

MIDDLESEX COUNTY COMPREHENSIVE FARMLAND PRESERVATION PLAN 2008:

Preserving Farmland and Fostering Sustainable
Agriculture in Middlesex County



September 9, 2008

MIDDLESEX COUNTY AGRICULTURE DEVELOPMENT BOARD

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RESOLUTION OF THE MIDDLESEX COUNTY AGRICULTURE DEVELOPMENT BOARD ADOPTING THE MIDDLESEX COUNTY COMPREHENSIVE FARMLAND PRESERVATION PLAN 2008

ADOPTED: JUNE 11, 2008

WHEREAS, in response to concerns about the increasing loss of farmland in Middlesex County to non-agricultural development, the Middlesex County Board of Chosen Freeholders created the Middlesex County Agriculture Development Board (CADB) by a resolution adopted on September 6, 1985; and

WHEREAS, pursuant to a request by the Middlesex CADB as set forth in a resolution of the Middlesex CADB dated March 8, 2001 the Middlesex County Planning Board adopted the Comprehensive Farmland Preservation Plan for Middlesex County, New Jersey on May 8, 2001; and

WHEREAS, in July 2007, the SADC adopted comprehensive revisions to their farmland preservation rules which emphasize a more efficient county-centric farmland preservation planning framework encapsulated in the new county Planning Incentive Grant (PIG) program; and

WHEREAS, participation in the new county PIG program requires the adoption of a county comprehensive farmland preservation plan that includes the minimum required components for such a plan as set forth in N.J.A.C. 2:76-17.4(a) and in accordance with the Guidelines For Developing County Comprehensive Farmland Preservation Plans as approved by the SADC on December 14, 2006; and

WHEREAS, the Middlesex CADB determined that it is in the best interest of the County to participate in the county PIG program and found it necessary to prepare an update to the comprehensive farmland preservation plan of 2001 in order for Middlesex County to be eligible for participation in the SADC's county PIG program; and

WHEREAS, a draft farmland preservation plan was formally presented at a public meeting of the Middlesex CADB held on September 19, 2007, offering an opportunity for public comment; and

WHEREAS, staff of the SADC completed a technical review of a draft Middlesex County plan dated December 14, 2007 and required the incorporation of additional information in order to be considered for SADC approval; and

WHEREAS, staff of the Middlesex County Planning Department incorporated all of the additional information requested by SADC staff which prompted a conditional approval by the SADC at their meeting held on May 22, 2008; and

WHEREAS, the Middlesex CADB finds that it is in the best interest of the County's comprehensive farmland preservation program to adopt the Middlesex County Comprehensive Farmland Preservation Plan 2008, as conditionally approved by the SADC; and

WHEREAS, adoption of the Middlesex County Comprehensive Farmland Preservation Plan 2008 is intended to replace and supersede the previous plan that was adopted on May 8, 2001 by the Middlesex County Planning Board.

NOW, THEREFORE BE IT RESOLVED, that the Middlesex CADB hereby adopts the Middlesex County Comprehensive Farmland Preservation Plan 2008 as conditionally approved by the SADC; and

THEREFORE, BE IT FURTHER RESOLVED, that the Middlesex County Planning Board is requested to consider adoption of the Middlesex County Comprehensive Farmland Preservation Plan 2008 as an element of the Middlesex County Comprehensive Master Plan; and

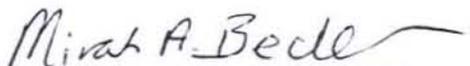
that copies of this Resolution shall be sent to the Middlesex County Planning Board, the Middlesex County Board of Chosen Freeholders, and the Middlesex County Board of Agriculture; and

that a copy of this Resolution shall be submitted to the SADC in furtherance of their final approval of the Plan hereby adopted.

Adopted: June 11, 2008
MIDDLESEX COUNTY AGRICULTURE
DEVELOPMENT BOARD



Alan A. Danser, Chairman

Attest: 
Mirah A. Becker
Supervising Planner
Middlesex County Planning Department

**RESOLUTION OF THE MIDDLESEX COUNTY PLANNING BOARD ADOPTING THE
MIDDLESEX COUNTY COMPREHENSIVE FARMLAND PRESERVATION PLAN 2008 AS AN
ELEMENT OF THE MIDDLESEX COUNTY COMPREHENSIVE MASTER PLAN**

WHEREAS, the Middlesex County Planning Board maintains and updates as necessary the Middlesex County Comprehensive Master Plan according to the requirements of the New Jersey County Planning Enabling Act (NJSA c. 40:27); and

WHEREAS, the Middlesex County Comprehensive Master Plan should provide for a current assessment of the need for and recommend mechanisms for the preservation of the farmland of the County; and

WHEREAS, the Middlesex County Planning Board finds that the preservation of farmland is an objective worthy of consideration as a means to preserve the agricultural industry in the County, to prevent quality farmland needed for agricultural production from being developed for nonagricultural purposes and to preserve the vistas and the economic and environmental benefits provided by the retention of agricultural land in the County; and

WHEREAS, the Middlesex County Board of Chosen Freeholders created the Middlesex County Agriculture Development Board (CADB) by a resolution adopted on September 6, 1985; and

WHEREAS, pursuant to a request by the Middlesex CADB as set forth in a resolution of the Middlesex CADB dated March 8, 2001 the Middlesex County Planning Board adopted the Comprehensive Farmland Preservation Plan for Middlesex County, New Jersey on May 8, 2001; and

WHEREAS, the Middlesex CADB found it to be in the best interest of the County's farmland preservation program to update the comprehensive farmland preservation plan of 2001 enabling Middlesex County to participate in the new county Planning Incentive Grant Program administered by the New Jersey State Agriculture Development Committee (SADC), a program which will more effectively preserve Middlesex County's remaining farmland; and

WHEREAS, staff of the Middlesex County Planning Department, after review and comment by the staff of the SADC, prepared the Middlesex County Comprehensive Farmland Preservation Plan 2008 in accordance with all SADC requirements for participation in the county Planning Incentive Grant Program; and

WHEREAS, the Middlesex County Comprehensive Farmland Preservation Plan 2008 was conditionally approved by the SADC at their meeting held on May 22, 2008; and

WHEREAS, the Middlesex County Planning Board authorized and held a public hearing on June 10, 2008 as required by the New Jersey County Planning Enabling Act to enable public comment prior to the adoption of the Middlesex County Comprehensive Farmland Preservation Plan 2008; and

WHEREAS, the Middlesex CADB by its resolution of June 11, 2008 did adopt the Middlesex County Comprehensive Farmland Preservation Plan 2008 and recommended that the Middlesex County Planning Board adopt the plan as an element of the Middlesex County Comprehensive Master Plan; and

WHEREAS, adoption of the Middlesex County Comprehensive Farmland Preservation Plan 2008 is intended to replace and supersede the previous plan that was adopted on May 8, 2001 by the Middlesex County Planning Board; and

WHEREAS, no comments were received that require substantive changes or additions to the draft plan.

NOW, THEREFORE BE IT RESOLVED, that the Middlesex County Planning Board hereby adopts the Middlesex County Comprehensive Farmland Preservation Plan 2008, which was conditionally approved by the SADC, as an element of the Middlesex County Comprehensive Master Plan; and

THEREFORE, BE IT FURTHER RESOLVED, that the Middlesex County Comprehensive Farmland Preservation Plan 2008 hereby adopted by the Middlesex County Planning Board shall be dated September 9, 2008; and

THEREFORE, BE IT FURTHER RESOLVED, that an attested copy of the adopted Middlesex County Comprehensive Farmland Preservation Plan 2008 dated September 9, 2008 shall be sent to the Middlesex County Board of Chosen Freeholders, the Chairperson of the Middlesex County Open Space Advisory Committee, the legislative body of every municipality in Middlesex County, and to the New Jersey State Agriculture Development Committee in furtherance of their final approval.

MIDDLESEX COUNTY PLANNING BOARD


Thomas F. Boylan III, Chairman

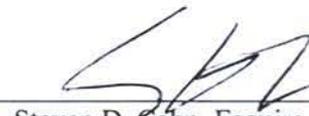
ATTEST:



Dorothy K. Power
Planning Board Secretary

DATE: September 9, 2008

APPROVED AS TO FORM AND LEGALITY:


Steven D. Cahn, Esquire
Planning Board Counsel

I, Mirah A. Becker am in charge of the Environment, Parks and Comprehensive
Mirah A. Becker

Planning Division of the Middlesex County Planning Department staff, whose duty it is to establish the facts underlying the Resolution which is attached hereto pursuant to my duties for causing an investigation to be made and research to be done and have reached the conclusion that the facts and conclusion of fact as contained in the annexed Resolution are true. It is our recommendation that the Planning Board adopt the annexed Resolution.

**MIDDLESEX COUNTY COMPREHENSIVE
FARMLAND PRESERVATION PLAN 2008:
Preserving Farmland and Fostering
Sustainable Agriculture
in Middlesex County, New Jersey**



**PREPARED FOR:
MIDDLESEX COUNTY AGRICULTURE DEVELOPMENT BOARD

AND

MIDDLESEX COUNTY PLANNING BOARD**

Adopted by the County Agriculture Development Board on: June 11, 2008

**Adopted by the Planning Board on: September 9, 2008
As an Element of the Middlesex County Master Plan**

**Prepared by:
Middlesex County Planning Department
*Division of Environment, Parks
& Comprehensive Planning***

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Agricultural area along the Matchaponix Brook—the municipal boundary between Old Bridge (on the left) and Monroe (on the right); view looking south



Agricultural area in Plainsboro and Cranbury along the northerly side of the Millstone River—the county boundary between Middlesex County and Mercer County (bottom left); view looking north

Preface

Middlesex County, New Jersey is located midway between Boston and Washington D.C. (and roughly midway between Manhattan and Philadelphia) and encompasses 318 square miles, including 309 square miles of land area. Its 25 municipalities stretch from one of New York City's boroughs (Staten Island, across the Arthur Kill) south to Monmouth and Mercer Counties and west to Somerset County. The predominant geographic feature of the county is the Raritan River, which flows the entire width of the County from west to east. The central location of the County and the presence of the Raritan River have been key factors in the initial settlement and subsequent growth of Middlesex County.

At the beginning of the 21st century, Middlesex County has a population of over 785,000 residents, making it the second most populous county in the State of New Jersey. The City of New Brunswick is the county seat and home to the flagship campus of Rutgers–The State University of New Jersey. Nearly every major north-south rail and roadway on the East Coast passes through Middlesex County. Two major airports are located within 30 minutes of the Middlesex County line, and a number of Fortune 500 companies have chosen to establish corporate headquarters and/or other corporate facilities within the county.

During the infancy of our nation, the developed lands of Middlesex County were primarily devoted to agriculture. The land on both sides of the Raritan River, from its mouth to Raritan Landing, was used for pasture and the production of crops. In 1776, New Brunswick consisted of about 150 homes and had already established itself as a valuable center of agriculture, serving as a major distribution point for the movement of agricultural goods to New York City, and on occasion even to the West Indies or England. By 1800, the population of the entire county was still only 16,000 persons living in a predominately rural landscape of farmlands. The vast majority of the early settlers consisted of farmers and/or people employed in agricultural-related commerce. The county's towns were centers of farming communities.¹

By the early 20th Century, much of Middlesex County north of the Raritan River had already felt the pressures of great change as a result of industrialization, which brought about relatively large-scale urbanization and gave rise to the establishment of modern transportation networks that now criss-cross the land. Scattered farms still remained north of the Raritan, but often fell victim to industrial progress. A notable example of this early 20th Century progress is when the U.S. Post Office leased 47 acres of level ground on November 1, 1924 from a farmer named John Hadley. His farm, in what would become South Plainfield, was transformed into a new airfield by clearing the ground, erecting radio masts, installing boundary lights, floodlights and revolving beacons. A month later in that same year, national transcontinental airmail operations were moved to Hadley Field. Transportation needs of the time seemingly outweighed the inherent value of agricultural production.

During the first half of the 20th Century northern Middlesex County was urbanizing, while at the same time the still rural southern areas of the county—located just far enough from the development pressures of the greater metropolitan rings surrounding both New York and Philadelphia—continued to maintain large contiguous agriculturally productive areas situated on some of the highest quality and most productive agricultural soils and pasturelands in the United States. As northern Middlesex County hosted major manufacturers of a diverse array of consumer goods, southern Middlesex County experienced intensification in its agricultural industry.

