

WARREN COUNTY OPEN SPACE AND RECREATION PLAN

**1999
June 2, 2008 Update
2018 Update**

Adopted June 25, 2018

Prepared for
Warren County Planning Board

Prepared by
Warren County Planning Department

David K. Dech, PP
33LI00521200

**The original document was appropriately signed and sealed in accordance with Chapter 41, Title 13
of the State Board of Professional Planners**

WARREN COUNTY PLANNING BOARD
165 County Route 519
Belvidere, NJ 07823-1949

RESOLUTION

On a motion by Mr. William Hann, seconded by Ms. Desiree Dunn, the following resolution was adopted by the Warren County Planning Board at a meeting held on June 25, 2018.

RESOLUTION ADOPTING THE 2018 WARREN COUNTY OPEN SPACE PLAN UPDATE AS AN OFFICIAL ELEMENT OF THE WARREN COUNTY MASTER PLAN

WHEREAS, the Warren County Planning Board is charged with the responsibility of adopting a master plan for the physical development of the county; and

WHEREAS, the current Open Space Plan was adopted by the Warren County Planning Board on June 30, 2008; and

WHEREAS, the Warren County Planning Board prepared an update of the 2008 Open Space Plan and had requested current information from municipalities and non-profit groups on their plans for Open Space acquisition; and

WHEREAS, a public hearing was held on May 21, 2018 and additional comments and corrections were noted by Planning Board members; and

WHEREAS, the following additions and corrections will be made to the document:

1. Page 26, section titled Municipal Open Space, Greenwich Township -Replace the sentence that begins with "Another field called Mathew Hurte Ball Park " to read "Another field called Beatty Road Field is located south of 1-78 is owned by Dowel Associates and has two baseball fields on 6.5 acres.
2. Page 143, section titled Organizational Structure for Managing Open Space, replace the first full paragraph that begins with "After four/eight years" is to read "As recommended in the 2008 Open Space Plan, the 2018 Update also recommends that the County reevaluate the organizational structure and develop an organizational and action plan that will cany the county open space program into the future."
3. Page 143, section titled Organizational Structure for Managing Open Space, in the beginning of the paragraph that begins with "It is recommended ..." add "As the inventory of open spaces land grows, it is recommended"
4. Page 146, Chapter VIII, Public Participation, is completed as shown in Exhibit A hereby attached.
5. Appendix P, Public Participation and Press Coverage, now contains the responses from municipalities and non profit groups and the legal notice for the public hearing and shown in Exhibit B hereby attached.

NOW, THEREFORE, BE IT RESOLVED, by the Warren County Planning Board that the 2018 Open Space Plan for Warren County be adopted with corrections as an official element of the Warren County Master Plan.

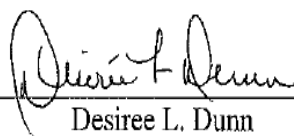
BE IT FURTHER RESOLVED, that certified copies of this resolution be sent to the Warren County Board of Chosen Freeholders, the Warren County Board of Recreation Commissioners, the Department of Land Preservation, and to the governing bodies of all municipalities in Warren County

ROLL CALL:

Yes	Absent	Yes	Yes	Absent	Yes
Ms. Dunn:		Yes			
Mr. Frey:		Yes			
Mr. Gardner:		Absent			
Mr.: Gleba:		Yes			

Mr. Hann:	Yes
Ms. Pasquarelli:	Absent
Mr. David Smith:	Absent
Mr. Edward Smith:	Yes
Mr. Baker, Alt I:	Yes
Mr. Hopkins, Alt 2:	Absent

I hereby certify the above to be a true copy of a resolution adopted by the Warren County Planning Board on the date above mentioned.



Desiree L. Dunn Secretary

Warren County Board of Chosen Freeholders

Edward J. Smith, Freeholder Director
Jason J. Sarnoski, Freeholder Deputy Director
Richard D. Gardner, Freeholder

Warren County Planning Board

*Deborah A. Pasquarelli, Chairman
Lou J. Baduini, Vice Chairperson
*Desiree L. Dunn, Secretary
Adam Baker, Alternate I
Robert I. Frey
Richard D. Gardner, Freeholder
William G. Gleba, County Engineer
*William E. Hann
Robert Hopkins, Alternate II
*David A. Smith
Edward J. Smith, Freeholder Director

Guy R. Wilson, Attorney

Warren County Planning Department

David K. Dech, P.P., Planning Director
Richard A. Miller, P.P., Principal Planner
Elizabeth Roy, P.P., A.I.C.P., Principal Planner
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Albert J. Krouse, G.I.S.P., Senior Planner
Irene Gordon, Administrative Clerk
Theresa Nicolls, Keyboarding Clerk II

*Members of Open Space Plan Sub Committee

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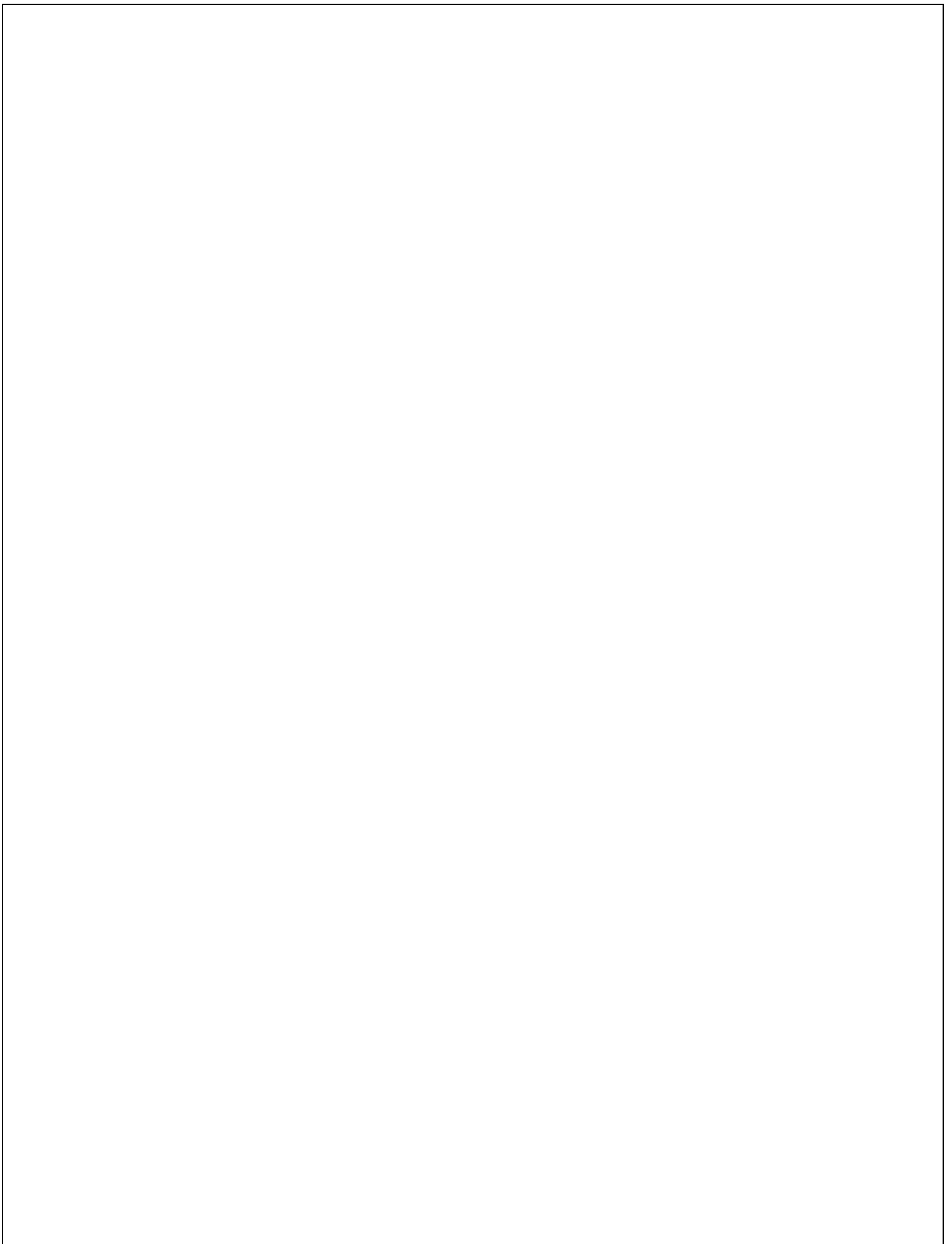
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EXECUTIVE SUMMARY

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, 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 and 2008 Plans and are listed 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 regional, extends across municipal boundaries, and 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 open space 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.

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 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) should be more proactive in acquiring 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 process should be undertaken.

There are four broad types of open space areas; Greenways, Special Use Areas,

Conservation/Natural Resource Areas, and Open Lands.

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.

Conservation Areas are acquired for the preservation and enhancement of valuable natural resources and are generally managed for that purpose.

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.

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.

Chapter VII contains the Action Plan which discusses the methods and means to accomplish the goals of the Open Space Plan ranging from Freeholder approval, coordination of programs, adequate staffing, accessibility, and safety.

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 development in many areas of the state devours acres, and even square miles, less and less land remains available to meet the growing demands 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 may never be able to provide a reasonable amount of open space and if they do, only at exorbitant prices resulting from 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 scarce, forcing developers and home seekers to outlying areas offering abundant land at less expensive prices. Faced with this prospect, timely action on the part of the State, the County, and its various municipalities can assure proper direction of new growth and a proper balance of open space and recreational land.

Imagine, hiking from Storm King Mountain on the Hudson River to Phillipsburg on the banks of the Delaware River, canoeing on lakes, rivers and streams that our ancestors used, exploring unique geological lakes formed during the Ice Age, and having trails near your home where you can walk for leisure or exercise and explore the rich history of our county. You can visit one of the last two remaining steam engines of its size in the northern hemisphere, visit the historic Morris Canal sites and walk the towpath trail just as the mules did 100 years ago. This is all possible if we, the citizens of Warren County, work together.

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 is 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 viewsheds. 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 in partnership 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 as it must be coordinated with other facets of the County's planning program, including farmland preservation, land development, transportation, utilities, stormwater, capital planning and construction.

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, farmland preservation and historic preservation are also an eligible expenditures of the County Open Space Trust Fund. Pursuant to section d. of the same section, the county trust fund may be 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. The County's Farmland Preservation Plan was adopted by the CADB and CPB in 2008. It is being revised currently.

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 proposed 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. The 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 C.
- 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 as adopted by the Board of Freeholders on March 13, 2013 are found in Appendix C.
- 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 may 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 C.
- 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 D.

- On March 24, 1999 The Board of Freeholders adopted “Regulations Governing Conduct in Public, Historical and Recreational Areas of the County of Warren. They were amended on June 14, 2000, and September 13, 2000. A copy is found in Appendix E.
- 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 D.
- 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 C.
- 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. The Green Acres program approved the planning incentive grant and has awarded blocks of funding in the amount of \$1.0 to \$1.5 million since 2000.
- On May 16, 2001, the Board of Freeholders adopted revisions to the Rules and Procedures to change funding allocations, clarify budgeting procedures, and to restrict the types of historic preservation applications submitted to the to the Municipal and Charitable Conservancy Trust Fund Committee for funding for acquisition and stabilization projects only. The funding allocation was revised to 37.5% farmland, 37.5% open space, 25% MCCTF 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 preservation, maintenance, and debt service. Beginning in 2003, the rate increase and expansion of uses went into effect. The ballot question is included in the Open Space Trust Fund Rules and Procedures in Appendix C.

- At the August 21, 2002 Freeholder meeting, 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 C.
- 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 November 22, 2005 the Board of Chosen Freeholders amended the Open Space Trust Fund Rules and Procedures to incorporate language concerning the 2002 Referendum Question increasing the dedicated tax; expand allowable uses of trust fund monies to include renovation of historic preservation properties; allow an open/rolling application period for projects to be considered by the Municipal & Charitable Conservancy Trust Fund Committee
- On February 15, 2006, the Board of Chosen Freeholders amended the Open Space Trust Fund Rules and Procedures to change the time period that MCCTF grants be expended be reduced from 3 years to 2 years.
- 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 reappropriated for the purchase of the Wattles Farm in Mansfield Township. A copy of the bond ordinance and amendments are in Appendix F.
- On April 9, 2008, the Board of Freeholders amended the Trust Fund Rules and Procedures to direct the MCCTF to develop and application package, establish evaluation criteria, and set due date for submission so that the Freeholder Board may award the grants at its first Freeholder meeting in December.
- On June 28, 2008, the Warren County Planning Board adopted the 2008 Open Space and Recreation Plan. This plan identifies Tier I and Tier II properties for acquisition. Tier I properties are those that should be actively pursued for acquisition and are associated with properties needed to complete the Morris Canal Greenway Trail, Ridge and Valley Trail, Warren Railroad Trail, Lehigh Hudson/Pequest Valley Trail, Warren-Highlands Trail and the acquisition of other properties to interconnect the trail systems. Tier II properties are

properties that are considered when an owner offers a property for sale and it is then evaluated for consistency with the Open Space Plan's goals, objectives and criteria for acquisition.

- On January 14, 2009 the Board of Freeholders amended the Trust Fund Rules and Procedures to require recipients of grants from the MCCTF to complete their projects within 2 years of award. Extensions may be granted under certain conditions.
- November 2010, the Warren County Planning Department and the Morris Canal Committee prepared a detailed Acquisition Priority Plan for the Morris Canal Greenway.
- In 2011, with funding through the North Jersey Transportation Planning Authority, Langan Engineering and the Heritage Conservancy were contracted to prepare a 25 Year Action Plan for the Morris Canal Greenway. The Plan was completed in June 2012 and contains strategies, activities, and projects that may be implemented corridor wide as well as in specific places to carry out the 25 year vision for the Greenway.
- The Open Space Trust Fund Rules and Procedures were amended on March 13, 2013 by the Board of Chosen Freeholder to require a percentage match from applicants to the MCCTF. The County Trust Fund will pay 50% of Historic Acquisition and Open Space Acquisition projects and 75% of Historic Restoration projects and include a conflicts of interest provision.
- For fiscal year 2013, the Board of Freeholders lowered the Open Space Trust Fund tax levy from 6 cents per \$100 valuation to 4.5 cents per \$100 valuation. This decreased the amount collected from \$7.2 million in 2012 to \$5.0 million in 2013
- For fiscal year 2015, the Board of Freeholders lowered the Open Space Trust Fund tax levy from 4.5 cents per \$100 valuation to 4.0 cents per \$100 valuation. This decreased the amount collected from \$4.78 million in 2014 to 4.28 in 2015.

CHAPTER II

GOALS AND POLICIES

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

Land banking is a term used 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. Minimal maintenance is needed except in special cases.

2. Acquire properties or easements where necessary 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.

Preservation of 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. In addition, Morris Canal preservation offers recreation, conservation, historic preservation, and educational opportunities for residents and students.

3. Acquire properties or easements where necessary 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.

Although many of these areas may be protected under current laws, 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. When possible, develop a modest, passive recreation system that allows activities like walking, hiking, sightseeing, 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 open additional land open for hunting. 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. 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 from one reserve to another.

10. 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.

11. Consideration should be given to accessing trails through urban areas through acquisition and easements.

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, horseback riding and, where appropriate, hunting. The protection of any cultural and historic areas should be incorporated into any planned open space site that may include them.

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 and enhancing/restoring/improving 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 classroom experience for the individuals that the non-profit desires to help.

Active non-profits in Warren County include the Highlands Project, the New Jersey Transportation Heritage Center, the Land Conservancy of New Jersey, the Nature Conservancy, the Ridge and Valley Conservancy, the Canal Society of NJ, the NY-NJ Trail Conference, the Trust for Public Lands, the NJ Conservation Foundation, the North Jersey Resource Conservation

and Development, the Audubon Society, the Musconetcong Watershed Association, and the Heritage Conservancy.

Non-profit agencies have been instrumental in the acquisition of the Cliffdale property along the Musconetcong River by the Heritage Conservancy, and the acquisition and restoration of the Asbury Graphite Mill buildings by the Musconetcong Watershed Association. The Cliffdale property is managed by the NJ Division of Fish and Wildlife as part of the Musconetcong River Wildlife Management Area.

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 for a fee, as a membership, or by agreement. Private campgrounds and lands owned by special groups such as the YMCA, Boy and Girl Scouts, Merrill Creek Reservoir, 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, and 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, and development easements, etc are available. Use of the easements does not require the land to be accessible for public use.

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, Semi Public and Private Ownership is provided in Appendix B. Tables and shows the amount of open space land in public semi public and private ownership in each municipality and region.

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 9,588 acres which consists of much of the land area formerly known as Pahaquarry Township, now merged into Hardwick Township, and includes the northern portions of Blairstown 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 to 30,580 acres in 2017. The State has added the most land areas in the central region through the acquisition of lands in Jenny Jump State Forest, Stephens State Forest, the Pequest River Wildlife Management Area and the Rockport Wildlife Management Area.

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) 28 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 Areas in Mansfield, Washington Township, Franklin and Pohatcong Townships in Warren County and areas in Hunterdon and Morris County for a total of 1,558 acres.

WMA 12. Pequest Wildlife Management Area (east and west), 4,609 acres in Liberty, Mansfield and White Townships. The Pequest Fish Hatchery located here offers programs about the raising of trout and the importance of natural resources. Self-guided tours are available and group programs are held by arrangement. The Hatchery 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, 1,161 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 865 acres in Hardwick Township. The County of Warren owns 395 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, 3 state recreation areas, 42 natural areas, 4 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. Visitation to State Parks has grown from 17.8 million in FY 2006 to 18.7 million in FY 2013.

In Warren County the State Parks and Forests are:

SPF 1. Allamuchy Mountain State Park accounts for a total of 8,711 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. Allowable activities and features include picnicking, playgrounds, fishing, boating/kayaking, hiking, biking, mountain biking, horseback riding, nature trails, birding, camping, cross-country skiing, and seasonal nature programs. The Wild and Scenic Musconetcong River runs through the park.

SPF 3. Jenny Jump State Forest totals 4,343 acres in the Townships of Frelinghuysen, Independence, Hope, Liberty, and White. Allowable activities and features include picnic areas, playgrounds, 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 Valley Trail traverses the Townships of Knowlton, Hardwick, Frelinghuysen, and Blirstown and continues into Sussex County for a total of 27 miles. 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.

SPF 6 Limestone Ridge Marsh is 389 Acres and is managed by NJ Natural Lands Trust.

The Paulinskill Valley Trail passes nearby. Visitors may enjoy hikes along un-maintained woods roads through the preserve. The best access is from Cedar Lake Road. Parking is limited

Warren County Open Space

Since 1999 County-owned open space increased from 670 acres to over 2,200 acres in 2017. Until 1990, the only County owned open space was the four acre County Courthouse Park in the Town of Belvidere.

Based on the recommendations of the Board of Recreation Commissioners, from 1990 to 1995, the Board of Chosen Freeholders acquired 4,181 feet of the historic Morris Canal on properties totaling nine acres. From 1995 to 1999, the County 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 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 1,600 acres acquired by the county 384 acres were for the Morris Canal Greenway, 797 acres were for the Warren-Highlands Trail. A total of 5.9 miles of the Morris Canal were in county ownership in 2008.

From 2008 through May 2017, the County acquired an additional 273 acres of Warren Trail and Morris Canal property for an additional 1.5 miles. Of the 273 acres acquired 181 acres were for the Morris Canal Greenway, 87 acres were for the Warren Trail. As of this writing a total of 8.29 miles of the Morris Canal are in county ownership and an additional 1.73 miles are held as pedestrian easements. A comprehensive inventory of the open space properties acquired by the county since 1824 including the municipality, location, year acquired and cost, is found in Appendix G. Photographs of county open space properties are found in Appendix N. A more detailed description of the major county parklands and amenities is also found at the website www.warrenparks.com.

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

WMA 16 (Wildlife Management Area) White Lake in Hardwick Township, contains unimproved hiking trails, car-top boat access, a 395-acre tract including a 69-acre glacial lake and adjoins 470 acres owned by New Jersey Division of Fish and Wildlife. The Warren County owned portion is now managed by the Ridge and Valley Conservancy in accordance with the White Lake Management Plan. Prior to the RVC the Nature Conservancy managed the site. 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 Kittatiny 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.

The following are County owned properties identified as part of the Warren-Highlands Trail presented according to the trail segments contained in Chapter VI.

