	385	899
Municipal Acreage Regional Total	53,876	1,616	3,771
County Total Region			
Southern Region			
Alpha borough	854	26	60
Franklin township	10,646	319	745
Greenwich township	5,697	171	399
Harmony township	9,505	285	665
Lopatcong township	3,937	118	276
Phillipsburg town	1,895	57	133
Pohatcong township	5,990	180	419
Municipal Acreage Regional Total	38,523	1,156	2,697
County Total Region			
Total Municipal Warren County	139,855	4,196	9,790
County Total			



**TABLE XV**

<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	10,749	3,528	12,262	8,818	386	3,322	253	1,424	23,650	17,092	6,558
Central	0	3,621	13,895	9,052	614	3,771	2,847	1,616	17,356	18,060	(704)
South	0	2,195	1,956	5,490	638	2,697	836	1,156	3,430	11,538	(8,108)
Warren County	10,749	9,344	28,113	23,360	1,638	9,790	3,936	4,196	44,436	46,690	(2,254)

Based on the previous table, the central and the southern regions are lacking in the amount of preserved public open space while the northern region has a surplus. Depending on the location, a open space reserve could serve two regions. Additionally, an over abundance of state and federal lands should not preclude the need for the county to acquire additional lands in a particular region.

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, and less desirable undeveloped land will be available. 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.

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## CHAPTER VI

### RESOURCE ASSESSMENT AND OPEN SPACE PLAN

To summarize the proposed open space plan, it is evident, that the County of Warren is not meeting the demand in preserving open space as revealed in the two methods for determining the acreage needed for open space.

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.

Land areas targeted in this 2007 Plan are classified into two tiers.

#### **Tier I:**

The allocation and priority for funding is based on the availability of land and willing sellers. When allocating funding, the funding should be directed to the properties shown as Tier I. Tier I status means that the Department of Land Preservation and the BRC should be more proactive in contacting landowners within the Tier I areas, in securing additional funding sources, and partnering with other agencies. Additional funding sources would include but not be limited to state and federal grants, non-profit participation, and private grants etc. Partnering with other agencies would involve other county agencies such as the CADB, municipalities, state agencies, and non-profits groups such as Morris Land Conservancy, PRO, Ridge and Valley Conservancy etc.

#### **Tier II:**

These are the areas where staff would take a more reactive approach toward acquisition. If a property owner, or partnering agency contacts the Land Preservation Department or the BRC and the property fits into the Open Space Plan in some way, the acquisition may be pursued. The main difference is that the county would not initiate contact with property owners. Partnering and coordination would still be encouraged.

This approach for open space planning will result in:

- Better focus in guiding county staff resources toward accepted county acquisition goals and projects
- Flexibility to acquire land that becomes available in accordance with the Tier I and Tier II areas described in this plan

- Allow for more interagency coordination in achieving the goals of this plan and local and state plans as well.

To meet the short and long term acquisition goals, the 2007 Warren County Open Space Plan envisions the County investing in four broad types of open space areas; Greenways, Special Use Areas, Conservation/Natural Resource Areas, and Open Space Lands. The Proposed Open Space System Plan, as Map 5 shows the Tier 1 properties targeted for acquisition. A more detailed description of each type and how they pertain to Warren County follow.

**Greenways:** Greenways are elongated and are usually continuous strips of land or water under public control through ownership, easement, or other agreement. Greenways may serve conservation needs (i.e. water quality protection) and recreation needs (i.e. access to fishable streams) and, wherever possible, should be planned to connect other park sites and centers of activity and to expose users to interesting views, and historic and unique natural features. Greenways often occupy natural corridors such as streams, ridgelines, and woodlands or man-made corridors such as the Morris Canal, railroad, and utility rights-of-ways.

The greenway should be of sufficient width to protect the host resource (i.e. stream valley, ridgeline, scenic vista). For the Morris Canal, at a minimum, a one hundred foot buffer along both sides of the Canal Corridor measured from the outside toe of the prism band, basin, lock or inclined plane is recommended. It should be of sufficient size and width to accommodate any intended public access and/or trail use type (i.e. pedestrian, bicycle, horse). Wider areas along the corridor may be necessary or desirable to accommodate ancillary facilities such as parking areas, picnic areas, and interpretive facilities or to encompass nearby areas of scenic, environmental, or historic interest.

Where appropriate to the intended purpose, greenways should have connections to and have frequent access points from other public land areas, centers of activity, and public roads. Greenways have the potential for serving a circulation function and should be considered when prioritizing properties for acquisition.

County lands that fall within this category include portions of the Morris Canal and the Warren Trail-Greenway spur of the Highlands Trail.

Tier I Greenways in Warren County are the following:

- Morris Canal

The Morris Canal has been a high priority of the county for years. The Morris Canal was listed on the National and State Registers of Historic Places in 1974. Created in 1981 by the Board of Chosen Freeholders as a special committee to the Warren County Planning Board, the Morris Canal Committee has been instrumental in recommending properties for purchase, educating the public, and preserving and protecting Canal properties as well as increasing the awareness of its great historical significance. The Morris Canal Greenway is described in the Warren County Directory as a major county preservation effort. The Morris

Canal preservation offers recreation, conservation, historic preservation and educational opportunities for residents and students of NJ.

The Morris Canal Committee has developed a model conservation ordinance for use by municipalities to preserve and protect the Morris Canal. Of the nine municipalities that the Canal traverses, Independence, Franklin, Greenwich and Washington Township, have enacted a Morris Canal protection ordinance. In addition, the Board of Chosen Freeholders through Warren County Planning Board's development regulations have requirements in its development review process for the delineation and voluntary preservation of the Morris Canal. The model ordinance and the section of the County Development Regulations pertaining to the Morris Canal preservation is provided in Appendix G. Efforts to secure easements from the current landowners need to be made unless adjacent properties can be acquired that have the Canal actually located on them.

The greatest single Morris Canal achievement was that it overcame more elevation changes than any other canal in the world. Through grants from the State of New Jersey, Green Acres Program, as well as with county and other funding sources, the County has purchased 5.9 miles of the 33 miles in Warren County amounting to 384 ± acres. All 5.9 miles have been acquired from willing sellers as they became available.

It is important to stress the long range goal of the effort. Linking parcels together over time will eventually lead to the completion of longer contiguous segments. The Canal from Route 22 in Lopatcong Township to Stewartsville in Greenwich, a 1.8 mile in fee simple and .8 mile in conservation easement with right to public access stretch began in 1994 with the acquisition of Inclined Plane #9 and was completed in 2002 through acquisition and public access easements. Long term policy commitment, dedication, and stable funding resources are needed to complete the effort.

Significant features of the Morris Canal are highlighted during the spring and fall tours conducted by the Morris Canal Committee. They are Saxton Falls, Florence Kuipers Memorial Park in Hackettstown, Port Murray Boat Basin, Bread Lock Park (Lock #7), and Inclined Plane #9.

This Plan recognizes that all segments of the Canal cannot be acquired particularly through the developed portions of Washington Borough and Phillipsburg. Likewise stretches of the canal from Rockport Road just east of Port Murray to Hackettstown, are unlikely to be acquired because remnants of the canal are already destroyed or are in very close proximity to residential structures. Alternative connections through Mansfield Township may be necessary to link Port Murray to Hackettstown. It is important to understand too, that people are unlikely to walk the entire length of the canal. However the goal is to link a many parcels together and connect them to the major population centers so that the people in these centers can have an additional recreational opportunity nearby where a person may choose to walk a couple miles down the canal and back. The walk would combine a recreational physical benefit with the benefit of exploring a state and national register historic site in a natural setting. For planning purposes access points should be considered at any road crossing and where other public open space properties intersect.

Detailed site planning would have to be done to determine where parking facilities could be located.

It is possible that all 33 miles could become a tourist destination in conjunction with the Warren Trail where a group or family could walk from Phillipsburg to Washington, stay overnight at a bed and breakfast in town, then continue north to Hackettstown the next day. In Hackettstown, stay overnight then continue on to Saxton Falls the next day and camp out in Allamuchy State Park or Stephens State Forest. The next day the journey could continue on to the Warren Trail and continue to the Pequest Fish Hatchery or Jenny Jump State Park. The Village of Oxford or Hope could be a stop along the way where some of the historic sites could be visited. The trek could end in Phillipsburg after visiting Merrill Creek Reservoir and the Pump House along the Delaware.

The target areas for acquisition of the Morris Canal Greenway can be classified as high or low priority. Criteria for designating high or low priority include as follows:

- Availability of Land
- Compatibility with Surrounding Land Uses
- Intactness of the Canal

Coordination with other governmental agencies including municipal and state agencies and farmland preservation programs is critical to the successful completion of the Canal Greenway.

The following is a discussion of the sections of the Canal from west to east and includes a discussion of the historical features, opportunities for acquisition, and actions taken so far to acquire the lands, and if it should be considered as high or low priority.

### **Morris Canal Arches to the S. Main St./Lock St Intersection in Phillipsburg.**

The Canal arches are the gateway to the Delaware River. Canal boats would cross the river and access the Lehigh Canal to the coal mines in Pennsylvania. An ISTE grant was awarded to the Phillipsburg Riverview Organization to reconstruct the arches. The lands adjacent to the arches are owned by the Town of Phillipsburg, and by a developer who has proposed a housing project known as Delaware Heights that will redevelop a significant portion of former industrial land above the Delaware River water front. Special effort will be needed to secure properties and easements to ensure a safe walkway along the remnants of the canal. On many segments a road walk will be necessary. To promote awareness of the Morris Canal and the historic industrial and transportation significance of this area, a tour map and guide could be developed with the Town of Phillipsburg, the Friends of the NJ Transportation Museum, and the Black River and Western Railroad that has a stop near the Arches and runs excursion trains.