A well-known example of “South County” agricultural growth and intensification during the first half of the 20th Century is the story of Walker-Gordon Laboratories, a company operating its own dairy farm and the first company in the U.S. to produce modified milk suitable for infant feeding. This nationally-renowned dairy farm was established in 1897 on a farmstead that was originally 140 acres. In 1929, Walker-Gordon Laboratories became a wholly-owned subsidiary of the Borden Company. The dairy operation in Plainsboro grew in size to 2,300 acres, with a dairy herd of 2,842 cows and bulls, and Elsie the Borden Cow became a symbol of quality milk. Feed for the livestock was grown on-site and, at its peak, the dairy measured 2,500 acres and produced 24,000 quarts of milk per day. By 1945, and now owned by the Jeffers Family, the Walker-Gordon Dairy Farm had become the State’s largest dairy farm; the only farm in NJ to sell raw milk; and, the **world’s** largest source of Certified Milk (originally called Guaranteed Milk, a name used to designate raw or pasteurized milk that met or exceeded bacteria-count standards established by the Medical Milk Commission).²

The demand for housing, and particularly single-family suburban housing, following World War II and continuing to the present day resulted in tremendous pressure on agricultural lands throughout New Jersey, which as a result diminished significantly during the latter half of the 20th century. As the crossroads of the Greater Tri-State Region, Middlesex County was hardly immune to these development pressures. As a prime example, the Walker-Gordon Dairy in Plainsboro ceased producing milk by July 1971, and shifted its operations to beef cattle production and field crops, and finally became a large residential development. Fortunately, a 235 acre remnant of this landmark farming operation was entered into farmland preservation in 1998.

Between 1976 and 2007 in Middlesex County, it is estimated that roughly 17,600 acres of land qualifying for Farmland Assessment was lost to non-agricultural development (42,300 vs. 24,700 square-miles; ‘76 vs. ‘07). More than three-fourths of that loss (14,000 acres) occurred in the years subsequent to 1983, a year when 38,800 acres was still being reported in Farmland Assessment. The loss of farmland assessed land since 1983 equates to an average daily rate of 1.6-acres per day over the course of the past 24 years.³

The leadership of Middlesex County and the impacted municipalities were not blind to the declining farmland issue. As early as October 1978, the Comprehensive Planning Section of the Middlesex County Planning Department issued a paper entitled “*Preserving Farmland in Middlesex County*” that called for a county-based farmland preservation strategy. By the mid-1980s, Middlesex County and the impacted municipalities were actively seeking ways to acquire farmland preservation easements on the county’s agricultural lands. This led to the Middlesex County Planning Board May 8, 2001 adoption of the Comprehensive Farmland Preservation Plan for Middlesex County. Without the timely efforts of the 1980s and early 1990s, there almost certainly would have been much greater losses of this irreplaceable land resource. Although there has been approximately 11 acres of Middlesex County farmland lost per week since 1983, **Middlesex County has reaped the fruits of farmland preservation activities at the rate of nearly 5 acres preserved per week since 1988.**

Through the preservation of almost 5,000 acres (nearly eight square-miles) of valuable and productive farmland since 1988, Middlesex County can proudly say that approximately one-fifth of its current farmland assessed land base is preserved in perpetuity. However, the farmland acres preserved to date might be characterized by some as the “lower-hanging fruit”, in other words, the easier acquisitions. The next challenge is to outline a strategy to preserve a meaningful amount of the remaining four-fifths of unpreserved farmland area. One important component of that strategy will be the implementation of an effective outreach program to encourage more of the county’s farmers to choose to permanently preserve their part of the county’s agricultural heritage.

Currently, the farmlands remaining in Farmland Assessment represent more than 12% (38.7 square-miles, 2007) of the approximate 309 square-miles of land area in Middlesex County. Continuing to place more of this irreplaceable land into farmland preservation benefits both the farmer/landowner and the community.

Some community benefits of farmland preservation include:

- 1. The land stays on the tax roll and continues to be farmland assessed (compared with publicly purchasing it for open space).
- 2. The land remains open, providing scenic vistas and variety in the landscape.
- 3. There is no need for the additional infrastructure such as sewers, roads, and schools that additional development may require.
- 4. There is natural resource protection value to a viable & preserved agricultural land base.
- 5. There is economic value to the products of agriculture, and a preserved farm may provide pick-your-own and educational opportunities.
- 6. Purchase of development rights costs much less than purchase of the farm outright for open space, and the farmer rather than the government serves as the steward of the land.

Some benefits to a farmer/landowner entering preservation include:

- 1. The farmer/landowner continues to own the land and can sell it (or lease it) as farmland.
- 2. Funds are available to reduce debt, expand the agricultural operation, and use for retirement and estate planning.
- 3. The farmer/landowner is eligible for cost-sharing grants for water and soil conservation projects (not available to unpreserved farms).
- 4. The farmer/landowner receives a certain level of statutory protection from eminent domain and receives priority water use during emergency restrictions.
- 5. The farmer/landowner retains their personal familial heritage of the farming lifestyle.

Agriculture has played an important role in Middlesex County, and the preservation of farmland preserves something of historical significance. However, it is short-sighted to simply preserve farmland without preserving the farmer. That is why this Farmland Preservation Plan recognizes the critical need to foster a **sustainable agricultural industry**, one that is economically viable for today's Middlesex County farmers. A sustainable agricultural industry in Middlesex County enhances the quality of life of all our communities by: offering convenient access to locally grown **Middlesex Fresh** produce & horticultural products. It enhances the real estate value of the county by retaining access to fresh foods and an attractive landscape. It provides agri-tourism and educational opportunities to county residents, and preserves the county's natural resource base through sustained management of open lands. And, preserved agriculture provides more in local property tax revenue than it requires of local services. It is for these reasons that this plan update is subtitled: "*Preserving Farmland **and** Fostering Sustainable Agriculture in Middlesex County*".

The meaning of SUSTAINABLE AGRICULTURE

Some terms defy definition. "**Sustainable agriculture**" has become one of them. The word "sustain," from the Latin *sustinere* (*sus-*, "from below" and *tenere*, "to hold"), to keep in existence or maintain, implies long-term support, permanence or in perpetuity. The word "agriculture", from the Latin *agricultura* (*ager-*, "field" and *cultura*, "cultivate, grow or till"), generally refers to the act or practice of cultivating the earth for the production and harvesting of crops, feed, fiber, livestock and other goods.

"Sustainable agriculture" describes farming systems that are "capable of maintaining their productivity and usefulness to society indefinitely. Such systems... must be resource-conserving, socially supportive, commercially competitive, and environmentally sound." [John Ikerd, as quoted by Richard Dueterhaus in "Sustainability's Promise"]

"Sustainable agriculture" was addressed by Congress in the 1990 "Farm Bill" [Food, Agriculture, Conservation, and Trade Act of 1990 (FACTA)]. Under that law, "the term sustainable agriculture means an integrated system of plant and animal production practices having a site-specific application that will, over the long term:

- satisfy human food and fiber needs
- enhance environmental quality and the natural resource base upon which the agricultural economy depends
- make the most efficient use of nonrenewable resources and on-farm resources and integrate, where appropriate, natural biological cycles and controls
- sustain the economic viability of farm operations
- enhance the quality of life for farmers and society as a whole."

Adapted from the following principal sources: "Sustainable Agriculture: Definitions and Terms": Special Reference Briefs Series no. SRB 99-02 September 1999, slightly updated text and URLs, August 2007, http://www.nal.usda.gov/afsic/AFSIC_pubs/srb9902.htm; <http://www.etymonline.com/index.php?term=agriculture>; and, <http://en.wikipedia.org/wiki/Agriculture> [viewed October-December 2007]

The County Seal:



No written record has been found describing exactly what the symbols in the county seal stand for. The “scales of justice” have always appeared on many governmental seals, including the earlier seals of East and West Jersey.

The **plough** usually signifies the importance of **Agriculture**. The horse's head may relate to both agriculture and commerce; or, it may have been chosen by its designer as a symbol of strength?

Source: <http://www.co.middlesex.nj.us/seal.asp>

Acknowledgements

The staff of the Middlesex County Planning Department would like to thank the staff of the New Jersey State Agriculture Development Committee (SADC) for all of their technical assistance and guidance during the preparation of this comprehensive farmland preservation plan. We also would like to thank the County Extension Service for sharing with us their knowledge of Middlesex County agriculture from their daily interaction with the people engaged in the agricultural industry of Middlesex County. In addition, we extend special thanks to the members of the Middlesex County Agriculture Development Board (CADB) for initiating this update to the previous farmland preservation plan of 2001.

More importantly, we express sincere gratitude to all of the individuals who have demonstrated a special commitment to Middlesex County agriculture by voluntarily electing to preserve their land for agricultural use in perpetuity. We likewise thank those who have chosen to purchase preserved farmland in Middlesex County. The Middlesex County Farmland Preservation Program would be without success if it were not for their confidence in and dedication to the future of agriculture in Middlesex County.

Finally, we would like to express our appreciation to the public at large and their elected officials who have repeatedly supported the dedication and use of public funding to acquire farmland preservation easements under the Middlesex County Farmland Preservation Program.

The preparation of this Plan was supported by a Farmland Preservation Plan Grant provided by the New Jersey State Agriculture Development Committee (SADC).

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Executive Summary

Overview

In accordance with the State Legislature's concurrent adoption of the "Right to Farm Act" and the "Agriculture Retention and Development Act" (ARDA, PL. 1983), the State Agriculture Development Committee (SADC) administers the statewide Farmland Preservation Program. The SADC is principally tasked with: allocating available state funding for the preservation of large contiguous areas of farmlands having statewide significance; implementing and advocating programs that promote the interests of long-term productivity and viability of the State's agricultural industry; and developing recommended best agricultural management practices. New Jersey's Right to Farm Program is also administered by the SADC.

The adoption of the ARDA authorized counties and municipalities to create regional or local Agriculture Development Boards (ADB). Responsibilities of ADBs include the designation of Agricultural 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. County Agriculture Development Boards (CADBs) are also responsible for reviewing applications submitted by landowners seeking to participate in farmland preservation programs, and coordinating acquisition purchases with the municipalities and the SADC.

In response to concerns about the increasing loss of farmland to non-agricultural development, the Middlesex County Board of Chosen Freeholders created the Middlesex County Agriculture Development Board (CADB) in 1985. The primary mission of the Middlesex CADB has been to implement a Farmland Preservation Program for the County by coordinating the acquisition of agriculture development easements. Enrollment in the program is voluntary, and may be motivated by a landowner's interest in financial benefits and a desire to preserve the land in agricultural use in perpetuity. As prescribed by the ARDA, the Middlesex CADB is also responsible for hearing all Right to Farm disputes involving farmland in Middlesex County.

Under the Middlesex County Farmland Preservation Program, the first agriculture development easement or "farmland preservation easement" that was purchased with public money was acquired in January of 1990 by the County with State funding assistance. Through the end of 2007, from a combination of State, County, municipal, and non-profit group funding, over **\$51.2 million** has been used to purchase farmland easements in Middlesex County. The State has contributed \$34.5 million; the County of Middlesex has contributed \$8.8 million; the municipalities have contributed \$7.9 million and \$375,000 was contributed by the Delaware & Raritan Greenway Land Trust (see Appendix A).

Continued public financial support of the County farmland preservation program is evidenced by Middlesex County voters repeatedly approving referenda authorizing dedicated property tax levies for the purchase of farmland preservation easements. In 1995, county-wide voters approved a dedicated tax rate of one cent per \$100 assessed value for the establishment

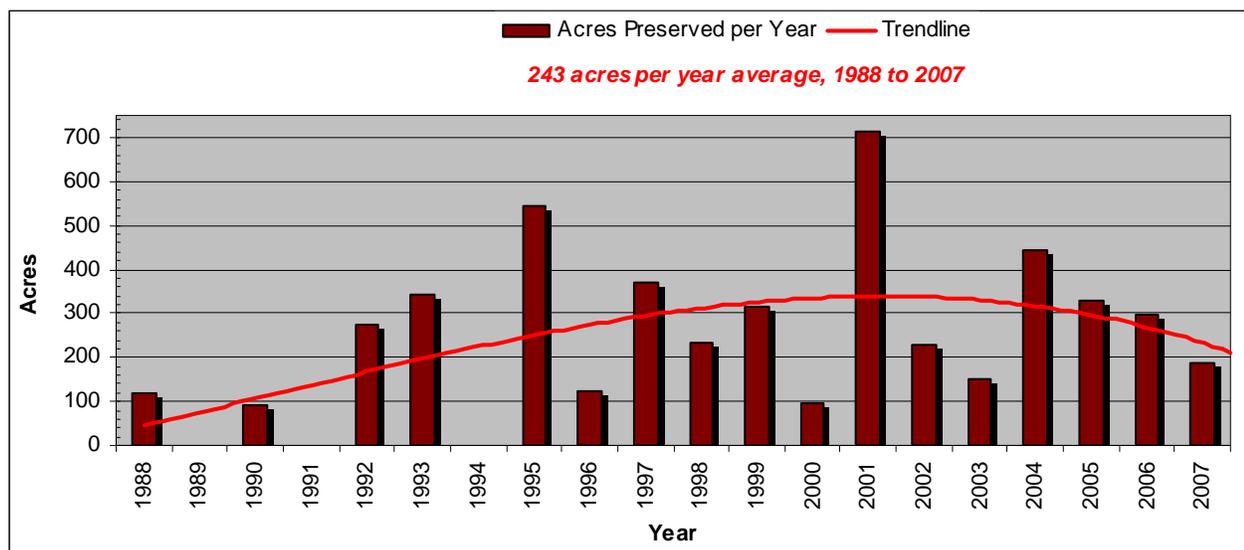


of the Middlesex County Open Space, Recreation, **Farmland** and Historic Preservation Trust Fund. A subsequent county-wide voter referendum during the November 2001 election authorized an increase of the County Trust Fund tax rate to three cents per \$100 (which rate is still in place in 2008). In addition, the voters in each of the six municipalities historically participating in the farmland preservation program have approved municipal referenda authorizing a dedicated municipal property tax to support preserving farmland.