Warren-Highlands Trail Segment #1 - Phillipsburg Union Square to Merrill Creek Environmental Resource Preserve

WT 1.1 Pumphouse - The pumphouse property is located on 4.5 acres and contains a 1913 Allis Chambers steam engine that supplied power to pump potable water to Phillipsburg and surrounding areas. The New Jersey Transportation Heritage Center 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. They have cleaned and restored the pumphouse and steam engine and open the property to the public once per year.

WT 1.2 Marble Hill - 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 2.4 miles of the Warren-Highlands Trail and another 1.5 miles of other trails that are collocated on State and Township owned properties. Trail heads and parking are available on River Road, Marble Hill Road, and at the Lopatcong Township Park.

In 2011-2012 the County received a grant from the National Park Service through the Wild and Scenic River Program to blaze and mark trails, install interpretative signage and trail head signs, and design and print trail brochures.

WT 1.3 Geiger - The Geiger Property and was acquired in 2008. It contains 55 acres and contains a half mile of Warren-Highlands Trail. The property is located next to the Warren County Farmers Fairgrounds which contains and trail easement leading from the Geiger property to Strykers Road.

WT 1.4 Prentiss-Clymer - These properties are part of the Scotts Mountain property

acquisition which were acquired to be part of the Warren-Highlands Trail system. They were known as the Prentiss and the Clymer Properties consisting of approximately 31 acres and 11 acres respectively. At the present time neither property contains the Warren-Highlands Trail but may contain other spur trails sometime in the future. Consideration should be given to transferring this property to the State.

Warren-Highlands Trail Segment #2 - Merrill Creek Environmental Resource Preserve

WT 2.1 Two properties totaling 15 acres were acquired by the County when the trail alignment was in its infancy. Now that the trail alignment will not need either of these two properties, consideration should be given to transferring them to the Merrill Creek Owners Group or to the State of NJ.

Warren-Highlands Trail Segment #3 - Merrill Creek Environmental Resource Preserve to Washington Township Former Water Company Property at CR 623

WT 3.1 There are no County owned open space land but there are two parcels of preserved farmland that have trail easements that dead end and may be utilized if additional trail easements or properties are obtained to complete a trail segment to a public right of way. The trail easements are located on the Venner and the Schanzlin properties.

Warren-Highlands Trail Segment #4 - Washington Township Former Water Company Property at CR 623 to Pequest Fish Hatchery

WT 4.1 West Oxford Mountain - Located in in Oxford and Washington Townships, West Oxford Mountain contains approximately 500 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 railroad beds, a circular stone-walled reservoir and an abandoned wood water tank adjacent to Mine Hill Road, which is now gone, 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 a portion of Oxford's historic industrial past.

Warren-Highlands Trail Segment #5 - Pequest Fish Hatchery to Allamuchy Mountain State Park

From the Pequest Fish Hatchery through Allamuchy Mountain State Park there are no county owned lands. In Allamuchy Mountain State Park it is envisioned that the Warren-Highlands Trail will connect with the Morris Canal Greenway.

The following are County properties that are a part of the Morris Canal Greenway as described in Chapter VI:

Morris Canal Segment #1 Morris Canal Arch at the Delaware River to S.Main Street/Lock Intersection, Phillipsburg

There are no county owned properties in this segment

Morris Canal Segment #2 S.Main Street/Lock Intersection, Phillipsburg to Route 22

MC 2.1 Inclined Plane #10 West - Morris Canal Incline Plane 10 West is located in Lopatcong Township. The inclined plane, wheel pit and turbine chamber were subdivided from the main parcel and acquired by the County in 2008 from James Lee Jr. It is designated Block 102, Lot 8.01 in Lopatcong Township. Inclined Plane 10 contains 580 feet of the canal.

The site's boundary delineates the limits of the historic plane site and includes the archeological sites of the plane's turbine pit and chamber, bypass and tailrace channel. Included on the property are the extensive archeological components of the plane. The Plane tender's house continues to be occupied by the Lees. The inclined plane rises 44 feet above the Lopatcong Creek where a small park is located and it contains benches and an interpretive sign to describe the features of Inclined Plane #10.

MC 2.2 Lock Street/Sycamore Landing Properties - Providing .36 mile of Morris Canal Greenway corridor, two properties were acquired by the County totaling 7.95 acres along Lock Street to Route 22. The property along Lock Street contains 760 feet of the Canal. In 2012 a residential development called Sycamore Landing was approved by the Lopatcong and County Planning Boards and is currently under construction. The Morris Canal was excavated and it will function as a detention basin for the development. While the excavation will not be historically accurate, the developer will be installing a walkway with interpretative signage along the reconstructed Canal/detention basin for public use. The Canal segment on Sycamore Landing is 1110 feet in length. Interpretative signage will be installed as well. Water from the detention basin will discharge to the adjacent county property. A developer's agreement is in place where the developer will be responsible for remediating any damage to the county property if any erosion or damage should occur.

Morris Canal Segment #3 Route 22 to Inclined Plane 9/Hamlen property

MC 3.1. Lopatcong – Greenwich Area - This segment is part of Port Warren Park and contains 5,356 feet of continuous County preserved Morris Canal from Rt. 22 to Rt. 519. In 2012, using the ISTE A grant, the portion of the Morris Canal from Rt. 22 to Strykers Road was excavated and a walking trail installed along the towpath. An additional 500 feet walking trail was installed to the east of Strykers Road. After the weir, the towpath is a mostly unimproved trail to CR 519.

One major problem that exists in this segment is that the Lopatcong Creek is eroding the banks of the Morris Canal. Conceptual plans were developed by the NJRCD to relocate the Lopatcong Creek away from the bank. However to complete the plan, land from the adjacent landowner, a solar company, needs to be acquired. The solar company has been uncooperative.

MC 3.2 Inclined Plane #9 West - The Morris Canal Incline Plane 9 West is the main site

of Port Warren Park and is approximately 4 acres in size 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 proposed in the 1981 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 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. The site contains extensive archeological remains of the Inclined Plane and associated structures. The only extant canal related building is the plane tender's house, which still serves as a dwelling for the caretaker and contains the Jim and Mary Lee Museum. The abutments of the Morris Canal bridge is located at the foot of the inclined plane on the east side of County Route 519. The length of the entire segment is 3,172 feet.

Morris Canal Incline Plane 9 West was the highest and longest inclined plane overcoming 110 feet in elevation change. It was one of three inclined planes with a double set of tracks along the entire 110 mile long canal from Phillipsburg to Jersey City.

A number of capital improvement projects have been identified in a Conservation Plan report that was completed in 2015 that need immediate attention. One project that had been targeted before the release of the Conservation Plan is the repair the tailrace headwall and regrade the area around it. A Historic Trust Grant has been obtained to fund the headwall's repair. Projects identified in the Conservation Plan include replacing one of the timbers holding the turbine upright, repairing one of the wings on the turbine, improving drainage around the turbine chamber area to reduce moisture damage to the mortar and stone in the chamber, providing ventilation through the turbine and tailrace to reduce the interior moisture and regrading the area to direct drainage away from the chamber and tailrace. Project authorization from the State Historic Preservation Office will be filed shortly.

In October 2015, Wild Ridge Plants, LLC prepared a Park Enhancement Plan for Port Warren Park at Inclined Plane #9. The Plan provides concepts and implementation details that combine historical and nature interpretation with an ecologically sustainable low management cost landscape design.

Other notable features in this segment include 20 acres of the 60-acre Hamlen farm in Greenwich that contains the Lopatcong Creek. Perimeter trails have been blazed around the fields and the creek and will connect to the Morris Canal Greenway trail.

Morris Canal Segment #4 Plane 9/Hamlen to Breadlock Park/Rt. 57, Franklin Twp.

MC 4.1. From Plane 9/Hamlen/Stewarts Hunt to N. Main Street - There is 4,189 feet in a conservation easement with right to public access along the perimeter of the Stewarts Hunt

residential development 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 H.

MC 4.2. Greater Breadlock Park Area in Franklin Township. - In 2016, the County closed on properties formerly owned by O'Dowd for farmland preservation and open space preservation. The properties provide a connection from N. Main Street in Stewartsville to Richline Road for a total distance of 3,775 feet. A pedestrian easement was placed on these properties. A cinder trail will be constructed on the easement, and when constructed, it will connect N. Main Street to Richline Road. The cinder trail will continue for an addition 860 feet from Richline Road to the Greenwich Solar property on property acquired through the O'Dowd transaction.

Next to the O'Dowd property heading northeast the County acquired 3, 100 feet of the Morris Canal the County obtained dedicated pedestrian easements from Greenwich Solar through the site plan/subdivision review process in 2015. The solar company and landowner were very cooperative in dedicating pedestrian easements along the perimeter of the properties. With the dedication, the Morris Canal Trail can be accessed at Richline Road in Franklin Township and walked in a northeasterly direction along the railroad tracks all the way to Bread Lock Park. The easement is 3,328 feet long. In addition to the perimeter easement, the Company dedicated a conservation easement on the actual alignment of the Morris Canal. The easement will become active when the solar panels are removed and future placement of structures within the easement area will be prohibited. The conservation easement length is 2,100 feet.

In 2003 a property known as the Nabozny property was acquired by the NJ Department of Transportation who transferred ownership to the County. It is 75.5 acres and contains 1,469 feet of the Canal. With the exception of the Morris Canal most of the property is rented for farming. The Nabozny property is considered one of the county's Open Land properties as defined in Section VI of this Plan.

At the northeastern edge of this segment is Bread Lock Park which is a 17-acre parcel located on the south side of Route 57 and contains about 4,028 feet of the Canal. It was purchased with 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.

A single family home was built in the prism of the canal and is currently used as the headquarters for the Highlands Project, a non-profit organization that helps teenagers. The house is home to the Breadlock Park (Lock 7) Museum which is operated by the Highlands Project and is open to the public one Sunday per month. A former cabinet shop being utilized as a woodworking shop for the non-profit group called the Highlands Project

The Highlands Project built a replica canal boat on site. 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. Renovation of one of the barns will take place in 2017.

In 2016, Wild Ridge Plants, LLC prepared a Park Enhancement Plan for Breadlock Park. The Plan provides concepts and implementation details that combine historical and nature interpretation with an ecologically sustainable low management cost landscape design.

Morris Canal Segment #5 Breadlock Park/Rt. 57 to Meadowbreeze Park, 660 feet east of Little Philadelphia Road

MC 5.1. North Side New Village - Two non-contiguous properties in New Village contain a total of 9.4 acres and are 1,850 feet in length. The property fronting on Rt 57 contains 7.14 acres and 737 feet of the Canal and was acquired in 2014. The other contains 2.3 acres and 1,113 feet of the Canal and was acquired in 1994.

MC 5.2. Fancy Farm - Franklin Township contains 74.4 acres and 2,010 feet of Morris Canal

Morris Canal Segment #6 Meadowbreeze Park, at Kayharts Lane to Plane Hill Road/Kinnamon Ave intersection Washington Twp/Borough.

MC 6.1 – Dire Property - Dire is a 3.64 acre parcel that the County acquired that was subdivided from another lot that contains a single family home. The acquired subdivided property contains approximately 900 feet of Morris Canal. It is adjacent to the Meadow Breeze Park, owned by Washington Twp and provides an additional 2,170 feet of walking trail along the Morris Canal. Immediately to the east of Dire, a pedestrian easement was obtained on private residential property to provide a trail connection from Brass Castle Road to the Dire property. The easement is approximately 340 in length as it will be located on the perimeter of the property. The County will be planting vegetative screening along the perimeter to provide an aesthetic visual buffer to the house.

Morris Canal Segment #7 Plane Hill Road/Kinnamon Ave intersection Washington Twp/Borough to Port Colden, Port Colden Road

There are no county owned properties in this segment

Morris Canal Segment #8 Port Colden, Port Colden Road to Port Murray/Hoffman Road

MC 8.1 Handlos property - Located in Washington Township the property was acquired by the County in 2015. It contains 2.19 acres and 650 feet of the Morris Canal. It is the site of Inclined Plane #6 and Plane Tenders house. The house remains in private ownership.

MC 8.2. Mansfield, Mohawk Property/Domin to Brickyard at Hoffman Road - Located in Mansfield Township these are two properties consisting of 258 acres and 8,723 feet of the

Canal County owned properties.

One property separates MC 8.1 and MC 8.2 containing 1,086 feet of the Canal and one property separates the Mohawk property in the south to the next property north. The unacquired parcel contains 1,000 feet of the Canal.

The brickyard is 140 acres and contains other trails as well as the Morris Canal trail. At Hoffman road a six car gravel parking area was constructed over the summer of 2016.

The section from Harts Lane to Hoffman Road is part of Port Murray Park.

Morris Canal Segment #9 Port Murray Road/Hoffman Road to Hazen Road/Rockport Game Farm

MC 9.1. Port Murray Properties - contains 9.5 acres and 1,050 feet of the canal. In addition the property features a 1,500' access easement on Towpath Trail from Port Murray Road to the county owned properties. This area was named the Dennis Bertland Heritage Area in recognition of the local historian's dedication to preserving the history of the Morris Canal. The Port Murray Boat Basin is located here, however the county does not own it.

MC 9.2 Two additional smaller properties were acquired containing the Morris Canal. One is located on Block 801 Lot 7 containing 2.2 acres and 250 feet of the Canal and the other is Block 801 lot 1 and Block 1307 Lot 4 containing 1.8 acres and 1,420 feet of the Canal.

MC 9.3 Conservation easements to protect the Canal were acquired on three properties along Cherry Tree Bend Road. The easements do not convey any right to public access but they prohibit the placement of structures in the Canal and any action that would destroy it. The location of the properties with the easements are in Appendix L. Block 801 lots 5.01, 5.03 and 5.04.

Morris Canal Segment #10 Hazen Road/Rockport Game Farm to Florence Kuipers Park/Harvey Street, Hackettstown

MC 10.1 Florence Kuipers Memorial Park Independence and Hackettstown, contains 6,857 feet of the canal and 7.74 acres in total. A major portion of the Canal was acquired through the cooperation of the Green Acres program and the Division of Fish and Wildlife. The Division of Fish and Wildlife acquired 154 acres for the Rockport Wildlife Management Area and subdivided the Morris Canal portion and transferred to the County. The park is dedicated in remembrance 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.

Morris Canal Segment #11a Florence Kuipers Park/Harvey Street, Hackettstown to Bilby Road

MC 11a.1 Independence Land Holdings/Hills of Independence - These properties are now known as Mount Rascal Park. The parcels were acquired in November 2015. They were

purchased in cooperation with the Green Acres program and the NJ Conservation Foundation. The County acquired the Morris Canal and buffer portion of the properties consisting of 46 acres and the State acquired the balance. These lands are located next to the NJ Natural Lands Trust's Mount Rascal Preserve in Independence Township containing 307 acres. Located on Block 4 lots 28, and 29, the entire purchase preserved 113 acres and contain 2,800 feet of Morris Canal with access on Old Allamuchy Road. The Hills at Independence Home Owner Association has agreed to allow public access of approximately .25 mile through their property to link the Morris Canal through the development to Fourth Street and to Rt 46 via Canal Lane, privately owned, if an agreement can be reached.

MC 11a.2. The Bilby Properties - When the Oak Hill townhouse complex was built, the County acquired approximately 1,300 feet of the Canal and wetlands. An additional 3,100 feet in an easement around the Towpath Apartments property was to have been provided when it was going through the development review process in the late 1980's but the easement was not finalized and recorded in the County Clerk's office.

Morris Canal Segment #11b - Bilby Road, Hackettstown to Saxton Falls

MC 11b.1 The Payne properties - The properties are located from Bilby Road in Independence and connect to the State lands at Allamuchy Mountain State Park. This section of County property provides 2,300 feet of Morris Canal on 16.75 acres of land. A Recreational Trail grant was obtained to purchase/construct a pedestrian bridge across a breach in the Morris Canal trail on State property. When this bridge is installed it will provide nearly 1.75 miles of continuous walkway from Bilby Road to Saxton Falls.

Morris Canal Segment #12 Saxton Falls to Waterloo Village, Sussex County

No Warren County Owned Properties

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 with a state sponsored program like Green Acres. In 1999 and in 2008, there were 957 acres and 3,936 acres in municipal open space respectively. As shown in Table I, in 2014, there were approximately 6,500 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 recreational areas have grown by an additional 113 acres from 257 acres to 380 acres.

Almost every municipality in Warren County has at least one municipal park. Below is a

description of the major parks in each of Warren County's municipalities.

Allamuchy - Allamuchy Township has one park consisting of 162.21 acres on Alphano Road and extends into the trail along the abandoned Lehigh Hudson Railroad. The Lehigh Hudson may serve as a spur route in the Warren Highlands Trail. Within the 162 acres is a 10 acre tract that contains ballfields, basketball and tennis courts. Between I-80 and Panther Valley is a preserved tract of 120 acres.

Alpha - Alpha has two larger municipal parks. The John Dolak Memorial Pool contains the Borough Pool and ballfields located on Vulcanite Avenue consisting of 35 acres. The John Dolak Memorial ballfield contains about 3.0 Acres and is located across the street on Springtown Road. Two other municipal parks exist and are known as West Central Park Ball Park and contains 1.4 acres and Alpha Annex Park. There is another large municipally owned land area at the end of Industrial Drive that contains an abandoned quarry.

Belvidere - Hrizcak Field is 24.5 acres and is located between Water Street and the Pequest River. It provides baseball/softball/and soccer fields and a tot lot, as well as a perimeter trail along the Pequest River. Across the River on Race Street is an additional 7.3 acre area of open space adjacent to NJ State Fish and Game property provides additional fishing access. Other municipal park access to the Pequest River is from Bud Jones Park located on Water Street. On Manunkachunk Road is the Belvidere Pool property that contains a short paved looping trail for walking and bicycling. This property is adjacent to Town land which then abuts White Township owned land. The White Township owned land provides access to DSM. At one time the Belvidere Environmental Commission was working with DSM to establish a walking trail from the Municipal Building to the Belvidere Pool.

Blairstown – Footbridge Park contains 11.14 acres in the Village of Blairstown with access to the Paulinskill River and Trail. In addition there is Sycamore Park, consisting of 42 acres, on Lambert Road with soccer and baseball fields and fishing access to the Paulinskill. On Vail Road is 1.7 acre Vail Field, and Walnut Valley Field 4.83 acres on Rt 94.

Franklin - There is a soccer field, 6 acres, off of Broadway – Asbury Road and soccer fields in Asbury off of Main Street behind the Fire House (5.5 acres)

Frelinghuysen - There are 11.6 acres of soccer and baseball fields located at Rydell Field in Johnsonburg at Main Street and CR 661. Across the street is an open space area containing 4.8 acres. On Lincoln Laurel Road to Rt 94 is the Frelinghuysen Forest Preserve containing 157 acres.

Greenwich - In Greenwich, Municipal Park, located at the Municipal building site has about 4 acres of play area. Stecker Field on Willow Grove is 4.89 acres and contains a baseball field. Another field called Beatty Road Field is located south of Rt 78 is owned by Dowel Associates and has two baseball fields on 6.5 acres. On Greenwich Street, the Township is building a new Recreation Center on 112 acres with ballfields and a clubhouse.

Hackettstown - Located on Warren Street is the Hackettstown pool, soccer and baseball fields consisting of 6.4 acres. On Grand Ave and Second Street there is Tannery Field containing a baseball field (3.5 acres) and on Seber Road is Riverfront Park containing soccer and baseball

fields on 49.5 acres. Legion Field is also located on Willow Grove Street.

Hardwick – Hardwick has no soccer or baseball fields, but off of Spring Valley Road there are two open space properties totaling 64 acres.

Harmony - At the Harmony Township Municipal Building are 41.6 acres of soccer and baseball fields and other lands. The Township also owns 76.5 acres of land formerly known as the Trans Mix site on River Road just north of Brainards via Third Street. The property is bounded on the west side by the railroad tracks so it does not provide direct access to the Delaware River. South of Brainards on River Road are two parcels now in Township ownership that were once owned by Witco Chemical. The Transmix, and Witco Chemical parcels, as well as the former Harmony Speedway and Baker Chemical site are identified in the Township's Redevelopment Plan for Industrial and commercial use. Where appropriate the Redevelopment Plan recommends that green space be incorporated in the individual development plans for each site.

Just to the west of the Witco Chemical site on the other side of the railroad there is over a mile of continuous river frontage containing 13.87 acres.

