

Open Space and Recreation Plan 2003



Middlesex County, New Jersey



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On the Cover:

East Jersey Olde Towne at
Johnson Park, Piscataway

Davidson's Mill Pond Park,
South Brunswick

Roosevelt Park, Edison

Merrill Park, Woodbridge

Plainsboro Preserve, Plainsboro

Raritan Bay Waterfront Park,
Sayreville / South Amboy

Cover photographs courtesy of CME Associates

Open Space and Recreation Plan 2003



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Middlesex County, New Jersey

Prepared for:

Middlesex County Board of Chosen Freeholders,
Middlesex County Planning Board

and the

Middlesex County Open Space and Recreation Public Advisory Committee

By



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The original of this document has been signed and sealed in accordance with New Jersey Law.



Open Space and Recreation Plan 2003



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Chapter I

Preface

A community's quality of life depends in part on the amount of open space that is preserved and the diversity and quality of recreational opportunities that are available to it.

Natural habitat and facilities to support outdoor and indoor recreational activities must be provided in close proximity to where people live and work. Open space and passive and active recreation are essential to public health. Preservation of open space has also been proven to reduce the need for public expenses for services and infrastructure that would be required to serve land development that would otherwise occur.¹

Middlesex County, New Jersey has established open space and recreation as a major priority and in 1995 the County's electorate affirmed their support by voting for the creation of the Middlesex County Open Space, Farmland and Historic Preservation Trust Fund. In November of 2001, the voters approved an increase to the amount of the Trust Fund and expanded its application to recreational facilities development.

The purpose of this document is to update the Open Space and Recreation Plan adopted October 10, 1995 by the Middlesex County Planning Board. This document expands the scope of the County's 1995 Plan with current goals, data, and objectives. It establishes benchmarks for achieving open space and recreational facilities development objectives through the year 2020. It also reflects consideration of municipal desires.

Middlesex County's 1995 plan focused on County owned or controlled public parks, recreational areas, and open space. The County's continuing increase in population (growing 29 percent from 1970 to 2000 and projected to grow another 16.5 percent by 2020) brings increased demand for public recreational areas and open space. However, the opportunities to acquire land for open space and recreation have diminished as land is consumed for housing and commercial enterprises. Build-out (the complete development of all buildable land) of Middlesex County is projected to occur by 2019 for land zoned for residential development. For nonresidential land build-out is expected to occur by 2016². Populations in areas the size of Middlesex County are rarely if ever static. Even after reaching a theoretical build-out, redevelopment then becomes a more dominant force and will be expected to continue to impact the citizens and their

¹ New Jersey Farm Bureau Brochure, "It's Called The "Garden State" For a Reason."

² Statistics provided by Middlesex County Planning Department based upon a model using existing (May 2002) composite zoning, preserved land data and environmental constraints data from the NJDEP.



recreational needs. Middlesex County has acquired significant open space, about 4,000 acres and has planned and is constructing additional recreational facilities since the adoption of the 1995 Plan. The tremendous efforts of the Freeholders to provide open space and recreational opportunities to the residents of Middlesex County should be commended. Middlesex County will have suitable open space and recreational facilities when the county is fully developed, providing the effort to expand the system is continued, and this Plan is used as a guide to acquiring and developing the lands and facilities to assure a high level of quality of life for those who reside, work, learn, and visit in Middlesex County.



Chapter II

Acknowledgements

The Open Space and Recreation Plan 2003 has been developed through the joint efforts of the Project Team consisting of Freeholder Camille Fernicola; Mr. Ralph G. Albanir, Director of the Middlesex County Parks and Recreation Department; Mr. George M. Ververides, Director of County Planning; Mr. Paul Clark and Ms. Rae May of the Middlesex County Improvement Authority; Mr. William J. Kruse, Assistant Planning Director of the Middlesex County Planning Department, and Mr. Bruce Rydel and Ms. Lourdes Diaz of CME Associates. The Project Team met monthly throughout the planning process. The Middlesex County Open Space and Recreation Public Advisory Committee also provided guidance at strategic points during the planning process.

To identify general attitudes and specific activity preferences of county residents towards recreation and open space, a random visitor survey of 214 Middlesex County park users was conducted at six County parks in the Spring of 2002. Both in-County and out-of-County residents freely participated in the survey and provided useful input to the Plan. The survey results were supplemented by additional research about current recreational and open-space trends, including interviews and published studies.

Additional information on municipal recreational and open-space needs was solicited from the municipalities by Freeholder Director David B. Crabiel and Freeholder Camille Fernicola in order to provide recommendations for open-space acquisition and facilities development. All twenty-five of the County's municipalities responded to the survey request. Please refer to Appendices C1, C2 and C3.

The assessment data, analysis of existing inventory and the public input was then used to define new goals, objectives, and implementation strategies for recreational and open space that Middlesex County should pursue through the year 2020.



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Chapter III

Introduction



Middlesex County has long been concerned with the need to provide high quality open space and recreational facilities. The earliest known County open space Plan was The Park Report for Middlesex County, New Jersey, prepared by Russell Van Nest Black and dated September 1930. At that time Middlesex County had one County Park—Roosevelt Park in Raritan Township (now Edison). The 1930 Plan recommended that the County

implement a five-year program to acquire ten major open-space areas totaling 2,700 acres:

- Bound Brook and Cedar Brook Corridor Park in Piscataway and South Plainfield;
- Jamesburg Lake Park in Monroe;
- Lawrence Brook Park in New Brunswick;
- Old Bridge Lake Park in East Brunswick and Madison (now Old Bridge);
- Plainsboro Pond Park in Plainsboro;
- Raritan Bay Park in Sayreville;
- Raritan River Park in Highland Park and Piscataway;
- South Branch of the Rahway River Park in Woodbridge;
- Upper Lawrence Brook Park in South Brunswick; and
- Woodbridge Creek Park in Woodbridge.

Over the intervening 72 years the County has substantially expanded its park system and six of the ten original, proposed parks have been acquired and developed for recreation (Davidson’s Mill Pond Park, Johnson Park, Merrill Park, Raritan Bay Waterfront Park, Spring Lake Park, and Thompson Park).

Over the years, other recreation and open-space plans and reports have been prepared for the County including a document entitled “Open Space and Recreation Facilities Inventory and Analysis” dated February, 1970. That report was created with the benefit of U.S. H.U.D. funding and was commonly referred to as Report #12 of the Comprehensive Master Plan of Middlesex County.

Middlesex County completed and adopted its most recent Open Space and Recreation Master Plan in October of 1995. That Plan set forth an ambitious program to acquire an additional 7,000 acres of open-space land suitable for recreational facilities. At that time, the County owned a total of 5,101 acres of open space.



In the face of the rapid expansion of land use development in the County that began in the mid-1990s and that continues to this day, Middlesex County established the Middlesex County Open Space, Recreation, and Farmland and Historic Preservation Trust Fund in 1996. The Trust Fund, expanded in 2001, has dedicated a total of \$.03 per \$100 of the total equalized assessed valuation in the County tax rate to support open-space preservation, recreational development and historic preservation.

As of December 2002, Middlesex County owns a total of 9,091 acres of open space, that is about 4,000 acres more than in 1995. That is an increase of approximately 80% in Middlesex County-owned open space! Of that amount, 4,973 acres are identified as being suitable for active and passive recreation and 4,118 acres are classified as environmental (wetlands, estuaries, etc.).

The Trust Fund program will continue to be used to acquire open-space land and may also be used to support the continuing Middlesex County Farmland Preservation Program as may be deemed appropriate by the Freeholders. The Trust Fund will also be used to support municipal acquisition of open-space land. As open space acquisition opportunities become more scarce, and to continue to meet the needs of a growing and ever more diverse population in Middlesex County, the County will utilize the Trust Fund to develop needed recreational facilities and programs in partnership with its constituent municipalities. Wherever possible, Middlesex County should acquire additional properties.

The following Plan outlines the recommendations for the total additional open space that Middlesex County may acquire through the year 2020. In addition, the Plan identifies the additional recreational facilities and programs that the County may consider developing and implementing between now and the year 2020. Potential project areas are generally described in the Appendices to the Plan.



Chapter IV

Mission Statement, Plan Structure, Definitions, Goals, Objectives and Implementation

A. Mission Statement

Much of the responsibility for implementation of the County Recreation and Open Space Plan will fall upon the County Department of Parks and Recreation. To guide and support the Parks Department, the County Open Space and Recreation Advisory Committee has formulated the following mission statement:

Public recreation and open space are vital for the health and well-being of Middlesex County and for the enrichment of the County as a place for living, learning, working and visiting. To that end, the County will provide, a public system of major parks, open spaces, and recreational programs and facilities for this generation and generations to come. They should be suitable in scope and diversity, well situated and accessible, and sufficient in scale to meet the growing and changing needs of its residents. This shall be accomplished by:

- **Preserving locations for public enjoyment that have County-wide significance for providing active recreation;**
- **Promoting environmental, agricultural, scenic, historic, cultural and social opportunities;**
- **Conserving natural resources including plant and animal life, farmland, woodland, streams, and watersheds; and**
- **Offering a variety of programs and facilities to meet the recreational needs and educational interests of the people of Middlesex County through the County Parks System.**



B. Plan Structure

This Plan sets forth the details of an open-space and recreation strategy for Middlesex County to the year 2020. It is the intention of the County to continue to work closely with its 25 municipalities and with the New Jersey State Green Acres program to implement the acquisition of open space and the development of facilities.

This Plan describes the recommended strategies for providing open space, recreational, cultural and heritage programs that are under the stewardship of the Middlesex County Board of Chosen Freeholders. Projects that are identified in this 2003 Plan include those that remain viable proposals carried over from the original 1995 Plan as well as new projects that have recently been identified and recommended by the 25 municipalities.

The Plan recommends the need for additional open-space land, development of recreational facilities, and cultural and heritage programs.

C. Definitions

There are a number of key terms that are used in the Middlesex County Recreation and Open Space Plan 2003 to describe categories of Open Space. In order to understand their differences, definitions for each are:

Recreational Open Space provides human enjoyment and relaxation. The level of intensity of the recreational activities varies between two major subsets from active recreation (such as field sports) to passive recreation (such as pedestrian trails or scenic overlooks).

Active Recreation are activities that include field and court sports, hiking, biking, jogging, canoeing, boating, swimming, exercise courses and other physical activities.

Passive Recreation includes picnicking, camping, nature walks, fishing, historic displays, entertainment, and other activities or pursuits that do not involve strenuous physical exercise. This category also includes preservation of historic sites or structures, development of environmental educational facilities, and establishing special programs such as a model farms, arts and crafts programs and cultural/heritage programs.

Environmental Areas preserves natural features and natural systems such as wetlands, and estuaries. It serves as a habitat for plant and animal species.

Farmland Preservation consists of land preserved through permanent deed restriction to be available for agricultural production only. This land is not normally accessible to the public and remains in private ownership. However, farmland owners often conduct

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special programs to provide education about farming to the general public, and conduct special events such as hayrides that provide recreational opportunities.

D. Goals

In order to meet its existing and future open-space needs, Middlesex County should continue to acquire additional land. The County should take steps to improve and expand its public recreational facilities and its recreational/cultural programs. The goals and objectives of this Plan provide direction for this effort. The goals of this Plan are:

- **Provide a public system of major parks and open spaces that forever preserves sufficient land to accommodate a variety of recreational activities, conserve scenic, historic, cultural, and environmental features to enhance the quality of life for residents of Middlesex County.**
- **Assure that adequate recreational facilities are available to meet the needs of the residents of Middlesex County.**
- **Provide programs and facilities to assure opportunities for cultural and heritage appreciation.**

E. Objectives

To achieve its Goals, the County should create a system of open space and recreational areas on tracts of land that are capable of supporting a variety of recreational activities and preserve important features and resources of the County. These open-space areas will serve multiple municipalities within the County and meet specialized needs that cannot otherwise be provided at the municipal level because of cost, overlapping jurisdictions, or administrative/operational limits.