Since the inception of a multi-faceted approach to agricultural land preservation in Middlesex County, 4,900 acres of farmland preservation easements have been secured on 51 farms. Included in those 51 acquisitions is the preservation of eight farms totaling 660+ acres that were deed-restricted through the mechanism of municipal cluster zoning—preserving a farm without a direct cost to the taxpayers while simultaneously preserving the farm owner's rights of development (For further explanation of preservation program types refer to Chapter 4).

Summary Data of All Farmland Preservation Programs Implemented in Middlesex County: 1988 to 2007

Program Type	Number of Farms		Acres Preserved		Dollars Spent	
	Quantity	% Total	Quantity	% Total	Total Amount	% Total
County Easement Purchase	37	73%	3,088	63%	\$41,970,080	82%
Donation to County (Muni. Cluster Easement)	1	2%	235	5%	\$0	0%
State Easement Purchase	3	6%	389	8%	\$6,462,200	13%
State Fee-Simple Purchase	1	2%	125	3%	\$1,959,651	4%
State-owned Lands	1	2%	571	12%	\$0	0%
Non-profit Group	1	2%	32	1%	\$875,000	2%
Municipal Cluster Easement	7	14%	427	9%	\$0	0%
Grand Total	51	100%	4,867	100%	\$51,266,931	100%





Purpose & Intent

Some of the highest quality farmland in New Jersey, if not the Nation, has been preserved in Middlesex County. During the course of the past several years, the Middlesex County Farmland Preservation Plan of 2001 has been useful in guiding preservation of these high-quality farms. But it is recognized that the easements acquired thus far have been the “easy” acquisitions—the most visible and largest concentration of economically viable farmland in Middlesex County. However, during the last two years (2006 and 2007), the program has seen a noticeable slowdown (see graph on preceding table), with only 60 acres moving toward preservation in active pending projects. Therefore, the Middlesex Agriculture Development Board (Middlesex CADB) recognizes that now is the time to prepare and adopt an updated strategy for continued retention of economically viable farmland in Middlesex County.

This update to the Comprehensive Plan for Farmland Preservation was prepared under the authorization of the Middlesex CADB and coincides with major revisions adopted in July of 2007 to the farmland preservation process rules of the State Agriculture Development Committee (SADC). In conjunction with the state-level rule changes, the SADC has shifted the emphasis of its funding allocation policies towards their County Planning Incentive Grant (Countywide PIG) program, which concurrently deemphasizes participation in the County Easement Purchase (County EP) program.

To date, the Middlesex CADB has had an excellent track record of effectively leveraging state cost share dollars afforded through the SADC by participating in the County EP program, where on an annual basis Middlesex County farmland preservation applications were entered into a statewide pool of farms which then got ranked according to an SADC quality scoring policy. Only the top ranked farms would get funded each fiscal year, with the funding cut-off based on the number, cost and quality of score of the all farms submitted in that particular round of applications. The most recent rounds of EP applications submitted by the Middlesex CADB have not scored as highly as the applications of earlier fiscal years. Consequently, continued success in leveraging state-level monies (when available) will most likely be achieved by transitioning Middlesex County into the SADC’s Countywide PIG program.

The County EP program, allocating funding to the counties based solely on the quality of applications submitted annually into the pool of applications, differs from the Countywide PIG in that the PIG provides an annual base grant allocation to each participating county. For the coming FY2009 Round (the first year of the Countywide PIG), the annual block grant is \$2.0 million. Also for FY2009, there is a possibility to receive an additional \$3.0 million per year in competitive grant monies, making for a grand total of \$5.0 million to a successful county. Depending on the availability of State funding each year, the amounts of the base grants and competitive funding allocations may change annually.



The grant monies offered to the counties through the Countywide PIG may only be used to share in the cost of preserving “Targeted Farms” located within “Project Areas” specifically identified in the annual PIG application submitted to and approved by the SADC. For competitive PIG monies, rankings of individual applications are not established in the same manner as in the County EP program but are linked to SADC’s scoring formulas for variables covering the entire Project Area within which a farm is located. For example, the ranking of an individual farm will be partly based upon the soils productivity ratio for all of the Targeted Farms in the Project Area. The Project Area Density, or the extent to which a Project Area is *already* preserved, is another key factor in ranking individual farm applications competing for competitive PIG monies.

Besides the potential monetary benefits afforded by transitioning into the SADC’s County PIG program, the strategic planning exercise required of the County PIG program has also facilitated the identification of the County’s Targeted Farms—a listing of specific farms situated in the County’s certified “Agricultural Development Area” and considered to be the most vital in promoting long-term economic viability of agriculture. This enhances the County’s ability to perform program outreach more effectively by focusing on specific properties identified as part of the strategic planning process of targeting farms.

In conclusion, the **PURPOSE** of completing the preparation of this plan is two-fold:

- It is meant to satisfy the detailed “*Guidelines for Developing County Comprehensive Preservation Plans*” adopted by the SADC on December 14, 2006. Compliance with the Guidelines is a pre-requisite for participation in the County Planning Incentive Grant (PIG) Program.
- It is also meant to satisfy the requirement for the adoption of a farmland preservation plan, pursuant to the statute authorizing the establishment of the County’s Open Space, Recreation, Farmland and Historic Preservation Trust Fund. In accordance with the County Trust Fund Act (N.J.S.A. 40:12-15.1 et seq.), the purpose of this plan is also to serve as a guide in the selection of farmland for acquisition for farmland preservation purposes.

In satisfying the foregoing purpose, the primary **INTENT** of this plan is to continue a program that builds upon the past farmland preservation successes in Middlesex County while also ensuring that the agricultural industry of Middlesex County continues to be a viable economic sector of the county—in other words, **Preserving Farmland & Fostering Sustainable Agriculture in Middlesex County**. This complete update of the Middlesex County Comprehensive Plan for Farmland Preservation, adopted as an element of the Middlesex County Master Plan, will serve to guide the retention and development of agriculture as a viable and sustained land use in Middlesex County.



Mission Statement, Goals and Objectives

Mission Statement

To implement a comprehensive program of agricultural retention and development, which shall have as its principal purpose the long-term encouragement of a viable agricultural business climate and the continued preservation of agricultural lands in Middlesex County, enhancing the quality of life for Middlesex County farmers and residents now and in the future.

Goals and Objectives

Profile of Agricultural Lands and Industry

Goal 1: Develop an enhanced appreciation and practical understanding of Middlesex County's agricultural lands and industry.

Objectives

- Periodically review and analyze available data regarding the general characteristics of Middlesex County farmland and the individuals who are engaged in the county's agricultural and related industries.
- Monitor Middlesex County's agricultural industry through periodic evaluation and research of: historical crop trends, market values of agricultural products, the status of agriculture-related industries and support services, and any other important factors that will help to understand where the county's agricultural industry is heading.
- Prepare and release informative documents that outline and clearly describe the county's agricultural lands and agricultural industry trends, for use by Middlesex County's farmers and the public at large.

Land Use Planning Context

Goal 2: Incorporate agricultural land preservation and industry retention activities within the overall context of plans and regulations that guide and control land use development patterns within Middlesex County.

Objectives

- Impress upon all planning and regulatory entities the unique challenges of agriculture preservation within the land use context of a largely metropolitan region.
- Foster the implementation of the State Plan by emphasizing agricultural land preservation efforts in areas outside the Metropolitan and Suburban Planning Areas of the State Plan Policy Map.
- Integrate farmland preservation efforts with plans for growth-inducing infrastructure expansions (i.e. public wastewater and water supply systems) in order to minimize



the payment of inflated land acquisition costs typically resulting from these types of infrastructure investments.

- Cultivate improved collaboration and coordination between parks and open space, historic preservation and farmland preservation programs.
- Encourage the adoption and implementation of municipal master plans and zoning ordinances that acknowledge agriculture as a long-term land use and promote the agricultural industry as a viable sector of the local and regional economy.
- Advocate for “Agriculture-Friendly” zoning to encourage agribusiness and to reduce the incidence of farmer-homeowner nuisance issues.

Farmland Preservation Program

Goal 3: Encourage the continued acquisition of development rights on farmland for the purpose of preserving agricultural lands and maintaining viable working farms for future generations.

Objectives

- Collaborate with all levels of government and non-profit organizations engaged in farmland preservation activities, and develop a stronger network of communications among partnering entities.
- Identify large blocks of reasonably contiguous farmland in order to retain a critical mass of agricultural land that will support a sustainable agricultural industry.
- Achieve farmland preservation acreage targets established by the Middlesex County Planning Incentive Grant (PIG) application submitted to the State Agriculture Development Committee.
- Implement an effective strategy of public outreach, to raise the level of landowner interest in the farmland preservation program.
- In addition to the purchase of development rights, encourage farmland preservation by using techniques such as: voluntary cluster subdivision, non-contiguous clustering, mandatory clustering transfer of development rights, and land donation.
- Cultivate an open dialogue with preserved farm owners and other farmers to gain a better understanding of their operations and agricultural industry trends.
- Implement an annual monitoring of farms that have been preserved through the County’s program to ensure compliance with deed of easement restrictions held by Middlesex County.
- Establish an information clearinghouse as a part of Middlesex County Agriculture Development Board meetings and other public functions.
- Establish realistic farmland preservation eligibility criteria that relate to land values and the availability of governmental funding.



Economic Development

Goal 4: Foster economic growth, stability and diversity for Middlesex County's agricultural community and preserved farmlands.

Objectives

- Facilitate investments in agricultural infrastructure to support, maintain and expand the business of farming.
- Identify and facilitate the creation of new markets to help farmers access an ever-changing marketplace.
- Encourage the establishment of seasonal and permanent municipal farmers' markets as an opportunity for farmers to sell their products directly to consumers.
- Support marketing services to county farming operations through the County's web site.
- Coordinate interaction between the agricultural community, exhibit events and local tourism, and advocate for countywide Ag-tourism and Agri-tainment farming programs.
- Explore potential for program support from the State tourism and cultural/historical commissions.

Natural Resource Conservation

Goal 5: Promote conservation practices that enhance environmental quality and the natural resource base upon which the Middlesex County agricultural economy depends.

Objectives

- Support the Middlesex County Agriculture Extension Service in its ability to furnish practical assistance and technical advice regarding natural resource management on agricultural lands.
- Inform the agriculture community of federal programs, initiatives and available grant monies for natural resource management on agricultural lands.
- Encourage, investigate and monitor the potential for alternate energy sources and compatible biomass conversion technologies to support and enhance agricultural operations, profitability, and long-term stewardship of farmland.
- Encourage best agriculture management practices that protect water quality, water supply, soils, and other natural resources while also ensuring an economically viable agricultural industry.



Agricultural Industry Sustainability, Retention and Promotion

Goal 6: Recognize the many roles agriculture plays in Middlesex County and implement a comprehensive strategy that supports and promotes retention of Middlesex County agriculture.

Objectives

- Acknowledge that farmland owners and agricultural lease operators play a pivotal part in the economic and community character of Middlesex County.
- Encourage supportive programs that will enhance the viability and sustainability of evolving farming operations.
- Promote integration of agriculture and food sciences in all levels of education and identify opportunities for integrated programs of youth outreach and education.
- Improve community understanding of the health, safety and economic values of purchasing fresh agricultural products from local sources.
- Strengthen the role of the Middlesex County Agriculture Development Board as an advocate for the promotion of agriculture in Middlesex County.
- Ensure that the Middlesex County Comprehensive Farmland Preservation Plan remains up-to-date and relevant to Middlesex County's agricultural industry.
- Resolve right-to-farm disputes by promoting the State's agriculture mediation program prior to engaging in the cumbersome legal proceedings of the Right-to-Farm Act.
- Develop policies and implementation measures to make appropriate public lands available for farming opportunities through formal lease agreements.
- Promote initiatives that provide the next generation of farmers with the support and expertise they need to succeed.