Hope - Swayze Mill Park is 125 acres and is located on Swayze Mill Road (CR 610). It has ballfields and soccer fields and a 37 acre pond for fishing, canoeing, kayaking. The park is open for Hope Township residents only. Also, behind the Hope Township Elementary School are baseball fields (13.3 acres).

Independence - The Field of Dreams Park provides ballfields, soccer fields, an outdoor ice/roller skating rink, frisbee golf and walking trails. It is 101 acres and is located on Cemetery Road behind the Independence Middle School. The perimeter of these lands may be suitable for the Lehigh Hudson Trail to provide a route from Cemetery Road to Rt 46. It provides almost 2,500 feet of access frontage to the Pequest River as well. In addition, across from Cemetery Road is township land contain 16.5 acres that provides access to almost 3,000 feet of frontage along the Pequest River. Surrounding the Municipal Building on Rt 46 are 33 acres of open space that can also provide access to the Pequest River.

Knowlton - Tunnel Hill Fields on NJ 94 has five baseball fields and one soccer field on 61.8 acres of land.

Liberty - At the Municipal Building on Mountain Lake Road (CR 679) there are baseball and soccer fields consisting of 12.5 acres. There is a public beach on the south side of Mountain Lake. In addition, the Township acquired 96 acres on Buzzards Glory Road that will function as one of the links in the Warren Highlands Trail.

Lopatcong- The Lopatcong Park is 101.8 acres and is located on Belvidere Road (CR 646). It contains the public pool, soccer and baseball fields and walking trails. It serves as one of the trailheads to the Warren-Highlands Trail by providing a trail link to the County's Marble Mountain Preserve. In addition, throughout the Stone Hedge Road development there walking paths meandering through 45.6 acres of property.

Other smaller parks are located on Park Street and on South Fourth Street.

Mansfield - The Mansfield Park is located in Port Murray and contains 129 acres. It has soccer, ballfields, tennis courts and walking trails. It contains a trail easement to Rt 57 along the southeastern side and over farm preserved property ultimately leading to the Musconetcong River. The property was acquired using funds through the Municipal and Charitable Conservancy Trust Fund Committee. Just below the 129 acres tract at the Municipal Building are additional fields on 15 acres. Two other areas having athletic fields are on Airport Road and on Winchester Avenue.

Oxford - Oxford Furnace Lake is a 301 acre property that contains Oxford Lake with a public beach and lake for swimming, boating, kayaking, fishing etc. Baseball fields are also located of Rt 31 in the Village (4.2 acres) and on Pequest Road on property consisting of 23.6 acres.

Phillipsburg - Walters Park is 24.6 acres. On Corliss and Pickford Ave there is a baseball field (2.9 acres). Delaware Heights River Park on Carpentersville Road has a two baseball fields and a soccer field and walking paths on 14.8 acres. Pursell Street has a baseball field (2.25 acres), Green Street Park has a baseball field on 2.9 acres, and Lock Street has a park that's 2.0 acres. Delaware River Park is located off of Howard Street and contains about 17 acres. Also there is 2.81 acres of ballfields on Corliss Avenue at the Municipal Building.

Pohatcong- The park off of CR 519 is 180 acres with trails. Crestwood Field is 9 acres with a baseball field and a basketball court located off Francis St., at Lock St and Chestnut is an 8 acre park with two baseball fields and on Franklin Street there is a .28 acre park with a basketball court

Washington Borough - Park on Rt 31 has the pool and baseball field on 8.42 acres

Washington Township- Meadow Breeze Park is 80 acres and contains ballfields, soccer fields, walking trails, and a preserved segment of 2,170 feet of the Morris Canal. It is an important link in the County's efforts to establish a continuous walking trail along the Canal from Phillipsburg to Saxton Falls in Allamuchy. In addition, the former Washington Water Company property, currently called Dick Flint Park, contains a section of Warren Highlands trail on its 388 acres. There is also a preserve along the Pohatcong Creek with trails 91 acres on Mine Hill Road. On Springtown Road is Springtown Natural Area 19.58 with trails. On Jonestown is Lake Marguerite Wildlife Refuge is 67 acres and Griffith Woods Natural Area

White - Twp fields are located on CR 519 and provide baseball and soccer fields, tot lot and pavilion. It contains 18.6 acres. Located on Buckhorn Drive the Township owns 14.65 acres of property with unmarked trails. It abuts the State's Buckhorn Preserve. There is open space 145 acres of property that is adjacent to Jenny Jump Mountain Park. Located off of Rt 46 is a 1.8 acre baseball field.

Semi-Public and Non Profit Open Space

These areas are owned by private entities or nonprofit 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 2,584 acres in Harmony and 178 acres in Franklin, 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. The Warren-Highlands Trail will use a portion of the perimeter trail and the Merrill Creek property located on the west side of Scotts Mountain leading to the Hoff Vannatta Homestead.

SP2. Yards Creek Station Recreation Area in Blirstown and Hardwick Townships. There are 421 acres in Hardwick and 850 acres in Blirstown including the reservoirs.

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 by 107 acres using money from the Municipal and Charitable Conservancy Trust Fund committee in 2002. Today it contains 540 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 is 221 acres in size. 19 acres was acquired by the Nature Conservancy and the State of New Jersey acquired the balance.

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. Lightning Bug Hollow- The Ridge and Valley Conservancy acquired 316 acres in Hardwick Township. The Hollow connects Limestone Forest Preserve with the Princeton-Blirstown Center.

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 was acquired by the Ridge and Valley Conservancy and the State Natural Lands Trust and contains a total of 1,027 acres. A portion of it was acquired using MCCTF funds in 1999.

NP9. Pequest River Greenway, 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. Adding to the Greenway, the State acquired 825 acres in Allamuchy, and 171 acres in Independence.

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.

NP14/WMA 11 The Wattles property was acquired in a joint purchase with the County, NJDEP Green Acres, and the Audubon Society. The Wattles property was divided into four sections. Two farm parcels totaling 210 acres were preserved by easement and sold to a local farmer. The NJDEP acquired a section along the Musconetcong River totaling 89 acres and is part of the Wildlife Management Area system. The Audubon Society acquired 51 acres.

NP 15/WMA 11. Heritage Conservancy Property/Cliffdale - This is a 5.56 acre property in Mansfield along the Musconetcong River. It was purchased by the Heritage Conservancy with assistance from the County's Municipal and Charitable Conservancy Trust Fund. The property contains a restaurant that has changed tenants over the years. The balance of the property is managed by the NJ Division of Fish and Wildlife as a Wildlife Management Area.

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 was expanded by 107 acres using money from the Municipal and Charitable Conservancy Trust Fund committee in 2002. Today it contains 540 acres. It is available for passive recreation.

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

P4. Princeton Blirstown Center containing 270 acres in Hardwick.

P5. Happiness is Camping, Hardwick contains 155 acres of which 110 acres were preserved using funding from the MCCTF.

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

P7. Kids Corporation, Frelinghuysen, contains 118 acres

P8. Camp Taylor, Knowlton Township contains 368 acres

P9. Camp Hope Conference and Renewal Center, Hope Township contains 95 acres.

P10. Presbyterian Camp and Conference Center in Frelinghuysen contains 245 acres. Across CR 521 the Ridge and Valley Conservancy acquired 38 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 and Lopatcong Township and contains 89.2 acres. A portion of the Warren-Highlands Trail will pass through this site.

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 Mountain Trail Group.

P18. West Morris YMCA contains 198 acres and is situated between two lands areas associated with the Johnsonburg Swamp/Mud Pond in Frelinghuysen.

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 rights to develop the land for non-agricultural purposes are retired. 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 April 2008 County Farmland Preservation Plan, 15,125 acres of farmland had been preserved permanently with Allamuchy containing the most preserved farmland with over 2,000 acres preserved. Regionally in 2008, the south had the most farmland preserved with 5,565 acres. The north and central contained 4,825 and 4,734 acres respectively. According to the 2016 Farmland Preservation Plan a total of 23,268 acre are preserved adding a total of 8,143 acres since 2008. In 2016, the south had 9,323 acres, the north 7,307 acres, and the central 6,638 acres of preserved farmland. Franklin now contains the most preserved farmland with over 2,966 acres preserved.

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 authorize the County's Board of Freeholders to increase the amount of money collected from \$.04 to \$.06 to fund farmland, open space, and historic preservation, maintenance, and debt service. In 2013 and 2015 the Board of Chosen Freeholders lowered the open space tax rate to 4.5% and 4.0% respectively.

Table II and IIa 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 and 2014. Table III and IIIa shows the actual expenditures and reimbursements to the Trust Fund for 2000 through 2007 and through 2015.

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 March 13, 2013 to include a conflict of interest provision. 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 was available for the acquisition of properties defined in the County Open Space Plan through the BRC. In 2015, \$4.28 million should be available.

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.

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.

In 2008 the county owned open space inventory totaled 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. As of May 4, 2017 the county open space inventory is 2,220 acres for a total County cost of \$15,507,997 with an average cost of \$6,985 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 April 2008 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 total cost averaged to \$4,559 per acre and the county's average cost was \$1,230 per acre. According to the 2016 Farmland Preservation Plan,. Through 2016, 23,268 acres have been purchased on 259 farms through the CADB. The total cost of acquisition was \$127,767,559 with an average total cost of \$5,491 per acre. The average cost to the County was \$1,421 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 in 1997 to November 2017, the MCCTF has recommended the funding of projects for acquisition of over 5,200 acres in 55 complete projects 5 open. In addition, the MCCTF assisted in funding historic preservation sites on 59 complete and 10 open projects. The total cost of all open space and historic preservation projects totaled \$51,910,460 with the county cost amounting to \$24,297,577. The total MCCTF award for open space projects was \$13,532,816, and for historic preservation the award was \$10,764,761,

Table IV and Table IVa shows the amount of county open space trust fund tax collected

from 1995 through 2007 and through 2015 respectively by municipality. Table V shows the net amount of county open space trust fund spent in each county preservation program in each municipality through 2007 and 2015. All municipalities are encouraged to apply to the MCCTF for funding for open space acquisition and historic preservation projects. As of this writing, projects have been funded in all of the County's 22 municipalities with some municipalities receiving less money than others. One possibility to remedy the inequity is to expand the Trust Fund's eligible purposes to include "development" costs. This will help the more urbanized communities take advantage of the trust fund money's to improve existing parks or build new ones.

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. All of the available money has been spent. The debt service on the bond is paid using revenues from the Open Space Trust Fund and will be paid off in 2018.

C. Municipal Open Space Trust Funds

Currently, all municipalities are collecting a dedicated open space trust fund tax except for Belvidere, Hackettstown, Independence, Oxford, and Washington Borough. In 2007, over \$2.46 million was anticipated to be raised through the local open space tax levy.

In 2015, \$2.02 million was anticipated to be collected from municipal Open Space Tax funds. The reduction in anticipated revenue is the result of four municipalities collecting a lower rate than in 2007 and a slight reduction in the net taxable value of the land. . 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.

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.

The New Jersey Open Space Preservation Funding Amendment, Public Question No. 2 was on the November 4, 2014 ballot as a legislatively-referred constitutional amendment, where it was approved by a margin of 65% to 35%. The amendment will dedicate 6 percent of corporate business tax revenues to open space, farmland and historic preservation. The tax allocation will last from 2016 to 2045. It also requires that all natural resource damages and environmental fine revenues be allocated to underground storage tank programs and state-funded hazardous discharge cleanups.

The measure ended the current dedication of 4 percent of corporate business tax revenues to environmental programs. The new set-up being sponsored by Senator Bob Smith, will provide \$71 million a year for four years, and \$121 million a year after that. Under the proposed system approximately 64% or \$ 45,440,000 million will be dedicated for Green Acres, 29% or \$20,590,000 for Farmland Preservation and 4% or \$ 2,840,000 million, for the States Blue Acres fund to purchase flood prone properties and convert them to open space, and 3% or 2,130,000 for the historic preservation fund would be dedicated over the next four years.

1. Green Acres (from website)

The Green Acres Program within the New Jersey Department of Environmental Protection has five program areas: State Park and Open Space Acquisition; Local Governments and Nonprofit Funding; Stewardship and Legal Services; Planning and Information Management; and Office of Natural Resource Restoration. These program areas are supported by the Green Acres Survey Section, and supplemented by the New Jersey Trails System.

The Green Acres State Park and Land Acquisition Program serves as the real estate agent for the Department of Environmental Protection. 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 an appropriate division for management. Land and easement interests in land can be acquired by purchase, donation and bequests.

The Green Acres Local Governments and Nonprofit Funding program provides low interest (2%) loans and grants to municipal and county governments to acquire open space and develop outdoor recreation facilities. Over 80,000 acres have been protected and hundreds of recreation development projects throughout the state have been financed through Green Acres' Local and Nonprofit funding program.

Green Acres also provides matching grants to nonprofit organizations to acquire land for public recreation and conservation purposes.

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

Green Acres administers the \$15 million in 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.

The Legal Services and Stewardship program oversees lands that are acquired or developed with Green Acres funds, they must continue to be used solely for recreation and conservation purposes in perpetuity (and are known as "funded parkland.")

In addition, all lands that a county or municipality holds for recreation and conservation purposes at the time that it accepts Green Acres funds are subject to a Green Acres restriction (and are known as "unfunded parkland.") The Recreation and Open Space Inventory ("ROSI") is the master list of Green Acres-encumbered properties in each municipality (both funded parkland and unfunded parkland.)

The Bureau of Planning & Information Management provides open space and recreation planning guidance and technical assistance for municipal, county, nonprofit, and state open space acquisition and recreation development efforts. The Bureau also provides staff support to the Governor's Council on New Jersey Outdoors.

The Bureau administers the federal Land and Water Conservation Fund monies for the preservation of open space and development of recreation facilities. The Bureau prepares the State's Open Space and Recreation Plan that guides the expenditure of federal and state funds for land preservation and recreation projects.

To minimize public liability for site cleanup costs, and to be reasonably assured that lands acquired with public funds can be utilized for recreation without risk to public health, the Bureau completes Preliminary Assessments for all state land acquisition projects, and reviews the Preliminary Assessment Reports submitted by Green Trust Management applicants.

The Office of Natural Resource Restoration is committed to restoring injured or lost natural resources through its Office of Natural Resource Restoration. Restoration is the remedial action that returns the natural resources to pre-discharge conditions. It includes the rehabilitation of injured resources, replacement, or acquisition of natural resources and their services, which were lost or impaired. Restoration also includes compensation for the natural resource services lost from the beginning of the injury through to the full recovery of the resource. Examples of restoration are ground water non-point source

pollution abatement projects, acquisition of land for aquifer recharge, rehabilitation or creation of wetlands / habitat in the appropriate ratios to compensate for the functions and services lost, the restoration of appropriate habitat and monitoring of success / research projects and in cases where public use is lost, to enhance public access, information and interpretive centers

The New Jersey Trails Program was established with the passage of the New Jersey Trails System Act in 1974, laying the groundwork for a network of trails that provide for outdoor recreation and an appreciation of the outdoor, natural and remote areas of New Jersey. The act charged the Department of Environmental Protection with the task of establishing a trails plan. The first Trails Plan was created in 1982, updated in 1996 and again in 2009.

With the establishment of the National Recreational Trails Fund Act in 1993, the New Jersey Trails Program administers federal Recreational Trails Program (RTP) grants to develop, maintain and restore trails and trail-related facilities.

The New Jersey Trails Council provides assistance to the Trails Program and acts as an advisory body to the Department. The Council is instrumental in the formulation, review and implementation of the Trails Plan, as well as making funding recommendations to the Commissioner regarding RTP applications. The Trails Council consists of citizens with interests in different types of trail use, representatives from conservation or recreation organizations and other state agencies.

The Trails Program also coordinates National Trails Day by soliciting park agencies and trail organizations for events, compiling a listing of those events and distributing the information statewide

The 2009 New Jersey Trails Plan Update presents a renewed vision, goals and strategic actions to help guide the efforts of all those who plan, build, operate and maintain New Jersey's trails. This Plan builds on earlier statewide plans and assesses a broad range of needs, desires, topics and issues from the standpoint of both trail users and trail providers.

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. Currently the Trust owns or manages over 26,000 acres of open space from Sussex to Cape May Counties, including over 2,500 acres of conservation easements.

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. Other funding sources include the sale of surplus federal real estate and taxes on motorboat fuel.

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. ceased operations in August 2014.

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. Land Conservancy of New Jersey (from website)

Previously known as the Morris Land Conservancy, land preservation is the primary focus of the organization. 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.

In 2008, the Morris Land Conservancy became the Land Conservancy of New Jersey. Preserving land is the heart of the Land Conservancy's work to ensure:

- A plentiful supply of safe, clean drinking water
- Productive land for agriculture
- Sustainable land for wildlife and forests to thrive
- Neighborhood parks and natural areas for people to walk, play, and enjoy a healthy lifestyle

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. The Heritage Conservancy acquired the Cliffdale Inn along the Musconetcong River in Mansfield Township. Its involvement in Warren County has been diminishing over the last several years.

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. Currently the RVC owns and manages a number of properties in northern Warren County and holds conservation easements on others. In 2015, RVC replaced the Nature Conservancy as the manager of the White Lake property for Warren County.

8. William Penn Foundation

Through the Open Space Institute the Delaware River Watershed Protection Program seeks to ensure abundant, clean water within the 13,000-square-mile drainage of the Delaware River. The initiative supports efforts in eight watershed clusters to protect and restore water quality and is capitalized with a \$10.2 million grant from the William Penn Foundation.

9. The Nature Conservancy

The mission of TND is to protect the lands and waters on which all life depends, and for more than 60 years. In addition to the Blair Creek Preserve and the Johnsonburg Swamp Preserve the Nature Conservancy has identified a project area called Bobcat Alley which contains land area in northern Warren County in Hardwick, Frelinghuysen and Allamuchy Townships.

F. New Jersey Department of Transportation

1. Transportation Alternatives Program (TAP) & Safe Routes to School (SRTS)

The TAP program is funded through the Federal Highway Administration's Federal Aid Program and administered by the New Jersey Department of Transportation (NJDOT), in partnership with the North Jersey Transportation Planning Authority (NJTPA).

TAP provides federal funds for community based "non-traditional" projects designed to strengthen the cultural, aesthetic, and environmental aspects of the nation's intermodal system. TAP was established by Congress in 2012 under MAP-21, and is funded through a set-aside of the Federal-aid Highway Program. Eligible activities include most activities historically funded as "Transportation Enhancements" (TE) under SAFETEA-LU.

2. Local Aid Bikeways Program

The New Jersey Department of Transportation's (NJDOT) Bikeway Grant Program provides funds to counties and municipalities to promote bicycling as an alternate mode of transportation in New Jersey.

The New Jersey Department of Transportation's (NJDOT) Bikeway Grant Program provides funds to counties and municipalities to promote bicycling as an alternate mode of transportation in New Jersey. A primary objective of the Bikeway Grant Program is to support the State's goal of constructing 1,000 new miles of dedicated bike paths (facilities that are physically separated from motorized vehicular traffic by an open space or barrier either within the highway right of way or within an independent right of way). In an effort to establish regionally connected bicycle networks, this program is available to every municipality and county throughout New Jersey. Although priority will be given to construction of new bike paths, the proposed construction or delineation of any new bicycle facility will be considered.

3. Recreational Trails Grant

http://www.state.nj.us/dep/parksandforests/natural/trail_grants.htm

The Federal Highway Administration's Recreational Trails Program (RTP) provides financial assistance to states for developing and maintaining trails and trail facilities. The RTP funds come from the Federal Highway Trust Fund, and represent a portion of the motor fuel excise tax collected from non-highway recreational fuel use. Since the program's inception in 1993, New Jersey has awarded more than \$16 million to federal, state, county and local governments, and non-profit agencies. Projects are funded on an 80% federal share and 20% matching share basis..

4. Bicycle and Pedestrian Local Planning Assistance Program - Administered by the State DOT, this program assists county's and municipalities in the development of bicycle and pedestrian plans. This Planning Assistance process is not publicized on any website - To apply a municipality to contact DOT Bicycle and Pedestrian office directly, may require a resolution by the municipal council. State absorbs 100% of the planning costs.

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.