In addition to preserving land, the County should continue and expand recreational facilities and programs. The objectives are:

- **By 2012, acquire 4,000 additional acres** of open space land for active and passive recreation.
- **By the year 2020 acquire 1,000 additional acres** over the 2012 goal.
- Incorporate requests from the 25 municipalities into the overall acquisition goals for the County.
- Recommends that the Middlesex County Open Space, Recreation, and Farmland and Historic Preservation Trust Fund should be used consistent with this Plan to implement County Open Space Acquisition, Open Space Development, Farmland



Preservation and Historic Preservation projects authorized by the Middlesex County Board of Chosen Freeholders.

- Establish a partnership between Middlesex County and its municipalities. Provide funding through the Middlesex County Open Space, Farmland and Historic Preservation Trust Fund to the municipalities to acquire open space areas and develop needed recreational facilities.
- Where public access is not required, conserve land through easement acquisition or other measures that effectively maintain farm areas, protect natural resources, or preserve locations that have environmental, cultural, historic, or scenic attributes.
- Establish a network of park linkages that interconnects public open spaces. The regional park linkage network should also provide opportunities for a pedestrian and bicycling trail system that is consistent with adjacent land uses and the desires of adjacent land-owners. The regional network should also link the County parks thereby providing the opportunity to hike or bike from one County park to another with minimal conflicts with vehicular traffic. Attention should be given to connecting Middlesex County park linkages to out-of-county trails.
- Use County open-space revenues to leverage grants, loans or matches from other sources.
- Continue support of the farmland preservation program as expressed in the County's Comprehensive Farmland Preservation Plan of 2001 in recognition that maintaining the County's agricultural industry and a rural landscape are important and irreplaceable components of a County's economy and aesthetic character.³
- Promote innovative and efficient measures that result in the cost-effective delivery of recreational services.
- Encourage efforts at all levels of government to preserve open space and provide environmental and open-space design standards.
- Provide public access, recreation, and resource protection in waterfront areas.
- Encourage and support development of regional cultural centers in New Brunswick, the County seat.
- Continue comprehensive planning, administration, monitoring and maintenance of County open space and recreational facilities.
- Provide continuing opportunities for public participation in planning and programming for open-space preservation and recreational activities.

³ The Comprehensive Farmland Preservation Plan dated March 8, 2001
Middlesex County Open Space and Recreation Plan 2003

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- Provide a County wetlands mitigation site as part of the County open-space system. Such a site would be used to replace wetlands lost due to any future infrastructure projects.
- Assure that there are sufficient resources at the County level to operate and maintain the parks, conservation areas, recreational facilities and such other facilities that are developed by the County.
- Provide a variety of recreational, cultural, and educational programs meeting the interests and needs of County residents with a particular emphasis on increasing the number of self-funded programs that are offered.
- Expand the services provided to the public by the Middlesex County Cultural & Heritage Commission.
- Expand County recreational facilities to meet current and future demands for different forms of recreational and cultural activities.
- Provide recreational programming taking into account location accessibility and convenience.

Figure 1, on page 12a, illustrates the existing open space in Middlesex County. It includes open-space inventory sites (refer to Appendix D) that have potential for acquisition, and conceptual linkages with possible connections to regional trails.

Open-space acquisition projects and recreational facilities recommended by the County municipalities for inclusion in this Plan are shown in Appendices C1, C2, and C3:

- Appendix C1: Recommended Open Space Acquisition by County (as requested by the municipalities)
- Appendix C2: Open Space Acquisition by Municipalities with County Monetary Assistance (as requested by Municipalities)
- Appendix C3: Proposed Recreational Improvements (as requested by the municipalities)

F. Implementation

The implementation of the Middlesex County Open Space and Recreation Plan 2003 shall be in accordance with procedures, criteria and guidelines (as the same may be revised or amended from time to time) established by resolution and adopted by the Middlesex County Board of Chosen Freeholders.



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Chapter V

The Acquisition of Land

A. MIDDLESEX COUNTY'S PARK AND OPEN SPACE SYSTEM TODAY

Recreational open space is vital to the well being of the people of Middlesex County. It provides the variety of recreational activities required by a diverse County population that will grow to approximately 900,000 residents by 2020. Recreational open space is needed to provide areas for active recreational and preserve major cultural features and landmarks that are part of the common heritage of the County's citizens.



The County Board of Chosen Freeholders, having recognized the importance of public open space to its residents, have successfully developed a system of major parks and programs. This system needs to be continually expanded to keep pace with County growth and to maintain and improve the quality of life enjoyed by County residents. An overview of the existing County parks is provided in this section.

The existing Middlesex County Park system consists of 36 parks, including 3 golf courses operated by the Middlesex County Improvement Authority. The parks encompass 9,091 acres of open space. Of that amount, 4,973 acres are identified as being suitable for active and passive recreation and 4,118 acres are classified as environmental (wetlands, estuaries, etc.).

Figure 2 (page 14a) illustrates the total open space under County ownership. A facilities chart is included in Table 1 (page 15), and detailed descriptions of the parks is included in Appendix A1. The current Middlesex County Park System, is widely disbursed throughout the county in 21 of its 25 municipalities.

The evaluation of open-space needs in Middlesex County also requires identification of other government-owned open space. Figure 3 (page 14b) shows all state, municipal and private open space in Middlesex County, respectively. Appendices A2, A3 and A4 correspond to the Figure.



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Table 1 Middlesex County Parks & Open Space Facilities Chart

Park/Acreage	Facilities																																	
	Amphitheaters	Bandstands	Baseball Fields	Basketball Courts	Walk/Bike Paths	Boat Ramps	Bocci Courts	Comfort Stations	Dog Show Areas	Fishing	Food Concessions	Football Fields	Handball Courts	Hiking Trails	Horse Show Areas	Horse Stable	Horse Track	Ice Skating Areas	Lakes/Ponds	Model Airplane Field	Nature Study Area	Open Play Areas	Picnic Areas	Playgrounds	Scout Areas	Shuffleboard Courts	Soccer Fields	Softball Fields	Street Hockey Rinks	Tennis Courts	Track	Zoos		
Alvin P. Williams, Sewaren Peninsula in Woodbridge 39 Acres	✓		✓		✓			✓			✓										✓	✓	✓	✓			✓							
Ambrose & Doty's Brook Park, Piscataway 225 Acres																																		
Beaver Crossing Park, Edison 14.6 Acres ¹																																		
Broadway/Friendship Road Conservation Area I, South Brunswick 126 Acres																																		
Broadway/Friendship Road Conservation Area II, South Brunswick 79.5 Acres ²																																		
Church Lane Property, East Brunswick .82 Acres																																		
Clinton Avenue Park, South Plainfield 9 Acres																																		
Culver Road, South Brunswick 77 Acres ²																																		
Davidson's Mill Pond Park, South Brunswick 482 Acres					✓	✓				✓																								
Davidson's Mill Pond Park Extension, South Brunswick 86.098 Acres																																		
Donaldson Park, Highland Park 90 Acres			✓	✓		✓		✓											✓	✓							✓	✓		✓				
Farrington Lake Area, East Brunswick 10.39 Acres																																		
Finnegans Lane Area, North Brunswick 126 Acres																																		
Fords Park, Woodbridge 18 Acres			✓	✓	✓			✓											✓			✓	✓							✓	✓			



Table 1 Middlesex County Parks & Open Space Facilities Chart

Park/Acreage	Facilities																																				
	Amphitheaters	Bandstands	Baseball Fields	Basketball Courts	Walk/Bike Paths	Boat Ramps	Bocci Courts	Comfort Stations	Dog Show Areas	Fishing	Food Concessions	Football Fields	Handball Courts	Hiking Trails	Horse Show Areas	Horse Stable	Horse Track	Ice Skating Areas	Lakes/Ponds	Model Airplane Field	Nature Study Area	Open Play Areas	Picnic Areas	Playgrounds	Scout Areas	Shuffleboard Courts	Soccer Fields	Softball Fields	Street Hockey Rinks	Tennis Courts	Track	Zoos					
Plainsboro Preserve, Plainsboro 530 Acres ⁴																					✓																
Raritan Bay Waterfront Park, Sayreville/South Amboy 136 Acres		✓	✓		✓		✓	✓		✓		✓												✓			✓	✓									
Raritan River Conservation Area, New Brunswick 20.73Acres																																					
Red's Marina, Highland Park 3.45 Acres																																					
Roosevelt Park, Edison 217 Acres	✓			✓	✓			✓		✓	✓			✓					✓	✓			✓	✓				✓		✓							
School House Road Property, Monroe 17.4 Acres																																					
South River Waterfront, South River 37.36 Acres																																					
Spring Lake Park, South Plainfield 121 Acres		✓		✓	✓		✓	✓		✓									✓	✓				✓									✓				
Thomas A. Edison Park, Edison 161 Acres			✓		✓			✓													✓						✓	✓		✓	✓		✓	✓			
Thompson Park, Jamesburg/Monroe 675 Acres		✓	✓	✓				✓	✓	✓			✓	✓	✓				✓	✓				✓	✓	✓		✓	✓		✓				✓		
Thompson Park Extension Project, Monroe 488.3 Acres																																					
Thompson Park Extension Project II, Monroe 87.1 Acres																																					
Washington Avenue, Milltown 14.155 Acres																																					
William Warren Park, Woodbridge 126 Acres	✓		✓	✓	✓		✓	✓																✓	✓		✓	✓	✓		✓						

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Table 1 Middlesex County Parks & Open Space Facilities Chart

Golf Course/Acreage		
The Meadows at Middlesex Golf Course, Plainsboro 126 Acres		
Raritan Landing Golf Course, Piscataway 103 Acres		
Tamarack Golf Course, East Brunswick 371 Acres		
Total Acreage :	9,091	All Middlesex County Parks and Open Space Facilities

¹Total acreage is 21.60 acres. Edison Township owns 7 acres with conservation restriction to the County of Middlesex.

²Acres not included in total. Land owned by South Brunswick Township with conservation restriction to the County of Middlesex.

³Acres not included in total. Land owned by East Brunswick Township with conservation restriction to the County of Middlesex.

⁴Total acreage is 530 acres. 129 acres are leased for farming and will revert to open space in 30 years or when farming use ceases.



B. PROGRESS SINCE 1995

Since the adoption of the 1995 Open Space and Recreation Plan, Middlesex County has made several significant accomplishments in satisfaction of recommendations listed in that Plan. In 1995 Middlesex County owned 5,101 acres of open space, of which 3,124 acres were identified as being suitable for active and passive recreation and 1,977 acres were classified as environmental area. Middlesex County currently owns 9,091 acres of open space – about a 4,000 acres increase since 1995! **That means that Middlesex County increased their Open Space by about 80% since 1995.**

Of the 9,091 County-owned acres, 4,973 acres are suitable for active and passive recreation and 4,118 acres are classified as environmental.

In addition, the following facilities and programs were created since the 1995 Plan:

- Two additional 18-hole professional quality golf courses with associated programs were added to the County inventory
 - Raritan Landings in Piscataway constructed in 1999
 - The Meadows at Middlesex in Plainsboro acquired in 1998
- Alvin P. Williams Memorial Park at the Sewaren Peninsula in Woodbridge dedicated in 2001
- Raritan Bay Waterfront Park in Sayreville and South Amboy dedicated in 1998
- The Old Bridge Waterfront Walkway in Old Bridge dedicated in 2002
- An active 200 acre park at the Phillips Preserve in Old Bridge is in the engineering phase.
- Additional facilities called the “Level Playing Fields” at Roosevelt Park in Edison are being constructed for the physically challenged.
- Middlesex County currently has approximately 600 acres of open space under contract for purchase.