Total Length - 12,120' or 2.3 miles

Length in County Ownership - 0

Length in other Public Ownership- 2,940'  
Length in Easements – 0

Total Acreage Acquired in Fee and Easement

Number of Properties Remaining for acquisition - 29  
Number of Miles or feet remaining for acquisition – 9,180' or 1.74 miles

Priority: Low

**Lock Street/S. Main Street in Phillipsburg to Rt 22.**

This stretch is approximately 1.27 miles long. Portions have been acquired by the County in fee simple or easement. Notable features in this segment include the Incline Plane #10 which has not been acquired yet although the property owner is willing to sell and the Pursell Mill site on South Main St. Recently the dam was removed from the mill site to allow the Lopatcong Creek to become a free flowing water body once again. The owner of the mill is interested in preserving the canal area for public access.

Total Length - 6,700' or 1.27 miles

Length in County Ownership- 1,720'  
Length in other Public Ownership- 1,210' through the Huntingdon Ballfields and  
Homa Park

Length in Easements - 0

Total Acreage Acquired in Fee and Easement

Number of Properties Remaining for acquisition - 15  
Number of Miles or feet remaining for acquisition - 3,770'

Priority: High

**Rt 22. to North Main Street in Stewartsville**

Notable features in this target area include Incline Plane #9 and plane tender's house, and the Hamlen Waste Weir. An ISTEA grant was awarded to the County to reconstruct the segment of the Canal from Rt 22 to CR 519 including the waste weir. Plans are being prepared for the reconstruction. Reconstruction of the canal is affected by the C-1 classification of the Lopatcong Creek. Permits are still needed from the NJDEP to undertake the work. However, work is scheduled to reconstruct the Canal from Strykers Road to U.S. Route 22 in conjunction with the Strykers Road bridge project.

The segment of the Morris Canal from the Hamlen property to North Main Street was acquired by a conservation easement with right to public access when the Stewarts Hunt



subdivision was approved in 1994. The right to public access cannot be exercised until such time the County creates a formal program for public use. Efforts to directly acquire a trail on the adjacent former Rinehart property, which went through the farmland preservation program, were unsuccessful.

On the N. Main St end of this stretch, the county owns a 68 acre tract that can be developed into a small parking area in the future. It can serve as a public access point for points west and east.

A historic preservation plan for the reconstruction of Inclined Plan #9 and house has been prepared. Some of the short term recommendations of the plan have been completed already while the intermediate and long term tasks still need to be undertaken. A well will be drilled and septic system installed to replace the cistern and cesspool.

Total Length – 12,370' or 2.34 miles

Length in County Ownership – 8,260' or 1.56 miles

Length in other Public Ownership –

Length in Easements – 4,110' or .79 miles

Total Acreage Acquired in Fee and Easement –TBD

Number of Properties Remaining for acquisition – 0

Number of Miles or feet remaining for acquisition – 0

Priority: High

**North Main Street, Stewartsville to Rt. 57, Franklin Twp.**

The Greenwich Township Rescue Squad building occupies the canal right of way. However, efforts can be made to obtain a public easement across the property. Selective acquisition of property to obtain a greenway or easements for a trail will have to be undertaken to Richline Road. From Richline Road north to the Nabozny County owned property direct acquisition of the properties for the greenway and reserves for open lands should be undertaken. Significant features along this stretch include Inclined Plane #8 and Lock #7 (County owned Bread Lock Park)

Total Length – 11,040' or 2.09 miles

Length in County Ownership – 3,960' or .75 mile

Length in other Public Ownership – 270' (Emergency Squad)

Length in Easements - 0

Total Acreage Acquired in Fee and Easement – 99 acres plus Emergency Squad

Number of Properties Remaining for acquisition - 8

Number of Miles or feet remaining for acquisition – 7,080' or 1.34 miles

Priority: High

**Rt 57 to Millbrook Road, Franklin Twp.**

This stretch is 2.64 miles long. It represents a great opportunity for acquisition without significant intrusions from adjacent development. Much of the canal is intact or easily restored. Only one property has been acquired by the county. Since the 1999 Plan two failed attempts were made to acquire property easements along the Morris Canal through the development review process and the farmland preservation process. Efforts to secure easements from the current landowners need to be made unless adjacent properties can be acquired that have the Canal actually located on them.

Total Length - 13,960' or 2.64 miles

Length in County Ownership – 1,080' or .2 mile

Length in other Public Ownership- 0

Length in Easements -0

Total Acreage Acquired in Fee and Easement – 2.4 acres

Number of Properties Remaining for acquisition - 16

Number of Miles or feet remaining for acquisition –12,610' or 2.39 miles

Priority: High

**Millbrook Road, Franklin Twp. to Brass Castle Road, Washington Twp.**

As the Rt 57 to Millbrook Road segment, this target area represents a good opportunity for acquisition as well. Located on Millbrook Road the Fancy property was acquired in 2001 and may be able to provide for parking facilities. It has over 2,000 feet of the canal. Along the way northward, a tract containing over 2,000 feet of the canal was acquired through the farmland preservation program. A license agreement or easement for public access would have to be secured from the owner. Toward the northern end of the target area is Washington Township's Meadow Breeze Park containing 1,400 feet of the Canal. Meadow Breeze park is well used park containing soccer and baseball fields, tennis and basketball courts, and a pavilion.

Total Length – 17,340' or 3.28 miles

Length in County Ownership – 2,010' or .38 mile

Length in other Public Ownership – 1,400' (Wash. Twp. Meadow Breeze) .27 mile

Length in Easements - 2,080' in farmland preservation easement, no conservation or public access to canal

Total Acreage Acquired in Fee and Easement – 74 acres plus Meadow Breeze Park

Number of Properties Remaining for acquisition - 15

Number of Miles or feet remaining for acquisition —13,930' or 2.64 miles

Priority: High ( Need to secure a conservation easement and public access easement or license agreement from property owner to gain access to farm preserved property)

### **Brass Castle Road to Rt 31, Washington**

Most of this section travels through the Borough of Washington. Much of the Morris Canal has been destroyed. A road walking tour from Meadow Breeze Park to Port Colden should be prepared. A brochure and map could be developed that would guide visitors to the noted landmarks along the route and promote the Washington Borough downtown. Some of the notable features on this walk are Plane Hill Road, and the North Lincoln Ave. Community. This could be accomplished through the combined efforts of the Morris Canal Committee, Board of Recreation Commissioners, the Washington Township and Borough Historic Societies, WC Regional Chamber of Commerce, Washington BID.

To provide an alternate to the road walk it may be possible to secure access easements and property along the Pohatcong Creek from Brass Castle Road to Plane Hill Road.

Total Length - 11,080' or 2.1 miles, Road walk will be lengthier

Length in Easements - 2,030' in possible JCPL license agreement

Priority: Low

### **Rt 31 to Port Colden, Westervelt Road**

This section could take two possible routes. The route to be taken in the short term would be a road walk along Rt 57 to Port Colden. The Flower Avenue development destroyed most of the remains of the Morris Canal making a walk through the development undesirable.

The alternate route would depend on in part, the acquisition of public access or license agreement from the farm preserved property owner and the acquisition of six properties in the Flower Avenue development to facilitate a trail as close to the Morris Canal as possible.

Total Length – 6,830'

Length in Other Easements- 1,810' Farmland Preservation Easement (need to obtain a public access or license agreement from the property owner).

Properties to be Acquired - 8

Priority: Medium

**Port Colden, Westervelt Road to Port Murray Road, Washington and Mansfield Twps.**

Starting at the Port Colden School which was built in the Port Colden Boat basin, notable properties include Incline Plane # 6, a double tracked plane. It is likely that the site contains extensive archeological features of plane components and of earlier plane systems that were used. Further east are county owned properties containing over 2,270 feet of the canal. Before entering Port Murray is a large property containing approximately 160 acres. It contains remnants of the canal including Inclined Plane #5. Most of the Inclined Plane was destroyed when the property was used later as a clay pit.

Total Length - 16,290' or 3.08 miles

Length in County Ownership – 2,270' or .43 mile

Length in other Public Ownership – 600' (Port Colden School, right to access would have to be obtained)

Length in Easements -0

Total Acreage Acquired in Fee and Easement – 83

Number of Properties Remaining for acquisition -12

Number of Miles or feet remaining for acquisition – 13,420' or 2.54 miles

Priority: High

**Port Murray Rd to Thomas Road, Mansfield Twp**

This segment contains the Port Murray Boat Basin. Combined, the County and the State of NJ own 2,290 feet of the canal.

Total Length - 11,940' or 2.26 miles

Length in County Ownership – 1,460' or .28 mile

Length in other Public Ownership – 1,460' or .28 mile

Length in Easements – 1,480' or .28 mile (Access Easement)  
813' in Conservation Easements

Total Acreage Acquired in Fee and Easement – 8.7 acres plus Rockport property

Number of Properties Remaining for acquisition – 22

Number of Miles or feet remaining for acquisition – 7,540' or 1.43 miles

Priority: High

**Thomas Road to western end of Hackettstown Independence lands**

Total Length - 15,010' or 2.84 miles

Length in County Ownership – 0

Length in other Public Ownership – 4,080' state or .77 mile

Length in Easements -0

Total Acreage Acquired in Fee and Easement – Rockport Game Farm Lands

Number of Properties Remaining for acquisition – 16

Number of Miles or feet remaining for acquisition – 10,930' or 2.07 miles

Priority: High

**Hackettstown –Independence Properties (western end) to Rt 46 Hackettstown**

Total Length - 7,240' or 1.37 mile

Length in County Ownership – 6,820' or 1.3 mile

Length in other Public Ownership - 0

Length in Easements 0

Total Acreage Acquired in Fee and Easement: 28 acres

Number of Properties Remaining for acquisition - 2

Number of Miles or feet remaining for acquisition – 420'

Priority: High

**Rt 46 Hackettstown to CR 517 (Towpath Apartments)**

Total Length - 5,700' or 1.08 mile

Length in County Ownership - 0

Length in other Public Ownership - 0

Length in Easements -0

Total Acreage Acquired in Fee and Easement - 0

Number of Properties Remaining for acquisition - 8

Number of Miles or feet remaining for acquisition – 5,700' or 1.08 miles

Priority: High

### **CR 517 Towpath Apartments to Bilby Road**

Total Length – 4,490' or .85 mile

Length in County Ownership – 1,310' or .25 mile

Length in other Public Ownership -0

Length in Easements – 1,804' or .34 mile

Total Acreage Acquired in Fee and Easement – 11 acres

Number of Properties Remaining for acquisition 1

Number of Miles or feet remaining for acquisition – 3,180'

Priority: High

### **Bilby Road to Saxton Falls**

Total Length – 8,830' or 1.67 miles

Length in County Ownership – 2,360'

Length in other Public Ownership – 3,460'

Length in Easements – 647' or .34 mile

Total Acreage Acquired in Fee and Easement -

Number of Properties Remaining for acquisition 2

Number of Miles or feet remaining for acquisition – 1,863'

Priority: High

- **Highlands Trail/Warren Trail and Greenway -Tier I**

This greenway and 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. Thirty two miles of the trail would be located in Warren County. The route will connect major scenic attractions in both states. Ultimately, a network of trails, including alternate routes and multi-use paths, is envisioned.