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, as shown in Map 2, for the years 1986, 1995, 2002, 2007 and 2012. 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 16,760 acres or approximately 23.8% over the 26 year period. While most of the loss is attributed to an increase in urbanized uses (a.k.a. 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 the 1986 to 1995 period and the 1995 to 2002 period amounted to about 4000 acres each period for a total of 8,041 acres over the 16 year period equating to an average of 502 acres per year. However the conversion from 2002 to 2012 slowed to 1,403 acres over a 10 year period equating to an average of 140 acres per year. Forested land areas remained stable throughout the 26 year period with the amount of land area ranging between 21,000 acres and 22,000 acres. In Warren County on average, approximately 1.12 square miles of mostly agricultural land per year has been converted to development.

Table VII shows that in 2012 16.36% of the county's total area was in urban land use, up from 12.4% in 1986. Regionally, the southern region contains the greatest percentage (20.96%) of urban land uses. The central region contains 18.2% and the northern region contains 11.73%. The land use data also shows that from 1995 to 2012, the percentage of urban uses in the southern and central regions increased by over 2.5 percentage points while the northern region increased by 1 percentage point. 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 2012 agricultural use has declined the most in the southern region, losing 5.66 percentage points. The central region and the northern region lost 3.27 and 1.97 percentage points respectively. Countywide the loss of agricultural land amounted to 3.35 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 other northeastern counties in 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 is equally important.

Tables VIII and IX show the countywide property assessment changes for 1990, 2000, 2005, 2010, and 2015 based on the MODIV database obtained from the county tax administrator's office and the NJ Dept. of Taxation. 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 8.09% and in 2010 to 8.11%. Conversely, the value of developed land, including industrial, commercial and residential, increased from 86.69% in 1990 to 91.91% 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%. In 2005, the central and southern region's share of farm and vacant uses were 6.70% and 5.90% respectively. In 2010 the central and southern valuation was 6.03% and 5.77% of the regional total and the northern region was 18.99%. This indicates that valuation increases in developed land were more prevalent in the central and southern regions indicating a greater level of development.

Since the 2008 Plan Update, the overall percentage of valuation in farm and vacant, and in industrial, commercial, and residential, in 2010 remained nearly the same as the percentage of valuation in 2005. However the numerical valuation increased by almost 24% in both major categories. Regionally, the numerical valuation in the northern region experienced a higher increase in both major categories by approximately 50% while the central and southern regions experienced growth rates of 25% or less.

In 2015, the value of farm and vacant land remained similar to prior years at 8.06% of the the countywide total. Percentagewise the value of developed land also was similar to prior years at 91.94%.

Table IX. is showing the number of properties (items) in each assessment category. The number of farm and vacant parcels are decreasing over time. 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 86.69% of the properties in 1990 when in 2005 account for 91.91% 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.

According to the MOD IV Tax Record database, the number of farm and vacant parcels fell to 9,625 in 2015 representing 20.8% of the total number of parcels in the County. Developed

parcels increased to 79.2% of total in 2015. The trend continues with the loss of vacant parcels rather than those assessed as farm or farm regular, for the same reasons as those described above.

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. 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 of developed parcels in the south is 12.54% vs. 7.55% and 5.32% for the central and northern regions respectively.

From 2005 to 2015 the percentage of properties assessed as farm and vacant continued to be highest in the northern region, although its percentage share among the regions declined. The relative percentage distribution of developed parcels regionally remained the same in 2015 as well. The number of developed parcels has increased countywide with the highest increase occurring in the central region. This is not unexpected since the central region contains the most land area and contains four areas served by central sewer; the PRMUA serving Belvidere, White, and Oxford, the HMUA serving Hackettstown, Mansfield, Independence, the sewer service are in Washington Borough and Twp.

Table X provides comparative statistics of assessed valuation and number of properties in 1990, 2000, 2005, 2010 and 2015. What is apparent in this table is that the assessment on farm regular properties, those with the house and supporting farm structures, was highest in 2010 with a small decrease in 2015.

Regionally, on a per item basis, the southern region gained the most in farm qualified lands. This is an indicator that the value of farm properties is increasing as they become scarcer. In 2015, the regional distribution on a per parcel basis, the central region exhibited the least amount of change, while the northern and southern region exhibited higher levels.

Proposed Development Activity

Proposed development activity in each of the planning regions by municipality from January 2000 through 2007 and from 2008 through 2015 is shown in the tables below. Maps 3A, 3B, and 3C show the location of the major development applications filed with the Warren County Planning Board since 2000.

Proposed Subdivision Activity in Warren County by Region, 2000 through 2007							
	# 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

Proposed Site Plan Activity in Warren County by Region, 2000 through 2007				
	# Site Plans Applications	New Sq. ft.	Land Area	# New Residential Units
South	80	3,415,315	1,774	512
Central	75	2,099,163	2,200	1,652
North	26	417,025	1,002	0
Total	181	5,931,503	4,976	2,164

Proposed development activity in each of the planning regions by municipality from January 2008 through December 2015 is shown in the tables below.

Proposed Subdivision Activity in Warren County by Region, 2008 through 2015							
	# Major Subdivision Applications	# New Lots	Land Area	Ave. Lot Size	# Minor Subdivisions	# New Lots	Land Area
South	17	250	1,183	4.73	38	85	526
Central	13	502	1,220	2.43	52	118	769
North	2	8	56	6.9	42	100	199
Total	32	760	2,459	3.24	132	303	1,494

Proposed Site Plan Activity in Warren County by Region, 2008 through 2015				
	# Site Plans Applications	New Sq. ft.	Land Area	# New Residential Units
South	87	627,883	3,738	250
Central	130	778,703	5,244	1,489
North	42	232,431	1,447	11
Total	259	1,639,017	10,429	1,750

Southern Region

2000-2007

There were 126 major development applications in the Southern Development Region between 2000 and 2007. Two thousand - two hundred and forty-five lots were proposed in 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 proposed 345 lots. Major and minor subdivisions had proposed a total of 2,590 lots.

There were 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 between 2000 and 2007 was approximately 4,533 acres.

2008-2015

There were 89 major development applications in the Southern Development Region between 2008 and 2015. Two hundred and fifty lots were proposed through 17 major subdivision applications. These applications used approximately 1,183 acres. A density of 4.73 acres per lot. Another 38 applications for minor subdivisions were proposed 85 lots. Major and minor subdivisions had proposed a total of 335 lots.

There were 87 site plan applications in the Region between 2008 and 2015. A total of 627,883 square feet of industrial, retail and office space was proposed on 3,738 acres. Two hundred and fifty residential dwelling units were proposed in two applications.

Total land area affected by major development in the Southern Development Region was approximately 5,447 acres.

Alpha Borough

2000-2007

There were 8 major development applications proposed in Alpha Borough between 2000 and 2007. One hundred and seventeen lots had 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 were 6 significant site plan applications of 5,000 square feet or more in the Borough between 2000 and 2007. 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 are proposed by major development was 82.5 acres.

2008-2015

There were 10 development applications proposed in Alpha Borough between 2008 and 2015. Four lots had been proposed through 2 Minor subdivision applications. These applications used approximately 14.06 acres at a density of 3.52 acres per new lot created.

There were 8 site plan applications of in the Borough between 2008 and 2015. A total of 14,694 square feet of industrial, retail and office space was proposed on 38 acres.

Total land areas affected by proposed development was 52 acres.

Franklin Township

2000-2007

There were 25 major development applications proposed in Franklin Township from 2000 to 2007. One hundred and eighty-one lots had 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 was 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 had been proposed 40 lots. Major and minor subdivision applications proposed a total of 221 lots.

There were been 10 significant site plan applications of 5,000 square feet or more in the Township between 2000 and 2007. 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 area proposed by major development was 970 acres.

2008-2015

There were 38 development applications proposed in Franklin Township between 2008 and 2015. Twenty-five lots had been proposed through 12 Minor subdivision applications. These applications used approximately 312 acres at a density of 12.5 acres per new lot created. Six major applications proposed 47 new lots affecting 597 acres.

There were 17 site plan applications of in the Township between 2008 and 2015. A total of 5,824 square feet of industrial, retail and office space affecting 943 acres.

Total land area affected by proposed development was 1,540 acres.

Greenwich Township

2000-2007

There were 24 major development applications proposed in Greenwich Township between 2000 and 2007. 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 had been proposed on 20 lots. Major and minor subdivision applications are proposing a total of 213 lots.

There were 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 area affected by major development was 1,211 acres.

2008-2015

There had been 12 development applications proposed in Greenwich Township since 2008. Nine lots have been proposed through 5 subdivision applications. The gross area of these applications is 355 acres, an average of 39.44 acres per new lot created.

There have been 10 site plan applications in the Township since 2008. A total of 11,816 square feet of industrial, retail and office space was proposed on 285 acres.

Total land area affected by propose development was 640 acres.

Harmony Township

2000-2007

There were 14 major development applications proposed in Harmony Township between 2000 and 2007. Three hundred and thirty-three lots were proposed through 3 major subdivision applications. One application (Centex Homes, LLC) was for 303 lots. This 186 acre lot was proposed to meet the Townships' COAH obligation. This project was never constructed. The remaining two subdivisions were situated on approximately 75 acres. The density of these newly created lots is one per .78 acres. Another 34 applications for minor subdivisions were proposed 89 lots. Major and minor subdivision applications proposed a total of 422 lots.

There were 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) was for a 201,600 square feet green house. Another 9 applications created 26,960 square feet of industrial, retail and office space.

Total land affected by proposed development was 548 acres.

2008-2015

There have been 15 subdivision applications proposed in Harmony Township since 2008. Twenty-three lots have been proposed through 2 Major subdivision applications involving 108 acres. Another 32 lots have been proposed though 13 minor subdivision applications involving 740 acres. There are a total of 55 lots affecting 848 acres proposed since 2008.

There have been 9 site plan applications in the Township since 2008. A total of 47,619 square feet of industrial, retail and office space was proposed on 555 acres.

Total land area affected by proposed development is 1,403 acres.

Lopatcong Township

There were 24 major development applications proposed in Lopatcong Township between 2000 and 2007. Six hundred and forty-six lots were 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 involved a total of 697 lots.

There were 13 significant site plan applications of 5,000 square feet or more in the Township between 2000 and 2007. 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 area affected by proposed development was 1,146 acres.

2008-2015

There have been 23 development applications proposed in Lopatcong Township between 2008 and 2015. One hundred and sixty-seven lots have been proposed through 3 major subdivision applications. These applications use 90 acres at a density of 0.54 acres per lot. Another 5 applications for minor subdivisions created 8 lots involving 119 acres. Major and minor subdivisions are proposing a total of 175 lots involving 209 acres.

There have been 15 site plan applications in the Township since 2008. A total of 208,576 square feet of industrial, retail and office space was proposed on 351 acres. STAG GI New Jersey is proposing a 150,000 sq. ft. addition to the existing Berry Plastic site on Strykers Road.

Total land area affected by development was 560 acres.

Town of Phillipsburg

2000-2007

There were 22 major development applications proposed in Phillipsburg between 2000 and 2007. Forty-one lots were 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 were 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 proposed a total of 98

lots.

There were 17 significant site plan applications of 5,000 square feet or more in the Town of Phillipsburg between 2000 and 2007. 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 area affected by proposed development was 295 acres.

2008-2015

There have been 15 development applications proposed in Phillipsburg since 2008. Three minor subdivision applications have proposed 6 new lots on 0.49 acres for a density of 0.07 acres per new lot. No Major subdivision applications were received in this time period.

There have been 11 site plan applications in the Town of Phillipsburg since 2008. A total of 73,293 square feet of industrial, retail and office space was proposed on 27 acres.

Total land area affected by proposed development was approximately 27 acres.

Pohatcong Township

2000-2007

There were 9 major development applications proposed in Pohatcong Township between 2000 and 2007. 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 were 6 significant site plan applications of 5,000 square feet or more between 2000 and 2007. A total of 344,432 square feet of industrial, retail and office space was proposed on approximately 100 acres. The Laneco site was redeveloped by a Wal-Mart super store. The new site has 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 area affected by proposed development was 281 acres.

2008-2015

There have been 21 development applications proposed in Pohatcong Township since 2008. Twelve lots have been proposed through 3 major subdivisions. These applications are on approximately 163 acres at a density of 14 lots per acre. Another 3 applications for minor subdivisions have occurred creating 7 lots. The minor applications involve 298 acres with an

average lot size of almost 43 acres each. Major and minor subdivisions are proposing a total of 15 lots.

There have been 15 site plan applications since 2008. A total of 248,735 square feet of industrial, retail and office space was proposed on approximately 847 acres.

Total land area affected by major development was 1,308 acres.

Central Region

2000-2007

There were 127 major development applications in the Central Development Region between 2000 and 2007. Two thousand – two hundred and fifty lots have been proposed though 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 were 75 site plan applications of 5,000 square feet or more between 2000 and 2007. 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 proposed development in the Central Region was 5,769 acres.

2008-2015

There have been 195 development applications in the Central Region since 2008. Six hundred and twenty lots have been proposed though 65 subdivision applications. These applications are situated on approximately 1,989 acres. A density of 3.21 acres per lot.

There have been 130 site plan since 2008. A total of 778,703 square feet of industrial, retail and office space was proposed on 5,244 acres.

Total land affected by proposed development in the Central Region was 7,738 acres.

Allamuchy Township

2000-2007

There were 13 major development applications in Allamuchy Township between 2000 and 2007. 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 were 2 significant site plan applications in the Township between 2000 and 2007. 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 area affected by proposed development was 1,013 acres.

2008-2015

There have been 17 development applications in Allamuchy Township since 2008. One hundred and twelve lots have been proposed through 2 major subdivision applications. These applications used approximately 420 acres at a density of 3.75 acres per lot. The majority of these applications (7) and lots (725) involve development associated with Panther Valley. Another 6 applications for minor subdivisions have proposed 15 lots. Major and minor subdivisions are proposing a total of 127 lots involving 528 acres.

There have been 9 site plan applications in the Township since 2008. Three hundred and seventy-six dwelling units have been proposed associated with the Panther Valley area of Allamuchy. Another 8 applications proposed 15,839 square feet of retail/service space. Site plan activity involved 419 acres.

Total land area affected by proposed development since 2008 was 948 acres.

Town of Belvidere

2000-2007

There were 3 major development applications in the Town of Belvidere between 2000 and 2007. 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 underutilized 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 area affected by proposed development was 58 acres.

2008-2015

There were 2 development applications in the Town of Belvidere since 2008. Thirteen lots have been proposed through 1 major subdivision applications. This application use approximately 10 acres. One other application for minor subdivision was proposed for 2 lots. It can be expected that in-fill of existing vacant or underutilized lots will continue. Major and minor subdivisions are proposing a total of 15 lots involving 12 acres.

One site plan application was submitted for 4 assistant care dwelling units on .4 acres.

Total land area affected by proposed development since 2008 was 12.4 acres.

Town of Hackettstown

2000-2007

There were 30 major development applications in the Town of Hackettstown between 2000 and 2007. 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 were 28 significant site plan applications of 5,000 square feet or more in the Town between 2000 and 2007. 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 area affected by proposed development was 357 acres.

2008-2015

There were 41 development applications in the Town of Hackettstown since 2008. Four minor applications proposed 8 new lots on 14 acres at 1.75 acres per proposed lot. No major subdivisions were proposed since 2008.

There have been 29 site plan applications in the Town since 2008. A total of 138,020 square feet of industrial, retail and office space was proposed on 473 acres. There were three residential site plan applications proposing 434 dwelling units on 37 acres. Total area involved with site plan activity in the Town was approximately 510 acres

Total land area affected by proposed development was approximately 524 acres.

Independence Township

2000-2007

There were 16 major development applications in Independence Township between 2000 and 2007. 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 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 between 2000 and 2007. 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 area affected by proposed development was 984 acres.

2008-2015

There have been 13 development applications in Independence Township since 2008. Eighteen lots were proposed through 7 subdivision applications. One major application proposing 5 lots and 5 minor applications proposing 11 lots. These applications use approximately 348 acres. The density for these projects is 19.33 acres per lot.

There have been 6 site plan applications in the Township since 2008. A total of 10,524 square feet of industrial, retail and office space was proposed on 61 acres.

Total land area affected by proposed development was 409 acres.

Liberty Township

2000- 2007

There were 6 major development applications in Liberty Township between 2000 and 2007. One hundred lots were 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 between 2000 and 2007.

Total land area affected by proposed development was 410 acres.

2008-2015

There have been 3 development applications in Liberty Township since 2008. Nine lots have been proposed through 3 minor subdivisions on 37 acres. The density for these projects is 4.16 acres per lot.

Liberty Township has had no site plan activity since 2008.

Total land area affected by proposed development was 37 acres.

Mansfield Township

2000- 2007

There were 21 major development applications in Mansfield Township between 2000 and 2007. Three hundred and twenty-two lots were 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 had proposed 64 lots. Major and minor subdivisions proposed a total of 386 lots.

There were 14 site plan applications of 5,000 square feet or more between 2000 and 2007. 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 proposed 18,755 square feet of industrial, retail and office space. Ten of these applications were for cellular telecommunication towers and equipment sheds.

Total land area affected by proposed development was 637 acres.

2008-2015

There have been 26 development applications in Mansfield Township since 2008. Two hundred and thirty lots have been proposed through one major subdivision applications on 123.7 acres. The density for this application is one lot per 0.54 acres. Another 7 minor subdivision applications have proposed 18 lots involving 226 acres at a density of one lot per 12.55 acres. Major and minor subdivisions are proposing a total of 248 lots involving 295 acres.

There have been 16 site plan applications since 2008. A total of 21,216 square feet of industrial, retail and office space was proposed on 634 acres.

Total land area affected by proposed development was 929 acres.

Oxford Township

2000-2007

There were 2 major developments in Oxford Township between 2000 and 2007. Forty-eight lots were proposed through 2 subdivision applications on 90 acres. The density for these projects is 1.9 acres per lot. Another 16 minor subdivision applications had proposed 35 lots. Major and minor subdivisions are proposing a total of 83 lots.

Oxford Township had one site plan between 2000 and 2007. It was for a 30 square foot cellular communication shed.

Total land area affected by proposed development was 90 acres.

2008-2015

There have been 3 development applications in Oxford Township since 2008. One minor subdivision creating 2 lots from 20 acres, and two site plan applications proposing 1,520 sq. ft. of commercial space involving 3 acres

Total land area affected by proposed development was approximately 23 acres.

Washington Borough

2000-2007

There were 8 major development applications proposed in Washington Borough between 2000 and 2007. Thirty-eight lots were 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 were 5 site plan applications of 5,000 square feet or more between 2000 and 2007. 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 area affected by proposed development was 181 acres.

2008-2015

There have been 16 development applications proposed in Washington Borough since 2008. One Hundred and two lots have been proposed through 2 major subdivision applications. These applications are situated on approximately 26 acres. The density of these projects is 0.25 lots per acre. Another 4 minor subdivision applications have proposed 7 lots. Major and minor subdivisions are proposing a total of 109 lots involving 28 acres.

There have been 9 site plan applications since 2008. A total of 19,510 square feet of industrial, retail and office space was proposed on 54 acres.

Total land area affected by proposed development was 82 acres.

Washington Township

2000-2007

There were 17 major developments in Washington Township between 2000 and 2007. Three hundred lots were 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 were proposing 83 lots. Major and minor subdivisions are proposing a total of 383 lots.

There were 8 site plan applications of 5,000 square feet or more between 2000 and 2007. 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 were proposing 41,868 square feet of industrial, retail and office space.

Total land area affected by proposed development was 1,251 acres.

2008-2015

There have been 46 development applications in Washington Township since 2008. Twelve lots have been proposed through 2 major subdivision applications. These applications are situated on approximately 88 acres. The density of these projects is 7.3 acres per proposed lot. Another 10 minor subdivision applications are proposing 22 lots involving 554 acres. Major and minor subdivisions are proposing a total of 34 lots.

There have been 24 site plan applications since 2008. A total of 241,464 square feet of industrial, retail and office space were proposed on approximately 1,450 acres.

Total land area affected by proposed development was 2,092 acres.

White Township

2000-2007

There were 11 major developments in White Township between 2000 and 2007. Twenty lots were 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 proposed 92 lots. Major and minor subdivisions proposed a total of 112 lots.

There were 9 site plan applications of 5,000 square feet or more between 2000 and 2007.

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 proposed 34,480 square feet of industrial, retail and office space.

Total land area affected by proposed development was 863 acres.

2008-2015

There have been 32 development applications in White Township since 2008. Twenty-two lots have been proposed through two major subdivision applications. These applications are situated on 95 acres. The density of these projects is 4.3 acres per lot. Another 8 minor subdivision applications are proposing 18 lots. Major and minor subdivisions are proposing a total of 40 lots involving 300 acres.