C. REVISED PARKS AND OPEN SPACE ACREAGE GOALS

1. STANDARDS

Over the years, it has been accepted practice to utilize a uniform land standard such as a specific acreage per 1,000 people such as the Population Ratio Model to establish acreage goals for recreational open space. The uniform standards have been held as the national goal that every community should strive to achieve in relation to their recreational and open-space systems.

Changing times continue to create greater challenges in providing open space and recreational services that are responsive to constantly changing needs, and equitable to the large spectrum of diversity within our society. Many trends influence the planning process for evaluating open space and recreation, including environmental trends such as disappearing resources and more environmental awareness, and social trends like the desire to preserve and maintain cultural heritages and the increased importance of citizen participation. Economic and demographic trends such as income profiles and population changes also have implications on open space and recreation planning. The planning process utilized for accessing open space and recreational needs should be flexible and respond to the ever-changing trends of society.

The National Recreation and Park Association (NRPA), in its publication entitled, “Park, Recreation, Open Space and Greenway Guidelines”⁴, introduces the systems planning approach. The systems approach to planning focuses on creating a comprehensive and interrelated system of parks, recreation, open spaces and pathways. The primary focus is an on-going planning process that is flexible enough to respond to the changing needs of the community. In order to accomplish the planning process, the NRPA recommends the Systems Planning Model.

Middlesex County understands the importance of a flexible planning process in order to respond to the changing needs of the community; therefore, the systems planning model is being utilized for the assessment of the county’s current recreational open-space needs and preferences. The model will continue to be utilized as necessary, as County needs and preferences change over the years.

The systems planning model procedure utilized in this report is as follows: first, the current Middlesex County *demographic profiles* were analyzed to establish trends in population density, population growth including age-specific growth, and household size

⁴ “Park, Recreational, Open Space and Greenway Guidelines,” 1995. A Project of the National Recreational and Park Association and the American Academy for Park and Recreational Administration.



in order to make determinations regarding recreational open-space demand; and second, the recreational open-space acquisition deficit is calculated using both the *Balanced Land Use Model* and the *Population Ratio Model*, in order to establish a reference point of the service goals for the Middlesex County recreational open space parks system.

The systems approach to planning emphasizes the need to accurately identify system users. The demographic profile of the community gives an insight into the potential customer base. In order to truly understand the target market, demographic variables such as age, income, household size and population densities are crucial.

According to demographic data, Middlesex County continues to grow in population. Specific demographic profile analysis including population density, age cohorts, household size, income and employment can be found in Appendix B.

This document recommends and follows the system planning approach and analyzes the demographic data, trend data and user input data for determination of recreational open-space needs.

A more intensive approach requires analysis of user participation and the level of service of parks within the system. This more intensive analysis is referred to as the Level of Service (LOS) standard. Due to the detail, length and scope of the data required for this standard, the development of the LOS procedure is not included in this document.

Two formula-based models the *Balanced Land Use Model* and the *Population Ratio Model* are used in order to establish a starting point and general guideline in determining the countywide land needs for a successful recreational open space park system.



2. THE 1995 PLAN vs. THE 2003 PLAN

The 1995 Open Space and Recreation Plan identified the open space owned by Middlesex County as totaling 5,101 acres. Of that amount, 3,124 acres were identified as being suitable for active and passive recreation and 1,977 acres were classified as environmental (wetlands, estuaries, etc.).

The methodology used in the 1995 Plan to determine the overall acreage goal for the County was the Balanced Land Use Method. Using the Balanced Land Use Method, in the 1995 Plan, the overall goal was rounded to **10,000 acres**. The amount of County-owned acreage suitable for active and passive recreation prior to 1995 of **3,000 acres** was subtracted from the 10,000 acre overall goal to establish a **7,000 acres additional need goal**.

The Middlesex County Open Space and Recreational Plan 2003 also utilizes the Balanced Land Use Method, maintaining the **10,000 acres overall goal** as used in the 1995 Plan. The current County-owned land suitable for active and passive recreation has increased by almost 60% due to Freeholder acquisitions since 1995 to **4,973 acres** (rounded to 5,000), resulting in an **additional need goal of 5,000 acres, 4,000 acres by 2012 and an additional 1,000 acres by 2020**.

The *Balanced Land Use Method* is advocated by the NJDEP's SCORP (Statewide Comprehensive Outdoor Recreation Plan). The method identifies specific percentages that the different levels of government should preserve for recreation.

- Municipal level – 3% of the developed and developable area of a municipality;
- County level – 7% of the developed and developable area of the county;
- State level – 10% of the state;
- Federal level – 4% of the state.

The Balanced Land Use Method is based on the total acres of the County, minus environmental acres and federal and state owned acres. The methodology is not based on population therefore the goal based upon the Balanced Land Use Method will not change unless there is a significant increase in federal or state-owned open space. The following calculations show the Balanced Land Use Method formula, which establish an overall goal of 10,000 acres (rounded).

Total Land and Water Acres for Middlesex County	-	203,455
Minus State-owned acres	-	1,773
Minus Federal-owned acres	-	0
Minus Environmental acres	-	54,848
<hr/>		
Total Remaining Land Area in Middlesex County (upon which the 7% County Level calculation is based)	-	146,834

The Determined Overall Recreation Open-Space Goal is



7% of Total Remaining Land Area in Middlesex County - **10,278**

In the Middlesex County Open Space and Recreation Plan 2003, the importance of population demand on recreation open-space needs is emphasized because the County's population density continues to grow at a rapid pace. Therefore this 2003 Plan includes an analysis based on the *Population Ratio Model*, which was not a consideration in the 1995 Plan.

The *Population Ratio Model* is based on the assumption that recreation relates to the number of people in the community. It sets a specific number of acres of recreation open space per every 1,000 people. In the "Comprehensive Master Plan, Open Space and Recreation Facilities Inventory & Analysis" report adopted by the Middlesex County Planning Board in February 1970, a standard of 12 acres per every 1,000 people was adopted and utilized for Middlesex County. In the 2003 Plan, the County will again utilize the 12 acres per 1,000 people standard to evaluate need.

Based on the standard of 12 acres per 1,000 people, and using the population projection from the U.S. Census for the year 2020 (873,878 people), **the projected recreational acreage required to meet population demand for the year 2020 is 10,486 acres of land suitable for active and passive recreation.**

Therefore, the 10,000 acres overall goal established in the 1995 Plan, and reiterated in this 2003 Plan remains appropriate to meet the projected population up to the year 2020. Therefore, when the existing 4,973 acres (rounded to 5,000 acres) of County-owned active and passive recreation land is subtracted from the 10,000 acres overall goal, a total goal of 5,000 acres more is set and is sufficient to meet the growing population demands of the County by 2020 with 4,000 acres by 2012.

Moreover, in addition to the 5,000 acres of County-owned land suitable for active and passive recreation, the County also owns 4,118 acres of environmental areas. The County should continue to increase the environmental areas as part of its recreational open-space acquisition program and as a primary benefit to the ecosystem of the County.



3. MUNICIPAL INPUT: LAND

The Freeholders invited municipalities throughout the county to provide requests for potential acquisition projects. The municipal responses were divided into the following categories: Recommended Open Space Acquisition by the County, Open Space Acquisition by the Municipalities with County Financial Assistance, and Proposed Recreational Improvements. The municipal responses are included in Appendices C2, C3 and C4 respectively. In total the municipalities requested over 6,700 acres of land for open space acquisition. Based on the responses, the basis for municipal recommendations can be grouped into different categories, as follows:

- Environmental Protection
- Expansion of Existing Parks
- Future Recreation
- Waterfront Development
- Park Linkage Development
- Farmland Preservation

Municipal requests focused significantly on the creation or expansion of environmental open space for conservation and protection purposes, but included undeveloped land that may be used for recreation in the future. Waterfront, park linkage and farmland preservation acquisitions were also recommended.

The municipalities have recommended a number of acquisition and development projects that need to be evaluated for cost, county-wide importance/utility, consistency with County objectives, and feasibility.

The County is including the requested acres in its needs analysis and overall goal. However, the County is not limiting itself to these acreage figures regarding municipal acquisition nor is the County promising acquisition of all requests.

The municipalities are encouraged to augment requests for funding from the County, by establishing a municipal open space trust funds.



D. OBJECTIVES FOR LAND

Objectives

1. *Acquire 5,000 acres of land suitable for active and passive recreation.*

The acreage recommended is to be suitable for active and passive recreation. In addition environmental areas are to be preserved through various means including land regulations, easements, donations or purchase as part of the recreation acquisition when possible.

2. *Incorporate acquisition requests from the 25 municipalities into the overall acquisition goals for the County.*

The municipalities have requested over 6,700 acres of land for open space acquisition for both environmental and recreational purposes. The County is including the requested acres in its overall goal. However, the County is not limiting itself to these acreage figures regarding municipal acquisition nor is the County promising acquisition of all requests. Additional acquisitions will be proposed in the future. The County will consider such proposals as they are recommended in accordance with procedures established by the Middlesex County Board of Chosen Freeholders. The County will continue to partner with municipalities through the Middlesex County Open Space, Recreation, Farmland and Historic Preservation Trust Fund to acquire open space.

3. *Where public access is not required, conserve land through easement acquisition or measures that effectively maintain farm areas, protect natural resources, or preserve locations that have environmental, cultural, historic, or scenic attributes.*

The first step is for the County to acquire the land area needed to ensure adequate public access and recreational opportunities in the network of County open space. Those acquisitions must be supplemented by a major public effort to conserve and manage additional open-space acreage to protect natural resources such as water supplies, wildlife, prime farmland, and the valued rural or scenic features of the County. However, physical access by the public to such areas may not be needed to achieve the conservation objective. Such resources or features can be protected by easement acquisitions that are less costly than an outright purchase of full title to property. Extensive areas of prime farmland, for example, can be preserved through easement purchases authorized under the New Jersey Agriculture Retention and Development Act. The County should also coordinate its efforts with municipalities, which can secure conservation easements or protect open space through their development review powers. Non-profit land trusts, which

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- purchase easements or solicit donations of easements to protect natural areas are another entity that can help preserve open space, by working in concert with the municipalities.
4. *Establish a network of park linkages that interconnects public open spaces. The regional network should also provide opportunities for a pedestrian and bicycling trail system that is consistent with adjacent land uses and the desires of adjacent land-owners. The regional network should also link the County parks thereby providing the opportunity to hike or bike from one County park to another with minimal conflicts with vehicular traffic.*

Park linkages are elongated and usually continuous corridors of land under some form of public control. They may follow a natural corridor, such as along a stream or river, or follow a man-made corridor, such as along a canal, road edge, or abandoned railroad. Park linkages provide opportunities for pedestrians, bicyclists, and equestrians and can provide exposure to significant features of the County including scenic area, natural habitats, or historic or cultural features. They help maintain wildlife populations by extending their available habitat. Park linkages can be established in rural, suburban, and urban areas to the benefit of a substantial portion of the County population. The Plan proposes the following park linkages: (See Appendix E for details and map)

5. *Use County open-space revenues to leverage grants, loans or matches from other sources.*

Middlesex County voters approved a 1995 referendum for a \$.01 levy on each \$100.00 of equalized assessed value to be dedicated to open space. This levy produced approximately \$4,000,000 annually for open space and provides a stable funding source that permits Middlesex County to establish a proactive program of acquisition. Following the strong voter endorsement of the 1995 referendum, a second successful referendum for an additional \$.02 levy on each \$100.00 of equalized value was passed by the voters in November 2001. The updated levy produces an estimated \$16.5 million annually. County open-space revenues can be used to leverage additional grants, loans, or matches from State, Federal, municipal government, or the private sector and thereby maximize the value of each County dollar that is spent on open space.