The Warren County section of the Highlands Trail will enter the county through Allamuchy Mountain State Forest and proceed in a southwesterly direction through central Warren County using the Lehigh Hudson railroad right of way, portions of the Pequest Fish Hatchery, state, county and municipal owned properties on Oxford Mountain, Scotts Mountain, and Marble Mountain, and the Merrill Creek Reservoir property. Warren County

has acquired over 797 acres of land area that was planned to be used for the greenway. Coordination with other governmental agencies to include municipal governments and the farmland preservation programs are important to ensure that the trail is completed with no gaps and minimal need to walk along public roadways. A detailed description of the Warren Trail is provided in Appendix H.

The following is a discussion of the sections of the Warren Trail-Greenway from South to North and includes a discussion of the features, opportunities for acquisition, and actions taken so far to acquire the lands, and if it should be considered as high or low priority.

### **Water Company Pump House to Merrill Creek Environmental Resource Preserve**

This section provides a connection from the Delaware River at the Water Company pump house, owned by the County, and which serves as the southerly trail head and parking. The pump house property is a special use area that can be a destination of its own and serve as a stop on a historical tour of the county. Currently the pump house property is leased to the Friends of the NJ Transportation Museum who have been restoring the pump and the steam engine. In exchange the Friends have been storing transportation equipment and vehicles on the property in anticipation of the museum being constructed in Warren County. As a special use property a plan for the restoration and use of the pump house and storage building should be completed.

Walking across River Road, the trail can be accessed and hiked to the top of Marble Hill. On top is an ice cave. Still on County Property the trail could be established crossing state lands on top of the hill. There is a gap in publicly owned properties on CR 646 to a portion of property owned by Harkers Hollow. Opportunities exist to acquire rights to public access or outright acquisition of properties from private owners and the Warren County Farmers Fair Association.

Total Length - 23,650' or 4.48 miles

Length in County Ownership – 9,500' or 1.8 miles

Length in other Public Ownership – 6,500'

Length in Easements – 60' Shandor easement

Total Length in Road Walk - 4,600'

Number of Properties Remaining for acquisition - 3

Number of Miles or feet remaining for acquisition – 4,050'

Priority: High

### **Merrill Creek Environmental Resource Preserve**

Currently owned by a consortium of power companies, the 2,800 acre reserve is open

for public use seven days per week during daylight hours. It contains a multitude of existing trails around the reservoir and can serve as a link in the greater Warren Trail connection. Permission to connect with the Merrill Creek trail system would have to be obtained. Approximately 2,000 feet of the Warren Trail would pass through this property.

**Merrill Creek Environmental Resource Preserve to Washington Twp. Former Water Company Property at CR 623**

To make an off road connection from Montana Road to the Washington Township property coordination with the farmland preservation program to jointly acquire farmland and/or secure public access easements would have to take place. This section of the Trail-Greenway represents a walk across a farmland plateau. Coordination with Washington Township on connecting a trail will have to take place. A connection from the Washington Water Company property to Meadowbreeze Park could be established as well. This would connect the Warren Trail-Greenway to the Morris Canal Greenway.

Total Length - 26,600'

Length in County Ownership – 6,850'

Length in other Public Ownership – 6,850'

Length in Easements

Total Length in Road Walk - 7,750'

Total Acreage Acquired in Fee and Easement

Number of Properties Remaining for acquisition - 3

Number of Miles or feet remaining for acquisition – 5,150'

Priority: High

**Washington Twp. Former Water Company Property to Pequest Fish Hatchery**

Ascending from the Washington Twp property this section overlooks the Pohatcong and the Musconetcong Valleys. There are two properties that need to be acquired to complete the Trail-Greenway in Washington Township. In Oxford a short road walk must be taken on Mine Hill Road and Rt 31 to connect the trail between properties. The county owned W. Oxford Mountain properties have a history of iron ore mining and have established trails for use.

Total Length - 26,950'

Length in County Ownership – 11,200'

Length in other Public Ownership – 250'

Length in Easements

Total Acreage Acquired in Fee and Easement



Number of Properties Remaining for acquisition - 2  
Number of Miles or feet remaining for acquisition – 1,550'

Priority: High

### **Pequest Fish Hatchery Lands**

Owned by the NJDEP the land area contains over 4,600 acres and connects Rt 31 in Mansfield Township to the Lehigh-Hudson Railroad in Liberty Township. Coordination with the NJDEP will have to take place to establish the trail through these lands.

### **Pequest Fish Hatchery lands to Allamuchy public lands**

The trail would follow the abandoned Lehigh Hudson Railroad Corridor through much of the flat Pequest River valley and go around the eastern edge of the Great Meadows mucklands. In some segments through Liberty and Independence Township the trail may have to deviate from the railroad corridor.

Total Length - 44,900' or 8.5 miles

Length in County Ownership - 0  
Length in other Public Ownership – 25,600'  
Length in Easements

Total Acreage Acquired in Fee and Easement

Number of Properties Remaining for acquisition - 6  
Number of Miles or feet remaining for acquisition

Priority: High

### **Ridge and Valley Trail**

Although portions have been completed near White Lake in Hardwick Township, the Ridge and Valley Trail will offer a unique opportunity for the weekend hikers. This trail will connect the Paulinskill Trail with the Appalachian Trail, traversing the White Lake Natural Resource Area, various Ridge and Valley Conservancy properties and finally connecting near the Appalachian Trail at the Ralph Mason YMCA camp.

### **Interconnecting Trail Systems**

To form a web of interlinking trails with other trail systems, natural resource areas, special use areas and open space areas, the special connecting trail systems can be acquired. This can give the trail user the opportunity to experience multiple trail systems or visit special areas on other trail systems in one hiking outing without the necessity of traveling by

car to the other sites. Specific examples include

### **Morris Canal – Warren Trail Connections**

There are several possibilities exist in Franklin, Lopatcong and Washington Townships to include connecting the Morris Canal with the Warren Trail.

### **Morris Canal – Musconetcong River Connections**

There are possibilities to connect the two systems in Mansfield and Washington Townships.

### **Jenny Jump – Paulinskill Trail Connection**

There may be a possibility to acquire properties to connect properties associated with Jenny Jump in Allamuchy and Frelinghuysen Township with the Paulinskill Trail in Hardwick and the Liberty Water Gap trail. Utilizing land areas owned by the State, non-profit agencies and the Presbyterian Camp, an additional 3 miles of trail lands would need to be acquired to make the connection with the Paulinskill trail and the White Lake property and then to the Ridge and Valley Trail.

## **Tier II Other Greenways**

### **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.

### **Delaware River Greenway Trail**

The Delaware River Greenway Trail will connect 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.

### **Musconetong River Greenway Trail**

The preservation lands areas along this wild and scenic river is important for environmental, recreational purposes. It is consistent with the State acquisition plans and those of the Musconetcong Watershed Association.