There have been 20 site plan applications since 2008. A total of 328,586 square feet of industrial, retail and office space were proposed on 1,051 acres.

Total land area affected by proposed development was 1,446 acres.

Northern Region

2000-2007

There were 35 major development applications in Northern Region between 2000 and 2007. Seventy-nine lots were 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 were proposed 382 lots. Major and minor subdivisions are proposing a total of 461 lots.

There were 26 site plan applications of 5,000 square feet or more between 2000 and 2007. 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 were proposing 64,868 square feet of industrial, retail and office space.

Total land area affected by proposed development in the northern region was 1,302 acres.

2008-2015

There have been 86 development applications in Northern Development Region since 2008. Eight lots have been proposed through 2 major subdivision applications. These applications are situated on 56 acres. A density of 6.94 acres per lot. Another 42 applications for minor subdivisions have proposed 100 lots. Major and minor subdivisions are proposing a total of 108 lots involving 155 acres. Minor subdivision average lot size is 2 acres

There have been 42 site plan applications since 2008. A total of 232,431 square feet of industrial, retail and office space was proposed on 1,447 acres.

Total land area affected by proposed development in the Northern Region was 1,602 acres.

Blairstown Township

2000-2007

There were 15 major development applications in Blairstown Township between 2000 and 2007. Thirty-one lots were 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 were proposed 89 lots. Major and minor subdivisions proposed a total of 120 lots.

There were 13 site plan applications of 5,000 square feet or more between 2000 and 2007. 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 were proposing 11,238 square feet of industrial, retail and office space.

Total land area affected by proposed development was 574 acres.

2008-2015

There have been 27 development applications in Blairstown Township since 2008. No major subdivision applications were submitted. Ten minor subdivisions applications have proposed 24 lots. Total land involved with minor subdivision activity is 630 acres, for an average lot size of 26.25 acres.

There have been 17 site plan since 2008. A total of 155,326 square feet of industrial, retail and office space was proposed on 579 acres.

Total land area affected by proposed development was 1,209 acres.

Frelinghuysen Township

2000-2007

There were six major development applications in Frelinghuysen Township between 2000 and 2007. Twenty-three lots were 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 proposed a total of 160 lots.

There were 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 proposed 10,249 square feet of industrial, retail and office space. Five of these applications deal with wireless communication towers and equipment.

Total land area affected by proposed development was 290 acres.

2008-2015

There have been 15 development applications in Frelinghuysen Township since 2008. No major subdivision applications were submitted. Eight minor subdivisions applications have proposed 16 lots. Total land involved with minor subdivision activity is 494 acres, for an average lot size of 30.88 acres.

There have been 7 site plan since 2008. A total of 26,044 square feet of industrial, retail and office space was proposed on 211 acres.

Total land area affected by proposed development was 705 acres.

Hardwick Township

2000-2007

There were 4 major development applications in Hardwick Township between 2000 and 2007. A five lot subdivision on 21 acres was the only major subdivision. The density for this site was 4.2 acres per lot. Another 15 applications for minor subdivisions had proposed 38 lots. Major and minor subdivisions are proposing a total of 43 lots.

There were 3 site plan applications of 5,000 square feet or more between 2000 and 2007. A YMCA camp add to its facility by 7,488 square feet, and a private foundation added 23,049 square feet to its 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 were proposing 16,973 square feet of industrial, retail and office space.

Total land area affected by proposed development was 151 acres.

2008-2015

There have been 14 development applications in Hardwick Township since 2008. No major subdivision applications were submitted. Nine minor subdivisions applications have proposed 19 lots. Total land involved with minor subdivision activity is 424 acres, for an average lot size of 22.32 acres.

There have been 4 site plan applications since 2008. A total of 5,498 square feet of industrial, retail and office space was proposed on 55 acres.

Total land area affected by proposed development was 479 acres.

Hope Township

2000-2007

There were 7 major development applications in Hope Township between 2000 and 2007. Thirteen lots were 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 were 5 site plan applications of 5,000 square feet or more between 2000 and 2007. 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 proposed 13,542 square feet of industrial, retail and office space.

Total land area affected by proposed development was 223 acres.

2008-2015

There have been 14 development applications in Hope Township since 2008. Eight lots have been proposed through two major subdivisions. These applications are situated on 55 acres at a density of 6.94 acres per lot. Another 9 applications for minor subdivisions have proposed 21 lots involving 300 acres at an average lot size of 14.29 acres.

There have been 3 site plan applications since 2008. A total of 9,000 square feet of industrial, retail and office space was proposed on 17 acres.

Total land area affected by proposed development was 372 acres.

Knowlton Township

2000-2007

There were 3 major development applications in Knowlton Township between 2000 and 2007. 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 had proposed 89 lots. Major and minor subdivisions proposed a total of 96 lots.

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

Total land area affected by proposed development was 64 acres.

2008-2015

There have been 20 development applications in Knowlton Township since 2008. No major subdivision applications were submitted. Nine minor subdivisions applications have proposed 22 lots. Total land involved with minor subdivision activity is 474 acres, for an average lot size of 21.55 acres.

There have been 11 site plan applications since 2008. A total of 36,137 square feet of industrial, retail and office space was proposed on 161 acres.

Total land area affected by proposed development was 635 acres.

Residential Building Permit Activity

1999-2007

Table XI contains a table and graph that illustrates building permit activity in Warren County by municipality from 1999 to 2007. In terms of residential building permits, the highest numbers were issued in Lopatcong, White, Greenwich, and Hackettstown. Countywide, the number of permits issued have declined with 2007 representing the fewest number since 1991.

2008-2015

Over the period 2008 to 2015, the highest number of residential building permits were issued in Allamuchy (276), Lopatcong (197), Hackettstown (167), and Washington Borough (95). As the table shows the year 2014 had the fewest number of permits (68) issued. In 2015, 17 more permits were issued signifying a possible rebound in new residential development activity.

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 2 Planning Regions contained in Appendix A.

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.

The past population growth of many municipalities and two of the three region's has slowed recently. Table XII shows this slowing trend in population growth from 1980 through 2015 according to U.S. Census estimates. In the Northern Region a steady decline in the population growth has occurred. From 1980 to 1990 the population of the region went from a growth rate of 22.5% to 12.3% growth rate from 1990 to 2000 to 5.2% growth between 2000 and 2010, to an estimated decline in population from 2010 to 2015 of -2.2%. In the Central Region a steady decline in the population growth can also be demonstrated. From 1980 to 1990 the population of the region went from a growth rate of 14.7% to a slight decrease of growth of 14.4% from 1990 to 2000 to 3.8% growth between 2000 and 2010, to an estimated decline in population from 2010 to 2015 of -1.5%. The Southern Region showed a decline in population from 1980 to 1990 of -2.7%. In the next two decades a more growth rate of 8.3% and 9.6% was experienced and from 2010 to 2015 the estimated population is projected to decline by -1.8%. Overall the County exhibited population growth each decade of 6.1% to 11.8% until a projected decline from 2010 to 2015 of -1.8%.

Prior to the year 2000, the county's population grew by almost 10,000 per decade. This trend was predicted to continue in the 2008 Open Space and Recreation Plan. However, population growth from 2000 to 2010 slowed significantly to 6,255 persons and from 2010 to 2015 the population was estimated to be declining by 1,823 persons. Clearly, growth pressures have eased, outmigration, and the effects of the Great Recession have left Warren County with fewer people today than five years ago.

Table XIII – Population Projection by Region and Municipality 2010 – 2040 developed by the North Jersey Transportation Planning Authority shows their predictions of growth in Warren

County slowing to 7,700 people per decade. The Northern Region is predicted to have only modest growth from 2010 to 2040. It is forecast to have a population increase of 2,152 with Blairstown contributing over 50% of that growth. Hardwick, is projected to stay under 2,000 people.

The Central Region is predicted to experience the most population growth in the county with municipal population changes ranging from 9.45% in Liberty to 47.71% in Belvidere. The Southern Region is predicted to have overall an equivalent growth rate as the northern region. Alpha, Harmony and Franklin are the municipalities that may grow above the region average.

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 2015. 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

The Plan states that the New Jersey Health Care Quality Institute's Mayors Wellness Campaign (MWC) is a statewide community health initiative in partnership with the New Jersey State League of Municipalities. The MWC is a program that gives mayors tools and strategies to champion healthy and active living and to improve the overall health of their communities. Currently, eight of the twenty-one municipalities in the county participate in the MWC. Through a Shaping NJ grant, the goal was to double the number of participating municipalities by September, 2015. By 2018, all municipalities will be participating in this program. Emphasis will be placed on obtaining the commitment of additional municipalities and increasing the number of physical activity events, such as community walks or fun runs.

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. Guidance on when accessibility requirements pertain are provided on the Access Board's website www.access-board.gov and on the Americantrails.org website.

In general, 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 space 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.

Warren County Morris Canal Greenway 25 – Year Action Plan

In 2007, the Warren County Board of Chosen Freeholders recognized the need for a vision for the future of the Morris Canal Greenway. The resulting Morris Canal Greenway 25-Year Action Plan was developed as a master plan document providing oversight and guidance in planning and providing safe non-motorized access along the canal greenway while promoting historic awareness. The Plan utilizes the historic route of the Morris Canal whenever possible with alternate routes to bypass inaccessible sections or provide linkages to other trail systems, historic sites and other attractions. The vision statement for the Plan which guided all parts of the Plan is:

To preserve and enhance the historic Morris Canal, a national engineering treasure, and the cultural landscape through which it passes in a manner that;

.... highlights its distinctive characteristics and the ingenuity used in its construction to distinguish it from other historic resources and canals.

... tells the story of life along the canal, its influence on past events and its relevance to today's society to support public education and foster community pride.

... interconnects communities and links points of interest by serving as a continuous greenway of open space across the county.

... provides convenient access to a towpath trail for non-motorized passive recreation use.

... stimulates the local economy through heritage tourism.

... leverages the value of the canal to support sound land uses planning decisions.

...increases public awareness and private support for and involvement in canal preservation efforts.

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: New Jersey establishes itself as a national leader in coordinated private and public investment that supports sustainable communities, attracts and provides strong economic opportunities, enhances cultural assets, preserves and protects our State's natural resources, and created healthier communities to work, reside and recreate. (http://nj.gov/state/planning/final-plan/final_spp_november%2008_pub.pdf). A Draft State Strategic Plan was proposed in October

2011 as an update to the State Development and Redevelopment Plan. It has not advanced since. The following is an excerpt from the 2001 State Development and Redevelopment Plan that describes and supports the goals and objectives of the County Open Space Plan.

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

The number of people 16 years of age and older 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 1,875,000 people participated in other wildlife-oriented recreational activities (bird feeding, wildlife observation, photography, etc.). In 2011, the year of the last survey, the number of hunters and fisherman have declined somewhat 94,000 and 766,000

respectively. Similarly, the number of persons participating in other wildlife oriented activities decreased to 1,694,000 in 2011. In contrast, the 1996 Survey revealed a lower participation rate than 2011, in all categories as well. This is an indication of the flaws in surveys rather than a loss of interest in the outdoors.

While usage fluctuates year to year, 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 2013 -2017 Statewide Comprehensive Outdoor Recreation Plan

An excerpt from the 2013-2017 draft Statewide Comprehensive Outdoor Recreation Plan reads as follows

The 2013 SCORP has been prepared to meet the following goals: 1. To assess the amount of open space available for current and future public recreational use and for the conservation of natural resources important to protecting New Jersey's biodiversity and quality of life. 2. To provide close to home park and recreation opportunities for residents statewide. 3. To present current information on the supply, demand and need for recreation and open space in New Jersey. 4. To implement open space and recreation planning policies and projects that are consistent with the Department of Environmental Protection goals. 5. To encourage open space and recreation planning by local governments and conservation organizations. 6. To effectively use funds from the Garden State Preservation Trust, Land and Water Conservation Fund, Forest Legacy Program and other sources of funding which may become available.

During the preparation of 2013 SCORP five issues were identified as being necessary to meet the current and projected future public open space and recreation demand in New Jersey. The issues presented in this SCORP are: 1. Land Preservation 2. Recreation 3. State Resource Areas 4. Greenways 5. Stewardship. These issues and their associated policies provide the framework which New Jersey will use to satisfy the significant and diverse recreation and open space requirements of its residents and visitors during the following five years. Public open space and recreation areas are part of the public infrastructure, not unlike roads, schools and bridges. It is the goal of these issues and policies to see that the State's open space and recreation infrastructure remains a critical element of the quality of life in New Jersey.

The 2002 – 2007 SCORP stated that 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 country
- 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 properties that contain the Morris Canal, the Warren-Highlands trail, the Warren Railroad, Lehigh-Hudson, and others. The trails are shown on Map 4.

Highlands Act and Highlands Regional Master Plan

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”.

The Highlands Regional Master Plan was adopted by the Highlands Council in 2008. It contains a section on conservation and preservation priorities. In general forested lands within forest resource areas, 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, 2010 and 2015 . 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 to 2005 with the exception of vacant lands which decreased by over 8%. Individual municipal assessed valuations are similar to the countywide figures. When examining the figures for 2010 and 2015 farm and vacant land values peaked in 2010 and decreased in 2015 but remained higher than what they were in 2005.

These figures challenge a belief that acquiring land for public open space significantly reduces the tax base. Because most lands that would be acquired for public open space are assessed as vacant or farm qualified, the reduction in the county’s overall assessed value due to the loss of these lands would not be 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 as shown in Table III, indicates that from the year 2000 through 2007 \$586,524 was spent on maintenance and from 2008 through 2015 maintenance expenses were \$1,853,065 equating to \$152,474 per year. This equates to an average of \$834 per acre or about \$52 per year per acre over the 16 year period.

According to research conducted for the Morris Canal 25 Year Action Plan, businesses benefit from hikers’ expenditures on items such as food, clothing, gas etc. According to a 2009 Rails to Trails Conservancy study trail users spent between \$4 to \$30 per visit on food, beverages, etc.

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 AmeriCorps have dedicated 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 volumes of motor vehicles may not relieve stress but may 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, various town Community Days, the Renaissance Festival, Shippen Manor Concerts, etc. Some events have been discontinued such as the Warren County Heritage Festival, and the Phillipsburg bike race. More attractions need to be held to bring in tourists. The semiannual Morris Canal bus tour has been able to meet the needs of those 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 second Sunday of the month year round and April through October respectively . 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, out of town visitors will patronize local restaurants, buy souvenirs or other retail items, pay admission fees and concession fees if necessary, and stay at local hotels if there are 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 by the American Planning Association, the National Park Service, Texas A&M, American Trails, and others 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.

According to Tourism Economics, direct sales in 2014 was \$157 million in the lodging, food and beverage, retail, recreation, and transportation industries. Warren County was last in the State in sales. Direct tourism employment (1,625 jobs) in Warren County was 4.3% of the total employment in Warren County. Total direct and indirect jobs related to tourism is 2,945 or 6.5% of total Warren County employment. This illustrates that tourism has a multiplier effect in employment. The data from Tourism Economics is found in Appendix M.

The Outdoor Industry Association’s NJ Report also found in the Appendix M states that at least 52% of New Jersey residents participate in outdoor recreation each year. In New Jersey Outdoor Recreation generates \$17.8 billion in consumer spending, 158,000 direct New Jersey jobs, \$6.1 billion in wages and salaries, and \$1.3 billion in state and local tax revenue. Nationwide outdoor recreation generates \$646 billion in consumer spending more than pharmaceuticals \$348B motor vehicles and parts \$374B, gasoline and other fuels \$428B, and household utilities \$307B. In addition, nationally the outdoor recreation industry employs 6.1 million, second only to the professional, technical, and scientific services industry which employs 7.7 million. This is more than oil and gas, information, education, transportation and warehousing, and construction industries.

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.

The National Geographic magazine is hosting a website of the upper Wild and Scenic Delaware River watershed area. The website is a “travel guide to the places most respected and recommended by locals”. Anyone can access this site which contains an interactive map and full

description of places to visit, stay, eat, and recreate within the region. The region covered in the website contains all of Warren County. The website can be found at <http://delawareriver.natgeotourism.com/>.

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 and in the 2013-2017 New Jersey Open Space and Outdoor Recreation Plan. The acres per population method generates higher acreage requirements as population increases and land becomes scarcer.

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. Typical uses include ball fields, soccer fields, tennis and basketball courts, playgrounds, picnic areas and swimming pools. Hiking and biking trails and golf courses are also provided by some municipalities.

Table XIV 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 175 acres of county land in the Northern Region, 633 acres in the Central Region, and 474 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.

Table XIV also shows the amount of land area in athletic and recreational land use according to the NJDEP's 2012 land use coverage 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.

Balanced Land Use Method

For purposes of estimating the amount of open space required for recreational purposes, The State Open Space and Outdoor Recreation Plan of 2013-2017 recommends using the balanced land use method to establish long range open space acquisition goals, an approach that has been determined to be the most appropriate for New Jersey. According to the SCORP:

“The Balanced Land Use approach incorporates land as a finite resource for which there are other legitimate competing uses. The Balanced Land Use requirements represent the recreation open space needs that will result from existing and new development. The need figures obtained through the Balanced Land Use guidelines are long term goals for public recreation land acquisition based on the extent of New Jersey’s developed, developable and undeveloped land resources and the need to accommodate other land uses such as transportation, commerce and housing. Using developed and developable land as the calculation basis for counties and municipalities the method takes into account the fact that the demand for county and municipal recreation land is largely generated by development.”

“The figures produced represent only minimum goals for recreation land acquisition programs. In order for public open space areas to be considered as supply toward meeting the Balanced Land Use goals, they must be owned by the local government and be environmentally suitable for the recreation activities provided. Need figures derived by the Balanced Land Use method represent the minimum amount of land that should be permanently preserved and owned by local governments as public open space and available for appropriate direct public recreation uses. Open space that is protected for environmental or agricultural purposes through conservation easements, land use regulation or other means that do not provide for direct public use is not considered as part of the public recreation land supply. These lands are, however, of considerable outdoor recreation value because they protect important natural and historic resources that are essential in maintaining an environment that is conducive to high quality recreation experiences. It is important to recognize that the availability of suitable land resources is the single most important factor in providing opportunities for active and passive recreation”

The balanced land use method states that to determine the amount of municipal open space, should be at a minimum 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 build-able 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 XV, there is a “surplus” of 1,267 acres of municipal space and a “shortfall” of 7,873 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 30,866 acres, resulting in a surplus of 7,506 acres of state-owned open space in Warren County. The same assumptions and methods can be employed at reaching a goal for federally-owned land. In Warren County, federally-owned land should amount to 9,344 acres, but it currently amounts to 9,588 acres, representing a surplus of 244 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 XV and XVI.

Based on Table XV, the southern region is lacking in the amount of preserved public open space while the northern and central regions have a surplus. Depending on the location, an 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.

CHAPTER VI

RESOURCE ASSESSMENT AND OPEN SPACE PLAN

To summarize the proposed open space plan, it is evident, that the County of Warren is making progress in meeting the demand in the preservation of 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, because 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 Plan are classified into two tiers.

Tier I Project Areas:

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 the Land Conservancy of NJ, PRO, Ridge and Valley Conservancy etc.

Tier II Project Areas:

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 2017 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 location of existing open space properties and the Tier 1 project areas 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, the Warren-Highlands Trail, the Ridge and Valley Trail, the Warren Railroad, and the Lehigh Hudson Railroad and are shown on Map 4 that depicts the major existing and proposed trail corridors in Warren County.

The Warren Highlands Trail is through route that utilizes trail segments on many of the above sites. It uses public roadways as the route in several areas as the roadways provide the needed connection between one open space site to another. The total length of the Warren – Highlands Trail is 33.67 miles.

The Morris Canal Greenway Trail is through route that utilizes trail segments on many of the above sites. It uses public roadways as the route in several areas as the roadways provide the needed connection between one Morris Canal site to another. The total existing walking length of

the Morris Canal Greenway is approximately 36 miles, 3 miles longer than the actual length of the canal through Warren County.

The following table shows that there are just over 180 miles of trails in Warren County under Federal, State, County, municipal and non-profit jurisdiction for which the Planning Department has digital data. The table also indicates of any segment of a site’s trail system is part of a regional Tier 1 project area as discussed in this Open Space Plan. As data is obtained the Department will add it to its database.