I. County's Agricultural Land Base

A. Size & Location of Agricultural Land Base

1. NJ Farmland Assessment Data

The New Jersey State Department of Agriculture compiles and summarizes acreage data on a statewide basis from all of the farmland assessment forms submitted annually by individual landowners. In Middlesex County for the year 2004, the latest year summary data is available, there were 14,811 acres classified as "active agriculture", which is defined as the sum of harvested croplands, pastured croplands and lands in permanent pasture. These lands represented slightly more than 7% of the total county land area. For the same year, there was a total of 25,802 acres considered to be in "agriculture use", more broadly defined as the sum of "active agriculture" lands plus ancillary woodlands and areas for equine activities. Lands classified as "agriculture use" represented approximately 13% of the county's total land area.

The following Table I-1 summarizing agriculture acreage data of 2004 by municipality reveals that nearly 97% of all lands classified as being "active agriculture" are concentrated in the top-six-ranked municipalities—Monroe, South Brunswick, Cranbury, Plainsboro, Old Bridge and East Brunswick. Almost 98% of the total acreage more liberally classified as agriculture use in general is found in this same contiguous grouping of six municipalities, all found in the southern part of the county. As seen in the table, five other towns contain only nominal acreage in farmland assessment, accounting for only 2.5% of the total land area classified as an agriculture use countywide. The remaining 14 towns of Middlesex County have no properties in farmland assessment.

Table I-1: Middlesex County Municipalities Ranked by "Active Agriculture" Acres (2004 Farmland Assessment Forms)

Rank and Town Name	"Active Agriculture"		Total "Agriculture Use"		"Active Agriculture" as Percent Total Ag.
	Acres	Percent Total	Acres	Percent Total	
1 Monroe	4,556	30.8%	7,025	27.2%	64.9%
2 South Brunswick	3,620	24.4%	6,136	23.8%	59.0%
3 Cranbury	3,615	24.4%	4,786	18.5%	75.5%
4 Plainsboro	1,026	6.9%	1,608	6.2%	63.8%
5 Old Bridge	1,007	6.8%	4,674	18.1%	21.5%
6 East Brunswick	507	3.4%	926	3.6%	54.8%
Top 6 Subtotal	14,331	96.8%	25,155	97.5%	57.0%
7 Piscataway	224	1.5%	319	1.2%	70.2%
8 North Brunswick	184	1.2%	188	0.7%	97.9%
9 South Plainfield	29	0.2%	85	0.3%	34.1%
10 Edison	28	0.2%	40	0.2%	70.0%
11 Sayreville	15	0.1%	15	0.1%	100.0%
Grand Total*	14,811	100%	25,802	100%	57.4%

*Active Agriculture = cropland harvested, cropland pastured & permanent pasture
 *Agriculture Use = active agriculture, attached and unattached woodlands & equine



2. NJDEP Land Cover Data

The New Jersey Department of Environmental Protection (NJDEP) periodically updates its mapping of Land Use / Land Cover, which is based on an interpretation of statewide aerial photographs and application of an edited version of the Anderson Land Use / Land Cover Classification System of the United States Geologic Survey. Under the Anderson Classification System, the Agriculture Land Cover Category includes all lands used primarily for the production of food and fiber and some of the structures associated with this production. The subcategories within the Anderson System's total acres classified as Agricultural Land are: Cropland and Pastureland; Orchards; Vineyards; Nurseries and Horticultural Areas; Confined Feeding Operations; and lands under cultivation that are modified former wetland areas and still exhibiting evidence of soil saturation on the photography.

In Middlesex County for the year 2002, the latest year aerial photographs were flown and interpreted by the NJDEP, there were 17,528 acres classified as "Agriculture Land", representing almost 9% of the total land area of the county. A depiction of these areas is shown on Map 1: Agricultural Land Use/Land Cover, 2002. The following Table I-1 summarizing Agriculture Land data by municipality reveals that more than 95% of all lands classified as Agriculture Land are concentrated in the same municipalities that make up the top six for number of acres in farmland assessment (refer to preceding page).

Of these towns, Monroe Township, with more than 6,100 acres of agricultural land area, constituted roughly one-third of the county's total agricultural land base. Cranbury was the municipality with the highest percentage of agricultural land cover, with 43% of its total land area classified as agricultural land, representing about one-fifth of the county's entire agriculture land base.

One notable difference between the land cover data and farmland assessment "active agriculture" data is that the NJDEP land cover data consists of all agricultural lands, including those that may be situated on publicly-owned lands, properties not in farmland assessment. In Middlesex County, that includes such properties as the NJ Training School for Boys, a juvenile correctional facility, and the research fields on the Cook Campus of Rutgers University.

**Table I-2: NJDEP Agricultural Land Use/Land Cover Acres, 2002
by Middlesex County Municipality**

Rank	Municipality	"Agriculture" (acres)	Percent Total	"Total Land" (acres)	Percent of Municipal Land
1	Monroe	6,124	34.9%	26,697	22.9%
2	South Brunswick	3,728	21.3%	25,893	14.4%
3	Cranbury	3,647	20.8%	8,484	43.0%
4	Plainsboro	1,455	8.3%	7,544	19.3%
5	Old Bridge	1,013	5.8%	24,345	4.2%
6	East Brunswick	758	4.3%	13,892	5.5%
	Top 6 Subtotal	16,725	95.4%	106,855	15.7%
	<i>Remaining 19 Subtotal</i>	<i>803</i>	<i>4.6%</i>	<i>90,491</i>	<i>0.9%</i>
	County Total	17,528	100.0%	197,346	8.9%

The summations in this table apply the Anderson Land Use Classification System rather than NJDEP's edited version of the system where NJDEP classifies agriculture-modified wetlands areas into their major land cover category of "Wetlands"

B. Distribution of Soil Types and Their Characteristics

1. Underlying Geologic Soil Characteristics

Middlesex County is located on the boundary between the Piedmont and Inner Coastal Plain physiographic provinces. An area covering roughly the northwestern third of Middlesex County lies within the Piedmont, with soils that formed on either weathered shale and diabase bedrock or glacial sediment⁴. The Piedmont province in Middlesex County is mainly lowland with gently sloping hills and wide valleys. Natural soils in this area are typically shallow and loamy with some gravel or rock fragment content, and much of this land has been developed and the soils disturbed. Southeastern Middlesex lies within the Inner Coastal Plain, with soil that formed on unconsolidated sediments. Soils within the Inner Coastal Plain are commonly deep and loamy to sandy. Coastal Plain topography is typically gently sloping with open valleys and broad flat divides.⁵ Refer to Map #2 Physiographic Provinces for an illustration depicting the locations of the underlying geologic provinces of Middlesex County.

2. Prime Agriculture and Other Important Farmland Soils

(a) Classification System

The United States Department of Agriculture (USDA) has established four categories of soil that are characterized as being considered important for agriculture purposes: prime farmland; unique farmland; farmland of statewide importance; and, farmland of local importance. Characterization within a certain farmland soil capability category does not constitute a recommendation for a particular land use or agricultural product.⁶

"Prime farmland", as defined by the USDA, is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is available for these uses. It could be cultivated land, pastureland, forestland, or other land, but it is not urban or built-up land or water areas. The soil quality, growing season, and moisture supply are those needed for the soil to economically produce sustained high yields of crops when proper management, including water management, and acceptable farming methods are applied. In general, prime farmland has an adequate and dependable supply of moisture from precipitation or irrigation, a favorable temperature and growing season, acceptable acidity or alkalinity, an acceptable salt and sodium content, and few or no rocks. The water supply is dependable and of adequate quality. Prime farmland is permeable to water and air. It is not excessively erodible or saturated with water for long periods, and it either is not frequently flooded during the growing season or is protected from flooding. Slope ranges mainly from 0 to 6 percent. More detailed information about the criteria for prime farmland is available at the local office of the Natural Resources Conservation Service.

"Unique farmland" is land other than prime farmland that is used for the production of specific high-value food and fiber crops, such as citrus, tree nuts, olives, cranberries, and other particular fruits and vegetables. Unique farmland has the special combination of soil quality, growing season, moisture supply, temperature, humidity, air drainage, elevation, and aspect



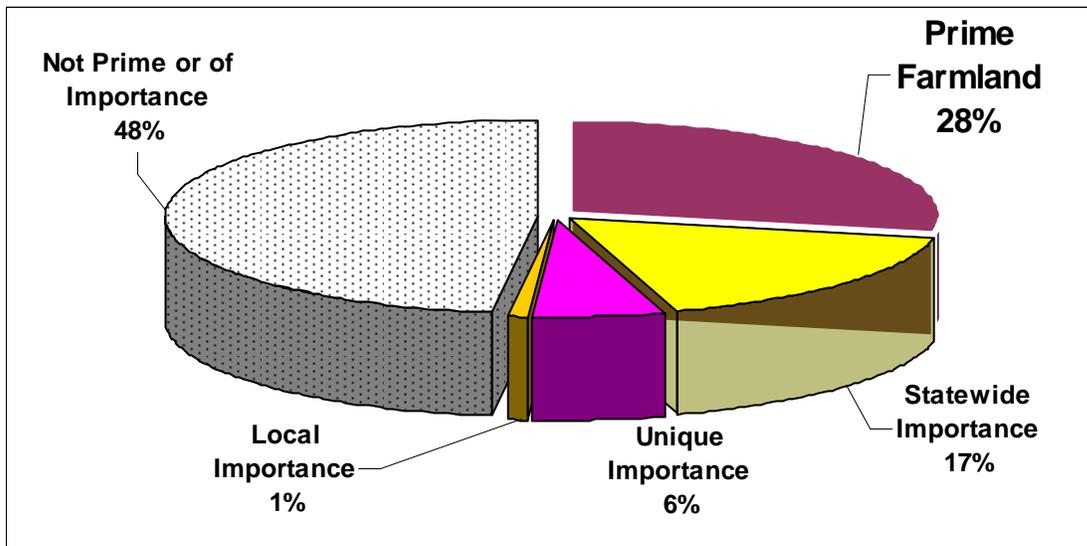
needed for the soil to economically produce sustainable high yields of these crops when properly managed. The water supply is dependable and of adequate quality. Nearness to markets is an additional consideration. Unique farmland is not based on national criteria. It is commonly identified in areas where there is a special microclimate, such as the wine country in California.

Land that does not meet the criteria for prime or unique farmland may be considered to be **"farmland of statewide importance"** for the production of food, feed, fiber, forage, and oilseed crops. The criteria for defining and delineating farmland of statewide importance are determined by the appropriate State agencies. Generally, this land includes areas of soils that nearly meet the requirements for prime farmland and that economically produce high yields of crops when treated and managed according to acceptable farming methods. Some areas may produce as high a yield as prime farmland if conditions are favorable.

In some areas that are not identified as having national or statewide importance, land may be considered to be **"farmland of local importance"** for the production of food, feed, fiber, forage, and oilseed crops. This farmland may be identified by the appropriate local agencies.

According to the current USDA Soil Survey of Middlesex County, approximately 58,400 acres of land in the county is still considered "Prime Farmland"—accounting for more than one-fourth of the county. An additional 34,800 acres of the county is considered to be "important farmland". When prime and important farmland soils are combined they comprise slightly less than half (45%) of the county's total soil survey area, or 93,252 out of 205,714 total acres surveyed by the USDA in Middlesex County.

Figure I-1: Farmland Classified Soils of Middlesex County (Pie Chart)





(b) Geographic Distribution of Farmland Soils

Prime farmlands in Middlesex County are predominantly distributed in the southern, coastal plain portion of the county (see Map #3a). Most Middlesex County soils of statewide importance also occur in the southern portion of the county, often adjacent to prime farmland areas. The following Table I-3 summarizing acreage data for soils of prime and statewide importance by municipality more specifically illustrates that nearly 80% of all prime and statewide soils combined are situated within the six southern municipalities of Monroe, South Brunswick, Old Bridge, Cranbury, East Brunswick and Plainsboro.

As seen in the table below, Cranbury and Plainsboro have the highest concentrations of prime and statewide important soils, with almost 88% of Cranbury Township and 80% of Plainsboro consisting of these two soil types. Almost half of the County's acreage of these agriculturally significant soils is located in the towns of Monroe and South Brunswick, which when combined account for approximately 44% of the county's total acreage of prime and statewide important soils (40,736 acres out of 93,252 acres). Both Monroe and South Brunswick consist of approximately 77% prime and statewide important soils. The concentration of prime and statewide important soils in East Brunswick and Old Bridge are notably lower, with 47.7% and 47.1% prime and statewide soils, respectively.