Appendix F identifies the municipal referenda that have achieved voter support, and the amount of revenue generated annually and to date, in support of recreational and open-space initiatives. This data can be useful in encouraging all municipalities to participate in this worthwhile endeavor.



6. *Promote innovative and efficient measures that result in the cost-effective delivery of recreational services.*

Fiscal belt tightening will challenge County government to stretch the dollars available for public recreation and open space. Park systems have turned to user fees and program fees and encouraged the volunteer efforts of civic-minded groups and individuals as ways to continue to deliver or expand the services they provide. Different levels of government and public agencies should cooperate to provide resources or share facilities as a means of expanding the recreational opportunities available. Support from the business community should be cultivated since employees as well as County residents can benefit substantially from recreational opportunities that are provided close to the work place and the home. Program specifications should include standards and criteria for recreational activities to be provided, user fees, and means of ensuring accessibility to all residents of the County.

7. *Encourage efforts at all levels of government to preserve open space and provide environmental and open-space design standards.*

The County's fiscal resources are limited and it has little authority to control land use except on the property that it acquires. Municipal, State and Federal efforts as well as the efforts of non-profit organizations are needed to preserve open space. Municipalities should help by preserving the open space that is needed to balance their internal land use pattern and by providing the recreational facilities that will primarily serve local needs. The balanced land use guidelines suggest that each municipality should preserve at least 3% of its developed and developable area as public open space. Municipalities can also exercise their authority under the Municipal Land Use Law to provide open space and preserve the environment to promote the general welfare of the County and neighboring municipalities. To support local efforts, the County should provide technical guidance and direction. The State and Federal government should also help by supporting County efforts and by preserving open space within Middlesex County to achieve State and Federal balanced land use guidelines.

8. *Provide public access, recreation, and resource protection in waterfront areas.*

Water related recreation is one of the most popular public pastimes. Fishing, swimming, and boating or the passive enjoyment of views, scenery, and wildlife draw people to the water. The environment at the water's edge is ecologically one of the most productive and important. Both State and Federal open space policies place a high priority on preserving waterfront areas and opening them to public access. The rivers, streams, and bay frontage of Middlesex County are vital resources, and the County open space Plan will preserve significant segments and locations in order to provide public access.

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9. *Encourage and support development of regional cultural centers in Middlesex County.*

Regional cultural centers throughout Middlesex County should be encouraged to play a role in the arts and the civic and cultural life of central New Jersey.

10. *Continue comprehensive planning, administration, monitoring and maintenance of County open space and recreational facilities.*

The continued management of existing and potential future open-space lands and recreational facilities is critical to assuring that recreational and environmental resource protection goals are met. The maintenance of lands and facilities and protection from degradation due to vandalism, illegal waste dumping or other misuse requires continued monitoring. The success of recreational programs also requires adequate assessment of program management and effectiveness. The County should establish program effectiveness measures and conduct regular monitoring. In addition, the County Open Space and Recreation Plan should be updated periodically to reflect new or changing objectives and reflect progress toward Plan implementation. This updating should take place at least every five years.

11. *Provide continuing opportunities for public participation in planning and programming for open-space preservation and recreational activities in Middlesex County.*

The provision of adequate open space and recreational services in Middlesex County should reflect input from the users and other interested groups within the County. The existing Middlesex County Open Space and Recreation Public Advisory Committee could be continued as a mechanism for provision of ongoing advice to the County regarding open space and recreation planning and programming.

12. *Provide a County wetlands mitigation site as part of the County open-space system.*

Wetlands mitigation sites are needed for County projects, such as road construction or widening, that impact upon existing wetlands. Private projects also require mitigation sites to replace wetlands that are lost to development. A mitigation site or sites should be designated and acquired by the County specifically to meet the mitigation needs for future County projects.



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13. *Assure that there are sufficient resources at the County level to operate and maintain the parks, conservation areas, recreational facilities and such other facilities that are developed by the County.*

It is critical to the success of the County's Open Space program that the lands and facilities that are owned by the County are adequately monitored, maintained, and operated. The safety and enjoyment of the County's park and open-space system will depend on the availability of sufficient staff and other resources to assure that the facilities are well maintained and that potential hazards to park users are identified and addressed as efficiently and quickly as possible. Programs need to be staffed by trained personnel. Efforts should be implemented to utilize trained volunteers wherever possible.



E. ACQUISITION CRITERIA

Middlesex County needs to acquire and dedicate additional land to public open space and recreational use. Easements to preserve additional farmland are also needed. Because extensive areas of the County have already been developed or are planned to be developed for uses other than open space, the location of future public open-space acquisitions will be constrained by availability, opportunity, and cost.

The criteria which will guide Middlesex County acquisitions consist of general criteria for an overall County open-space system as well as specific criteria for the different types of open spaces which should be incorporated into the County landholdings and dedicated for public access and recreation.

Decisions on future County open-space acquisitions will be guided by criteria for the different types of recreational and environmental areas that are needed to serve County residents.

1. **Significance to Middlesex County.** The site should meet public recreational needs or have natural resources, landmarks, or features whose potential users include people from several municipalities and/or residents from throughout the County.
2. **Size.** The site should be large enough or connect with a site large enough to satisfactorily accommodate the specific users or recreational activities that are planned for the site. In municipalities that are nearly fully developed, smaller size parcels can be considered that have a unique feature that assists the County in achieving its goals.
3. **Location.** The area around the site should be free of undesirable uses which would detract from the site's use, development, or operation as public open space. Additions to existing County parks to expand facilities or user capacity or buffer the park from incompatible land use should be given special consideration.
4. **Community Support.** The site's preservation as public open space should be supported by the local community and public and private groups. To the extent possible, the site's preservation should be compatible with County, State, municipal, and regional plans.
5. **Access.** The site should be accessible from the existing public road system or connect to another publicly owned site that is accessible. Where feasible, access from public transportation should be planned.



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6. **Cost.** The cost and ease of site acquisition and development and maintenance and operation, as offset by current and potential revenues, must be evaluated.
 7. **Consistency** with current County and municipal policy as stated in an adopted Plan, resolution or policy statement.

The types of open space which Middlesex County should acquire and develop for public use and access include County park and recreational areas, golf courses, special use areas, conservation areas, and park linkages. In addition, the County should acquire easements to preserve farmland. Appendix G describes acquisition criteria for specific types of open space.



F. ACQUISITION IMPLEMENTATION

Recommendations

An additional 5,000 acres land suitable for active and passive recreation is required by year 2020. Also, a network of park linkages connecting existing parks to each other is highly recommended. Additional farmland preservation efforts are essential to both preserve open space and maintain a viable agriculture industry in Middlesex County.

Major Open Space Remaining

Middlesex County requires additional open space and should expand existing open space wherever possible. A list of major open space remaining in Middlesex County is included in Appendix D and found on Figure 1 (page 12A) titled Middlesex County Open Space Master Plan 2003. An assessment of each site's suitability for active and passive recreation or for conservation and environmental significance needs to be conducted for each possible site, and the proposed or future land use should also be examined.

Partnership With Municipalities

Based on the municipal responses, the County expects to form partnerships with many of its municipalities for the successful implementation of open-space acquisition goals. Municipal recommendations can be grouped into different categories, as follows:

- Environmental Protection
- Expansion of Existing Parks (both recreational and environmental)
- Future Recreation
- Waterfront Development
- Linkage Development
- Farmland Preservation

Municipal requests significantly focused on the creation or expansion of environmental open space for conservation and protection purposes, but included undeveloped land that may be used for recreation in the future. Waterfront, Linkage and farmland preservation acquisitions were also basis for recommendations.

Funding

Adequate funding to acquire, improve, and operate parks and open space in Middlesex County is needed. Criteria to guide County Open Space, Farmland Preservation and Historic Preservation Trust Fund expenditures as prepared and adopted by the Middlesex County Board of Chosen Freeholders should be reviewed periodically. The County Trust



Fund should be relied upon as a source of funding for an annual program of open-space acquisition, farmland preservation and historic preservation. It should be used to leverage and supplement outside sources of funding from State and Federal programs as well as donations from the private sector.

Public Participation

Public Participation was included in the process of developing this update. A user survey was conducted to provide public input. Further, an open meeting and a public hearing before the Middlesex County Planning Board were held.

Continued public participation in the open space and recreation planning and development process should be promoted through the Middlesex Open Space and Recreation Public Advisory Committee. Exhibits, publications, workshops, and presentations to schools, civic groups, municipal officials, corporations, and institutions should be used as avenues of communication on open-space issues and projects of County importance. The efforts of volunteer groups that support park facilities and activities should be encouraged to work with the municipalities. Each local park Master Plan should be developed using a process that provides an opportunity for public participation and comment.

As was identified in the in-park user survey, the use of newsletters or announcements, with maps sent directly to homes is a most effective option for reaching the public. Newspaper articles or press releases are another option that can serve for public information and as a feedback mechanism. Suggestion boxes in the County parks and/or an interactive web site with email links would allow public comment and input regarding the County's parks and recreational programs.



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Chapter VI

Facilities

A. National and State Recreational Trends

As a compliment to the demographic analysis, local and national recreational trends also provide input into potential participation rates and use patterns. User involvement can be analyzed through recreational trends and can project future demands. The examination of the recreational trends coupled with the demographic profiles and users input will bring into focus the demand for land and facilities needed to meet the needs of the community.

Overall, participation in recreational activities keeps individuals healthier, keeps people aware of the importance of the environment and contributes to keeping youth occupied in worthwhile activities. Therefore, recreational participation should be encouraged and the development of facilities should be pursued.

Information on recreation and open-space trends at the national, state and county levels was gathered and analyzed to help focus the County effort to plan for the future.



Recreational trends are influenced by a variety of factors. For individuals, families, and households, recreational choices and participation in any specific activity will change over time. Age, education level, household size, residence, access to facilities, work schedules, culture, and personal attributes influence how people recreate and use their leisure time. Public policy also affects recreation and open-space trends.

Open space planning has been strongly influenced by the environmental movement and the public effort to protect natural and cultural resources, such as water, farmland, species habitats, and historic sites. At the same time, government, at all levels, is constrained in its ability to finance the acquisition, dedication, and improvement of lands for public recreation and open space. In older urban and suburban areas, parks must be rehabilitated to replace deteriorated facilities and meet the recreational needs of the community.

The following trends were identified by interviewing Federal, State and County park officials and by research into recent surveys of public attitudes toward recreation.

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- Public Support - Public parks and recreational facilities are viewed very favorably by the general public and enjoy a high level of support. Most people will use a public park area or public recreational program at some time in their lives. Even non-users of public parks believe that their communities benefit a great deal from having parks.
- Planning - The recreation and open-space plans adopted by the State of New Jersey emphasize the need for public acquisition and dedication of additional open space; the development of public access for water related recreation; protecting natural and cultural resources; and providing recreational facilities that are accessible to all.
- Park Linkages - Open space planners at the Federal and the State levels are promoting local development of linkages to interconnect open space and activity centers. Linkages, which provide transportation improvements that encourage bicycling or walking are eligible for appropriate Federal transportation funding and help New Jersey achieve the goals of its Traffic Congestion and Air Pollution Control Act.
- Fiscal Innovation - Belt tightening at all levels of government has stimulated public park systems to stretch their operating dollars so that adequate recreation can continue to be delivered. Dependence on user fees, program fees, and volunteers is increasing.
- Multi-purpose Facilities - Capital for public park and recreational facilities is being directed to multi-purpose facilities that can be adapted or re-adapted to provide a variety of recreational programs. Multi-purpose buildings, multi-purpose trails, and multi-purpose fields are seen as good public investments because they can satisfy a range of activities and accommodate changing recreational preferences.
- Diversified Programming - County park systems are diversifying their program offerings in order to meet the variety of recreational needs of a diverse population. Program offerings are increasingly sophisticated and targeted to specific groups such as the disabled, children, families, adults, or seniors.
- Peak Demand - Group demands for space to accommodate organized activities or events often exceed facility capacity at peak periods of park use. Corporate or church picnics or organized athletic leagues compete for fields or facilities that are limited in number.
- Land Trusts - Non-profit land trusts have emerged as important advocates for open space preservation and as entities that can facilitate the efforts of public agencies to acquire land for park and recreational use.
- Stable Funding Sources - State, county, and municipal agencies are seeking tax levies dedicated to open space and recreational purposes in order to maintain stable funding for recreation and open space.