Trail Name	Part of Regional Trail	Length /Miles
Allamuchy Mountain State Park Trails	Warren-Highlands	23.02
Appalachian Trail		14.56
Bread Lock Park Trails	Morris Canal	2.10
Florence Kuipers Park Trails	Morris Canal	2.43
Jenny Jump Trails	Warren Highlands	13.64
Lehigh Hudson Trail	LH Trail/Pequest Valley	10.80
Merrill Creek Trails	Warren Highlands	12.60
Marble Hill Trails	Warren Highlands	4.86
Mt. Rascal Trail	Morris Canal	1.04
Delaware Water Gap National Recreation Area and Worthington State Forest Trails		40.29
PaulinsKill Valley Trail		12.70
Phillipsburg Riverfront Heritage Trail	Morris Canal	6.91
Port Murray Preserve Trail	Morris Canal	1.75
Port Warren Trail	Morris Canal	1.06
Ridge and Valley Trails		18.37
Washington Twp Park Trails	Morris Canal	6.95
East Oxford Mountain Trail	Warren Highlands	0.56
West Oxford Trails	Warren Highlands	2.77
White Lake Trail		4.06
Total Trail System		180.56

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. Morris Canal preservation offers recreation, conservation, historic preservation and educational opportunities for residents and students of NJ. Appendix O contains copies of the Interpretative panels that have been installed by the Morris Canal Committee at key historic locations along the Greenway.

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 I.

The greatest single Morris Canal achievement was that it overcame more elevation changes than any other canal in the world. Using grants from the State of New Jersey, Green Acres Program, as well as with county and other funding sources, the County acquired 8.29 miles and 1.73 miles in pedestrian easements of the 33 miles in Warren County 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. From Route 22 in Lopatcong Township to Stewartsville, a 1.8 mile stretch in fee simple and .8 mile in conservation easement with right to public access began in 1994 with the acquisition of Inclined Plane #9. The stretch was completed in 2002 through purchase and public access easements. More recently in early 2016, through easement and fee simple acquisition, approximately 1.25 continuous miles of the Morris Canal were secured in Greenwich Township through the County's development review process and the County's Land Preservation program. Long term policy commitment, dedication, and stable funding resources are needed to complete the Greenway. Additionally, effort should be made to secure easements on properties that adjoin currently unattainable canal lands.

Significant features of the Morris Canal are visited during the spring and fall tours conducted by the Morris Canal Committee. They are Saxton Falls, Florence Kuipers Memorial Park, Port Murray Boat Basin, Bread Lock Park (Lock #7), Inclined Plane #9 and the ISTEPA canal restoration project area by Stryker's Road.

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 with a connection to the major population centers. The walk would combine a recreational 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. To address many of these issues, the 25 Year Morris Canal Greenway Plan was prepared in 2012 and is referenced for a more detailed discussion of projects and activities recommended in each Canal segment. Detailed site planning would have to be done to determine where parking facilities could be located.

It is possible that the Morris Canal can become a tourist destination in conjunction with the Warren-Highlands Trail, the Liberty-Water Gap Trail, the 911 Trail, Paulinskill Trail, Lehigh Hudson, and Warren Railroad trail where a group or family could walk these trails over a period of days. Campgrounds and bed and breakfasts may be available at various locations along the trails. Bed and Breakfast locations could be located in Hackettstown, Washington, Phillipsburg, Oxford, Belvidere, Mountain Lake, Delaware, Hope, where these trails pass through or travel nearby.

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
- Connectivity with other trails

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. It includes a description 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 Segment #1 Morris Canal Arch to the S. Main St./Lock St Intersection in Phillipsburg.

The Canal arch is the gateway to the Delaware River. Coal carrying canal boats would cross the Delaware River from the Lehigh Canal at its terminus in Easton Pa. In the 1990's an ISTEPA grant was awarded to the Phillipsburg Riverview Organization to rehabilitate the arch. For various environmental, legal, and administrative reasons the rehabilitation did not take place. The Arch and Inclined Plane 11 land and adjacent land areas along the Delaware River are owned by the NJ Department of Environmental

Protection and can provide a riverside trail for 1.5 miles from the Arch to where the NJDEP lands end near the Phillipsburg Sewer Plant. Access across the Norfolk Southern Railroad tracks would need to be obtained to connect with the Sewer Plant land and the Morris Canal trail.

Another notable feature on this segment is the Pursell Mill site on South Main St. The dam was removed from the mill site to allow the Lopatcong Creek to become a free flowing water body once again. It may be possible to make the area available for public use.

In this segment is Phillipsburg's Delaware River Park built in part on the remains of the Morris Canal. It can provide .6 mile of Morris Canal trail before the Town's land ends at the property owned by the developer of the proposed housing project known as Delaware Heights. As proposed Delaware Heights will redevelop a significant portion of former industrial land adjacent to Delaware River Park. However, the proposal has been dormant for a number of years and a new site plan application would be required if it is pursued again. If or when the property is developed, land to continue the trail to McKeen Street should be obtained. Alternatively, the .25 mile missing link across the proposed Delaware Heights property could be acquired now in fee or easement.

From McKeen Street to the South Main Street/Lock Street intersection a road walk will be required. Sidewalks are provided on McKeen Street and South Main Street for approximately 1 mile ending at Phillipsburg Mill Pond Park. From Mill Pond Park and under Greens Bridge to the South Main/Lock Street intersection one will need to walk on the road for approximately .4 mile. No additional land acquisition is feasible in this section to ensure off road pedestrian access. Care will need to be taken on the road walk from Mill Pond Park to Lock Street as the shoulder under Greens Bridge is narrow.

To facilitate a complete walking tour of this segment today, The Arch can be accessed by using Phillipsburg's River trail from Union Square. Back track to Union Square and then walk South Main Street to Lock Street. Total length of the walk from Union Square to Lock Street is 2.3 miles. The walk from Union Square to the arch is .25 mile each way.

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 New Jersey Transportation Heritage Center, and the Black River and Western Railroad. The Railroad has a stop near the arch and runs various thematic excursion trains during the year including the Polar Express, Winery, and Great Pumpkin.

The 25 Year Action Plan for the Morris Canal Greenway provides a detailed description of the segment and discusses specific recommendations.

Total Morris Canal Length - 2.4 miles

Total Existing Walking Length – 2.75 miles

Total Length of Trail when Completed 2.35 miles if all challenges are overcome

Challenges -- Gaining Access over railroad

Acquiring link on Delaware Heights property

Access over the Phillipsburg Sewer Plant property would be desirable

Length in County Ownership - 0

Length in other Public Ownership - .86 mile

Length in Public Access Easements – 0

Number of Properties Remaining for acquisition – 1 partial and a railroad crossing

Priority: Low

Morris Canal Segment #2 - 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 and easement. Notable features include the Inclined Plane #10 which was acquired by the County in 2008 and the Sycamore Landing residential development. The developers of Sycamore Landing are using the remnants of the Morris Canal as a detention basin and constructing a trail around the basin for the general public to use. The trail along the canal/basin is about .21 mile long and will contain interpretive signage. It will connect with a trail system interior to the development which will then have access to Route 22 via the Phillipsburg Mall loop road. The existing pedestrian crossing at the signalized intersection with the mall will need to be used at the present time to cross Rt 22.

The county owns .15 mile of canal section along Lock Street and Incline Plane 10 which can provide another .12 mile of linear mileage to the trail. Inclined Plane 10 is considered a Special Use Area or pocket park that affords the user a unique educational and recreational experience. Interpretative signs are located here to describe the Plane's historical role, with the Lopatcong Creek passing through the site, provides fishing opportunities.

Adjacent to the Sycamore Landing site is 6.3 acres of county property that is rented for farming. It may be a moderate term solution to provide a link under Route 22 to the county property on the other side of the highway. The culvert carrying the Lopatcong Creek may be plausible alternative route.

In the longer term a pedestrian bridge over Rt 22 or a tunnel under Rt 22 would be desired, connecting either Sycamore Landing or the adjacent county property with the county property on the other side (north side) of Route 22.

The 25 Year Action Plan for the Morris Canal Greenway provides a detailed description of the segment and discusses specific recommendations.

Total Morris Canal Length - 1.27 miles

Total Existing Walking Length – 1.27 miles includes Sycamore Landing and ends at Rt 22 at Project site. The walk will be another .3 miles longer to get to the Phillipsburg Mall crossing at Route 22 for a total of 1.57 miles.

Total Length of Trail when Completed- 1.27 miles if pedestrian crossing over Route 22 is obtained

Challenges -- Pedestrian Crossing over/under Route 22

Additional land acquisition of selected properties along Lock Street

Length in County Ownership - .75 mile if the land adjacent to Sycamore Landing is included. Otherwise .27 mile linear distance

Length in other Public Ownership - 0

Length in Public Access Easements – .21 mile on Sycamore Landing

Number of Properties Remaining for acquisition – 1 partial acquisition – Lock Street Associates/Santini of .5 mile to .7 mile.

Priority: High

Morris Canal Segment # 3 -Rt 22. to Plane 9\Hamlen parcel\CR 519

Notable features in this target area include Incline Plane #9 and plane tender's house, and the Hamlen Waste Weir. In 2012, using funding from the NJDOT Transportation Enhancement Act program, the County reconstructed the segment of the Canal from Rt 22 to Strykers Road and installed a gravel pedestrian path from Rt 22 to the waste weir.

To help control stormwater runoff from the Rath's Deli property, the NJRCD is installing a rain garden to control and "treat" the runoff coming from Rath's parking lot. Currently most runoff flows directly on to Strykers Road. When installed runoff will flow into the rain garden first, slowing the rate and volume, before it goes onto Strykers Road. This will improve the runoff's water quality before it reaches the Lopatcong Creek via the Morris Canal.

From Rt 519 to the waste weir in Greenwich, the Lopatcong Creek has been eroding the bank of the canal. Through a NJ Historic Trust grant, the NJRCD and Princeton Hydro developed plans to relocate the creek away from the Canal. The ideal plan is to move the creek on to property owned by the solar company. Despite a verbal agreement made at the pre-construction meeting, the solar company has been unresponsive, uncooperative and unwilling to sell a portion of the land to the county.

A temporary pedestrian bridge and steps were constructed to provide reasonable passage across the drainage channel that was created by the runoff from CR 519, Strykers Road, and upstream development. A longer term project is to construct a bridge across the remaining abutments of the waste weir. A small parking area was constructed on Strykers Road for five cars.

The trail from the waste weir to CR 519 is walkable but unimproved. When the erosion from the Lopatcong Creek is resolved efforts to repair the Morris Canal trail in this section is needed to facilitate walkability.

A pedestrian bridge across the Lopatcong Creek is needed to connect the Morris Canal Trail at CR 519 to the property on the north side of the creek owned by the County and currently occupied by the NJ Youth Corp. One proposal is to construct a pedestrian crossing on the abutments of the CR 519 bridge. Once across the Creek a safer pedestrian crossing can be installed across CR 519 to access the Inclined Plane 9 property.

See the 25 Year Action Plan for the Morris Canal Greenway for a more detailed description of the segment and specific recommendations.

Total Morris Canal Length - 1.0 mile

Total Existing Walking Length – 1.0 mile

Total Length of Trail when Completed -1.0 mile

Challenges -- Pedestrian Crossing over/under Route 22 is needed to facilitate trail connectivity to the south

Runoff from Strykers Road into the Canal prism

Erosion of Morris Canal bank from Lopatcong Creek

Runoff from CR 519 and upland development in Greenwich Township

Pedestrian crossing of Lopatcong Creek at CR 519

Length in County Ownership - 1.0 mile

Length in other Public Ownership - 0

Length in Public Access Easements – 0

Number of Properties Remaining for acquisition – 1 partial acquisition is needed from the Solar Company to facilitate relocating the Lopatcong Creek away from the Morris Canal.

Priority: High

Morris Canal Segment # 4 Plane 9/Hamlen (CR 519) to Breadlock Park/Rt. 57, Franklin Twp.

A historic preservation plan for the reconstruction of Inclined Plan #9 and house was prepared in 2002. 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 was drilled and septic system installed to replace the cistern and cesspool.

In 2012, the County was awarded a grant from the NJ Historic Trust to repair and stabilize the tail race head wall. Construction plans have been developed and are under review currently. In 2015 a Conservation Plan of the turbine chamber was completed recommending actions to preserve the chamber, wheel pit, and turbine from further deterioration. The State Historic Preservation Office Project Authorization application is being drafted seeking approval for the tail race repair and most if not all improvements recommended in the Turbine Conservation Plan including the replacement of the timber inside of the turbine chamber, drainage improvements surrounding the turbine, and the tail race wing wall stabilization and grading. In addition the Port Warren Park Enhancement Plan was completed and will be utilized as landscaping issues arise in conjunction with the site improvements and rehabilitation.

Lastly, the County Engineer is in the process of designing a new bridge across the Lopatcong Creek that would serve as the main new driveway from CR 519 to Plane 9 and to the private residence adjacent and to the north. The private resident's driveway bridge had to be closed and the existing bridge at the Plane is now restricted to automobile traffic only. When the new bridge and driveway are constructed the Plane 9 bridge will remain as a pedestrian bridge carrying the Morris Canal Trail.

On the .8 mile segment from the Hamlen property to North Main Street a conservation easement with right to public access was acquired on each of the single family lots in Stewarts Hunt. It was obtained 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 acquire a trail on the adjacent which went through the farmland preservation program were unsuccessful because the estate and the CADB were not supportive of the request for the pedestrian easement.

On the N. Main St end of this segment, the county owns a .8 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.

On the other side of N. Main Street, 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. The County has acquired the O'dowd properties between N. Main Street to Richline Road for farmland preservation and open space/Morris Canal trail

purposes. In addition, through the efforts of the County Planning Board, a pedestrian easement has been obtained from the solar farm developer of the properties from Richline to Bread Lock Park to ensure continuity of the trail. When the properties are acquired and easements obtained, 2.6 miles of continuous trail will be available from Stewartsville to Breadlock Park. These properties were acquired through an EPA grant. The grant money will be used to construct a gravel walking trail from Stewartsville to the solar company property near Breadlock Park. Significant features along this stretch include Inclined Plane #8 and Lock #7 (County owned Bread Lock Park)

See the 25 Year Action Plan for the Morris Canal Greenway for a more detailed description of the segment and specific recommendations.

Total Morris Canal Length - 3.2 miles

Total Existing Walking Length – .6 miles at Inclined Plane 9 Canal Trail plus an on-site farmland trail. .45 mile at Bread Lock Park Canal Trail plus a fitness trail. From Plane 9 through the Greenwich Chase development to CR 638 to N. Main Street to the access at O’dowd it is a 2.25 road walk to bypass the Stewart Hunt Properties.

Total Length of Trail when Completed - 4 miles, includes Stewarts Hunt easement and the O’Dowd Properties when trail is completed

Challenges -- Pedestrian crossing at CR 519

Inclined Plane Site development

Stewarts Hunt properties trail opening and use

Construction of Trail from Stewartsville to Bread Lock Park

Length in County Ownership - 1.9 miles, Inclined Plane 9, Greater Bread Lock, & O’dowd North

Length in other Public Ownership -

Length in Public Access Easements – .8 mile Stewarts Hunt

.6 mile Greenwich Solar

Number of Properties Remaining for acquisition – Greenwich Emergency Squad would help make a more direct connection and alleviate the need for a road walk on North Main Street.

Priority: High

Morris Canal Segment # 5 - Rt 57/Bread Lock Park to Meadow Breeze Park (Kayharts Lane) Washington Twp.

This stretch is 6 miles long. It represents a great opportunity for acquisition without significant intrusions from adjacent development. Much of the canal is intact or can be easily restored. Three non contiguous properties have been acquired by the county totaling .81 mile. Since the 1999 Plan two attempts failed to acquire property easements along the Morris Canal through the development review and the farmland preservation process on the Peach Tree Village subdivision and the Convey farmland preservation project. 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.

Located on Millbrook Road the Fancy property was acquired in 2001 and may be able to provide parking facilities. It has over 2,000 feet of the canal. Farther north, the Convey tract containing over 2,000 feet of the canal was acquired through the farmland preservation program and now presents an obstacle to trail completion because no provision for a trail was provided in the farmland preservation deed. It may be possible to secure a license agreement or easement for public access from the owner with the approval of the CADB and SADC.

See the 25 Year Action Plan for the Morris Canal Greenway for a more detailed description of the segment and specific recommendations.

Total Morris Canal Length - 5.1 miles

Total Existing Walking Length – 5.8 miles using Rt 57 and Little Philadelphia Road as the primary route.

Total Length of Trail when Completed – 5.1 miles

Challenges -- Pedestrian crossing on Rt 57

Number of pedestrian easements/land that need to be acquired from landowners in corridor,

Obtaining a license agreement or right to access through farmland preserved property (Convey)

Length in County Ownership - .81 mile

Length in other Public Ownership - 0

Length in Public Access Easements – 0

Number of Properties Remaining for acquisition – 18

Priority: High

Morris Canal Segment #6 Meadowbreeze Park to Washington Township/Borough Line at Kinnamon Avenue.

Washington Township's Meadow Breeze Park contains 1,400 feet of the Canal.

Meadow Breeze Park is a well used park containing soccer and baseball fields, tennis and basketball courts, and a pavilion.

The County recently acquired the Dire Property which contains an additional 895 feet or .17 mile of the Canal next to Meadow Breeze Park. From the Dire property to Brass Castle Road, the county has acquired a trail easement around the perimeter of the property.

The trail from Brass Castle Road to Kinnamon Ave will cross Brass Castle Road at the existing cross walk at Castle Street. The road walk would follow Castle Street to Dale Street to Bowerstown Road to Plane Hill Road where the road walk passes by the brakeman's and plane tender's house at Inclined Plane 7. Total length of the road walk is 1.58 mile. From Bowerstown Rd looking north toward the Inclined Plane the historic arch that carried the canal over the Pohatcong Creek can be seen. Plane Hill Road intersects with Kinnamon Ave at the Washington Twp/Borough line.

See the 25 Year Action Plan for the Morris Canal Greenway for a more detailed description of the segment and specific recommendations.

Total Morris Canal Length - 1.9 miles

Total Existing Walking Length – 2.31 miles, includes 1.58 mile road walk

Total Length of Trail when Completed - 2.31

Challenges --

Length in County Ownership - .17mile

Length in other Public Ownership - 1,400 feet or .266 mile

Length in Public Access Easements – .07 mile or 375 feet

Number of Properties Remaining for acquisition – 0

Priority: Done

Morris Canal Segment #7 Washington Township/Borough Line at Kinnamon Avenue to Port Colden at Port Colden Road.

Most of this section travels through the Borough of Washington. Much of the Morris Canal has been destroyed. It may be possible to secure an easement through the JCP&L property that contains the Canal from Kinnamon Avenue to N. Lincoln Ave.

A road walking tour from Kinnamon Ave to Port Colden is contained in the 25 Year Action Plan. The route to be taken in the short term would be a walk along Belvidere Avenue with spur to the James Campbell house on North Lincoln Avenue to Rt 57 to Port Colden. The Campbell house is home of the only African American Morris Canal boat

captain and is being restored through grants and donations by the Campbell family. If the JCP & L easement is acquired the route would go directly to North Lincoln Avenue.

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

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 Captain Campbell House located in the North Lincoln Ave. Community, and Cattel Court. This could be accomplished through the combined efforts of the Morris Canal Committee, Board of Recreation Commissioners, the Washington Township and Borough Historic Societies, Washington BID, and the WC EDAC.

See the 25 Year Action Plan for the Morris Canal Greenway for a more detailed description of the segment and specific recommendations

Total Morris Canal Length - 2.2 miles

Total Existing Walking Length – 2.82 miles with N. Lincoln Ave spur

Total Length of Trail when Completed – 2.91 miles, with JCP L easement and acquisition of pedestrian easement over Marra farm preserved and acquisition of additional properties.

Challenges -- Acquisition of JCP&L easement

Obtaining access across preserved farm property

Acquisition of additional properties and easements in and around Port Colden

Length in County Ownership - 0

Length in other Public Ownership - 0

Length in Public Access Easements – 0

Number of Properties Remaining for acquisition – 1 public access easement 2,030' if obtained through JCP&L, access across preserved farm and 8 other properties

Priority: Low

Segment #8 Port Colden at Port Colden Road to Port Murray at Hoffman Road

Starting at the Port Colden School which was built in the Boat basin, notable properties in this segment include Incline Plane # 6, a double tracked plane that was acquired by the County in 2015. Further east are county owned properties containing over

2,270 feet of the canal. Outside of Port Murray is the “brickyard property” containing approximately 160 acres that was acquired in part by the County in 2013. It contains remnants of the canal including Inclined Plane #5 and the trolley line. Most of the Inclined Plane was destroyed when the property was used as a clay pit.