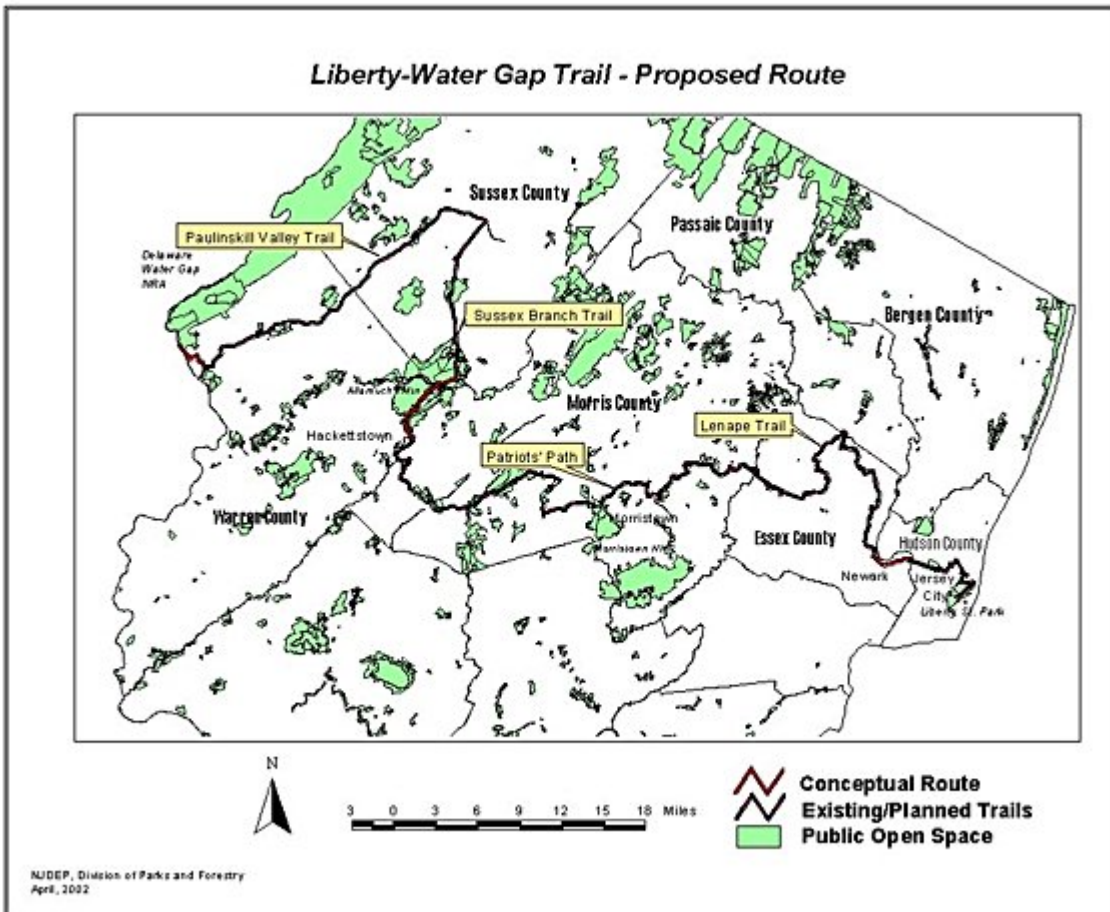
### **Liberty Water Gap Trail**

As described on the Liberty Water Gap website at [www.libertgap.org](http://www.libertgap.org), when completed the Trail will connect the Hudson River to the Delaware Water Gap. The trail is for non-motorized multi-use recreational activity. It connects five counties in New Jersey. Uses along the trail vary depending on compatibility with the environment and policies of park agencies managing existing trails. The trail promotes appreciation of our cultural history and natural landscapes.

For the most part, the trail is the interconnection of four existing trails: the Lenape Trail in Essex County, Patriots' Path in Morris County, the Sussex Branch Trail in Sussex County and the Paulinskill Valley Trail in Sussex & Warren Counties.

Some connections to the Water Gap still need to be made in Warren County. The prime movers on establishing the trail through Warren County are Green Acres and the NY-NJ Trail Conference.

The following map depicts the Liberty - Water Gap trail in its entirety.



**Special Use Areas:** Special Use Areas serve a special purpose or meet a specific need. Often they are devoted to single purpose recreational, horticultural, historic or cultural activities. Special Use Areas may include sites of historic, cultural, scenic or archaeological significance. A Special Use Area may be located within or adjacent to another County land area.

Special use area may be classified into Tier I and Tier II areas as well. Tier I special use areas include significant features of the Morris Canal that have been acquired and need special attention for management, maintenance, and future development. The Inclined Plane #9 west in Greenwich Township, and Bread Lock Park (Lock #7 west) have maintenance and future development plans to restore these treasured properties into what existed when the Canal was functioning nearly 100 years ago. Both properties are part of the Morris Canal Greenway yet are considered Special Use areas because they can be stand alone destinations. Currently the properties are managed via an agreement with the Highlands Project.

Other special use areas in the County are Florence Kuipers Park in Hackettstown, the Port Murray Boat Basin property and the Consumers Water Company Pump House property. The Pump House property is currently leased to the NJ Friends of the Railroad and Transportation Museum. The Friends have been storing transportation equipment on site and have made strides in restoring the historic pump house and pump turbine. This site is located on the southern portion of the Warren Trail greenway and can become stand alone destinations or part of the greenway.

Tier II areas would include acquisition that is undertaken to preserve or take advantage of a specific existing or potential resource of County significance rather than as a response to a calculated recreation need. Their location and size should be determined in accordance with their intended function.

### **Conservation Areas/Natural Resource Areas:**

The primary function of Conservation Areas is the preservation and enhancement of valuable natural resources and they are generally actively managed for that purpose. Conservation areas often include water and water related natural resources, mature woodland, noteworthy plant or wildlife habitats, geological features, and/or scenic landscapes. Public access for the appreciation and enjoyment of these resources should be accommodated providing it does not pose a threat to the resources themselves. Any development should be non-intensive and should be limited to the support and enhancement of nature-oriented outdoor recreation including such activities as nature interpretation, hiking, fishing, trail uses, and limited picnicking.

Conservation/Natural Resource areas may be classified into Tier I and Tier II areas as well. Tier I areas would include those area that function as a link in a Tier I greenway or special use area as defined in this plan. Existing Conservation/Natural Resource Areas include White Lake Natural Resource Area, Oxford Mountain Natural Resource Area, and the Marble Hill Natural Resource Area. The White Lake NRA is home to a large number of rare plant communities, diverse bird and amphibian communities, limestone forests which are considered rare as there are less than 100 occurrences of them worldwide. White Lake itself is unique because it is fed from springs and fissures in the bedrock. In addition it is a part of the Ridge and Valley Greenway/trail that is being led by the Ridge and Valley Conservancy to link the Paulinskill Trail with the Appalachian Trail. The West Oxford Mountain NRA and the Marble Hill NRA are segments of the Warren Trail. Future acquisition of Tier I Conservation/Natural Resource Areas should be part of a segment of a greenway.

The role of Tier II Conservation/Natural Resource Areas would be to permanently protect features of the landscape that have County significance. Conservation Areas should be acquired where there are natural features worthy of public protection. The size and location of the Conservation Areas will depend on the natural characteristics of the site. A Conservation Area may be located within or adjacent to other County land areas.

An important objective 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 conservation and passive recreation uses.

### Criteria for Selecting Conservation/Natural Resource Areas

For the purposes of conservation area planning, these areas may 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

### **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 6 Steep Slopes shows the areas of the county with over 15 percent slope, and major ridgelines and watersheds.

### **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 7 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. However, stormwater regulations now

require 300' buffers if classified as Category 1. Stream corridors are shown on Map 6 Freshwater Wetlands, Lakes, and Streams.

### **Aquifer 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. To assist in the identification of areas suitable for rare and endangered species habitat the NJ State Landscape Maps may be consulted. The Landscape maps identify state threatened and endangered species.

### **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. The placement of cell towers should not intrude negatively on scenic vistas. Towers can often be camouflaged or made part of existing structures. 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 and cell tower 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.

Currently, the Rt. 57 corridor is being nominated as a scenic corridor. The acquisition of lands along the highway and within its viewshed should be pursued through the Morris Canal Greenways Conservation areas, and open lands as described next. A scenic resource analysis could be conducted to identify worthy scenic vistas and viewsheds.

### **Open Lands:**

Open Lands are lands that are acquired to advance regional objectives for watershed protection, farmland preservation, and to enhance regional quality of life by preserving certain lands of county significance in an essentially unimproved condition. Open Lands may serve to protect areas of scenic beauty or natural habitat. Open Lands may serve to enhance public health and safety by preventing development of areas prone to flooding or erosion or which contribute to water quality protection. Preservation of Open Lands may be in fee or by easement.

Open lands may be classified as Tier I and Tier II. Tier I lands would include those that function as a link in a Tier I greenway project or are adjacent to a Tier I Conservation/Natural Resource Area. County lands that fall within this category include the Nabozny Tract in Franklin Township. It is part of the Morris Canal Greenway yet is agricultural in use and was acquired with the NJDOT to preserve the existing uses and growth management along the NJ 57 corridor which is also being considered as a scenic corridor.

Land classified as Tier II Open Lands are not intended for formal public use but may be made available for agriculture or forestry operations. Open lands may be acquired in coordination with farmland preservation program, or other programs designed to keep the land in an unbuilt condition with minimal to no public rights of access. Open Lands generally receive only minimal maintenance and patrolling. Open Lands should be acquired where there are large or contiguous undeveloped properties worthy of permanent preservation by the County but which either are not suitable for, or not currently needed for other public open space purposes. The size and location of Open Lands will depend on the characteristics of the site and patterns of development and ownership.

To assist the County in prioritizing land areas for Tier II Conservation/Natural Resource Areas and Open Space Site Selection the following additional criteria may be used:

#### **Located in Regions Lacking 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, consideration 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**

These size criteria will afford the county residents large reserves of open space that they may not find in their municipality without the inconvenience of traveling 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 and 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 selection 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**

The selection of 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. A listing of properties and districts on the National and State Registers of Historic Places in Warren County is in Appendix I.

- **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 Strategic Growth 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.

- **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 10 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 10 also shows the location of non-agricultural soils.

- **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.

- **Unique Geologic Features**

While bedrock geology dominates much of the landscape of Warren County, there are significant overlying glacial deposits in the valleys. This surficial geology has a significant impact on groundwater availability. Karst limestone aquifers are particularly vulnerable for pollutants. The limestone aquifers provide high water quality and quantity.

## **SITES IDENTIFIED BY MUNICIPALITIES AND NON-PROFITS**

To help guide the Municipal and Charitable Conservancy Trust Fund Committee and other county agencies in providing financial assistance to municipalities and non-profit groups it is recommended that the current Warren County Open Space Plan be consulted to determine how the proposed acquisition fits in with the County's vision for open space. It is recommended that the MCCTF transmit the applications it receives to the County Planning Department to determine consistency with the Open Space Plan.

To promote the coordination of Open Space acquisition efforts throughout the county, the Planning Department sent a request to all known municipal and non-profit agencies for an inventory of land holdings and identification of properties they have targeted for future acquisition. In addition each municipal Open Space and Recreation Plan was reviewed. A summary of the response and/or open space plan follows. A composite map depicting the areas are shown on Map 11.