Also provided in the table below are farmland soils figures for the Middlesex County's "Active Agriculture" land use / land cover, as per 2002 mapping of the NJDEP (refer back to Section I.A.2 of this plan for further detail on this mapping). In 2002, more than 95% of the lands identified in agriculture use were classified as prime farmland soils or farmland soils of statewide importance. Approximately 18% of the county's prime and statewide important farmland soils were identified within an agricultural land use during the 2002 aerial mapping of the NJDEP.

Table I-3: Prime & Statewide Important Farmland Soils, Acreage Summaries by Selected Geographic Locations of Middlesex County

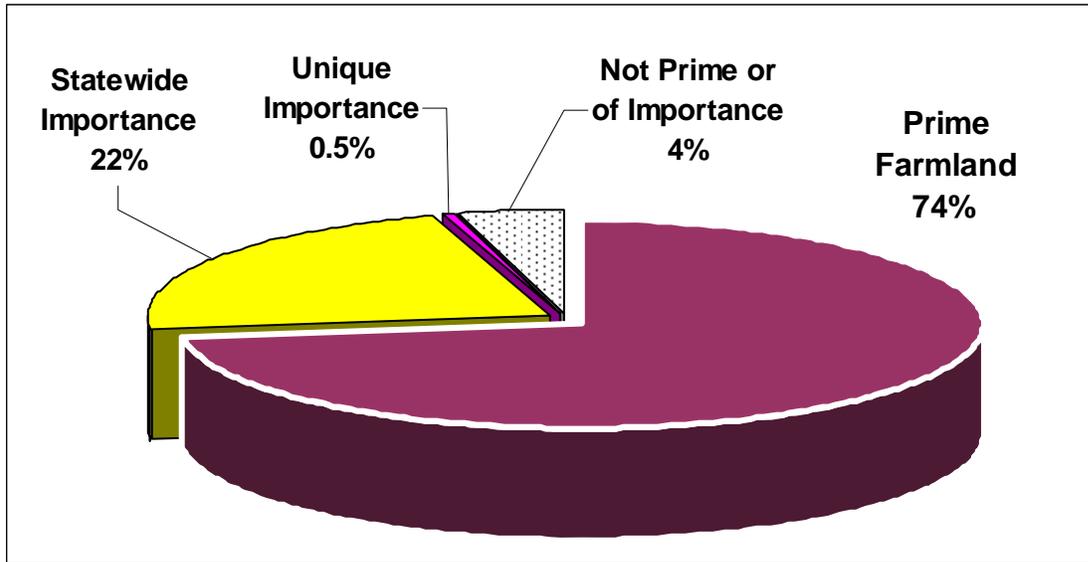
Geographic Location	Prime Farmland	Statewide Importance	Prime & Statewide Combined		Total Area In Data Set	Prime & Statewide Soils as a Percent of Geographic Location
	Acres	Acres	Acres	% Total	Acres	
Monroe	11,362	9,271	20,633	22.1%	26,982	76.5%
South Brunswick	13,765	6,338	20,103	21.6%	26,166	76.8%
Old Bridge	5,133	6,932	12,065	12.9%	25,628	47.1%
Cranbury	6,134	1,391	7,525	8.1%	8,586	87.6%
East Brunswick	3,560	3,263	6,823	7.3%	14,297	47.7%
Plainsboro	5,227	1,035	6,262	6.7%	7,801	80.3%
<i>Subtotal of Top Six Towns</i>	<i>45,181</i>	<i>28,230</i>	<i>73,411</i>	<i>78.7%</i>	<i>109,460</i>	<i>67.1%</i>
<i>Subtotal of 19 Other Towns</i>	<i>13,248</i>	<i>6,593</i>	<i>19,841</i>	<i>21.3%</i>	<i>96,254</i>	<i>20.6%</i>
County "Active Agriculture" **	12,815	3,888	16,703	17.9%	17,528	95.3%
County Grand Total	58,429	34,823	93,252	100.0%	205,714	45.3%

**Active Agriculture" as per 2002 NJDEP Land Use / Land Cover mapping



The following pie chart represents a breakdown of farmland soils classifications (USDA: prime, statewide, unique etc.) for the lands solely found within the 17,500-plus acres of active agricultural land use (2002 NJDEP) and is directly comparable to the preceding pie-chart for lands of the entire county. See Map 3b for a depiction of the lands represented on the pie chart.

Figure I-2: Farmland Classified Soils of Middlesex County's Active Agricultural Land Use (2002 NJDEP)



C. Number of Irrigated Acres and Available Water Sources

1. Irrigated Acres

The following table of irrigation trends reflects a great deal of variation from census to census in the number or acres being irrigated. In 1982, it was reported that there were in excess of 6,300 cropland irrigated acres (23% of total cropland). Twenty years later in 2002, the number of farms with irrigated cropland (84) was up 10.7% (75 in 1982). In 2002, slightly more than one out of every six acres of total cropland (16,507 acres) was reportedly irrigated cropland (2,806 acres). Farmland Assessment data for 2004 reports only 248 acres in irrigation; however, this source is likely an erroneous figure due to data collection methods of the farmland assessment forms.

Table I-4: Cropland Irrigation Trends, US Census of Agriculture Middlesex County (1982 to 2002)

US Census of Agriculture Year	1982	1987	1992	1997	2002
Number of Irrigated Farms	75	71	74	76	84
Total Irrigated Acres	6,304	2,322	1,404	1,589	2,806
Total Cropland Acres	27,419	21,134	21,515	22,309	16,507
Irrigated Land (% Total Cropland)	23.0%	11.0%	6.5%	7.1%	17.0%
US Census of Agriculture Years	1982-87	1987-92	1992-97	1997-2002	1982-2002
Change in Number of Irrigated Farms	(4)	3	2	8	9
% Change in Number of Irrigated Farms	-5.3%	4.2%	2.7%	10.5%	10.7%
Change in Number of Irrigated Acres	(3,982)	(918)	185	1,217	(3,498)
Percent Change in Irrigated Acres	-63.2%	-39.5%	13.2%	76.6%	-55.5%

2. Irrigation Water Sources

Farm operations that do not actively irrigate are obviously reliant solely on natural precipitation for crop production needs, which may be adequate “irrigation” for some farmers, especially in consideration of Central Jersey’s temperate climate and its 49 inches of typical rain per year.⁷ However, relying solely on precipitation comes with risk of poor yields, or even crop failure in extreme cases, as there are always seasonal variations of rainfall.



Actively irrigating provides a higher level of certainty and maximization of crop yields. Middlesex County farmers (including horticulture, nursery etc.) who choose to irrigate rely on different sources of water, depending on the particular hydrologic setting of the particular farm operation. The three basic choices of active irrigation available to Middlesex County farmers are: streams, ponds, and/or groundwater wells. For reference, the aquifers of southern Middlesex County, sources of groundwater for irrigation, are illustrated on Map 4.

3. Regulation of Water Withdrawals

Regardless of the type of water source being drawn for irrigation needs, water allocation yields (volumes) are regulated pursuant to rules and statutory provisions under the purview of the New Jersey Department of Environmental Protection (NJDEP). An Agricultural Water Usage Certification or Agricultural Water Use Registration must be obtained if a farmer has the capability to withdraw ground and/or surface water in excess of 100,000 gallons per day for agricultural, aqua-cultural or horticultural purposes.

An Agricultural Water Use Certification is required if the withdrawal is in excess of 100,000 gallons per day. An Agricultural Water Use Registration is required for any individual with the capability to divert in excess of 100,000 gallons of water per day, **but withdraws less than this quantity.**

Regardless of whether or not an individual’s water usage allocation is classified as a registration or certification, the necessary application materials are processed with technical assistance from the office of the Middlesex County Agriculture Extension Services, Rutgers Cooperative. Upon finalization of the necessary paperwork, they are reviewed and filed with the NJDEP Division of Water Supply (the Northern Water Allocation Permitting Section of this agency is responsible for Middlesex County registrations and permits).



The following table summarizes current agricultural water use registrations and certifications as of September 5, 2007, according to a NJDEP web site query.

Table I-5: Number of Agricultural Water Use Certifications & Registrations in Middlesex County, by Preserved Farms & Other Farms (September 2007)

	Certifications	Registrations
Preserved Farms	9	0
Other Farms	11	3
Grand Totals	20	3

Gaining initial and/or renewing existing agricultural water use registrations or certifications was fairly routine and readily obtained until the past decade or so; but, because of stricter environmental regulations and growing competition from other water users (i.e. potable water), it is increasingly difficult for farmers to receive the approval from the NJDEP, necessary to permit enough water withdrawal to enable a viable and sustainable agricultural operation.

An area covering a portion of Middlesex, Monmouth and Ocean Counties New Jersey was designated Critical Water Supply Area No. 1 (declared circa 1985). There is at least one known example of a Middlesex County farmer that did not obtain a water allocation request due to this critical area designation.⁸ See Map 4 for location of Critical Area No. 1. Balancing the Department of Agriculture’s policies for agricultural promotion with NJDEP water supply protection policies is an important issue that needs to be evaluated very carefully as part of the current process of updating the previous New Jersey Water Supply Plan of 1996.

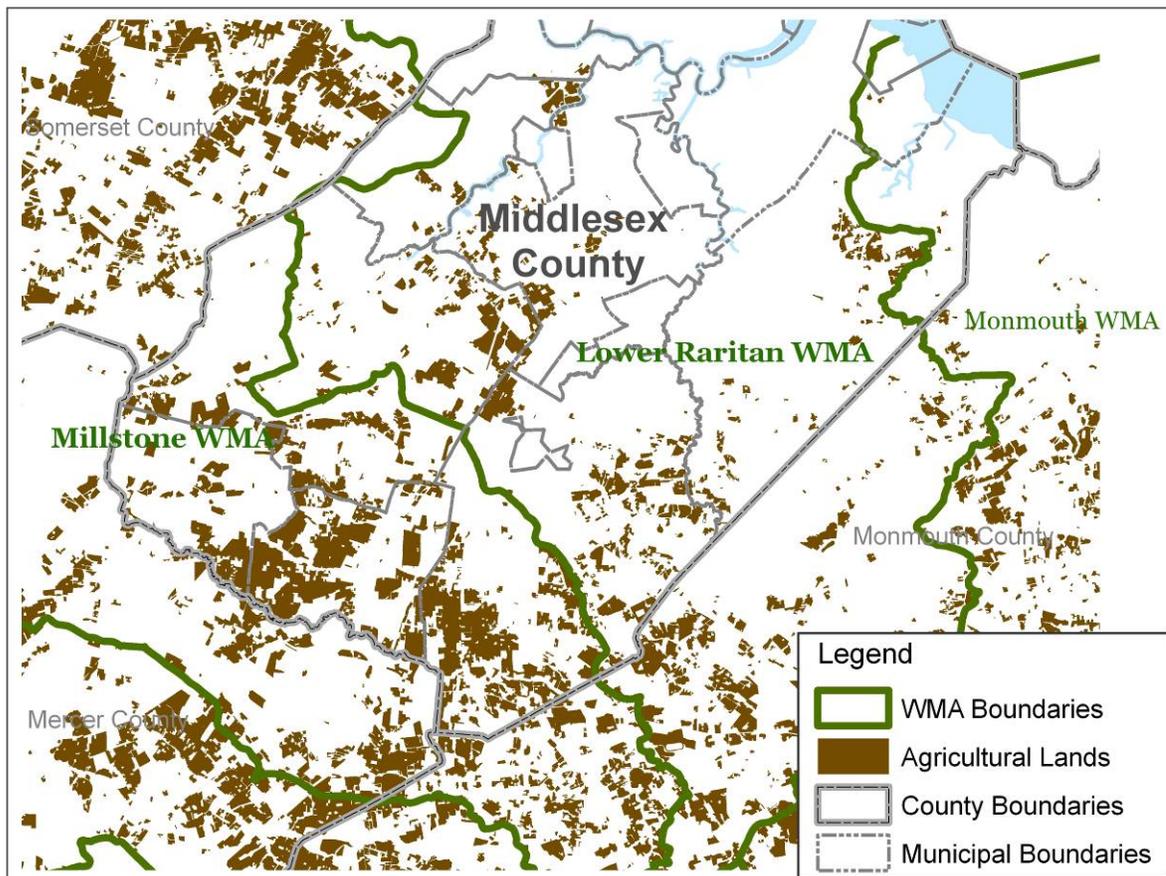


4. Irrigation Water Volume Demands

As mentioned in the immediately preceding subchapter, the NJDEP is currently in the process of updating the Statewide Water Supply Master Plan. In their endeavor, the Division of Water Supply within the NJDEP has compiled and assembled water usage for selected users, including agricultural irrigation covering the years 1990 to 1999. The data is available for download as an interactive MS Excel spreadsheet. Since the scope of the document is statewide, the 20 Watershed Management Areas (WMAs) in the State serve as the level of geography used for analysis.