A parking lot of 5 cars has been constructed at the Hoffman Road entrance.

See the 25 Year Action Plan for the Morris Canal Greenway for a more detailed description of the segment and specific recommendations

Total Morris Canal Length - 3.2 miles

Total Existing Walking Length – 3.57 miles Rt 57, Port Murray Road walk

Total Length of Trail when Completed – 3.2 miles

Challenges -- Acquisition of properties
Dam in Port Colden

Length in County Ownership - 1.76 miles on five properties

Length in other Public Ownership - – 607' (Port Colden School, right to access would have to be obtained)

Length in Public Access Easements – .4 mile on Morris Canal Trail owned by Meixel

Number of Properties Remaining for acquisition – Two

Priority: High

Segment #9 Port Murray at Hoffman Road to Rockport Pheasant Farm at Hazen Road Mansfield Twp

This segment contains the Port Murray Boat Basin. The land surrounding the boat basin is owned by the County. In 2012, the County dedicated this area as the Dennis Bertland Heritage Area. Mr. Bertland is a local historian from Port Murray, well versed in the history of the Canal. From the purchase of the lands at the Boat Basin and other acquisition, the segment from Port Murray Road (CR 629) to Cherry Tree Bend Road can be walked. Conservation easements were obtained in the 1980’s from three homeowners whose front yards contain the Canal. These easements protect the canal from destruction but do not allow for public access. Combined, the County and the State of NJ own 2,290 feet of the canal from Port Murray Road to the Rockport Game Farm.

See the 25 Year Action Plan for the Morris Canal Greenway for a more detailed description of the segment and specific recommendations

Total Morris Canal Length – 3.3 miles

Total Existing Walking Length – 3.66 miles

Total Length of Trail when Completed -

Challenges – Acquisition of Pool and adjacent properties

Acquisition of properties along Cherry Tree Bend and Rockport Rd to make it a completely off road trail.

Length in County Ownership - .58 mile

Length in other Public Ownership - .04 mile

Length in Public Access Easements – .28 mile on Towpath Lane

Number of Properties Remaining for acquisition – 16 properties. There are seven properties on Cherry Tree Bend Road where the acquisition of the canal would be undesirable. Three of them have conservation easements totaling 813 feet in length to protect the canal.

Priority: High in Port Murray,

Medium from Cherry Tree Bend Road to Hazen Road

Segment #10 Rockport Pheasant Farm at Hazen Road to Florence Kuipers Park at Harvey Street, Hackettstown

The extent of county and state land in this segment is an asset to the trail greenway. Additional properties will need to be acquired between the Rockport Game Farm and the Buck Hill Properties at Florence Kuipers Park to establish a complete off road trail. The Morris Canal Greenway Plan offers an alternative route using Rockport Road and the properties on the east side of Rockport Road. There may potential to connect the trail through the properties, enter through the College View section of Mansfield and Hackettstown and cross Grand Avenue at the Buck Hill trail head. The trail would proceed up the hill to the Morris Canal trail and Florence Kuipers Park.

This section contains the now drained Rockport Boat basin at Hazen Road and the ruins of the Canal Store at Florence Kuipers Park at Harvey Street. In addition, this segment is near the site of the Rockport train wreck at the railroad crossing at Hazen Road.

See the 25 Year Action Plan for the Morris Canal Greenway for a more detailed description of the segment and specific recommendations

Total Morris Canal Length – 3.3 miles

Total Existing Walking Length – 3.4 miles

Total Length of Trail when Completed – 3.3+ miles

Challenges – Blazing trail through Rockport Game Farm
Acquisition of properties between Game Farm and Buck Hill Properties

Length in County Ownership - 1.25 miles

Length in other Public Ownership - .75 mile

Length in Public Access Easements – 0

Number of Properties Remaining for acquisition – 4 to 5 properties

Priority: High

Segment #11a Florence Kuipers Park at Harvey Street, to Bilby Road

This section can be walked using the sidewalks through Hackettstown to the Mt. Rascal/Morris Canal trail section to Old Allamuchy Road. An access easement was obtained from the Hills of Independence to provide a connection from Fourth Street to the Canal and then through the Hills property to the Mt. Rascal/Morris Canal trail section. An easement through the Cochran Funeral Home to CR 517 would be needed if the trail were to remain on the historical alignment of the Canal. A right to access the Towpath Apts/MM Mars would be needed to complete the trail. Without the Towpath connection, the trail will need to follow Old Allamuchy Road to the intersection with CR 517 at the Quick Check. After crossing CR 517, a walk along Bilby Road for about ½ mile to where the canal crosses Bilby Road would be necessary. It is noted that the site plan for Towpath Apts dedicated a pedestrian easement along the canal but the easement was not recorded. The easement should be requested from Towpath Apts. The County acquired the land containing the Canal behind Oak Hill Townhouses when it went through the development review process. A trail could be challenging on this section because the land is wet.

See the 25 Year Action Plan for the Morris Canal Greenway for a more detailed description of the segment and specific recommendations

Total Morris Canal Length – 2.05 miles

Total Existing Walking Length – 2.18 miles via Harvey Street, Prospect, Fifth Street, Old Allamuchy Road, and Bilby Road

Total Length of Trail when Completed -

Challenges – Cochran Funeral Home property access
CR 517 pedestrian crossing
Towpath Apartments Easement or MM Mars Access Easement
Construction of trail behind Oak Hill Townhomes

Length in County Ownership - .8 mile on two properties

Length in other Public Ownership -

Length in Public Access Easements – .26 mile on Hills of Independence from Fourth St. to County Property, and .6 mile on Towpath Apts --Not recorded in County Clerk's office, needs to be addressed.

Number of Properties Remaining for acquisition – Two to Three- Cochran, Towpath, MM Mars

Priority: Medium Segment is medium because a feasible roadwalk is available currently.

Segment #11b Bilby Road to Saxton Falls

The section between Bilby Road and Saxton is complete. All that is needed is a pedestrian bridge to span a 40 foot breach in the towpath trail across an unnamed tributary. A Recreational Trail Grant has been awarded to the county to purchase a prefabricated bridge. A permit from the NJDEP Land Use Regulation program is required before any work can proceed. A .1 mile segment was acquired by easement from a land developer during the land development process and is the only portion of the trail in this segment not owned in fee simple.

See the 25 Year Action Plan for the Morris Canal Greenway for a more detailed description of the segment and specific recommendations

Total Morris Canal Length - 1.82 miles

Total Existing Walking Length – 1.82 miles

Total Length of Trail when Completed – 1.82 miles

Challenges – Obtaining Land Use Regulation Permit and constructing pedestrian bridge

Length in County Ownership - .43 mile

Length in other Public Ownership - 1.29 mile

Length in Public Access Easements – .1 mile

Number of Properties Remaining for acquisition – 0

Priority: High

Segment #12, Saxton Falls to Waterloo Village

See the 25 Year Action Plan for the Morris Canal Greenway for a more detailed description

of the segment and specific recommendations.

Total Morris Canal Length – 2.5 miles

Total Existing Walking Length – 2.5 miles, The trail as mapped by Allamuchy Mountain State Park involves walking along Willow Grove Road and off road walking on the Morris Canal

Total Length of Trail when Completed – 2.5 miles

Challenges --

Length in County Ownership -

Length in other Public Ownership - 2.5 miles (State)

Length in Public Access Easements –

Number of Properties Remaining for acquisition –

Priority: Done

- **Warren - Highlands Trail/Greenway**

The main Highlands 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. The main trail enters Warren County through Allamuchy Mountain State Park and exits into Morris County near Hackettstown. 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-Highlands Trail will begin in Phillipsburg and travel north along River Road and enter the Marble Hill Natural Resource area owned by the county. It continues northward by the Warren County Farmers Fairgrounds, across CR 519 and up to Scotts Mountain which is owned by the State. From Scotts Mountain it continues to the Merrill Creek Reservoir lands where portions of the perimeter trail will be used as the Warren Highlands Trail. Proceed north, road walks will take the trail to lands owned by Washington Township, County and then to the Pequest Fish Hatchery lands and Jenny Jump State Park. From Jenny Jump State Park, the trail follows the roadways through Allamuchy to Allamuchy State Park, where it would connect with the main Highlands Trail. Through a combination of efforts by Warren County, the State, and municipalities many acres of land have been acquired that can be used for the greenway. Coordination with other governmental agencies, including municipal governments and farmland preservation programs are important to ensure that the trail is completed to minimize the need to walk along public roadways. Periodic meetings are held with State, County and

other officials to discuss progress on the acquisition of properties for the trail and to discuss the problems encountered with acquisition and maintenance of existing trail segments. In Appendix J is a detailed description of the Warren Trail as described by Michael Helbing and Matthew Davis of the Warren County Board of Recreation Commissioners.

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 priority.

Segment 1. Union Square, Phillipsburg to Merrill Creek Environmental Resource Preserve

This section provides a connection from the Delaware River at Union Square, Phillipsburg northward past the Water Company pump house, owned by the County, and to the parking area and trail head at Marble Hill on River Road. 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 New Jersey Transportation Heritage Center of the NJ Transportation Museum who have been restoring the pump and the steam engine. In exchange they 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.

From River Road, the trail can be accessed and hiked to the top of Marble Hill. Using a grant from the National Park Service for projects along Wild and Scenic Rivers, trail blazes were painted, two parking areas, trail head signs, kiosks, and interpretative signs were installed on these County and Lopatcong Township owned properties that comprise of the Marble Hill section of the Warren-Highlands trail. A Marble Hill Trail brochure was printed as well. Trail head kiosks were installed at River Road, Marble Hill Road, and at the Lopatcong Township Municipal Park. Interpretative signage was installed at the pump house, ice cave, scenic overlook, and one along the trail to discuss native vegetation. When traveling over Marble Hill the trail continues on State owned until it meets CR 646. Then a walk along CR 646 until the County lands formerly known as the Geiger property where the trail leads to an easement secured from the WC Farmers Fair Association. After passing through Fair Association property the trail follows Strykers Road to CR 519 and up Fairway Road to lands owned by Harkers Hollow Golf Club. Opportunities exist to acquire rights to public access or outright acquisition of properties from private owners and the Warren County Farmers Fair Association to avoid the walk along Strykers Road and CR 519.

Total Length - 35,600' or 6.75 miles

Length in County Ownership – 3.2 miles

Length in other Public Ownership – .6 miles

Length in Easements – 60' Shandor easement? , .3 mile Farmers Fair

Total Length in Road Walk – 2.65 miles

Challenges – Vandalism of Trail Kiosks and signs
Hostile neighbors

Priority: High

Segment 2. 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 will serve as a link in the greater Warren-Highlands Trail connection. Permission to connect with the Merrill Creek trail system has been obtained. Approximately 15,700 feet (3 miles) of the Warren Trail would pass through this property.

Total Existing Walking Length – 3.0 miles

Total Length of Trail when Completed – 3.0 miles

Challenges --

Length in County Ownership -

Length in other Public Ownership -

Length in Public Access Easements –

Number of Properties Remaining for acquisition –

Priority:

Hoff-VanNatta Spur

The Spur provides a loop detour from the main route from Merrill Creek to the restored Hoff Vannatta Farmstead on CR 519. The detour is 4.73 miles in length. Other properties need to be acquired to avoid a .6 mile walk on CR 519.

Total Existing Walking Length – To continue it to where it would meet the main stem of the Warren-Highlands Trail on Harmony Brass Castle Road would be a 6.5 mile detour.

Total Length of Trail when Completed – 6.5 miles

Challenges – Private Property Access Easement

Length in County Ownership -

Length in other Public Ownership -
Length in Public Access Easements – A very short segment must use an existing residential driveway

Number of Properties Remaining for acquisition –

Priority:

Segment 3. Merrill Creek Environmental Resource Preserve @Allens Mill Road 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 should have taken place. Instead this route follows public roadways over the farmland plateau. An agreement with Washington Township to connect its trail with the Warren-Highlands Trail is now in place. A connection from the Washington Water Company property to Meadowbreeze Park could be established as well, either through a property acquisition to Little Philadelphia Road or by walking Coleman Hill Road to Little Philadelphia to Meadowbreeze. This would connect the Warren Trail-Greenway to the Morris Canal Greenway.

Total Length – 5.6 miles

Total Length in Road Walk – 4.25 miles

Challenges:

Length in County Ownership – 0

Length in other Public Ownership – 1.35 miles

Length in Easements

Priority: High

Segment 4. 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. The trail then passes through downtown Oxford crosses Rt 31 at the traffic light and proceeds to the Oxford Township Walking/Biking Trail to the Pequest Fish Hatchery Lands.

Total Length – 5.1 miles

Total Length in Road Walk – 2.2 miles

Challenges --

Length in County Ownership – 1.9 miles

Length in other Public Ownership – .5 miles

Length in Easements

Priority: High

Segment 5. 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.

Segment 6. Pequest Fish Hatchery lands through Jenny Jump Mountain lands/Ghost Lake/Shades of Death Road

The trail would follow the abandoned Lehigh Hudson Railroad Corridor to the traffic light at Rt 31 and Rt 46. Once across, through a combination of road walks and off road walks the trail head for Jenny Jump Mountain trails will be found just outside of Mountain Lake. A spur is available for those who wish to walk around Mountain Lake.

Total Length Main Route – 13.4 miles

Total Length Spur Route – 15.3 miles

Challenges --

Length in County Ownership - 0

Length in other Public Ownership (Main Route – 10.26 miles)
(Spur Route – 12.39 miles)

Total Length in Road Walk – Main Route – 3.17 miles

Spur Route – 4.4 miles

Priority: High

Segment 7. Ghost Lake/Shades of Death Rd to Rutherford Hall

The route follows all roadway through Allamuchy Township. Additional land

acquisition is not necessary because most of the land areas the trail could go through have been placed into farmland preservation, essentially prohibiting any future public access across these lands.

All Road walk - 6.36 miles

Segment 8. Rutherford Hall/Allamuchy Mountain State Park to Morris Canal/Waterloo Road

This segment will utilize existing trail system through the Park. A short new trail may have to be blazed to connect to the Morris Canal Trail.

All Existing Trails – 2.89 miles

- **Ridge and Valley Trail**

Portions of the trail have been completed near White Lake in Hardwick Township, and offers 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. Heading south the trail is planned to connect with the Warren-Highlands Trail.

- **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 can link parks and can create greenways through developed areas. It should be pointed out, however, that all railroad corridors cannot or should not be acquired for economic, safety, and functional reasons. As corridors, or portions of corridors, become available, additional analysis should be completed. Two railroads may qualify as Tier 1 Greenways. They are:

- **Warren Railroad Trail**

As written in “Hiking the Warren Railroad, Mile by Mile” the abandoned railroad enters Warren County by crossing the Musconetcong River at Changewater and travels in a northwesterly direction through Washington Township, Washington Borough, Oxford,

White and Knowlton Townships for 20.13 miles leaves Warren County by crossing the Delaware River at the Village of Delaware, in Knowlton Township. Portions of the right of way are in public ownership and a portion of the track is still used in Washington Borough. Completion of the Warren Railroad trail would complement the other greenway trails because the Warren Railroad trail is mostly north-south oriented and will intersect with all of the trails at one point with the exception of the Paulinskill Trail and Ridge and Valley Trail.

- **Lehigh Hudson Trail/Pequest Valley Trail**

As written by Mike Helbing “The proposed Pequest Valley Trail would be trail across Warren and part of Sussex County that would follow as closely as possible the historic route of the former Lehigh and Hudson River Railroad. It would make connections with other area trails such as the Warren Highlands Trail (currently under development), Sussex Branch Trail and perhaps Paulins Kill Valley Trail. Some sections are already formally developed as trailways.”

Other 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

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.

Tier II Other Greenways in Warren County are the following:

These are the greenways 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 one of the following greenways 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

Delaware River Water Trail and Greenway

The Delaware River was designated as a Wild, Scenic, and Recreational River in 2000.

According the website at delawarewatertrail.org, “the lower non-tidal Delaware River is the longest and most populated of the three sections, stretching nearly 76 miles from just below the Delaware Water Gap to the tidal waters at Trenton, New Jersey and Morrisville, Pennsylvania.

The cultural landscape encompasses a rich tapestry of historic towns and small cities, canals, bridges, factories and farms. There are plenty of opportunities for dining, lodging, and shopping near the river on the Pennsylvania and New Jersey sides. Scenic vistas of rocky bluffs, forested islands, and river banks steeped in history greet recreational users.

Most of the land abutting the Lower Delaware is private property. Please respect private property and refrain from accessing it. Boating and fishing is managed by the New Jersey Marine Police and Pennsylvania Fish and Boat Commission.

Recreational use on the Lower Delaware can be heavy during the summer, especially use by tubers. This section of the river is more densely populated than the Upper and Middle sections, and there are many river access points. Unlike the Middle and Upper sections, the majority of river users are people who live along or near the river.”

The recommendation of this Open Space Plan would be to acquire land along the Delaware River to facilitate the recreational use of the River in accordance with the River Management Plan that was approved by the Management Committee which Warren County is a member.

Musconetcong River Greenway Trail

The Musconetcong River was designated into the system in 2006. According to the National Park Service website, “The Musconetcong River is often referred to as the best trout fishery in New Jersey. Native Brown Trout can be found in the designated river’s

seven main tributaries, and anglers in the region have access to the river from hundreds of acres of publicly owned lands along the river's banks. Paddlers enjoy the river's rapid flows, and hikers enjoy the miles of hilly trails that flank the river and afford stunning views of the river corridor. The Musconetcong River is unique geologically, historically, and recreationally, and its waters continue to sustain the region through which it flows.” Management of the River Management Plan is a cooperative effort between the National Park Service and the Musconetcong Watershed Association.

The preservation of lands areas along river is important for environmental, recreational purposes. It is consistent with the State acquisition plans and those of the River Management Plan.

Liberty Water Gap Trail

When completed the Trail will connect the Hudson River to the Delaware River 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.

Connections to the Water Gap will be made by crossing the Portland Colombia Pedestrian Bridge and then continue north along the Delaware River in Pennsylvania. The prime movers on establishing the trail through Warren County are Green Acres and the NY-NJ Trail Conference.

911 Memorial Trail

When finished the trail will be a network of multi-use trails connecting the National September 11 Memorial in NYC, the Pentagon Memorial, and the Flight 93 National Memorial. It is intended to be a “1,300 symbol of resilience and character of the communities in which the victims and families lived and worked.” In Warren County the trail will follow the entire length of the Paulinskill Trail to where it enters Sussex County.

Maps 6 and 7 depict the Liberty - Water Gap trail and the 911 Memorial Trails in their 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. They 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 before the Canal was dismantled 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 Inclined Plane #10 in Lopatcong Township, 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 New Jersey Transportation Heritage Center. They have been storing transportation equipment on site and have made strides in restoring the historic pump house. This site is located on the southern portion of the Warren-Highlands Trail greenway and can become a stand alone destination.

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 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, the Marble Hill Natural Resource Area and a portion of Port Murray Park.

In 2003 a Conservation Plan was prepared by the NJRCD to effectively manage White Lake while protecting its natural resources. 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 and the Warren-Highlands Trail. The West Oxford Mountain NRA and the Marble Hill NRA are segments of the Warren Trail.

Port Murray Park west of Hoffman Road contains 146 Acres and contains 1.4 miles of the Morris Canal including Inclined Plane #5 and a .3 mile trolley trail. Because of the Inclined Plane this property will require a conservation plan for the remaining existing features. Ideally 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.

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. Sometimes 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.

The Land Conservancy of New Jersey has received funding from the William Penn Foundation to develop a model that will identify land areas that meet environmental criteria focusing primarily on identifying land areas that score highly for water quality and quantity protection. Results of the modeling may be used in assisting the Board of Recreation Commissioners, municipalities, and other land conservation agencies in prioritizing lands for acquisition.

Another tool that is available for evaluating land areas is the Nature Conservancy's Land Conservation Blueprint. It is a online web-based tool developed in concert with Rowan University and the NJ Conservation Foundation that allows one to identify priority lands for conservation as they relate to Water Quality Priorities, Ecological Priorities, Agricultural Priorities, and Community Green Space Priorities. The tool can be accessed by visiting www.njmap2.com/blueprint.