### **Municipalities**

#### **Allamuchy Township**

Allamuchy Township provided an inventory of open space land holdings in the township. It has over 4,600 acres in State open space, 165 acres in non-profit space and 261 acres of municipal owned open space. There is a over 300 acres of municipal space not earmarked for open space but for municipal purposes, i.e. fire, road department, well head protection etc. It has an additional 2000 acres preserved as farmland

#### **Alpha Borough**

Alpha Borough's Open Space and Recreation Plan dated February 2007 was reviewed. Its Action Plan contains some key points. They are to analyze vacant railroad properties to determine suitability for open space and trail development, apply for funding from the MCCTF, meet with adjacent municipalities to discuss common open space objectives and programs, and establish partnerships with other entities for funding the projects.

#### **Belvidere**

The last Master Plan Re-Examination from 2002 was reviewed. The town planning board identified two points concerning open space. They are to establish pedestrian access with walkways, bikeways and landscaping along the Delaware River and Pequest River waterfronts.

#### **Blairstown**

No discussion on open space.

## Franklin

The Franklin Township Open Space Plan of 2006 was reviewed. It identifies four Greenway projects. They are the Scott's Mountain Greenway and connect with the Warren Trail, the Morris Canal Greenway, the Pohatcong Ridge Greenway, and the Musconetcong River Greenway. Partnerships with other agencies are recommended as well as seeking funding from the county MCCTF.

## Frelinghuysen

The Township's Open Space Advisory Commission responded with an inventory of open space and a target list of properties the commission deems as suitable for acquisition. They are:

<b>Location</b>	<b>Road</b>	<b>Acreage</b>
B 103, L 3	Route 94	35.56 acres
B 1701, L 8	State Park Road	4.95 acres
B 601, L 1	Wasigan/Silver Lake Road	68.02 acres
B 201, L 16 (Vacant)	Route 94	22.40 acres
B 201, L 6	Lincoln Laurel Road	71.50 acres
B 201, L 8.08 (contiguous with B 201, L 6)	Route 94	89.80 acres
B 902, L 18 (farm assessed)	Mill Road	15.40 acres
B 902, L 12	Mill Road	54.36 acres
B 501, L 26 (across from Silver Lake Road)	Route 94	66.65 acres
B 1301, L 21	Greendell Road	125.76 acres
B 104, L 10 (Kid's Camp)	Lincoln Laurel Road	124.37 acres
B 1703, L 11	State Park Road	38.31 acres
B 1703, L 15	State Park Road	0.47 acres

## Greenwich

The Township Land Use Plan and Conservation Plan was reviewed. It identifies objectives to protect stream corridors, wildlife habitats and scenic vistas.

## Hackettstown

A 1988 plan revision was reviewed and it recommended that additional open space and recreation land be acquired when the remaining vacant lands along the Musconetcong are developed so that a balance between developed land and open space lands can be maintained.

## Hardwick

The Hardwick Township Open Space Plan of 2000 was reviewed. It identifies seven project areas for preservation. They are; White Lake; Hardwick Meadows, Shuster Pond; Squires Corner; Kittatiny Mountain Macro site; Blair Creek Greenway; and the Limestone Forest-Carrazone Tract. In addition, the township endorses the Ridge Valley Trail also know as the Camp Ridge Trail to connect the Paulinskill Trail with the DWGNRA area.

## Harmony

Harmony Township Environmental Commission provided an inventory of properties in Harmony Township preserved as farmland, as well as county, municipal, state and non-profit open space properties. A copy of the Township's Open Space and Recreation Plan dated April 2006 was provided and reviewed. The Plan identifies the need to create partnerships for water protection particularly with FEMA to purchase and preserve flood damaged properties along the Delaware River. To protect ground water quality and surface water quality, land within aquifer recharge areas, within 300 feet of C-1 and trout production waterways including the Buckhorn Creek, Lopatcong Creek, Merrill Creek and Mill Brook, surrounding the Merrill Creek Reservoir, and properties along the Delaware River, are recommended for preservation. In addition, lands along Scott's Mountain particularly the forested lands along the ridgeline and slopes to advance the completion of the Warren Trail. Farmland Preservation is a high priority as well.

## Hope

Hope Township does has a farmland preservation element only.

## Knowlton

## Independence

No open space plan.

## Liberty

The Liberty Township Open Space Advisory Committee responded and identified three focus areas. They are the Mountain Lake beaches and access points, the Warren Trail southern route as Block 300, Lot 1, and the northern route thru Jenny Jump State Park as Block 5, Lots 21.01, 22, 26.01, and a Green Golf Course as Block 9, Lot 22, containing a total of 131 acres.

## Lopatcong

The Township planner provided an inventory township owned open space. In addition the township's 2004 Reexamination of the Open Space and Recreation Plan identified three tracts for active recreation use. They are Block 85, Lots 4 and 36 and Block 85.01, Lots 3, 4 and 38. In addition, Marble Hill, Scott's Mountain and Lopatcong Creek are identified as areas of environmental concern that should be preserved as open space. The plan recommends that the township and county consider a land swap where a tract owned by the county Block 2, Lot 28, is traded with Block 2, Lot 51 owned by the township. The swap would provide the county with contiguous parcels on the Warren Trail and would provide the township with contiguous properties. The plan also depicts a future trail system throughout the township that would link the various residential sections of the township with one another. The plan also includes the Warren Trail.

## Mansfield

The 2001 township reexamination Report was reviewed. It states that the goals and objectives of the 1999 Master Plan had not changed to any significant degree. The 1998 draft Open Space Recreation Plan recognizes the Morris Canal as a county effort. In addition, the Plan identifies several open space greenways to establish trail systems to link state, county, on municipal open space areas. Also the plan identifies other sites for additional municipal parks.

## Oxford

Oxford responded with an inventory map of open space and recreational facilities. The map identifies Block 26, Lots 85 and 86 for active recreation and passive recreation respectively consisting of 122 acres. Both are on Mt. Pisgah Avenue. Another property on Belvidere Avenue, Block 25, Lot 10, is identified for farmland preservation. Oxford Township's Master Plan recommends that the Ox Tech site be acquired and restored to create a historic site with park like amenities.

## Phillipsburg

The town's Master Plan update for community facilities, recreation and open space plan was reviewed. It supports providing accessible recreation opportunities, preserving natural areas and enhancing access, use and enjoyment of the Morris Canal, Delaware River and Lopatcong Creek.

## Pohatcong

The draft Pohatcong Open Space and Recreation Plan discuss a number of preservation efforts. They are; the Parkside Parks Preservation Area, Morris Canal Greenway, Phillipsburg Bluffs, Delaware River Recreation Corridor, Alpha-Pohatcong Grasslands, Pinchers Point, Southern Gateway, Musconetcong River Valley Historic Preservation Area, Pohatcong Creek Greenway, Northern Gateway,

Washington Borough

The Borough responded to the November 8, 2007 memo stating that the following properties are targeted for acquisition: Block 97, Lots 1, 2, 3 and 4, and Block 97.01, Lot 2. In addition, the Borough's Open Space Plan was reviewed and it identifies a number of other properties including the Morris Canal Corridor, the railroad right of way, various properties in the Flower Avenue section, Shabbecong Creek Greenway and the Mill Pond.

Washington Township

The Township provided a CD ROM containing the township's Open Space and Recreation Plan of 2006 and GIS coverage. The Plan discusses a number of projects to be considered as primary preservation areas. These projects are the restoration of the Old Port Colden School House, the acquisition of the Peter Van Doren Grist Mill site at Block 28, Lot 21, the acquisition of the Morris Canal through fee simple and/or easements. The Plan specifies 5 properties containing the Morris Canal that may be suitable for easement purchase.

The Plan proposes to establish a linear park on the abandoned Delaware, Lackawanna and Western RR from the Musconetcong River northward through Washington Borough to the border with Mansfield Township. Lots identified are:

<u>Block</u>	<u>Lot</u>	<u>Acres</u>
30	18	6.06
30	17	6.05
30	18	1.10
47	10	0.89
47	10	2.59

	<u>Lot</u>	<u>Acres</u>	<u>Length</u>	<u>Address</u>	<u>Status</u>
15	8.02	12.63	664	126 Little Philadelphia Rd	Private
16	4	94.580	1035	96 Little Philadelphia Rd	Private
16	8	8.781	1370	65 Little Philadelphia Rd	Private
17	3	2.76	300	74 Kavharts Lane	Private
40	87	98.04	1500	1 Julia Dr	Private
			83	6	3.56
			47	11	1.68
			47	9	83.56
			46	6	0.87
			47	8	6.77
			83	6	2.59

The Plan proposes conservation areas including the preservation of stream corridors (300 foot buffer) and greenways for the protection of water quality, wildlife protection, flood protection and passive recreation. A route for the Warren Trail is proposed identify two additional properties for acquisition and identifies additional properties throughout the township to be used for various types of passive and active recreation. A listing of those properties is shown below.