The boundaries of the WMAs are based upon large-scale natural drainage basin features (i.e. topography), and as a consequence do not follow geo-political boundaries such as counties. The following figure depicts the locations of the two WMAs that cover the agricultural land base of Middlesex County: the Lower Raritan WMA (#09) is generally found in the central and eastern portions of the county's agricultural lands; and the Millstone WMA (#10) coincides with the bulk of the county's agricultural area in south and southwest. Middlesex County encompasses approximately 57% of the Lower Raritan WMA and 23% of the Millstone WMA.

Figure I-3: Watershed Management Area (WMA) Boundaries of Southern Middlesex County





The following tables summarize water demand (usage) data for the entirety of the two WMAs that generally cover the agricultural land base of Middlesex County. Therefore, it is important to note that the water usage data presented below includes water usage in other counties (i.e. Monmouth, Mercer, and Somerset). Nonetheless, for the purpose of informing this plan, the data in the tables are representative of water demands in Middlesex County.

Agricultural irrigation is an insignificant user of water when viewed in terms of percent total volume (less than 1/4th of 1% in the Lower Raritan WMA for example) when compared to potable water (92%). The majority of agricultural irrigation across both WMAs is associated with vegetables and leaf crops (53% of volume). Field crops, greenhouse and general agriculture, when combined comprise 44% of agricultural irrigation use.

Table I-6: Fresh Water Use, 1990 to 1999: Annual Averages for Agricultural Irrigation and Other Selected Users

Watershed Management Area	Millions of Gallons				Percent of Total Volume		
	Agriculture Irrigation	Non-ag. Irrigation	Potable Supply	Total Volume	Agriculture Irrigation	Non-ag. Irrigation	Potable Supply
Lower Raritan	113	276	47,620	51,682	0.22%	0.53%	92.14%
Millstone	350	396	11,588	13,005	2.69%	3.04%	89.10%
Grand Total	463	672	59,208	64,687	0.72%	1.04%	91.53%

Table I-7: Agricultural Irrigation by Detailed Use Type, 1990 to 1999: Annual Average (WMA #09 & #10)

Use Group	Millions of Gallons			Percent of Total Volume		
	Lower Raritan	Millstone	Both	Lower Raritan	Millstone	Both
Christmas Trees	--	9	9	0	3%	2%
Field Crops	38	37	75	34%	11%	16%
General Agriculture	20	48	68	18%	14%	15%
Greenhouse	10	48	58	9%	14%	13%
Sod	--	4	4	0	1%	1%
Tree Fruit	6	3	9	5%	1%	2%
Vegetables, Leaf Crops	42	204	246	37%	58%	53%
Grand Total*	113	350	463	100%	100%	100%

*columns do not sum due to rounding



D. Census of Agriculture & Farmland Assessment Statistics and Trends

1. US Census of Agriculture

This subchapter serves as a general overview of the characteristics of Middlesex County's farms and farmers through an analysis of selected statistics as reported in the United States Census of Agriculture, which is conducted by the Department of Agriculture (USDA) on a five year cycle nationwide. The smallest geographic detail provided is at the county level (municipal level not reported in this data source). This subchapter includes a narrative agriculture profile which is followed by illustrative graphs and tables which are intended to highlight some of the main findings in the text. Comparisons between Middlesex County and the state are also furnished to provide a degree of context—how the county fares relative to the state changes. For additional reference, selected US Census of Agriculture profiles are included as Appendix B.

(a) Number of Farms

There were 275 farms in 2002 versus 251 farms in 1982, an increase of 24 farms over a 20-year period. Compared to the 300 farms reported in 1997 however, the number of farms in 2002 was down 8.33% percent. See Table I-5 for more detailed trends data.

(b) Total Land in Farms

There were 32,438 acres in 1982 versus 21,824 acres in 2002 amounting to a decline of almost 10,100 acres, a loss of one-third of the county's agricultural land base. During the same 20-year-period, New Jersey as a whole lost farmland at a much slower pace, a loss of about one-eighth of its farmland base by 2002. In Middlesex County, most of the loss occurred between 1982 and 1987 when the county decline in farmland was 7,216 acres, or approximately a one-fourth loss. The decline of land in farms slowed and actually reversed during the late eighties and through the mid-nineties, followed by another period of loss between 1997 and 2002 when Middlesex County was reported to have lost 6,811 acres, a decline similar to that which was experienced in the mid-eighties. See Figure I-2 and Table I-5 for a comparison of trends between Middlesex County and New Jersey as a whole.

(c) Size of Farm

During the 2002 Census, the vast majority of farms in Middlesex County were less than 50 acres (213 out of 275 total farms were 49 acres or less); and, slightly more than one-third of the farms fell in the 1-to-9-acre size category. In 2002 as well, the median size of farm was 17 acres and the average size was 79 acres, slightly less but on par with the state's average farm size of 81 acres. In 1982, the average farm size in Middlesex County was 18 acres larger than the statewide average farm size—129 acres per farm in county versus the statewide average of 111 acres. See also Figure I-3 and Table I-5.



(d) Land in Farms by Use

In 2002, about three-fourths of the county's total land in farms, or more than 16,500 acres, was classified as cropland. Woodlands covered about 15% of the county's total land in farms. During the same year, crop lands used for pasture and grazing, pasturelands and rangelands combined accounted for a very small component of the county's land in farms, less than 6% of the county's farmland. See Figure I-4.

(e) Cropland Harvested

In 2002, nearly 70% of the total land in farms was classified as cropland harvested. In the same year, Middlesex County still maintained in excess of 15,000 acres of harvested cropland, which accounted for 3.4% of the state's total cropland harvested land area — only a modest decline since the 1982 Census when Middlesex County had a 4.4% share of the state's total cropland harvested acreage. Between 1982 and 2002, the county's cropland harvested acres declined at a slightly faster rate than the total land in farms, a harvested acres loss of 40% versus 32.7% for total land in farms. See Figure I-4 and Table I-5.

(f) Type of Organization

The 2002 Census of Agriculture reports that 80 percent of the farms in Middlesex County were operated by an "individual or family". Approximately 18% were either operated by partnerships or corporations. Less than 2% of the farms were under control by an estate, a trust, a cooperative or other type of organizational entity. See Figure I-5.

(g) Age of Principal Farm Operators

It has been reported on a national basis that there are twice as many farmers over the age of 65 as under the age of 35.⁹ This aging of existing farmers represents a major challenge in ensuring that there will be future generations of farmers available to retain our agricultural industries and to serve as stewards of the lands currently in agriculture. The comparable statistic for Middlesex County during the 2002 Census is that there were 21 farm operators over the age of 65 for every one under the age of 35, while the same ratio for the state was 7-to-1, one third that of the county.

Broken-down by a different age-grouping in the 2002 Census, there were 2.5 Middlesex County farm operators over the age of 60 for every one under the age of 45. New Jersey's equivalent ratio was lower, less than 1.6-to-1. The average age of farm operator in Middlesex County between 1997 and 2002 increased from 56.1 to 57.1, while New Jersey's average age of farm operator remained flat, 55.2 and 55.1 for 1997 and 2002 respectively. If Hudson County and Bergen County farmer operators are disregarded because of these counties' tiny number of farms, Middlesex County farm operators have the highest median age among all the counties in New Jersey.



**Figure I-4: Loss of Land in Farms, Acres
(Middlesex County vs. New Jersey: 1982 to 2002)**

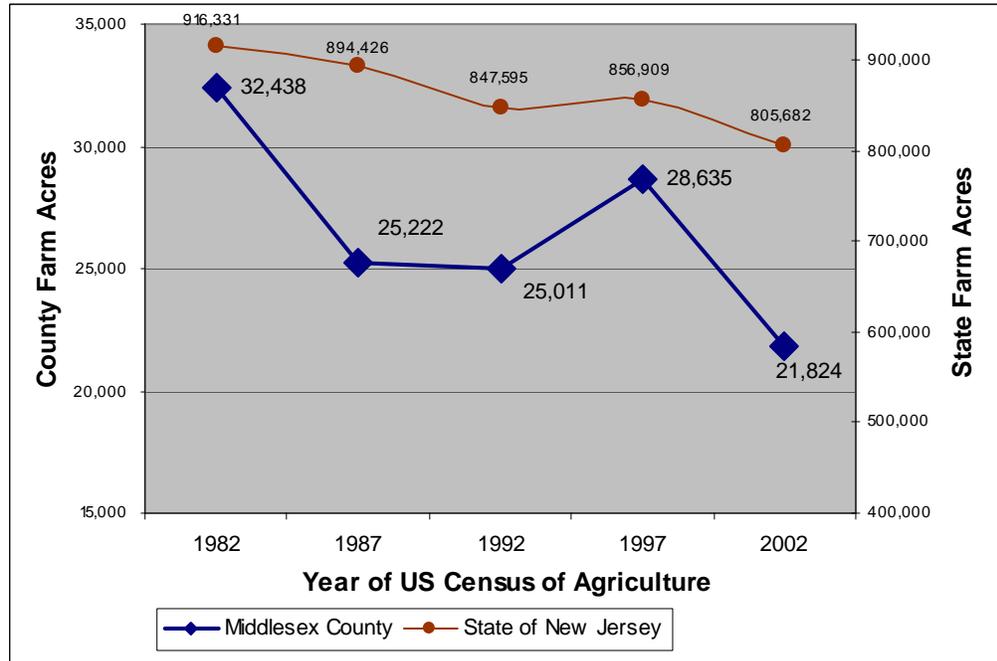
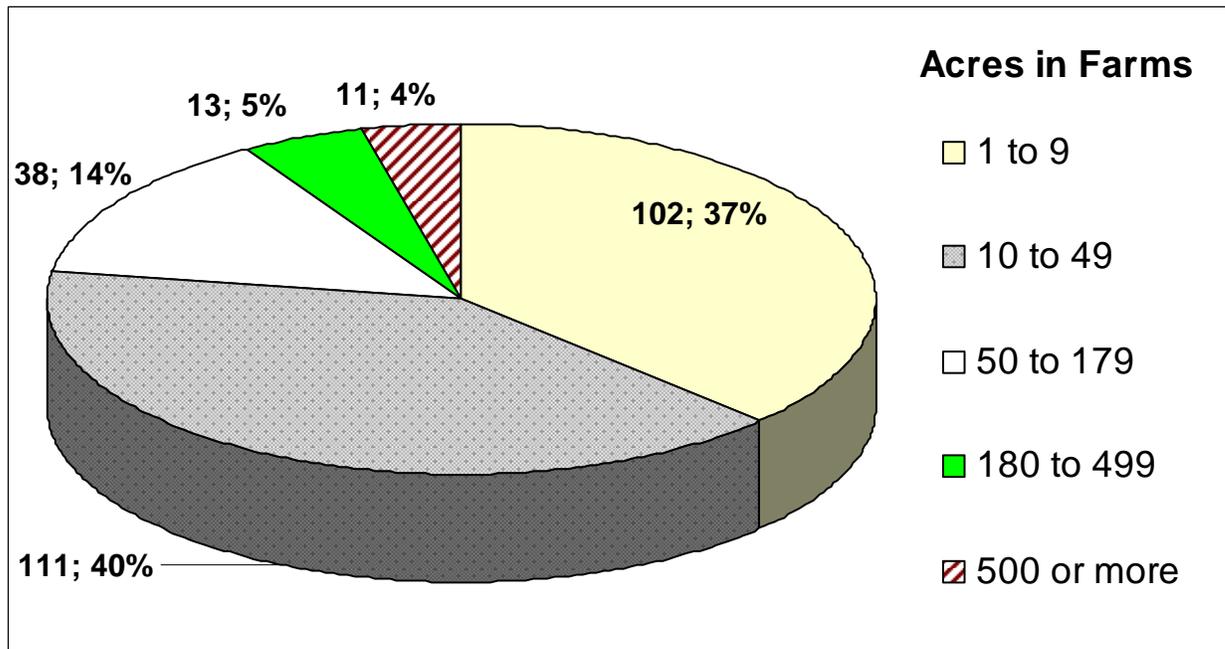