As a guide in the land prioritization process it is recommended that the Board utilize the following criteria for evaluating potential lands.

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 8 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 9 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 9 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 10 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 11 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. Cell towers have become necessary but their placement 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.

The Rt. 57 corridor is has been designated by the NJDOT as a scenic corridor. Its official name is the Warren Heritage Scenic Byway. The acquisition of lands along the highway and within its view shed 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. Another recent acquisition is the O'dowd property in Greenwich. It was purchased, in part, as open land preservation yet contains a portion of the Morris Canal Greenway.

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 require 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.

Additional Considerations:

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, the Highlands Regional Master 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 K.

- **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 12 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.

- **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 13A, B, and C.

During the fact finding period for the 2015 Open Space and Recreation Plan update a request went out to all municipalities and known non-profit land acquisition organizations. Blairstown, Hope, Knowlton, the Land Conservancy, the NJ Audubon Society, and Phillipsburg River Organization responded. For municipalities that did not respond, a brief summary of their latest Open Space/Master Plan or their responses from the 2008 Open Space Plan are provided to get an idea of municipal interests.

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

In a letter from the Mayor dated November 12, 2014, Blairstown provided an inventory of open space land and a list of properties it would like to preserve.

_____	Block(s)	Lot(s)	Acres
Preserved Open Space			
DWGNRA (Federal)	201	1,10	
DWGNRA (Federal)	101	1,3.02,4.02,5.02	
DWGNRA (Federal)	301		2
BSA	201		9
DEP (Worthington SF)	301	1.01,1.02	
DEP (Worthington SF)	401	1, 8	
DEP Sharma	1802		7
DEP Paulins Kill	1501		17.01
DEP Paulins Kill	1502		3.01
Beech Ridge Preserve (RVC)	1802		13.3
Limestone Ridge Marsh Preserve	1901	8.01,14,18.03 22,42.01,45.01	
Limestone Ridge Pres. (RVC)	2002	15.01,17,18	
Blairstown Footbridge Park	1402		4
Blairstown Sycamore Park	1402		24
Blairstown Vail Field	1504		1
Blairstown Fire Dept Field	506		1
Blairstown / DEP	1501		9
Blairstown Rt. 94 Rec Field	1501		10
DEP Horse Farm	1402	10,41,41.02	
DEP Paulins Kill Trail	506	3,6	
DEP Paulins Kill Trail	1503		6
DEP Paulins Kill Trail	1502		9
DEP Paulins Kill Trail	1402	1.01,41.02,46	
DEP Paulins Kill Trail		47,48,49	
DEP Paulins Kill Trail	1103	9,13	
DEP Paulins Kill Trail	2004	1,3	

DEP Paulins Kill Trail	1501	2.14	
DEP McVillas	1901	20	
Maple Hill Farm	803	4.04,11.01,11.04	124
Sites or Areas of Preservation Interest	103	1	89.52
	103	5	99.62
	103	9	174.46
	202	23	75.9
	401	2	80
	401	31	53.85
	506	9	106.52
	601	29	100.75
	601	49.01	111.8
	701	9.01	103.2
	702	23.12	40.56
	702	15.01	35.9
	801	7	56.85
	1705	1	110.74
	1803	10	36.73
	1901	41	42.61
	1901	38.01	63.53
	2003	9.01	41
	2102	9	44.85

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:

Location	Road	Acreage
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. The Greenwich Township Open Space Committee submitted the following list of properties that are targeted for open space acquisition.

Block	Lot	Owner	Area	Comments
5	2	Amey, John H. Jr., Robert, & Ellen	35.8	Formerly targeted for Rt 57 project; Green Acres Appraisals in Process
26	31	Beatty, John & Carol	69.9	Plan to contact owner re: interest
31	1	Greenbriar Assoc. c/o NC Lyman	107.34	Appraisals complete; awaiting GA certification; plan to submit WCMCCT Application
28	4	New Village Rd, LLC c/o Kaplen	98.8	Plan to contact owner re: interest
28	5	New Village Rd, LLC c/o Kaplen	147.33	Plan to contact owner re: interest
34	11	Beatty, John H., & Carol A.	58.4	Plan to contact owner re: interest
44	24	Chavkin, Leonard T. & Charles	54.7	In Highlands Preservation Area; MLC was approached with interest; borders Musconetcong River, Fish and Wildlife Management Area and NJDEP Wetlands; contacting State and Conservation Groups

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; 'Kittatinny Mountain Macro site; Blair Creek Greenway; and the Limestone Forest-Carrazone Tract. In addition, the township endorses the Ridge Valley Trail also known 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.

Sites identified

<u>Block(s)</u>	<u>Lot(s)</u>	<u>Acres</u>
Ragged Ridge	11	52,60 16
Lopatcong Creek		
Overlook	28	9,9.04,9.05
Hariton Sanctuary	21	35 16.85

Hope

Hope Township has a farmland preservation element.

In a letter dated December 3, 2014 the following properties were added.

Block(s)	Lot(s)	Acres	
Swayze Mill Park	800	700	124.99
Westbrook Park	2700	500, 600	14.1
Hope Community Center	2300	100	
Private Preserved Farm	3400	4,001,400	
Private Preserved Farm	3401	400	

Independence

No open space plan.

Block(s)	Lot(s)	Acres	
Catswamp Sanctuary	19.01	3	
Old Farm Sanctuary	21	14.08,14.09,20	151.74

Knowlton

In an email dated November 24, 2014 the Township provided the following listing of properties for preservation.

Privately Owned Preserved Land

<u>Farm Name</u>	<u>Block</u>	<u>Lot</u>	<u>Acres</u>
Makarevich	42	5	131
	43	2	40.5
Terpstra	47	13	106.7
Millheim	47	13.01	56
	61	12	106
Jozwik	44	9	189
Durholz	47	14	64
Glander	31	9	87.15
Fama/Conway	7	9	33.4
Provencher (Sipel)	12	4	19.3
	11	9	13.8
Walters	68	28	156.4
Schwartz - Ridgewood Hunt Club	71	4	120
	71	5	198

Hillyerd	46	3	78.397
Flitcroft	5	10	174.73
Farber	34	23	14.18
	35	4.01	1.5
	37	3	37.9
	40	3	21.9
Mangine (Knowlton)	5	11	4
(34 acres in Blairstown)	402	11	
Arena	34	21	36
Brugler	29	1	32
	29	1.01	57
Zahn	31	11	32
Fritz	63	1.01	12
Diecidue	47	15.01	46.68
Gessie	39	3	29
Broom/Meris	48	26	66
Peck	61	13	39.93
Carmeci	7	3.01	27.22
	7	3.02	9.166
	3	15.01	4.6
Buchman	48	23	64.5
Ring	34	25.01	
	34	25	42
Bertholf	48	24	33.325
	47	16	26.016
Ritter	11	10	7

Publicly Owned Preserved Land

<u>Property Name</u>	<u>Block</u>	<u>Lot</u>	<u>Acres</u>
Osmun Forest	68	1	9.98
NJ Natural Land Trust	3	67	22.3
Arrow Island	1	1	12.5
Quinn Property	7	26	78.25
Carmeci	7	6	110.1
Kulick Property	34	24	0.8
	35	3	10
Knowlton Tunnel Field	8	18	27.1
	9	1	5.99
Hope Green Acres Site	67	3	6.1
Hou Property	42	7	64.8

	42.02	1	9.31
Bodner Property	3	63	217
Brands	47	3	133
Morris Hillyerd Lot	34	3	1.15
Sam Roussos Farm	71	9	41.46
	71	7	0.52
Ronk Home	7	26.01	12.08
Delaware River Access on Route 46	27	17	3.15
Ramsayburg Property	57	20	11.72
Beaver Brook Management Area	71	11	8.08
Bentley Lot	35	4.02	2.19
Wade and Allen	3	67.01	5.42
	3	67.02	76
Raymond George	3	19	14.7
	3	64	7.36
	3	36	34.8
	13	2	12
Swayzee	28	20	66
Brugler	9	2	31
	301	3.03	0.5
	9.01	3	0.2
	12	3	1.8
Morrill	3	33	6.64
Geczi	3	17	21.1
Geczi	3	16	28.9
Geczi	3	13.02	6
Geczi	3	13.01	6
Geczi	3	10.04	11.57
Geczi	3	10.02	1.6
Hamilton	3	44.04	2.82
Hamilton	3	44	6.06
Hamilton	3	41	34.82
Tensen	11	P/O 8	0.11
Newport	47	2	4.51
Buchman	47	19	32
Denati	3	15	41
Brands	46	1	1.69

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.

Phillipsburg Riverview Organization lists an island in the Delaware River Block 3 Lot 1 that contains 2.93 acres.

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

Phillipsburg's riverfront trail system represents a sustainable economic development initiative that can provide unique eco/heritage and recreation tourism opportunities to fuel Phillipsburg's

downtown revitalization efforts. Recent developments such as the restoration of the Canal arch, the County’s Morris Canal greenway initiative, success of the excursion train, and opportunities for a rail-trail connection to Easton Pennsylvania via the unused Norfolk Southern bridge provide new and exciting opportunities. Three reports have been generated with the final one being the Design and Implementation Manual. The map of the proposed trail routes along the riverfront is shown in Appendix A as Map 14.

In addition, 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, and 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:

Block	Lot	Acres
30	18	6.06
30	17	6.05

<u>30</u>	<u>18</u>	<u>1.10</u>
<u>47</u>	<u>10</u>	<u>0.89</u>
<u>47</u>	<u>10</u>	<u>2.59</u>
<u>83</u>	<u>6</u>	<u>3.56</u>
<u>47</u>	<u>11</u>	<u>1.68</u>
<u>47</u>	<u>9</u>	<u>83.56</u>
<u>46</u>	<u>6</u>	<u>0.87</u>
<u>47</u>	<u>8</u>	<u>6.77</u>
<u>83</u>	<u>6</u>	<u>2.59</u>

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.

Block	Lot	Acres
<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

	<u>Lot</u>	<u>Acres</u>	<u>Length</u>	<u>Address</u>	<u>Status</u>
<u>15</u>	<u>8.02</u>	<u>12.63</u>	<u>664</u>	<u>126 Little Philadelphia Rd</u>	<u>Private</u>
<u>16</u>	<u>4</u>	<u>94.580</u>	<u>1035</u>	<u>96 Little Philadelphia Rd</u>	<u>Private</u>
<u>16</u>	<u>8</u>	<u>8.781</u>	<u>1370</u>	<u>65 Little Philadelphia Rd</u>	<u>Private</u>
<u>17</u>	<u>3</u>	<u>2.76</u>	<u>300</u>	<u>74 Kayharts Lane</u>	<u>Private</u>
<u>40</u>	<u>87</u>	<u>98.04</u>	<u>1500</u>	<u>1 Julia Dr</u>	<u>Private</u>
<u>Block</u>	<u>Lot</u>	<u>Acres</u>	<u>Ownership</u>	<u>Purpose</u>	
<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>	

30	37	13.890	WH Board of Education	Regional Sports Complex
84	1	41.230	Private	Future Active Recreation Park

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

NJ Audubon Society

In a letter dated October 24, 2014 the NJ Audubon has identified the Wattles Stewardship Center in Mansfield on Block 1506, Lot 3. This tract is 110 acres.

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 13 shows the limestone forest project area.

The Nature Conservancy

The Nature Conservancy's priority area in Warren County is the Jacksonburg Blair Corridor and Bobcat Alley as shown in Map 16.

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.

Phillipsburg Riverview Organization

The Phillipsburg Riverview Organization (PRO) responded by listing the following properties under their ownership:

Island in the Delaware	Lopatcong Township	Block 3 Lot 1	2.93 acres
Ragged Ridge	Harmony Township	Block 11 Lots 52 & 60	16 Acres
Lopatcong Creek Overlook	Harmony Township	Block 28 Lots 9, 9.04 & 9.05	30 acres
Pohatcong Grasslands	Pohatcong Township	Block 96 Lot 7	128 Acres

Lands that PRO is interested in acquiring in the future:

- Pohatcong Block 93 Lots 4 & 5
- Washington Borough Block 97: 97.01 Lots 1, 2, 3, & 4; 1.

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 17 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 has been extended three times since its inception in 2004. It first expired in June 2009 and extended to June 30, 2014. On February 5, 2015 the Governor signed a bill that expanded the dual appraisal method to June 30, 2019.

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 to 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 Appendix D of the Open Space Task Force Report.

Current Practice: The common form was used for a period but was discontinued sometime after the Land Preservation Department was created.

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.

Current Practice: BRC, CADB and Morris Canal Committee minutes are included in the Planning Board monthly agenda. The County Planning Board assigned Board members to act as liaisons with the BRC, CADB, MCCTF and the Morris Canal Committee and they give reports at each Planning Board meeting.

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.

Current Practice: Task force meetings were held but were discontinued soon after.

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

Current Practice: Open Space Forums were held for a period of time after 1999 but have been discontinued. Today, the Department of Land Preservation hold County Land Preservation Day at various venues in an open outdoor atmosphere where agencies and interested people can gather to share information, projects, and ideas in an informal setting.

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.

Current Practice: The Planning Department has expanded its GIS capabilities and provide mapping and other GIS assistance to all county departments that request it including the Department of Land Preservation.

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.

Current Practice: There have been some successful joint purchases usually with the State Green Acres program. A recent successful acquisition with the CADB participating was with the O'dowd property in Greenwich where the farm purchased and an easement to continue the Morris Canal trail was placed on the perimeter of the farmland. There have been unsuccessful attempts to coordinate purchases and they failed for various reasons.

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.

Current Practice: The process was instituted soon after the Task Force Report was finalized and still continues today.

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.

Current Practice: Funding coordination and cooperation still takes place. The more recent example is the acquisition of the Mt. Rascal Preserve in Independence Township. State Green Acres purchased the forested hillside and top, and the County purchased the Morris Canal Canal greenway portion.

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.

Current Practice: Open Space Forums were held for a period of time after 1999 but have been discontinued. Today, the Department of Land Preservation hold County Land Preservation Day at various venues in an open outdoor atmosphere where agencies and interested people can gather to share information, projects, and ideas in an informal setting

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.

Current Practice: Portions of the Morris Canal Greenway may be considered for transfer to the County for management if the greenway trail is not contained within other state parkland.

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 I.

Current Practice: A recent success has been dedication of trail easement by Greenwich

Solar on properties that contain the Morris Canal in Greenwich Township. With adjacent land purchases the trail will be constructed from Stewartville to Bread Lock Park utilizing the easement acquired on the solar property as one of the links in the trail.

Management of County Open Space

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 Practices 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. As of this writing, the Ridge and Valley Conservancy is under contract to manage and maintain the White Lake property.

3. Lock # 7 west (Bread Lock Park)

The Highlands Project, a non-profit organization consisting of adult volunteers working to provide meaningful community service opportunities for Warren County youth with court ordered community service, 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 1st 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. Incline 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 of 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 recommends 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. The total cost of implementing the plan was from \$5 to \$5.75 million as estimated in 2003 dollars.

A new bridge is being designed that would provide vehicular access to Incline Plane 9 and the private home. This will allow the current bridge serving Plane 9 to be closed and used only for pedestrian use. It is anticipated that the bridge will be constructed by 2020 provided that the permits are obtained and funding is available.

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

In 2012 the section of the Canal from Rt 22 to Strykers Road was restored and a gravel walking path installed on the towpath side. From Strykers Road to the waste weir a gravel walking

path only was installed using the ISTEA grant from the NJDOT. In addition, a series of temporary bridges have been installed in the section to facilitate pedestrian usage to County Route 519. However, 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.

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. Funding was obtained through the NJTPA and it was completed in 2012. It established 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 projects the economic and public benefits that will be realized when the Action Plan is completed. The Plan was completed in 2012 and contains many detailed recommendations on a greenway wide scale and on a segment specific scale. The Plan may be accessed by going to <http://njtpa.org/planning/subregional-planning/2010-2012-studies.aspx>

10. Morris Canal/Lopatcong Creek Erosion

In Greenwich/Lopatcong Townships from CR 519 to the waste weir, the Lopatcong Creek served as a water supply for the Morris Canal. When the Canal was decommissioned in 1924, the Lopatcong Creek was relocated outside of the canal prism into the adjacent field. Over the years the Creek began eroding the Canal's banks to the point that if not corrected the banks will erode away sending more sediment downstream and losing the historic resource forever. To counter this problem the NJRCD and engineering firm was contracted with to identify possible solutions. The solution that seemed to be most effective is to relocate the Lopatcong Creek further away from the bank and then create natural meanders to slow the velocity of the creek during significant rain events. Permits will be needed from the NJDEP to accomplish this and adjacent land area needs to be acquired from the Solar Company that owns the land. Despite repeated attempts, the Solar Company has been uncooperative in selling/transferring a five acre section or even an easement to allow the preferred alternative to take place.

11. National Recreational Trail designation

The National Trail System Act of 1968 (Public Law 90-543) authorized creation of a national trail system comprised of National Recreation Trails, National Scenic Trails and National Historic Trails. While National Scenic Trails and National Historic Trails may only be designated by an act of Congress, National Recreation Trails may be designated by the Secretary of Interior or the Secretary of Agriculture to recognize exemplary trails of local and regional significance in response to an application from the trail's managing agency or organization. Through designation, these trails are recognized as part of America's national system of trails. See more about applying for NRT designation.

The National Recreation Trails Program supports designated NRT's with an array of benefits, including promotion, technical assistance, networking and access to funding. Its goal is to promote the use and care of existing trails and stimulate the development of new trails to create a national

network of trails and realize the vision of "Trails for All Americans." The first-ever NRT Photo Contest was sponsored in 2003 by American Trails and is continuing each year.

The criteria for National Recreational Trail designation are:

- The trail must be open to public use and be designed, constructed, and maintained according to best management practices, in keeping with the use anticipated. Trails that demonstrate state-of-the-art design and management are especially encouraged to apply for NRT designation.
- The trail is in compliance with applicable land use plans and environmental laws.
- The trail will be open for public use for at least 10 consecutive years after designation.
- NRT designation must be supported by the landowner(s), public or private, whose property the trail crosses.

Portions of the Morris Canal may be eligible for designation. More information about the process can be found by visiting <http://www.americantrails.org/ee/index.php/nationalrecreationtrails>

Organizational Structure for Managing Open Space

Currently, the County of Warren owns over 1,900 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, New Jersey Transportation Heritage Center, 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 responsibility 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/maintenance projects are handled by the Department of Land Preservation, with the Planning Department and Morris Canal Committee focusing mostly grant writing, limited maintenance, mapping support, educational projects and tours.

As recommended in the 2008 Open Space Plan, the 2018 Update also recommends that the County reevaluate the organizational 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.

As the inventory of open space grows, 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 Nature Conservancy was and now the Ridge and Valley 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. New Jersey Transportation Heritage Center leases the former Consumers Water Company property and use the buildings on site to store transportation equipment. They have also restored the old steam engine and pump house and have opened the site for annual tours. 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 Corp, 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. Assist in the preparation of site management and maintenance plans
11. Inspect farm preserved properties

12. 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.

Using current technology, it is recommended that a hiker enter use a fully charged smartphone and supplemental charger with GPS application. There are several apps available that can track a hikers movements and provide graphical assistance should the hiker become lost or injured.

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.

Neighbors to open space properties have been helpful in maintaining trails. In other case, neighbors have been counterproductive if not destructive to efforts to preserving and opening properties for public use. To help resolve some of these problems the police, municipal officials, neighbors and general public should be informed on what is available by holding open public informational sessions, mailings, advertisements, etc.

CHAPTER VIII

PUBLIC PARTICIPATION

The 2018 Open Space Plan is an update of the 2008 Open Space Plan. To obtain input into the 2018 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. Blairstown, Hope, Knowlton, the Land Conservancy of NJ, the Audubon Society, and the Phillipsburg Riverview Organization responded. Their responses are provided in Chapter VI of the Plan.

Reports of the Open Space Plan sub-committee were given at the monthly Board meetings over the three year period that the Plan was under review. When the plan was released for public review, it was placed on the Warren County Website and a hard copy and CD ROM was given to all 22 municipalities in the County. Notice of the public hearing was published in the Star Ledger on April 11. At the public hearing no member of the public attended. At the hearing a brief presentation was given on the plan and Board members provided comments and corrections. Documentation concerning municipal and non-profit groups' participation and legal notice is found in Appendix P.

Based on oral and written comments received the plan was adopted as corrected at the June 25 County Planning Board meeting.