- Economies of Scale - Communities are attempting to achieve some economies in park maintenance and operation by concentrating on the creation of larger parks and facilities while minimizing small parks dispersed over a large area.

Information on individual and household preferences for specific recreation or leisure pastimes was compiled from available documents and surveys.



The five most popular recreational activities statewide, as identified by the New Jersey State Comprehensive Outdoor Recreation Resources Plan (SCORP), are swimming, walking for pleasure, tennis, softball/baseball and bicycling. The ranking in order of popularity of all outdoor recreational activities listed in the SCORP is given in Table 2.

TABLE 2
NEW JERSEY OUTDOOR RECREATION
POPULAR ACTIVITIES

Activity	Rank
Swimming	1
Walking for pleasure	2
Tennis	3
Softball/Baseball	4
Bicycling	5
Golf	6
Fishing	7
Day Hiking	8
Camping	9
Picnicking	10
Running/Jogging	11
Snow Skiing	12
Motor Boating	13
Basketball	14
Volleyball	15
Visiting a park	16
Horseback riding	17
Football	18
Soccer	19
Sailing	20
Hunting	21
Ice Skating	22
Canoeing	23
Off-road vehicles	24

Source: The Commonwealth of New Jersey, Outdoor Recreation Resource Plan Summary, 1989, N1 Department of Environmental Protection.

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A recent national survey of recreational trends categorized the popularity of recreational pastimes both by specific activities that people had recently begun and by the types of general recreation people enjoyed. The ten most frequently begun recreational activities are listed in Table 3. The study found that the most popular general types of activities for households and individuals were team sports and cultural activities. Among individuals, the next most popular activities were classes, sponsored activities, outdoor/nature activities, and volunteer activities. Among households, the four most popular activities were swimming, sponsored activities, outdoor/nature, and classes (see Table 4).

**TABLE 3
MOST FREQUENTLY BEGUN RECREATION ACTIVITIES**



1. Walking
2. Aerobics
3. Weight lifting
4. Exercise
5. Swimming
6. Exercise workout at a club
7. Golf
8. Jogging
9. Basketball
10. Skiing

Source: National Recreation and Park Association Survey, 1992.



**TABLE 4
THE MOST POPULAR TYPES OF
RECREATION NATIONWIDE**

FOR INDIVIDUALS

FOR HOUSEHOLDS

TEAM SPORTS

TEAM SPORTS

CULTURAL ACTIVITIES

CULTURAL ACTIVITIES

CLASSES

SWIMMING

SPONSORED ACTIVITIES

SPONSORED ACTIVITIES

OUTDOOR/NATURE ACTIVITIES

OUTDOOR/NATURE

VOLUNTEER ACTIVITIES

ACTIVITIES CLASSES

Source: National Recreation and Park Association Survey, 1992



Furthermore, an extensive study conducted by Roper Starch entitled “Outdoor Recreation in America 2000: Addressing Key Societal Concerns” shows an increase in national recreational participation rates at least once a month for Americans over 18 years of age.⁵ Table 5 below shows the findings of the Roper Starch study regarding recreational participation. The participation rate for the year 2000 was at 78%, a 22% increase from the 1995 rate of 56%. The study shows a continuous increase in recreational participation, which will probably continue into the future.

Table 5
Recreation Participation Rates:
At Least Once a Month

Year	Participation Rate
1994	50%
1995	56%
1996	54%
1997	54%
1998	57%
1999	67%
2000	78%

Source: "Outdoor Recreation In America 2000: Addressing Key Societal Concerns", prepared for The Recreation Roundtable, 1225 New York Avenue, NW, Washington, D.C. 20005, by Roper Starch.

The Roper study also identifies the percentage of people who have participated in outdoor recreation during the past year. Table 6 shows the top five activities with participation increases from 1995 to 2000. According to the Roper study, walking, swimming and picnicking are the activities with the most participation increase since 1995, with bird watching and driving for pleasure close behind.

Table 6
Outdoor Recreation Activities Participated In Past Year

% of people who have participated in during past year; ranked by 2000 data

Activity	1995	1996	1997	1998	1999	2000	Change 1995 to 2000
Walking for fitness/recreation	45	39	42	47	42	57	12
Swimming	31	28	31	33	40	39	8
Picnicking	29	24	26	30	32	36	7
Bird watching	11	8	11	10	11	16	5
Driving for pleasure	36	33	34	39	35	41	5

Source: "Outdoor Recreation In America 2000: Addressing Key Societal Concerns", prepared for The Recreation Roundtable, 1225 New York Avenue, NW, Washington, D.C. 20005, by Roper Starch.

⁵ “Outdoor Recreation In America 2000: Addressing Key Societal Concerns”, prepared for The Recreation Roundtable, 1225 New York Avenue, NW, Washington, D.C. 20005, September 2000 by Roper Starch. The study is based on 1,986 in-person interviews conducted with Americans 18 and older in their homes.
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Another publication entitled “Projections of Outdoor Recreation Participation to 2050,” projects future recreation participation.⁶ The report identifies future projections of recreational use by millions of participants aged 16 and over. According to the report, the following national trends will be visible regarding outdoor user participation:

- Non-pool swimming is and will continue to be the most popular water-based recreation activity, increasing 25% out to the year 2050.
- Non-consumptive wildlife activities such as bird watching, photography, and other forms of wildlife viewing is expected to increase 61% over the next 52 years.
- Picnicking as a form of family gathering is expected to increase by 54% over the next 52 years.
- Walking is among the four most popular activities in the United States and user participation will continue to increase over years.



⁶ “Projections of Outdoor Recreation Participation to 2050”, J.M. Bowker, Donald B.K. English, H. Ken Cordell.



B. 2002 IN-PARK USER SURVEY

It is of great importance that community involvement is included in the system approach. User input is perhaps the best source to determine user involvement and resource needs. In order to incorporate user input into the analysis for the Middlesex County Park System, an in-park user survey was created and conducted. The survey was used to acquire community input for current and future development needs of the parks system. The survey was conducted during peak periods of use during the first Saturday and Sunday in June in 2002 at Donaldson Park in Highland Park, Thompson Park in Monroe, Johnson Park in Piscataway, Roosevelt Park in Edison, Warren Park and Merrill Park in Woodbridge.

A total of 214 people were surveyed during the weekend of June 1st and 2nd, 2002. Employees of the Middlesex County Planning Department, the Middlesex County Department of Parks and Recreation, and CME Associates conducted the surveys. A total of six opinion surveyors visited county parks and questioned park visitors regarding their recreational interests and park use.

Although the survey does not meet the criteria for statistical significance in that it does not represent a sample of the total county population, it does provide accurate input represented by actual users of the Middlesex County Park system. The survey provides insight on many issues regarding the County Park system.

Based on the survey results, the recreational categories with the highest level of interest in the county include, outdoor sports, outdoor fitness, aquatics, performing arts and special events. Of the 214 persons surveyed, 126 expressed high interest in outdoor sports, 115 had high interest in outdoor fitness, 96 had high interest in aquatics, 94 had high interest in performing arts and 91 in special events such as carnivals and festivals. Similar to the national trends, outdoor fitness and aquatics are two of the top five categories in which people have great interest.

In order to determine the best time to schedule recreational activities and events, the County needs to know when it is most convenient for individuals to attend the parks. Based on the survey results, the days and times most convenient for park users are on Saturdays and Sundays, during the day for both single adults and families.

Middlesex County needs to implement different methods for keeping the public informed. Based on the survey, people feel that the best way of keeping the public informed is through direct mail of announcements or newsletters to individual homes. The second highest response chosen for keeping the public informed was newspaper ads or press releases. The least desirable means of public outreach was phone hotlines.

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As part of the survey, individuals were asked to indicate which additional facilities and programs should be made available for their needs. Based on the responses, the most neglected facilities in the category of outdoor sports, which was the category with the highest level of interest, were jogging and running tracks, basketball courts, and exercise facilities, with baseball and softball fields and tennis and volleyball courts closely behind.

In regards to water oriented facilities, the most needed facility was swimming facilities, which corresponds with the fact that aquatics holds major interest with the public. The other water oriented facilities with high responses were boating, canoeing and freshwater fishing.



In the resource oriented facilities category, the highest need was expressed for picnic tables and shelters, biking paths and wildlife preserves. Picnicking, as seen in the national trend data is always a major activity in which people participate. Many of the County Parks have picnic facilities, yet it is still expressed as a need. Informal comment by the County Parks and Recreation Department estimate that in the beginning of June, an average of 4 phone calls per business day were requesting picnic areas and an average of 2 calls per business day requesting ball fields. Since reservations are taken beginning in January for each year, many requests cannot be accommodated. Cancellations do occasionally provide opportunity to schedule on short notice.

Drinking fountains was the most needed facility in the special facilities category, with 150 people agreeing that more drinking fountains are needed. The other two major responses for special facilities for concerts and performances, and open-air theater. Again, this expressed need corresponds back to the performing arts high level of interest among the park users.

The general comments made by individuals show certain trends that are also expressed in the other parts of the survey. The major issues expressed in the general comments include the need for basketball courts, cricket fields, water-based activities such as paddle boating and canoeing, and the significant and persistent complaint about geese and their negative impacts on the parks.



C. MOST POPULAR FACILITIES

Based on state and national recreational trends and on the in-park user survey, it is concluded that the ten most popular facilities are as follows: (not in any ranking order)

Aquatic Facilities
Picnic Areas
Bicycling/Walking/Jogging Trails
Exercise Facilities
Basketball Courts
Tennis Courts
Baseball and other Sports Fields
Fishing Areas
Bird Watching/Nature Centers
Cultural Facilities

Although, Cricket Fields is not identified as one of the most popular facilities overall, it was identified in the user survey as the sport that is lacking facilities in most of the county parks. The Department of Parks and Recreation has also experienced heavy demand for cricket fields over the past several years.



D. MUNICIPAL INPUT: FACILITIES

Freeholder Director David B. Crabiel and Freeholder Liaison Camille Fernicola invited the 25 municipalities throughout the county to provide requests for potential acquisition projects. The municipal responses were divided into the following categories: Recommended Open Space Acquisition by the County, Open Space Acquisition by the Municipalities with County Financial Assistance, and Proposed Recreation Improvements. The municipal responses are included in Appendices C1, C2 and C3.

Based on the responses, municipal recommendations can be grouped into different categories, as follows:

- Development of Sports Facilities
- Facilities Rehabilitation and Improvements
- Development of Pathways/Bikeways/Walkways
- Development of Aquatics Facilities (includes swimming, boating, etc.)

Municipal requests significantly focused on the creation or expansion of sports facilities, including fields and courts. The user survey also expressed a major need for creation and expansion of sport facilities. The development of aquatics facilities was also a focus to a smaller scale, but is also consistent with user interest based on the user survey.

The rehabilitation and improvement of existing facilities is also another major request made by the municipalities. Over time, all facilities are exposed to wear and tear and rehabilitation is always a continuous issue.