Figure I-5: Number of Farms by Size of Farm, Middlesex County, 2002





**Figure I-6: Land in Farms According to Use, by Acres
Middlesex County (2002)**

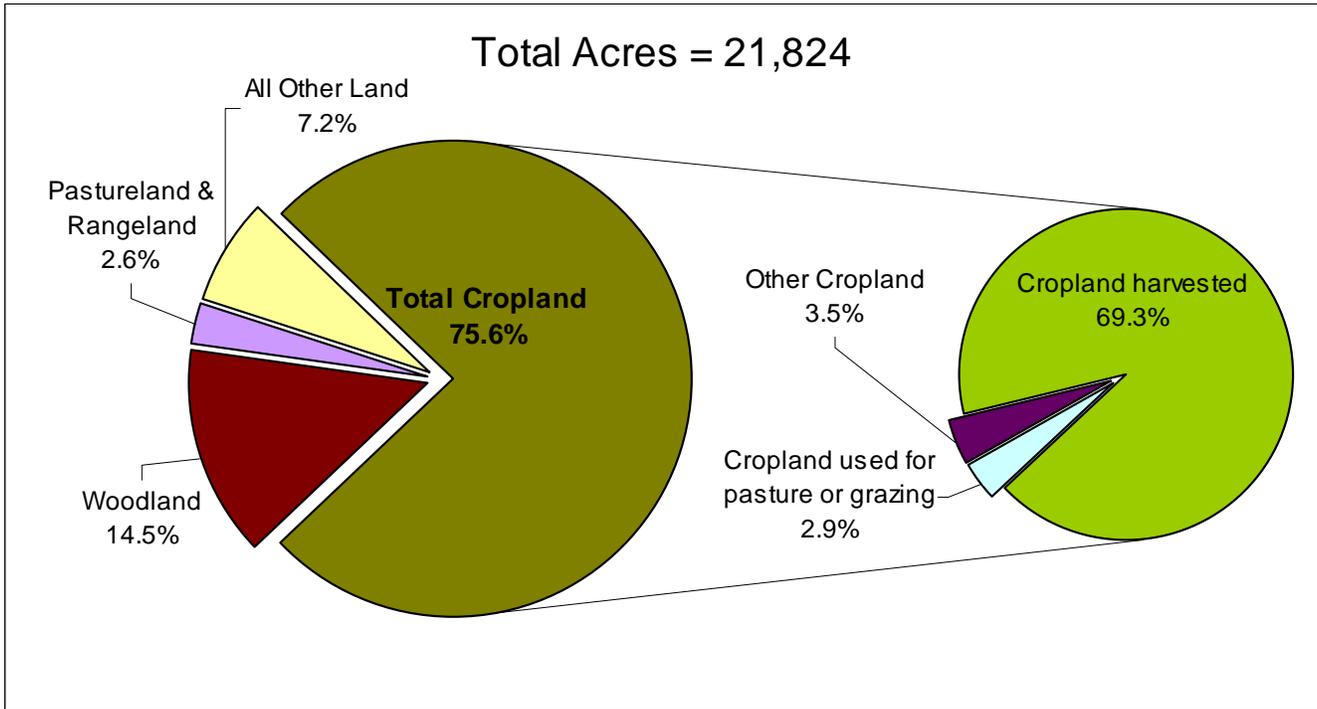
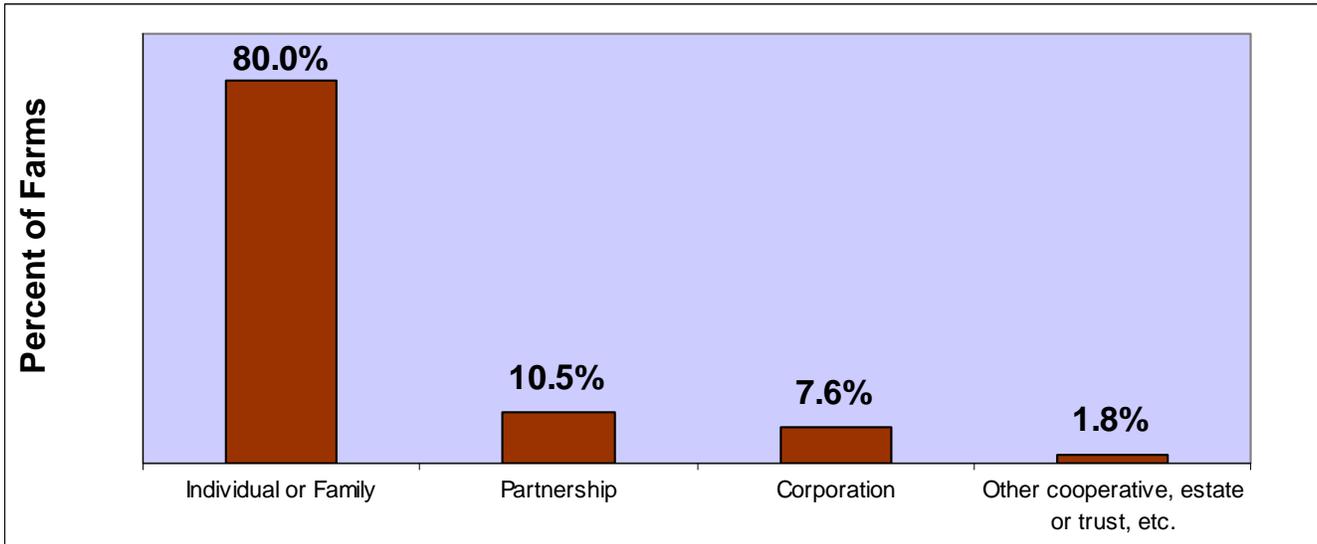


Figure I-7: Farms by Type of Organization, Middlesex County (2002)





**Table I-8: Number, Acreage & Size of Farms and Cropland
(Middlesex County vs. New Jersey: 1982 to 2002)**

US Census of Agriculture Year	1982	1987	1992	1997	2002
Middlesex County					
Farms (number)	251	252	241	300	275
Land in Farms (acres)	32,438	25,222	25,011	28,635	21,824
Total Cropland	27,419	21,134	21,515	22,309	16,507
Total Harvested Cropland	25,351	17,629	19,158	20,514	15,118
% of Statewide Harvested Cropland	4.4%	3.6%	3.9%	4.1%	3.4%
Average Size of Farm (acres)	129	100	104	95	79
Median Size of Farm (acres)	n/a	n/a	n/a	16	17
State of New Jersey					
Farms (number)	8,277	9,032	9,079	10,045	9,924
Land in Farms (acres)	916,331	894,426	847,595	856,909	805,682
Total Cropland	669,618	642,534	623,466	612,919	547,668
Total Harvested Cropland	570,031	484,805	491,518	498,912	444,670
Average Size of Farm (acres)	111	99	93	85	81
Median Size of Farm (acres)	n/a	n/a	n/a	23	22
US Census of Agriculture Years	1982-87	1987-92	1992-97	97-2002	82-2002
Middlesex County					
Change in Number of Farm Acres	(7,216)	(211)	3,624	(6,811)	(10,614)
% Change of Farm Acres	-22.2%	-0.8%	14.5%	-23.8%	-32.7%
Change in Number of Harvested Acres	(7,722)	1,529	1,356	(5,396)	(10,233)
% Change of Harvested Acres	-30.5%	8.7%	7.1%	-26.3%	-40.4%
State of New Jersey					
Change in Number of Farm Acres	(21,905)	(46,831)	9,314	(51,227)	(110,649)
% Change of Farm Acres	-2.4%	-5.2%	1.1%	-6.0%	-12.1%
Change in Number of Harvested Acres	(85,226)	6,713	7,394	(54,242)	(125,361)
% Change of Harvested Acres	-15.0%	1.4%	1.5%	-10.9%	-22.0%

Table I-9: Age Groups of Principal Farm Operator (2002): NJ vs. County

Age Group	Middlesex County		New Jersey	
	Number	% Total	Number	% Total
Under 25 years	0	0.0%	43	0.4%
25 to 34 years	4	1.5%	295	3.0%
35 to 44 years	41	14.9%	1879	18.9%
45 to 54 years	84	30.5%	2903	29.3%
55 to 59 years	33	12.0%	1314	13.2%
60 to 64 years	30	10.9%	1134	11.4%
65 to 69 years	30	10.9%	827	8.3%
70 years and over	53	19.3%	1529	15.4%

Table I-10: Average Age of Principal Farm Operator (1997 & 2002): NJ vs. County

	1997	2002
Middlesex County	56.1	57.1
New Jersey	55.2	55.1



2. New Jersey Farmland Assessment Data

Another valuable resource for the tracking and reporting of acres in farms is the compilation and summation of the data provided on Farmland Assessment forms filed with municipal tax assessors for property tax purposes. Acreage figures in the table below are for the lands classified as farm-qualified (i.e. Property Class "3B") which receive special assessment for being used for agriculture or a related purpose.

The 2001 Farmland Preservation Plan cites a grand total of 42,291 farmland assessed acres in 1976. For a comparative current figure, County planning staff performed a county-wide MOD-IV database query and summation of farmland assessed records, last revised August 2007. The results of the year 2007 query and summation reflects a total of 24,744 acres. This represents an average daily loss rate of 1.5 acres per day over the course of a 31-year period. Still, farmland assessed acreage represents about 12.5% of Middlesex County.

The table below provides more detailed information on trends in farmland assessment for various time periods between 1983 and 2004, and aggregated by the major categories of land uses which are specified on farmland assessment forms. The degree of loss in active agriculture acreage between year 1995 and 2004 (a 9-year period) was almost 3 times as high as for the 12-year period between 1983 and 1995. (For farmland assessment acreages by municipality please refer back to the first section of this chapter.)

Overall for all land use categories, Middlesex County's farmland assessed land base of 2004 was one-third that of the 1983 land base. For the "active agriculture" categories of cropland harvested & pastured and permanent pasture, the farmland assessed land base of 2004 represented a loss of almost one-half that of the 1983 active agriculture lands. Between 1995 and 2004 there was a decline of about 13,000 acres of active agriculture lands versus a decline of about 7,000 acres of woodlands qualifying for farmland assessment.

Table I-11: Trends in Middlesex County's Farmland Assessment Acreages (1983 to 2004)

Farmland Assessment Acres	1983	1995	2004	1983 to 1995		1995 to 2004		1983 to 2004	
				Number Change	Percent Change	Number Change	Percent Change	Number Change	Percent Change
Cropland Harvested	25,217	22,434	13,375	-2,783	-11.0%	-9,059	-40.4%	-11,842	-47.0%
Cropland Pastured	1,109	714	564	-395	-35.6%	-150	-21.0%	-545	-49.1%
Permanent Pasture	1,698	1,095	872	-603	-35.5%	-223	-20.4%	-826	-48.6%
"Active Agriculture" Subtotal	28,024	24,243	14,811	-3,781	-13.5%	-9,432	-38.9%	-13,213	-47.1%
Percentage of County in "Active Agriculture"	14.1%	12.2%	7.5%	-1.9%	-13.5%	-4.8%	-38.9%	-6.7%	-47.1%
Unattached Woodland	*	7,483	7,286	n/a	n/a	-197	-2.6%	n/a	n/a
Attached Woodland	10,756	5,540	3,577	-5,216	-48%	-1,963	-35.4%	-7,179	-66.7%
Equine Acres	n/a	n/a	128	n/a	n/a	n/a	n/a	n/a	n/a
Total for Ag Use	38,775	37,266	25,802	-1,509	-3.9%	-11,464	-30.8%	-12,973	-33.5%
Percentage of County in Farmland Assessment	19.6%	18.8%	13.0%	-0.8%	-3.9%	-5.8%	-30.8%	-6.5%	-33.5%
Total County Land Area	198,220	198,220	198,220						

* Total Woodland / Wetland acreage wholly included in Attached Woodland; Note: numbers in table may not sum due to rounding.



II. County's Agricultural Industry – Overview

A. Trends in Market Value of Agricultural Products Sold

1. Total Annual Market Value Trends: 1982-2002

As of the 2002 Census of Agriculture, the Middlesex County agricultural industry was a \$22.7 million business (annual sales). Despite the tremendous losses in agriculture acreage outlined in the preceding Chapter One, that \$22.7 million does not appear to be much of a drop from the 1982 total annual sales figure of \$26.8 million. However, the figures are not directly comparable, as the factor of inflation has not been taken into account (not “constant dollars”). In fact, using the Consumer Price Index as a measure of inflation over the twenty year period, that \$26.8 million in 1982 was actually worth almost \$50 million in 2002 dollars.