<b>Block</b>	<b>Lot</b>	<b>Acres</b>
<u>67</u>	<u>63.01</u>	<u>25.790</u>
<u>67</u>	<u>62</u>	<u>16.630</u>
<u>68</u>	<u>12.01</u>	<u>10.620</u>
<u>27</u>	<u>13.06</u>	<u>0.500</u>
<u>27</u>	<u>13</u>	<u>13.180</u>
<u>68</u>	<u>45</u>	<u>131.500</u>
<u>67</u>	<u>63.05</u>	<u>8.870</u>
<u>22</u>	<u>3.17</u>	<u>20.000</u>
<u>82</u>	<u>16</u>	<u>111.000</u>
<u>74</u>	<u>3.01</u>	<u>34.830</u>

**Passive Recreation Properties**

<b>Block</b>	<b>Lot</b>	<b>Acres</b>	<b>Ownership</b>	<b>Purpose</b>
<u>68</u>	<u>10</u>	<u>24.600</u>	<u>Washington Township</u>	<u>Meadowbreeze Field Expansion</u>
<u>68</u>	<u>11</u>	<u>1.277</u>	<u>Washington Township</u>	<u>Meadowbreeze Field Expansion</u>
<u>68</u>	<u>12</u>	<u>61.330</u>	<u>Washington Township</u>	<u>Meadowbreeze Field Expansion</u>
<u>30</u>	<u>37</u>	<u>13.890</u>	<u>WH Board of Education</u>	<u>Regional Sports Complex</u>
<u>84</u>	<u>1</u>	<u>41.230</u>	<u>Private</u>	<u>Future Active Recreation Park</u>

**Active Recreation Properties**

**White Township**

The White Township Master Plan dated June 14, 2004, was reviewed. The Plan identifies abandoned railroad rights of way for purchase. The ROW's can provide interconnections with stream corridors and serve as important links in pedestrian/bicycle/equestrian trail system. The Lehigh-Hudson Warren Line, Penn Central, and Belvidere-Delaware railroads should be preserved. In addition, cluster developments are encouraged as a means to protect vulnerable natural resources and to provide useable blocks of open space. All subdivisions should be required to either provide for or contribute financially to recreation space.

**Non-Profit Groups**

**Ridge and Valley Conservancy**

A project of the Ridge and Valley Conservancy is the Limestone Forest project. The



limestone forest is unique to the Appalachian Valley and Ridge Region of Sussex and Warren County. It consists of dense forests growing on limestone bedrock covered by thin glacial till, contains rare and endangered plant and animals, sinkholes, caves, springs, streams etc. Protecting these forests will preserve groundwater recharge. The RVC has protected over 2,600 acres already. Map 12 shows the limestone forest project area.

### The Nature Conservancy

The Nature Conservancy responded with an inventory of lands it owns in Northern Warren County including the Johnsonburg Swamp Preserve in Frelinghuysen, Tranquility Farms in Allamuchy and Glover Pond in Frelinghuysen and Allamuchy, Greendell Ridge and Blair Creek in Hardwick. Future TNC priority is in Northern Warren County and the focus area is identified as Kittatinny Ridge. In general it is the land area north and west of NJ 94 at CR 521.

### NJ Audubon Society (Responded to Memo)

The Audubon Society responded by stating that owns three distinct land holdings in Warren County. They are Catswamp Sanctuary in Independence and Allamuchy Township, Old Farm Sanctuary in Independence and Hariton Sanctuary in Harmony Township. The Audubon Society is seeking to acquire the Gordon Wattles Stewardship Center in Mansfield Township shown as Block 1506, parts of Lots 2, 2.01, 3.

## **STATE OPEN SPACE ACQUISITION PLANS**

The following is taken from the Green Acres website and describes the areas identified for acquisition in Warren County.

### **Garden State Greenways**

The Garden State Greenways is the result of the New Jersey Green Infrastructure Assessment conducted by the New Jersey Conservation Foundation in cooperation with the NJDEP Green Acres Program. It is vision of interconnected statewide system of open space. The NJGIA identified large tracts of undeveloped land that could act as hubs of interconnected open space. Linear connectors were then identified to represent potential linkages to the hubs. Map 13 contains the NJ Greenway's for Warren County.

### **Pequest River Greenway**

The Pequest Trout Hatchery relies heavily on the high quality of its underground water supply for successful fish production. The fish raised at the hatchery are used to stock many of New Jersey's streams and ponds. Green Acres proposes to acquire land to expand the Pequest Wildlife Management Area and to preserve land along the river in Sussex and Warren Counties. The primary objective of these acquisitions is preserving the aquifer recharge areas designated as critical to the protection of the hatchery's underground water supply. The project will further protect the habitat of

a variety of wildlife species including the endangered bog turtle. These additions will offer excellent outdoor recreational potential, particularly for fishing, hunting, and hiking.

### **Delaware River Greenway**

Many consider the Delaware River Valley to be one of the most scenic areas of the Mid-Atlantic states. A trip down the 115 miles of river along New Jersey's western border would reveal dramatic palisades at the Delaware Water Gap, the steep rise of the Kittatinny Mountains, forested islands, rolling valleys, towns, historic villages, and farms. The Delaware River also serves as a section of a major flyway for migratory birds. The amount of access varies throughout the length of the river, but remarkably, the vast majority of the New Jersey land along its length is only sparsely developed and retains its scenic quality. Efforts are underway to secure greater public access, broaden the width of public holdings within its corridor, and protect the scenic and historic resources of the Delaware River and its tributaries.

### **Highlands Greenway**

Sweeping across the north central portion of New Jersey, nearly one million acres of forests in the Highlands surround and protect the source waters for one-third of New Jersey's citizens. Serving as a spectacular green belt around some of the nation's most densely populated cities and suburbs, the majority of the Highlands' mountains, ridges, forests, and fields are privately held and therefore are vulnerable to development. Preservation of the greenbelt is critical to ensuring the integrity of New Jersey's water supplies and maintaining the state's biodiversity.

### **Historic Resources**

All across the state lie reminders of New Jersey's exciting and important past: battlefields and barracks; Native American and early immigrant artifacts; factories and farms; mines, mills, and munitions forges; canals and patriots' footpaths; industrial barons' mansions and humble poets' homes; laboratories of invention and genius and relics of early industries; lighthouses that guided schooners to safe harbor and safe houses that harbored slaves on the path to freedom. Many resources of New Jersey's past have been recognized, listed on the National Register of Historic Places and/or New Jersey Register of Historic Places and protected through public ownership or regulatory oversight. Many other historic sites still await discovery and proper recognition of their place in history; and all historic sites are in need of proper care and interpretation. By protecting and linking sites of historic significance and by preserving swaths of adjoining buffer lands, the history and even the historic landscapes of New Jersey can be preserved. With the foresight to preserve the past, the public will forever enjoy the scenic, cultural, recreational, and educational benefits of valuing New Jersey's history.

### **Jenny Jump State Forest**

Jenny Jump State Forest provides opportunities for a variety of backwoods oriented recreation in rural but growing Warren County. The ridge-top forest, which spans six municipalities, is a popular area for camping, hiking, hunting, and cross-country skiing. Green Acres proposes to acquire additional land to create a linkage between publicly owned portions of the forest.

## **Musconetcong River/Pohatcong Creek Greenway**

In keeping with the "string of pearls" concept associated with greenways, Green Acres, the DEP's divisions of Parks and Forestry and Fish and Wildlife, and the counties of Hunterdon, Morris, Sussex, and Warren have identified a number of sites along the Musconetcong River and Pohatcong Creek for acquisition. This project is a cooperative effort between Green Acres, the Department of Agriculture's Farmland Preservation Program, and the Musconetcong Watershed Association. Although this is one of the state's most important trout waters, fishing access is currently limited. Preserving the water quality in the Musconetcong is a major goal of the project.

## **Natural Areas**

New Jersey's natural areas often protect threatened or endangered animals and plants species. Green Acres is committed to protecting these environmentally sensitive regions of New Jersey. Green Acres plans to expand dozens of Natural Areas throughout the state, ranging geographically from Woodbine Bogs in Cape May County, to Strawberry Hill in Mercer County, to Ramapo Lake Natural Area in Bergen and Passaic counties.

## **Paulins Kill Greenway**

Green Acres has targeted the Paulins Kill as an excellent resource for open space and recreational opportunities. The State is committed to providing access to the river as well as preserving farmland in the Paulins Kill corridor to form an integrated open space system. To that end, Green Acres is working with the county agricultural development boards where there are opportunities to protect properties that meet common open space and farmland preservation goals, such as the Paulins Kill Greenway. The Ridge and Valley Conservancy, a local nonprofit land trust, is also participating as a partner with the state and county governments to share in land acquisition costs. Much of the Paulins Kill Valley Trail corridor follows the Paulins Kill and provides for excellent hiking and fishing along with a variety of other outdoor recreational opportunities. Green Acres will acquire additional land to expand the greenway and provide better access to the Paulins Kill Valley Trail.

## **Watershed Lands**

New Jersey has long recognized the importance of protecting headwater areas and the sensitive resources of rivers, streams, lakes, reservoirs, wetlands, and associated buffers and coastal waters. These lands protect ecological resources and water quality, provide water-based recreation opportunities, and serve as linear open space linkages. Aquifer recharge areas and lands held by water utilities for protection of water supplies must be preserved, as well as sensitive areas beyond those holdings. The cost of not doing so is far greater than the cost of preservation. Therefore, Green Acres will continue to acquire land that will serve to protect critical water supplies, support wildlife habitat, and provide recreational opportunities throughout New Jersey.

## **CHAPTER VII**

### **ACTION PLAN**

The methods and means to accomplish the goals of the Open Space Plan are discussed in the following sections.

#### **Board of Chosen Freeholders**

Accomplishment of the Plan's goals must first start with Warren County itself. The Board of Chosen Freeholders need to approve of the Plan and its target areas and charge the Department of Land Preservation, Board of Recreation Commissioners, Planning Board, Morris Canal Committee, Planning Department with the directive to carry it out. The BCF should make the financial commitment to dedicate a portion of the Open Space Trust Fund for acquiring open space lands targeted and consider the organizational structure outlined in this chapter to accomplish the objectives of this plan. Having political, financial, and staff support are key to the Plan's implementation.

#### **Acquisition Programming**

##### **Five-Year Budgeting Program**

A five year acquisition program should be developed to guide the Dept of Land Preservation and the Board of Recreation Commissioners in the selection of properties and allocation of financial and staff resources. In qualifying the open space sites in the five-year program, the determining factor is the availability and certainty of funding. With a determined yearly allocation from the County Open Space Tax, the Board of Recreation Commissioners should continue to develop a financial program that utilizes the Open Space tax as its basis and projected over a five year period using projection techniques recommended by the Chief Financial Officer. Once this financial information is charted, the Board can develop a five-year financial program utilizing county and other funding sources 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.