The requests for the development of pathways, bikeways and walkways by the municipalities show the increased demand in linkages between parks and recreational facilities.



E. OBJECTIVES FOR FACILITIES

Objectives

1. *Provide a variety of recreational, cultural, and educational programs meeting the interests and needs of County residents with a particular emphasis on increasing the number of self-funded programs that are offered.*

County park systems statewide have been diversifying the recreational programs they offer to meet the distinct recreational needs and interests of the different components of their population. Programs have become increasingly sophisticated and are often targeted to enrich the lives of different groups such as singles, seniors, families with children, the disabled, or the disadvantaged. Interpretive programs foster an appreciation of the value of open space and promote understanding and responsible attitudes toward the community, its history, and the natural and the human environment. Programs are enjoyable as well as educational and can be self-financing by virtue of their fee structure. An expandable offering of self-funded recreational programs should be established to satisfy the recreational and cultural needs of the County.

2. *Incorporate facilities requests from the 25 municipalities into the overall improvement goals for the County.*

The municipalities have requested assistance with over 50 recreational facilities projects. The County is including the requests in its overall goal. However, additional facilities will be proposed in the future. The County will consider such proposals as they are recommended in accordance with procedures established by the Middlesex County Board of Chosen Freeholders. The County is not promising funding of all requests. The County will partner with municipalities through the Middlesex County Open Space, Recreation, and Farmland and Historic Preservation Trust Fund to implement needed recreational facilities.

3. *Expand the services provided to the public by the Middlesex County Cultural & Heritage Commission.*

As Middlesex County continues to grow, with a population now exceeding 750,000 and projected to reach over 870,000 by 2020, interest in preserving and interpreting the County's rich history and cultural diversity is expected to increase as well. The County's existing Cultural and Heritage programs will expand to serve the increasing demand. It is expected that additional programs will also need to be established to contribute to better public understanding of the history and culture of the County. The increased understanding will lead to a better

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quality of life for the County's residents and for those who work in and visit the County.

In addition to the need for more programs there will also be increasing pressure on the historic and cultural resources that remain in the County. The growing shift from new development on vacant land to redevelopment of the cities and towns of the County, as a result of the rapidly diminishing open-space areas, will result in the potential loss of many of the historically and culturally significant structures and sites in the County. The County should continue to maintain the East Jersey Old Towne Historic Village in Piscataway.

4. *Expand County recreational facilities to meet current and future demand for different forms of recreational and cultural activity.*

The County should provide additional facilities to meet the demand for various types of activities including, but not limited to, field sports, golf, and court sports. In addition, the County parks should provide opportunities for water based recreation (swimming, fishing, boating), walking or hiking trails, ice skating, bike paths, picnic areas and shelters, children's playgrounds, recreational facilities that are usable by special needs groups including children and adults with disabilities, and zoos. Some of these facilities can only be designed and developed to accommodate a special purpose, such as a golf course or a zoo. Other facilities can be designated to accommodate multiple purposes. Where possible, multi-purpose trails (e.g. biking and hiking), multi-purpose fields (e.g. soccer, softball), and multi-purpose buildings (e.g. instruction, theater) should be promoted as a way of maximizing the number of people that benefit from the public investment in the facility.

5. *Promote innovative and efficient measures that result in the cost-effective delivery of recreational services.*

Fiscal belt tightening will challenge County government to stretch the dollars available for public recreation and open space. Park systems have turned to user fees and program fees and encouraged the volunteer efforts of civic-minded groups and individuals as a way to continue to deliver or expand the services they provide. Different levels of government and public agencies should cooperate to provide resources or share facilities as a means of expanding the recreational opportunities available. Support from the business community should be cultivated since employees as well as County residents can benefit substantially from recreational opportunities that are provided close to the work place and the home. Program specifications should include standards and criteria for recreational activities to be provided, user fees, and means of ensuring accessibility to all residents of the County.



6. *Provide open-space facilities and recreational programming taking into account public accessibility.*

Public open-space areas and facilities should be located to be appropriate to the County geography, and recreational programs should be staged to ensure that they are accessible, available, and within reasonable travel distances. Where existing development patterns result in longer travel distances to a County park facility or program, then efforts to facilitate access or provide County programs at non-county facilities should be considered.

7. *Provide public access, recreation, and resource protection in waterfront areas.*

Water related recreation is one of the most popular public pastimes. Fishing, swimming, and boating or the passive enjoyment of views, scenery, and wildlife draw people to the water. The environment at the water's edge is ecologically one of the most productive and important. Both State and Federal open-space policies place a high priority on preserving waterfront areas and opening them to public access. The rivers, streams, and bay frontage of Middlesex County are vital resources, and the County Open Space and Recreation Plan will preserve significant segments and locations in order to provide public access.

8. *Encourage and support development of a regional cultural center in New Brunswick.*

New Brunswick is the seat of the County government, the home of Rutgers University, and is a designated urban center in the State Development and Redevelopment Plan. It is the location of three major theaters and two museums. Furthermore, the State Theatre is owned by Middlesex County, and its preservation is therefore an important responsibility of the County. New Brunswick is positioned to play a unique role in the arts and the civic and cultural life of central New Jersey.

9. *Continue comprehensive planning, administration, monitoring and maintenance of County open space and recreational facilities.*

The continued management of existing and potential future open-space lands and recreational facilities is critical to assuring that recreational and environmental resource protection goals are met. The maintenance of lands and facilities and protection from degradation due to vandalism, illegal waste dumping or other misuse requires continued monitoring. The success of recreational programs also requires adequate assessment of program management and effectiveness. The County should establish program effectiveness measures and conduct regular monitoring. In addition, the County Open Space and Recreation Plan should be

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updated periodically to reflect new or changing objectives and reflect progress toward Plan implementation. This updating should take place at least every five years.

10. *Provide continuing opportunities for public participation in planning and programming for open-space preservation and recreational activities.*

The provision of adequate open space and recreational services in Middlesex County should reflect input from the users and other interested groups within the County. The Public Advisory Committee that was formed for the purpose of advising on the creation of the Middlesex County Open Space and Recreation Master Plan could be continued as a mechanism for provision of ongoing advice to the County regarding open space and recreation planning and programming.

11. *Provide a County wetlands mitigation site as part of the County open-space system.*

Wetlands mitigation sites are needed for County projects, such as road construction or widening, that impact upon existing wetlands. Private projects also require mitigation sites to replace wetlands that are lost to development. A mitigation site or sites should be designated and acquired by the County specifically to meet the mitigation needs for future County projects.

12. *Assure that there are sufficient resources at the County level to operate and maintain the parks, conservation areas, recreational facilities and such other facilities that are developed by the County.*

It is critical to the success of the County's open-space program that the lands and facilities that are owned by the County are adequately monitored, maintained, and operated. The safety and enjoyment of the County's park and open-space system will depend on the availability of sufficient staff and other resources to assure that the facilities are well maintained and that potential hazards to park users are identified and addressed as efficiently and quickly as possible. Programs need to be staffed by trained personnel. Efforts should be implemented to utilize trained volunteers wherever possible.



F. FACILITIES IMPLEMENTATION

Recommended Facilities and Programs

The Middlesex County Open Space and Recreation Advisory Committee reviewed the updated general recreational trends of the County of Middlesex and its needs. The review suggested that additional recreational facilities and programs should be considered for future development. The County should conduct feasibility studies for development of the following facilities and programs:

- Facilities for field and court sports including soccer, baseball, basketball and tennis. Consideration also needs to be given to locations for non-traditional activities that are emerging as desired by the County's growing population. Such sports include cricket, beach volley ball, in-line roller skating, hockey, and competitive in-line skating and skate boarding.
- Environmental centers with facilities for public meetings and interpretive displays. The centers should be located to provide access to unique habitats and resources. Environmental education programs provided by a County naturalist could be offered at these facilities; divided by the Raritan River, at least one facility should be located in the southern part of the County and one in the northern part.
- A linkage trail system that incorporates opportunities for bicycling (touring and off-road), hiking, walking, jogging, and horseback riding. Consideration should also be given to incorporating scenic and navigable segments of the Raritan Bay and Arthur Kill and other streams and rivers in the linkage system to provide opportunities for canoeing and fishing.
- An historical display farm to provide opportunities for agriculture demonstrations and youth camps to educate the County's residents regarding the extensive agricultural history of the County.
- A Raritan River and Bay and Arthur Kill Museum to provide an opportunity to display artifacts and educate the public regarding the rich history of the Raritan River and Bay area.
- A public boat launching ramp and related parking and support facilities (food, marine services and meeting facilities) to enable owners of small recreation boats to utilize the waters of the Arthur Kill, Raritan River estuary and the Raritan Bay. Small boating safety, seamanship, sailing and fishing programs could be conducted from this facility.

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- An outdoor theater and concert facility south of the Raritan River, to provide for festival events to serve the County. Music and Arts Festivals could be held at this facility.
 - Camping facilities suitable for use by scouting and other youth groups and the general public. There is a significant lack of recreational camping facilities in the Middlesex County area.
 - A County recreational programmer for in-County activities supported by participating County residents.
 - Public information is very important to maintain. The County needs to provide different means of communicating with the public. Based on the user survey, the most successful means of communication is direct mail-outs to the homes. The County should consider the creation of a newsletter announcing activities and containing a map introducing the community to the county parks for direct mail-out. Flyers and newspaper ads are also a very effective means of communicating with the public.
 - Based on the user survey, cricket fields are in large demand. Additional cricket fields need to be constructed throughout the County.
 - Geese are a major problem according to the user survey. The County should take steps to limit the geese population at the parks.
 - Expansion of the County parks should also be considered in order to meet the demand for more fields and to create connectivity between parks.

Recreational Facilities Development

Middlesex County requires additional facilities and should expand existing facilities to meet the recreational needs of its diverse and growing population. The acquisition list compiled by the Open Space and Recreation Public Advisory Committee is to include an assessment of each recommended site's suitability for active and passive recreation and the recreational needs and activities that the location can serve. In the long term, the County Planning Department in conjunction with the Parks Department should prepare a Master Plan and capital improvement program for the recreational facilities to be provided at each park site acquired by the County and dedicated to public recreation use. These master plans should be adopted by the County Planning Board and be accepted by the Board of Chosen Freeholders. The Plan compiled by the County should be used by the Advisory Committee and the County to aid the planning of recreational facilities that adequately serve County residents.



Recreation Programming

The County Parks Department should prepare recommendations for the cost-effective expansion of recreational programming in Middlesex County.

Consideration should be given to expanding the number, type, and accessibility of recreational opportunities available to County residents through the use of self-funded programs. Consideration should also be given to cooperative programming and shared facility use with municipalities and non-profit groups as a means of increasing available recreational opportunities.

Partnership With Municipalities

Based on the municipal responses, the County expects to form partnerships with many of its municipalities for the successful implementation of facilities development goals. Municipal recommendations can be grouped into different categories, as follows:

- Development of Sports Facilities
- Facilities Rehabilitation and Improvements
- Development of Pathways/Bikeways/Walkways
- Development of Aquatics Facilities (includes swimming, boating, etc.)

Funding

Adequate funding to acquire, improve, and operate parks and open space in Middlesex County is needed. Criteria to guide County Open Space, Farmland Preservation and Historic Preservation Trust Fund expenditures as prepared and adopted by the Middlesex County Board of Chosen Freeholders should be reviewed periodically for County use. The County trust fund should be relied upon as a source of funding for an annual program of facility development and it should be used to leverage and supplement outside sources of funding from State and Federal programs as well as donations from the private sector.

The County Parks Department should review and develop recommendations on the application of user fees and program fees to help defray operation costs and expand recreation programming.

Facilities Management

This document has identified approximate figures for acquisition that do not include facilities management costs. Facilities management is a major expense when creating recreational open space, yet it is rarely a topic of focus. Middlesex County should undertake an analysis for current and expected facilities management costs for existing and proposed open space acquisitions.



Public Participation

Continued public participation in the open space and recreation planning and development process should be promoted through the Middlesex Open Space and Recreation Public Advisory Committee. Exhibits, publications, workshops, and presentations to schools, civic groups, municipal officials, corporations, and institutions should be used as avenues of communication on open-space issues and projects of County importance. The efforts of volunteer groups that support park facilities and activities should be encouraged. Each park Master Plan should be developed using a process that provides an opportunity for public participation and comment.

As was identified in the in-park user survey, the use of newsletters or announcement with maps sent directly to homes is a most effective option for reaching the public. Newspaper articles or press releases are also another option that can serve for public information and as a feedback mechanism. Suggestion boxes in the County parks and/or an interactive web site with email links would allow public comment and input regarding the County's parks and recreational programs.

Chapter VII



Middlesex County Cultural and Heritage Commission

Since 1971, the Middlesex County Cultural and Heritage Commission has devoted its efforts to preserving the historic fabric of the County by developing and promoting programs related to the history of Middlesex County and the State. The Commission also provides services and programming to enrich the cultural life of residents, assuring access to cultural programming by culturally diverse populations, people with disabilities, senior and youth populations, economically disadvantaged persons, underserved citizens and the general populace. These programs are designed to meet a broad range of needs and include a variety of services.

Arts Services are provided as a local partner to the New Jersey State Council on the Arts, for re-granting of arts funds, provision of technical assistance to arts constituencies, and cultural development for diverse communities and underserved populations. The Commission was the first in the State to establish a professional folk arts project, conducting fieldwork to identify traditional practitioners and offering public presentations through our *Folklife Program for New Jersey*. The Folklife Program facilitates in-school residencies, publishes important folk arts resources and maintains a folk archive and lending library.

History Services, with funding support from the New Jersey Historical Commission, include the development of programs for local historic organizations in the areas of education, preservation and New Jersey history. With a comprehensive re-granting program, the Cultural and Heritage Commission underwrites historic projects sponsored by local communities, as well as a wide range of technical assistance workshops, long range planning projects, and community based programming.

Cornelius Low House, in Piscataway, is acknowledged as one of the finest examples of Georgian architecture in the United States. It is on the State and National Registers of Historic Places, both for its historic significance and the importance of Cornelius Low (rhymes with “now”) to the history of New Jersey. The home functions as the Middlesex County Museum, and is a project of the Middlesex County Cultural and Heritage Commission. The Low House is a history museum that presents original research on timely topics. The Museum offers multi-component projects that include interactive lecture series with distinguished historians, educational workshops with the

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Museum Educator, outreach through a project called *Omnibus*, publications, and special events.

East Jersey Olde Towne Village is a project of the Middlesex County Cultural and Heritage Commission in Johnson Park, Piscataway. The village is a collection of original, replica and reconstructed 18th and 19th century structures. Functioning as an educational



model, the Village is dedicated to teaching the history, traditions, folk arts and craftsmanship of the people who once lived and worked in the Raritan Valley. The historic site offers public programs of the highest standard of excellence, including educational workshops, seminars and lectures, in-service training for teachers, exhibitions, concerts, community gatherings, theme-based projects and storytelling.

Omnibus, an educational outreach component of the County Museum, is a unique lending collection of portable exhibits, media programs and hands-on, staff led workshops for school groups and community organizations. *Omnibus* is designed for presentation at host sites.

VSA arts of New Jersey offers programs and services in the arts to individuals of all ages, particularly those with disabilities. Programs include the Unlimited Potential Theatre Company, an annual statewide arts festival, music and art workshops for children with autism, touring visual art exhibits, arts achievement awards, and the Wordsmith's Competition.

Rutgers, the State University, located in New Brunswick and Piscataway, offers a variety of cultural events and facilities, including the New Jersey Agriculture Museum located on Cook College campus, and the Voorhees-Zimmerli Art Museum, located on the Rutgers College campus. The New Brunswick Cultural Center provides three major theaters: the State Theater (1,850 seats) for concerts; the George Street Playhouse (375 seats), and Crossroads Theater (264 seats) for plays.

The outdoor theater at the County's Roosevelt Park in Edison provides summer theater performances that serve 65,000 visitors per season. Middlesex County College, also in Edison, hosts cultural events that are available to County residents. There are also a number of community theater groups and facilities throughout the County.



A. OBJECTIVES THROUGH THE YEAR 2020⁷

In response to these factors the Middlesex County Cultural and Heritage Commission proposes several additional programs that should be considered for implementation in the near future. These new programs could be developed over several years to expand the public's knowledge of and interest in the historic and cultural fabric of the County. A description of the proposed new programs follows.

The American Revolutionary War Heritage Area

Middlesex County was deeply involved in the events that led to the establishment of the nation. Beginning in 1774 significant events occurred in New Brunswick and Perth Amboy (then the seat of the colonial government for the Province of East Jersey). In 1776 and 1777 the area was occupied by the British Army and many skirmishes were fought with American patriot militia. In 1778 major British and American troop movements occurred in central New Jersey culminating with the Battle of Monmouth. In June of 1778, and in 1789, General Washington stayed in Woodbridge prior to his inauguration as the nation's first President.

Some of the major Revolutionary War era historic sites in Middlesex County include:

- Raritan Landing in Piscataway, now the location of the County's Johnson Park, was a major center of commerce on the Raritan River. The existing County owned Cornelius Low House (1741), and the County owned and operated East Jersey Olde Towne Village are remaining structures from the community and the surrounding area. Archeological explorations have continued to document the history of the area.
- The Proprietary House (1764), Perth Amboy is the only remaining, original British colonial governor's residence in the nation.
- St. Peter's Episcopal Church (officially organized in 1698) Cemetery, Perth Amboy has been used since the 1600's and contains graves of Revolutionary War soldiers.
- The Buccleuch Mansion, New Brunswick was built in 1739 and was used by both the Colonialists, and later by the British in 1777.
- The Henry Guest House, New Brunswick was built in 1760 and was occupied by a leading citizen and patriot.

⁷ The text of this section is based upon an interview held on April 3, 2002 with Ms. Anna Aschkenes, Executive Director; Ms. Susan Kittredge, Assistant Director; and Mr. Mark Nonestied, Assistant Curator for Exhibitions, Omnibus. Historical information is from materials provided by the Middlesex County Cultural and Heritage Commission.
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- The Bonhamtown area of Edison was the site of skirmishes and British encampments. The St. James Episcopal Church Cemetery contains the graves of British soldiers.
 - The Presbyterian Church of Woodbridge Cemetery contains the graves of soldiers killed in skirmishes in the area.
 - The Thompson Park area of Monroe Township is identified as the site of a major encampment of General Washington's troops prior to the Battle of Monmouth.

Recommendations:

A concerted effort should be made to identify, describe and record all Revolutionary War era events and sites of significance in Middlesex County. Research should be conducted to locate and catalogue artifacts and descriptive materials from the Revolutionary War era. The County should develop an interpretive program for the County's contributions to the war effort.

Revolutionary War sites not in public ownership or protection should be identified and a program should be established to acquire or through historic site easements protect those sites for future archeological study and interpretation.

An interpretive program for the Revolutionary War sites should be developed to include appropriate signage and incorporation in State and Federal efforts to designate a Crossroads of the American Revolution National Heritage Area. The County should actively participate in the effort to achieve that designation and encourage State and Federal funding for implementation of site acquisition and interpretive programs.

The Middlesex County Commerce and Industrial History Program

Since the creation of the County in 1683 by an act of the General Assembly of the Province of East Jersey, Middlesex County has made significant contributions to the economic base of the State and the nation. Its location at the transportation "cross roads" of the mid-Atlantic region of the United States, from colonial times to the present, has continuously supported extensive commerce. There are a number of significant events and sites that should be identified in Middlesex County.

Some of the most significant are:

- The development of the transportation system started with the rise of the City of Perth Amboy and the City of South Amboy and the docks that permitted transfer of goods and passengers from land to water transportation. In the early 1700s the Post Road opened land to the west from Perth Amboy and Lawrie's Road linked South Amboy to the southwest. Stage coach service started in 1728 linking South Amboy to Burlington. Ferry service was established in 1684 between Tottenville, on Staten Island and Perth Amboy.



- The Raritan River provided commercial water based transportation from Raritan Landing in Piscataway starting around 1750. In the 1830s the Delaware and Raritan Canal was completed linking New Brunswick to the west and the Delaware River. (Incorporated in 1830, by 1834 the Canal was completed from New Brunswick to Bordentown.) The Canal provided better water transportation, avoiding the shallows upstream of New Brunswick. By the early 1800s New Brunswick replaced Raritan Landing as a commercial hub. As early as 1816 sailing ships linked New Brunswick and New York City. Sail was replaced in the 1830s by steam powered vessels that continued to ply the Lower Raritan and Raritan Bay into the 1920s. The Vanderbilt family began its shipping empire in New Brunswick. The family estate was located on George Street near the present location of Douglas College. Manufacturing industry expansion continued through the late 1800s and into the 1960s along the Arthur Kill and along the Raritan River and Bay in Carteret, Woodbridge, New Brunswick, Edison, Perth Amboy, Sayreville and South Amboy. Major industries that depended on water transportation of raw and finished materials included the primary metals industry (especially brass and copper foundries including ASARCO (American Smelting and Refining Company), Phelps Dodge Copper Products, and Anaconda Company), the brick (especially the Sayre and Fisher Company in Sayreville) and terracotta industries that utilized native clays found in the Sayreville and Woodbridge areas, oil refining (Chevron in Perth Amboy, followed by Hess Oil Company in the Sewaren section of Woodbridge); and the munitions industry (Hercules Powder Company in Sayreville and the T. A. Gillespie Loading Company (a.k.a. Morgan Depot) in Sayreville, near South Amboy). The Morgan Depot Explosions that started on October 4, 1918 and continued until October 6, 1918 destroyed the production lines of the plant and 325 of the 700 structures on the property and killed 64 people. Other major industries developed in Middlesex County. The company founded by Thomas A. Edison operated in the Menlo Park section of Edison in the period 1877 to 1880. It is reported that the phonograph (1877), the electric light (1879), and the first electrically lighted house (1880) were developed in Menlo Park. One of the most successful health care products companies in the world, the Johnson and Johnson Company (J&J) started in New Brunswick in 1886. J&J research and manufacturing facilities built along Route One in North Brunswick in the period from 1939 through the 1950s are good examples of International Style, modern architecture. J&J maintains its world headquarters in New Brunswick. The headquarters building was designed by noted architect I. M. Pei and was completed in 1983. In 1812 The George W. Helme Company established a snuff and tobacco manufacturing facility in the County and created the Borough of Helmetta in 1825. The company grew and continued to operate (although in later years purchased by a larger corporation) until operations ceased in the 1990s.

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- Railroad transportation began in New Jersey with horse drawn trains on the Camden and Amboy Railroad running from South Amboy to Bordentown in 1832. (Stone ties from the track bed are still in place in undeveloped areas in Monroe.) Steam engines replaced the horses in 1833 and railroad expansion began. The “main line” railroad (first the New Jersey Railroad, then the Pennsylvania Railroad, and now the Amtrak System) linking New York and Philadelphia through Metuchen and New Brunswick began service in 1838. The Elizabethtown and Somerville Railroad (replaced by the Jersey Central Railroad and now the Raritan Valley line of New Jersey Transit) was in service by 1841 through Middlesex and Dunellen. The New York and Long Branch Railroad (now the North Jersey Coast Line of New Jersey Transit) was opened to link Newark with the Atlantic shore communities through Woodbridge, Perth Amboy and South Amboy. Other major railroads providing service through Middlesex County were the Lehigh Valley Railroad (with two lines) and the Reading Railroad. A smaller railroad, the Raritan River Railroad began service in 1890 and linked South Amboy to New Brunswick. The railroad today extends only from South Amboy to Milltown.