Properties should be targeted in accordance with the Tier I and Tier II system. Tier I sites should be actively pursued by the County while eligible sites in the Tier II areas would be acted on as they become available. The Board of Recreation Commissioners should pursue their acquisition using any one or a combination of the methods described in Section IV 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 uses.
- 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.

Many of the properties recommended in this Open Space Plan are located in the Highlands Preservation Area. The dual appraisal method for properties in the Preservation Area will be expiring in 2009. Highland Council recommends extending this method for at least another 5 years. This plan supports it. Property owners should be willing to sell property now at the higher value before the dual method period expires.

### **Interagency Coordination**

#### County Agencies

In 1999, the Board of Chosen Freeholders created an Open Space Task Force consisting of two members each of the Warren County Board of Recreation Commissioners, the Warren County Agriculture Development Board, the Municipal and Charitable Conservancy Trust Fund, with staff from the Planning Department and the Soil Conservation District address four main issues. They are:

1. To develop a greater level of cooperation among all the agencies using the trust fund
2. Identify, review and recommend to the Board of Chosen Freeholders various funding mechanisms that should be in place to take advantage of the state funding
3. Identify and seek other funding sources such as grants, matches, etc from other public, private, and non-profit organizations

4. Review and recommend changes to the “Trust Fund Rules and Procedures” to include maintenance as an eligible funding category and to revisit eligible purposes for funding.

The task force discussed a number of strategies that existing agencies can utilize to improve cooperation and coordination. Other strategies would require freeholder action. Each strategy that was discussed is described below.

A. Use one Land Acquisition Routing Form that would be circulated to the various agencies involved in acquisition. The agency taking the inquiry would ask the prospective seller the questions contained on the routing form and then forward a copy of the form to the other agencies to determine their interest in the project. The Warren County Agriculture Development Board, the Warren County Board of Recreation Commissioners, host municipality, Green Acres, and appropriate non-profits would all receive a copy of the form. Using and circulating this form would increase the chances of pooling financial resources and improve communication among the agencies. A copy of the form is found in the appendix of the Open Space Task Force Report.

B. Share agenda packages and the minutes of CADB, BRC, Warren County Planning Board, and Municipal & Charitable Conservancy Trust Fund with each other. This will help the agencies better understand the status of projects underway or being considered. Member of the respective agencies or their staff should consider attending the other agencies meetings as well.

C. Have quarterly or semi-annual “task force meetings” to discuss projects and finances. This would continue the current task force on an informal basis. The advantage is that it would provide for face to face discussion of shared issues.

D. Institute joint marketing of programs to landowners. Brochures of programs offered by the county should be distributed to municipalities, landowners, and non profit agencies. Displays can be erected at the Warren County Farmers Fair and at other similar gatherings to provide information and to promote the programs.

E. Geographic Information System mapping is playing a key role in portraying information graphically. The State Agriculture Development Committee and the Green Acres program are requiring all maps to be submitted in digital form. The mapping of all open space and preserved farmland properties should be coordinated in one county office. The Planning Department could work with other departments that use or could use GIS such as the Health, Engineering, Cultural and Heritage Commission, 911, Elections etc.

The BRC and CADB should work together on properties of mutual interest. Farms that are proposed for preservation that contain the Morris Canal are ideal for joint purchases. Ideally, the Canal right of way should be acquired in fee simple from the farmer and the balance of the farm entered into a farmland preservation easement. If the fee simple acquisition is not possible, a conservation easement on the Canal should be explored with the right to public access to be granted immediately or in the future under certain conditions. At a minimum the survey of the property should delineate the Morris Canal in accordance with the standards contained in the WC Planning Board’s development review regulations.

### Interdepartmental Coordination

An interdepartmental process has been instituted with the Department of Land Preservation, where sites proposed for preservation through the CADB and MCCTF are forward to Planning and Engineering for review and comment. The purpose of the review process is for the Department of Land Preservation to obtain recommendations on where properties or easements would be desired for open space, roadway, and bridge maintenance purposes.

### Funding 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 successful acquisition of White Lake in Hardwick Township is one example. The purchase pooled the financial resources of the County of Warren, the State of New Jersey, and the Ridge and Valley Conservancy. 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.

### Open Space Forum

It is recommended that, at least once per year, the Warren County Planning Board and the Warren County Board of Recreation Commissioners, Warren County Agriculture Development Board, and the Municipal and Charitable Conservancy Trust Fund Committee through the Department of Land Preservation and the Planning Department 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.

### State Agencies

In addition to this, interagency cooperation can be taken a step further. 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, receives 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.

### Planning Board

Through the Warren County Planning Board's development review process, subdivisions and site plans are reviewed for consistency with the county open space plan. Special attention is afforded to properties containing or adjacent to the Morris Canal. Through the review process, and in conjunction with the Morris Canal Committee, recommendations are made to conserve, protect, and potentially acquire the Morris Canal. Developers are required to delineate the Canal on the site

plan and delineate a 100 foot buffer on each side of the Canal. Model conservation and public access easements are provided in the development regulations and are included in Appendix G.

### **Management of County Open Space**

The management of county open space can be defined as the maintenance, development, use and enforcement of adopted rules and policies.

It is noted that a number of documents have been prepared concerning the use, management and development of the county's significant sites.

1. In 1999 the Board of Chosen Freeholders adopted the "Regulations Governing Conduct in Public, Historic, and Passive Recreation Areas of the County of Warren". These regulations established the land areas where hunting by county permit was allowed, and specified other permissible uses and conduct on the county's land holdings.

2. In June 2003, a White Lake Natural Resource Area Inventory and Management Plan was prepared by the Nature Conservancy and the North Jersey Resource Conservation and Development Council through the County Planning Department using an Environmental Services Grant provided by the NJDEP. The management plan was developed through a White Lake Planning Team consisting of Warren County Planning Department staff, Warren County Board of Recreation, North Jersey Resource Conservation & Development Council, The Nature Conservancy, Ridge and Valley Conservancy, Warren County Soil Conservation District, USDA Natural Resources Conservation Service, NJ Division of Fish & Wildlife-Bureau of Freshwater Fisheries, Nongame & Endangered Species Program, Bureau of Land Management, NJ Natural Heritage Program. This partnership assessed the White Lake site and recommended implementation strategies needed to protect and manage this regional treasure.

#### **Strategies To Mitigate Threats to the Site Include:**

- Acquire lands within the watershed to reduce development threats
- Properly steward the property by patrolling the site, controlling invasive species, continue deer hunting, and manage fishing activities to eliminate impacts to globally rare wetlands and fen communities
- Encourage Best Management Practice's for agriculture and forestry
- Manage recreational uses with regard to globally significant plant and animal communities. In addition to assessing impacts and strategies to mitigate problems the Team developed a short term action plan to address the most immediate challenges threatening the site. The most critical need is to fund a part time Land Steward position to oversee and direct the Team members to facilitate the implementation of the action plan. One direct outcome of this planning process is that the Nature Conservancy was hired by the County to manage the site in accordance with the Plan. Meetings of the planning team are held periodically to review progress and discuss on-going and new projects.



### 3. Lock # 7 west (Bread Lock Park)

The Highlands Project, a non-profit group that helps youths with projects, occupies the house located in the canal prism. The Project has cleared the canal prism and towpath, uncovered to a limited degree the foundations of the structures that were located on site, removed debris and other matter from the barns, and blazed a walking trail around the site. The Highlands Project keeps the building open the 1<sup>st</sup> Sunday of the month for public visitation.

A Historic Preservation Plan for Bread Lock Park was completed and is dated February 22, 2003. It contains an number of recommendations including the need to conduct archeological investigations, restore the canal prism and towpath, stabilize the lock, lock tender's house and other ancillary buildings and provide interpretive signing, renovate the cabinet shop to serve as a visitors center and exhibition space, and relocate the dwelling that the Highlands Project occupies currently, out of prism. The work identified in the plan is recommended to be carried out in six phases over time. It was estimated that the improvements would cost \$3 million.

Lawn cutting and building repairs are handled by the Department of Land Preservation primarily through private contracts.

### 4. Inclined Plane #9 West

A Historic Preservation Plan was completed and dated May 3, 2002. The plan contains a number of recommendations that can be completed in phases over a number of years. The recommendations include: the removal of the modern garage and restoration of the plane incline, partial reconstruction of the inclined plane and retaining extant features of the site such as the stone sleepers, iron rails etc. Archeological investigation would be needed during any reconstruction or restoration work performed. Additionally, the plan recommends the restoration one half of the plane tenders house to its historical significance and using the other half for exhibit space and the caretaker's residence. Lastly, the plan does not recommend the full restoration of the power house and flume. The plan does recommend interpretation through partial reconstruction and enhancement of existing features on site. Throughout the site a series of interpretation stations are recommended to be set up to allow a visitor to enjoy a self guided tour.

### 5. Morris Canal, Rt 22 to County 519 Restoration Project (ISTEA)

Engineering plans are being prepared to restore this section of the Morris Canal and rebuild the Hamlen waste weir. Balancing the needs of historic preservation with environmental regulation have been challenging, in particular with respect to stormwater runoff into the Lopatcong Creek from CR 519 through the Canal.

### 6. Florence Kuipers Memorial Park

The park has been established beginning on Harvey Street in Hackettstown and continuing westward for approximately 1.5 miles. The towpath has been cleared by volunteers and the county

road department. Routine maintenance needs to take place to ensure that the towpath remains free of brush and other obstacles.

#### 7. Oxford Mountain Forest Management Plan

The Warren County Soil Conservation District prepared a forest management plan for this site in 2000.

#### 8. National Heritage Corridor Designation

A National Heritage Area is a place designated by the Congress where natural, cultural, historic and recreational resources combine to form a distinctive landscape. The NHA is a collaborative strategy where residents, government agencies, non-profit groups and other private partners plan and implement programs and projects that recognize and preserve the designated area.

The Morris Canal Greenway and the Designated Wild and Scenic Musconetcong River can form the basis for the designation. It would be a continuation of the Delaware and Lehigh Canal National Heritage Corridor in Pennsylvania.

The National Park Service becomes involved in the process because it is the federal agency responsible for preserving nationally significant resources and National Heritage designation allows the NPS to accomplish its mission without acquiring or managing more land.

There are four critical steps that need to be taken before congressional designation. They are; the completion of a suitability/feasibility study, public involvement in the study, demonstration of widespread public support for the designation, and commitment to the proposed designation from key constituents including governmental, industrial, private, and non-profit organizations, and private citizens.

At the present time an effort is underway to seek designation consisting of private citizens, members of the Morris Canal Committee, Musconetcong Watershed Association, the Board of Recreation Commissioners, and others. The NPS has met with the group and provided guidance for next steps.

More information can be found about the National Heritage Program as [www.cr.nps.gov/heritageareas](http://www.cr.nps.gov/heritageareas).

#### 9. 25 Year Morris Canal Greenway Action Plan

On October 24, 2007, the Board of Freeholders passed a resolution to develop a 25 year action plan for the Morris Canal Greenway. The resolution calls for the establishment of a vision for the Greenway, establish goals and milestones, propose projects necessary to meet the goals, define the strategies and methods to be employed, project the costs and the funding sources, propose the organizational structure and interrelationships of public and private entities needed to meet the vision, and to project the economic and public benefits that will be realized when the Action Plan is completed.

The Department of Land Preservation and the Department of Planning, is directed to put together a Request for Proposals for consulting services to prepare the Action in cooperation with the Board of Recreation Commissioners, the Morris Canal Committee, the Planning Board, and the Warren County Regional Chamber of Commerce.

### Organizational Structure for Managing Open Space

Currently, the County of Warren owns over 1,600 acres of open space lands that are grouped into three primary target areas; the Morris Canal Greenway, the Warren Trail, and natural resource areas (White Lake). Prior to August 2002, management of these areas was the responsibility of the Warren County Planning Department under the advice and guidance of the Board of Recreation Commissioners and the Morris Canal Committee.

To manage these land areas the Planning Department staff consisted of a Chief of Land Acquisition and Design, a Park Ranger, an Assistant Planner and secretary. The Department was responsible for securing routine contracts for lawn mowing and snow plowing, and coordinating projects with other county departments such as Road Dept., Buildings and Grounds, Corrections, and Mosquito Commission to accomplish various maintenance objectives. In addition, staff coordinated with non-profit groups such as the Youth Corp., Highlands Project, Friends of the NJ Transportation Museum, Nature Conservancy, North Jersey Resource Conservation District, watershed associations, etc. for land maintenance and management projects that were needed. The park ranger ensured that the land areas were posted properly, patrolled, and maintained and kept litter free. Perhaps the most important job was that he established a presence on the properties and cast a positive public image to those he encountered on the properties. The Ranger provided in field coordination with groups working on county owned sites, issued permits to hunters, explained access points and where land areas were available to hunt.

In August 2002, the Department of Land Preservation was created to coordinate land acquisition for public open space and farmland preservation. As part of the restructuring the Park Ranger position was eliminated, the Sheriff's Office was given the duty of processing hunting permits and patrolling the lands. Assisting the Morris Canal Committee and certain management activities remained with the Planning Department. The Department of Land Preservation became responsible for the Board of Recreation Commissioners. Most management projects are processed through the Department of Land Preservation, with the Planning Department and Morris Canal Committee focusing mostly on limited maintenance and educational projects and tours.

After four years under this organizational structure, the County Planning Board recommends that the County reevaluate the structure and develop an organizational and action plan that will carry the county open space program into the future.

Organizationally, the county may realize efficiencies if the three open space trust fund programs are looked at simultaneously rather than independently. Preserved farms must be inspected at least once per year to ensure that they are in compliance with the development easement. One inspector could be hired to conduct the farm inspections, discuss availability of property for sale with property owners, inspect and patrol open space sites and issue hunting permits. In addition the North Jersey Resource Conservation and Development District identifies

the need for land management on preserved agricultural and public open space lands and may be contracted with to perform certain management activities.

It is recommended that a coordinator of management activities be added within the Department of Land Preservation whose responsibility would be to coordinate and supervise maintenance, development, and other activities of county, private, and non-profit groups on county lands. Currently, the Nature Conservancy is paid an annual sum to manage White Lake. The Highlands Project leases Bread Lock Park and conducts open houses and tours of the area, and works to unearth archeological features of the lock and canal, and to maintain the barn and house on site. The Friends of the NJ Transportation Museum leases the former Consumers Water Company property and use the buildings on site to store transportation equipment. The Friends have also restored the old steam engine and pump house and have opened the site for tours annually. Other groups maybe interested in working on preserved lands and a coordinator of these activities should be hired to facilitate these groups' efforts.

#### Potential Responsibilities of Warren County Open Space Coordinator

1. Post property boundaries and rules of conduct signs
2. Ensure that information kiosk signs are placed at trail heads and at other key points
3. Oversee standard contracts for lawn mowing and farming
4. Monitor conservation easements on Morris Canal and other properties
5. Oversee and assist volunteer tenants occupying buildings:
6. Work with and assist volunteer groups for the clean up of properties, educational seminars etc. Includes the Morris Canal Bus Tour, Ecological and Educational Seminars at White Lake and at the county owned Lopatcong Creek Corridor that are often organized by the Rutgers Cooperative Extension Service, NJ Youth Corps, and AmeriCorps.
7. Routinely monitor and visit properties and inspect for litter, damage, downed trees, and other problems that need correction or enforcement action
8. Respond to visitor questions, be the county's public representative on the properties
9. Write and file reports of daily activities and site inspections
10. Monitor Morris Canal Reconstruction in Lopatcong/Greenwich as part of the ISTEAA Project
11. Assist in the preparation of site management and maintenance plans
12. Inspect farm preserved properties
13. Contact property owners for potential sale of properties (outreach coordinator)

#### Safety

As more lands are acquired for public open space and in particular the establishment of trails, the need for trail security and policing becomes more of an issue. The issues that typically arise stems from the use of off-road vehicles such as ATVs and dirt bikes, on public hiking trails. Several years ago when the Park Ranger was still employed there was an incident where an ATV was damaging portions of the Morris Canal prism and banks. After some detective work and warnings

the guilty party was eventually found and the activity stopped.

Trail networks also require policing in case of emergencies such as when a user becomes lost or injured. A partnership between the county and local police and emergency response teams is needed to mitigate security related issues as they develop. When the Park Ranger was employed, he routinely met with the local police chiefs and fire chiefs associations to establish familiarity and to discuss protocol etc in times of emergency. All chiefs were given maps of the county properties with access and addresses in case an emergency developed on one of the sites.

One way to help a trail user identify where he is to use a trail marking system that incorporates a colored marker with a number at a prescribed interval. Therefore if an individual requires assistance their location on the trail network can be pinpointed more accurately and the responding rescue team can enter the trail network at the best possible location.

### Visibility and Accessibility

Accessibility of public lands is important to many segments of the population and in particular to the elderly, the handicapped, and the young. This issue surfaced in the Warren County Community Health Improvement Plan where lack of physical activity was identified as one of the contributing causes of obesity. One of the obstacles to allowing for a range of physical activity is that there are facilities located at schools and other public areas that are inaccessible to the general public because they are fenced in or otherwise considered to be off limits for public use. It is recommended that these areas be opened for public use.

In addition, some trails are not marked adequately nor are they maintained properly. In some cases, land areas have been acquired but trail development stalled because of the lack of money or man-power. To address this issue it is recommended that a program priority be set using the county open space trust fund as a source of funding for grants to municipalities or non-profit agencies to acquire, construct, maintain and/or mark trails. The grant funding could be made available through the Municipal and Charitable Conservancy Trust Committee process or through a special grant program earmarked for this purpose that could be administered through the MCCTF or the BRC.

## **CHAPTER VIII**

### **PUBLIC PARTICIPATION**

The 2008 Open Space Plan is an expansion of the 1999 Open Space Plan. To obtain input into the 2008 Plan, municipal governing bodies, planning boards, open space committees, environmental commissions, and recreation commissions, as well as non-profit groups were asked to provide the County Planning Board with their plans and target areas for acquisition. Their responses are provided in Chapter VI of the Plan.

When the plan was released for public review, it was placed on the Warren County Website. The Open Space Plan was the main subject of discussion at the January 28, 2008 and April 30, 2008 County Planning Board meetings. At the April 30 meeting members of the public and municipal officials heard a brief presentation on the plan and provided comments. Documentation concerning municipal participation and press coverage is found in Appendix L.

Based on oral and written comments received the plan was modified at the May 19, 2008 Planning Board meeting and the final plan will be heard at a public hearing on June 30, 2008. Notification of the public hearing will take place in accordance with the County Planning Act

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## **APPENDIX**

- A. Warren County Open Space, Recreation, Farmland, and Historic Preservation Trust Fund Rules and Procedures**
- B. Open Space Task Force Report of 1999 and BCF Approval Resolution**
- C. Regulations Governing Conduct in Public, Historic and Passive Recreation Areas of the County of Warren**
- D. Bond Ordinance from 2003 with Amendments**
- E. Inventory of County Owned Open Space Properties**
- F. Stewarts Hunt Easements**
- G. Model Morris Canal Easements**
  - Conservation Easement**
  - Conservation Easement with Right to Public Access**
- H. Detailed Description of Warren Trail**
- I. National and State Register of Historic Places listing**
- J. Listing of Properties with Conservation Easements**
- K. Maps**
- L. Public Participation and Press Coverage**
- M. Residential Building Permits 1999-2007**
- N. Photographs of County Open Space Properties**