- Middlesex County played a role in the development of commercial aviation. Several small airports were established in the County. The most significant was Hadley Field (Airport) located in the southern part of South Plainfield. The first airmail flight occurred in 1912 at Star Field, located near South Amboy. The first night airmail flight occurred at Hadley Field in 1925 and the first air freight service was established at Hadley in 1927. Hadley Field continued as a general aviation airport until it closed in the mid-1960s.

- Middlesex County has continued to be a major cross roads of regional and national highway systems. U. S. Route One was constructed through Middlesex County in the 1920s and has been expanded in the intervening years to handle ever increasing traffic. The national highway system was expanded by the completion of the New Jersey Turnpike which was opened in 1952. The Turnpike is part of Interstate Highway 95 which carries traffic from Maine to Florida. The Turnpike Authority which operates this toll highway in New Jersey is headquartered in East Brunswick at Interchange 9 and Route 18. Other interchanges of the Turnpike in Middlesex County are 8A at Monroe/South Brunswick, 10 at Edison (Route 440 and Woodbridge Avenue); 11 at Woodbridge (the Garden State Parkway); and 12 at Carteret. Another segment of the national interstate system is Interstate Route 287, which carries traffic through the northern part of the County from Piscataway to Perth Amboy. I-287 begins in New York State at the New York Thruway (Interstate 87) and ends at the Turnpike and becomes NJ Route 440. Route 440 provides access to New York over the Outerbridge Crossing which was built in 1928. A major regional highway is the Garden State Parkway. The Parkway was built over a number of years and now runs the length of the state from the New York Thruway to Cape May. The segment of the Parkway in Middlesex County was completed in 1952. The New Jersey Highway Authority, which operates the Parkway, is



headquartered in Woodbridge. As a result of the major concentration of highways Middlesex County has become a major product distribution center. Significant modern warehouse facilities serving the Boston to Washington corridor have been constructed near the major interstate highways. One major automobile manufacturer has operated a manufacturing plant in Edison since 1948. The Ford Motor Company began manufacturing Mercury automobiles at this facility. Over the years other models were produced here, including the American icon, the Ford Mustang (from 1964 to the early 1970s). The plant is slated to close.

Recommendations:

As is evident from the above information there is a wealth of significant events and sites in the County that should be identified by historic markers. It is recommended that the County establish a Commerce and Industry Historic Marker Program. The Program should consist of an annual nomination process in which the municipalities would be requested to nominate historic sites for inclusion in the marker program. The program should include criteria for site and/or event selection, establishment of marker design standards and criteria (to establish a uniform size, material(s), design, and format for use throughout the entire County), a plan for relating markers with trails or cultural tourism tour routes, and financial requirements based on an established price for marker manufacture and installation with mandatory cost sharing between the County and the municipality. Markers might be divided into several categories including historic events, significant individuals, and significant structures (either important architecturally or event related). An effort should be made to secure private, State and/or Federal grants for implementation of this program. State and Federal agencies and legislators should be contacted to develop funding programs at the State and Federal levels. Private funding sources (foundations or industries) should also be contacted. A handbook should be prepared that provides guidance regarding methods of researching and selection of sites/events for consideration, identifies the relation of sites/events to interpretive programs and promotion of cultural tourism; identifies the information required by the County to evaluate the nomination; and identifies the format for the information to be displayed on the marker.

The Middlesex County Agricultural History Program

When first created Middlesex County's economy was dominated by agriculture. The County is the location of some of the most agriculturally productive soils in the State, if not the nation. In addition the County had a significant dairy industry. The Piscataway, South Plainfield and Plainsboro areas contained land more appropriate for pasture rather than crop production. The Walker-Gordon Dairy in Plainsboro was well known. Another dairy included Woodbrook Farms in South Plainfield. The more productive soils in other parts of the County including eastern Plainsboro, Cranbury, eastern South Brunswick, and parts of central and western Monroe supported extensive potato, grain, corn and hay farming. After World War II the pressure for housing and commercial land development

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and the decline in the economic viability of past farming practices resulted in a significant change in the farm economy of the County. The County's active farmland preservation program has supported those farms that remain viable. A switch to locally marketable vegetable farming, nursery stock, and other specialty crops producing higher per acre income on smaller farms has occurred.

It is appropriate for the County to establish a program that will bring the agriculture heritage of the County alive for the County's residents.

As a first step the county should conduct a survey of all remaining farmsteads in the County. At least one significant farmstead remains in Monroe Township at the Clark family lands at Cranbury Road and Route 522. The farmhouse, known as the Holmes-Tallman House, dates from 1860 and is a prime example of Italianate architecture. The remaining outbuildings on the property help provide a good example of a farmstead from that period. Once all farmsteads are identified they should be documented and catalogued and the best examples should be analyzed for possible preservation. Coordination should be established with the Middlesex County Farmland Preservation program to determine possible strategies for preservation of the farms identified. Ideally the County could consider establishing a display farm, which would act as a museum of agricultural practices, showing the significance of agriculture to the County. The County's effort should be coordinated with the New Jersey Museum of Agriculture, which is located at the Cook College campus of Rutgers University in New Brunswick. The location of this important resource in Middlesex County increases the value of a County program. In addition the County already possesses a significant number of agricultural artifacts that are stored at East Jersey Olde Towne. These artifacts are important to the agriculture history of the County and should be incorporated into a useful and educational display that will allow interpretation to the County's and all State residents. At such time that an appropriate farm is identified and acquired a suitable interpretive program, displays and activities should be designed and implemented.

A Middlesex County Historic Sites and Significant Architecture Monitoring Program

Over the years many historic sites and structures in the County have been lost to new development. The continuing changes to the economic base of the County and the rapid growth in population and jobs have transformed many of the municipalities. It is important that the remaining sites are at least documented and an effort should be made to secure the preservation of the most significant sites.

The Middlesex County "Museum Mobile"

The Middlesex County Cultural and Heritage Commission has established "Omnibus". This is a program in which slide presentations and traveling exhibitions regarding historic and cultural events and activities are presented to organizations and schools throughout the county. This program has been extremely successful and has fostered interest in and knowledge of the County to countless school children and adults. However the current



program is constrained by the lack of a way of transporting larger, more extensive exhibitions.

Recommendation:

The Omnibus program should be expanded by making available a mobile museum. The “Museum Mobile” could travel to sites around the county and bring designed exhibits for viewing by the public. The County should seek funding to design a program for the Museum Mobile. The program should determine the types and sizes of effective exhibits, the most likely locations for the exhibits to be presented around the County, the most appropriate dimensions and attributes of the Museum Mobile, inventory possible candidate technologies available for the Museum Mobile, and develop costs for implementation of the Museum Mobile.

The program developed should be presented to the Middlesex County Board of Chosen Freeholders for consideration.



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Chapter VIII



Farmland Preservation

Farmland Preservation is a major effort in Middlesex County. It involves the purchase of the non-agriculture development rights on farmland. A restriction is created by a deed of easement that permanently prevents the use of the property for non-agriculture purposes. The preservation of prime farmland and maintaining its productivity is an important component of the County's open-space program.

The acres of agricultural lands throughout New Jersey have significantly diminished in the second half of the twentieth century, largely due to increasing residential and commercial development and the services such land uses require. Middlesex County consists of 318 square miles or 203,520 acres, of which 3,840 acres is water. In Middlesex County it is estimated that 6,001 acres of farmland have been lost to development since 1976. In 1976 there were 42,921 acres in Farmland Assessment; as of August 2002 there are 32,046⁸ acres representing a 25% loss in the past 26 years.



Development of the farmland preservation program results from the recognition that the agricultural industry and a rural landscape are important and irreplaceable components of Middlesex County's economy and aesthetic character. An additional factor favoring conservation of farms is the effect of farmland on a municipal tax base. Farmland provides more in tax revenue than it requires in municipal services, whereas a residential development typically requires more in municipal expenditure than it provides in taxes.⁹



According to the New Jersey State Agriculture Development Committee "Preserved farmland not only remains on the local tax rolls but contributes far more in taxes than it requires in government services, even when farmland assessment is factored in." ("State Agriculture Development Committee Fiscal Year 2001 Report", Page 3, Undated)

The Agriculture Retention and Development Act (PL. 1983) created the State Agriculture Development Committee (SADC). The SADC administers the Farmland Preservation Program to preserve important farmlands and maintain the viability of the agricultural industry. New Jersey's Right to Farm Program is also administered by the SADC.

⁸ Figures provided by Linda R. Busch, Principal Planner and CADD Administration Coordinator of the Middlesex County Planning Department.

⁹ Brochure, "It's called the 'Garden State' for a reason.", prepared by New Jersey Farm Bureau, 168 West State Street, Trenton, NJ, <http://www.fb.com/njfb>.

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The Agriculture Retention and Development Act also authorizes counties and municipalities to create regional or local Agriculture Development Boards on a voluntary basis. Responsibilities of the Middlesex County Agriculture Development Board (Middlesex CADB) include the designation of Agriculture Development Areas (ADAs) and the creation of minimum eligibility standards for enrollment in the program. ADAs are areas of generally contiguous farmland within which a county plans to concentrate its preservation efforts. CADBs are also responsible for reviewing applications for participation in farmland preservation programs, and coordinating acquisition purchases with the municipalities and the SADC.

The Middlesex County Farmland Preservation Program objective is to protect the remaining Middlesex County farmland from non-agricultural development that would undermine the viability of the agriculture industry in the county. This is necessary due to the high land values and development pressure that places Middlesex farmland in imminent danger of loss. The Middlesex County Comprehensive Farmland Preservation Plan dated March 8, 2001 defines this effort and determines the future needs of the program. Farmland preservation in Middlesex County will be implemented in Agriculture Development Areas adopted by the Middlesex County Agricultural Development Board (CADB). To date larger ADAs have been established in the townships of South Brunswick, Plainsboro, Cranbury, Monroe, and Old Bridge. Voluntary ADAs proposed directly by individual landowners have also been adopted by the CADB. Such ADAs have been established in East Brunswick, Monroe, Old Bridge, Piscataway and South Brunswick. Middlesex County intends to continue the farmland preservation program as long as there are landowners interested in applying for preservation and there is State funding support available to provide matching grants to municipal and County funding. Farmlands that meet the CADB's criteria for application will be reviewed and if approved will be forwarded to the New Jersey State Agriculture Development Committee for consideration. Preservation of individual farm parcels is important to the County and its municipalities as part of an overall effort to conserve open space and control development.



Middlesex County has 32,046 acres of farmland assessed property. Development rights to 3,162 acres were secured by the County from 1990 through 2002. Figure 4 (page 64a) identifies the total farmland assessed parcels in Middlesex County and the agricultural lands preserved by the County. The following cumulative acreages are targeted for additional preservation through the year 2010:

1 year: 259 acres,	Total cumulative 2002 existing & target: 3,421 acres;
5 year: 1,295 acres,	Total cumulative 2002 existing & target: 4,421 acres;
8 year: 2,072 acres,	Total cumulative 2002 existing & target: 5,234 acres; (year 2010).



If these goals are met, Middlesex County will have a cumulative total of at least 5,234 acres of preserved farmland by the end of 2010. This is approximately 18% of the year 2000 acreage that is assessed as farmland. Estimates of farmland preservation totals beyond 2010 are very speculative at this time. It is likely that annual applications will be relatively small and the additional acreage preserved by 2020 may be approximately 800 to 1,000 acres.



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APPENDICES