When adjusted for inflation, annual sales dropped at a much higher rate in Middlesex County than that experienced on a statewide basis. The state's inflation-adjusted figures from 1982 to 2002 indicate a relatively healthy agricultural economy, when viewed in light of a market value sales decline of less than 8% vs. a 12% loss of land in farms. The county, on the other hand, experienced a market value sales decline of 55% versus a 33% loss of land in farms. See Figure II-1 for an illustration of inflation-adjusted sales trends.¹⁰

2. Other Notable Market Value Statistics: 2002 Census

Farms by Market Value of Products Sold – Just about six percent, 16 of the 275 total number of farms in Middlesex County in 2002 accounted for 78% of agricultural product sales—with each of these farms having had reported annual sales of \$250,000 or greater. **More telling is that about one-sixth of the farms (46 farms) accounted for 96% of the total annual sales**—with this same set of farms each reporting sales of \$50,000 or greater. Almost 60% of the farms in Middlesex County earned less than \$5,000 in 2002. See Figure II-2.

Value per Gross Acre of Land in Farms – A statistic not published in the census but provided in Table II-2 is market value yield per acre. Middlesex County's farms are very competitive at \$1,040 per acre of land in farms in 2002, about \$100 per acre greater than New Jersey as a whole (\$931) and more than double that of neighboring Mercer and Somerset counties (\$489 and \$416, respectively). This is a testament to Middlesex County having some of the best agricultural soils in the nation, paired with hard-working entrepreneurial farmers. However another adjacent county, Monmouth, is significantly higher at \$1,728 per acre, attributable to intensive greenhouse, sod and high value horse-breeding (equine) industries.

Top Commodity Groups (by market value) – In Middlesex County during the 2002 Census, \$15.1 million, or approximately 65% of the total market value of agricultural production, was attributed to the nursery commodity group consisting of nursery stock, greenhouse products, floriculture and sod. When the nursery group is combined with vegetables and grains, it accounts for almost 94% of total market value share of Middlesex County's agriculture economy. Christmas Trees accounted for \$277,000 in market value of sales in 2002.



Figure II-1: Trends in Yearly Market Value of Agricultural Products Sold, Middlesex County vs. NJ, 1982 to 2002 (inflation adjusted)

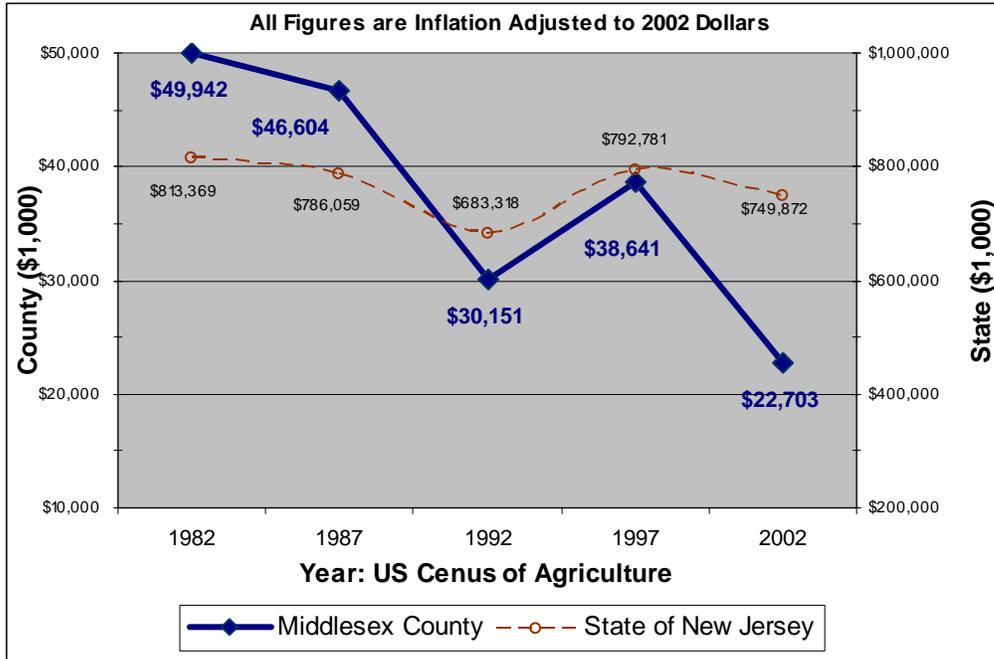


Figure II-2: Percent of Farms and of Market Value of Agricultural Products Sold: Middlesex County, 2002

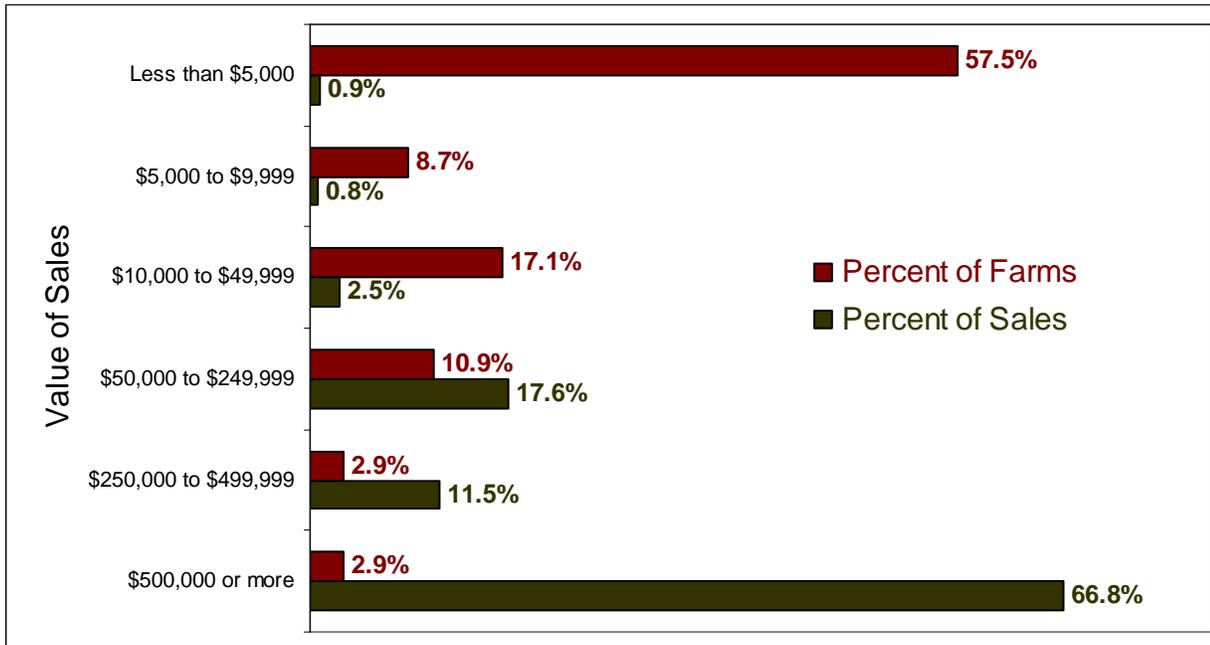




Table II-1: Market Value of Agricultural Production per Gross Acre, Middlesex County vs. NJ & Surrounding Counties: 2002

Source: US Census of Agriculture	Total Market Value of Agriculture Production (\$1,000)	Land in Farms (acres)	Per Acre Market Value of Agriculture Production
Middlesex County	\$22,703	21,824	\$1,040
New Jersey	\$749,872	805,682	\$931
Monmouth County	\$81,551	47,198	\$1,728
Mercer County	\$12,247	25,070	\$489
Somerset County	\$15,064	36,237	\$416

Table II-2: Market Value Statistics of Total Agricultural Products Sold (Middlesex County vs. New Jersey: 1982-2002)

US Census of Agriculture Year	1982	1987	1992	1997	2002
Middlesex County					
Market Value of Agriculture Products Sold (\$1,000)	\$26,769	\$29,407	\$23,518	\$34,468	\$22,703
Average per Farm (dollars)	\$106,650	\$116,696	\$97,585	\$114,894	\$82,555
State of New Jersey					
Market Value of Agriculture Products Sold (\$1,000)	\$435,966	\$496,003	\$532,988	\$707,161	\$749,872
Average per Farm (dollars)	\$52,672	\$54,916	\$58,706	\$70,399	\$75,561
US Census of Agriculture Years	1982-87	1987-92	1992-97	1997-2002	1982-2002
Middlesex County					
Change in Market Value of Agriculture Products Sold (\$1,000)	\$2,638	(\$5,889)	\$10,950	(\$11,765)	(\$4,066)
% Change in Value	9.9%	-20.0%	46.6%	-34.1%	-15.2%
Change in Average per Farm (dollars)	\$10,046	(\$19,111)	\$17,309	(\$32,339)	(\$24,095)
% Change in Average Per Farm Value	9.4%	-16.4%	17.7%	-28.1%	-22.6%
State of New Jersey					
Change in Market Value of Agriculture Products Sold (\$1,000)	\$60,037	\$36,985	\$174,173	\$42,711	\$313,906
% Change in Value	13.8%	7.5%	32.7%	6.0%	72.0%
Change in Average per Farm (dollars)	\$2,244	\$3,790	\$11,693	\$5,162	\$22,889
% Change in Average Per Farm Value	4.3%	6.9%	19.9%	7.3%	43.5%



Nursery Stock on a preserved 100 acre +/- farm in Cranbury Township; the nursery business (including greenhouse, floriculture & sod) is the top income earner in Middlesex County's Agricultural industry

Table II-3: Top 5 Agriculture Commodity Groups by Market Value, Middlesex County vs. NJ & Surrounding Counties: 2002

All Market Values (\$1,000s); Source: US Census of Agriculture					
Rank	Middlesex County	New Jersey	Monmouth County	Mercer County	Somerset County
1	Nursery \$15,073	Nursery \$356,863	Nursery \$59,625	Nursery \$6,125	Nursery \$6,089
2	Vegetables \$3,699	Vegetables \$167,956	Vegetables \$8,621	Vegetables \$2,014	Milk \$1,315
3	Grains \$1,787	Fruits \$87,148	Equine \$6,007	Grains \$1,918	Grains \$757
4	Fruits \$311	Grains \$29,885	Grains \$1,856	Fruits \$561	Hay/other \$748
5	Christmas Trees \$277	Milk \$29,154	Fruits \$1,288	Equine \$453	Equine \$661
All Other Commodity Groups Combined		\$78,866	\$4,154	\$1,176	\$5,494
Total Market Value for All Commodities		\$749,872	\$81,551	\$12,247	\$15,064



B. General Industry Trends over the last 20 years

1. Overview

Middlesex County has historically been known for its abundance of acreage in vegetable farms, with grain farming also common in the southern part of the County. In the April 1987 issue of the Soil Survey of Middlesex County, it was reported that Middlesex County ranked third in the state for potato production and fifth for nursery plants. It was also noted that the sources of income were mainly field crops, vegetables and dairy products as well as horticultural products. Nationally, as late as 1964 Middlesex County was ranked 56th in acreage used for potatoes. In 1969 the County ranked 38th in the nation in the sale of nursery and greenhouse products.¹¹

Farmlands in Middlesex County have been recognized as a significant contributor to the state's agricultural production in several commodities. As cited in the Farmland Preservation Plan of 2001, Middlesex ranked sixth among New Jersey counties in soybean and wheat grain production for 1998, producing 7.9% of the state's soybean crop and 6.3% of the state's wheat for grain crop. Middlesex County ranked ninth in corn production—accounting for 3.7% of the state's corn crop. Also in 1998, Middlesex farmers were reported as having harvested 100 acres of tomatoes and 400 acres of sweet corn for the fresh produce market.

During the 2002 Census, Middlesex County still maintained NJ county rankings of sixth in corn for grain (3,855 acres), seventh in soybeans (6,370 acres) and eighth in all vegetables harvested (2,089 acres). The most recent census of 2002 also reports Middlesex County as being ranked #1 in spinach acreage among NJ counties (acreage not disclosed to protect individual farmers).

As measured by 2004 farmland assessment crop reporting (see graphs and table on following pages), Middlesex County still maintained 10,000+/- acres planted in field crops, 2,000 acres of nursery stock and slightly more than 1,000 acres in vegetable production. Total acres planted in the three foregoing commodity categories have declined since 1983. However, field crops and nursery stock are on the rise when evaluated in terms of their proportional share of total acres planted (due to a faster rate of decline in acreage placed in vegetable production). [Compare Figure II-3 & II-4]

Between 1996 and 2005, the New Jersey Department of Agriculture reports an increase in both the number of certified nurseries and the acreage in nursery stock in certified nurseries. The 2002 U.S. Census of Agriculture ranked Middlesex County's nursery, greenhouse, floriculture and sod in the top 7% of all counties nationwide (#185 out of 2,708 counties, rankings by dollar value).



Figure II-3: Total Acres Planted by Major Crop Categories as reported on Middlesex County Farmland Assessment Forms (1983, 1995 & 2004)

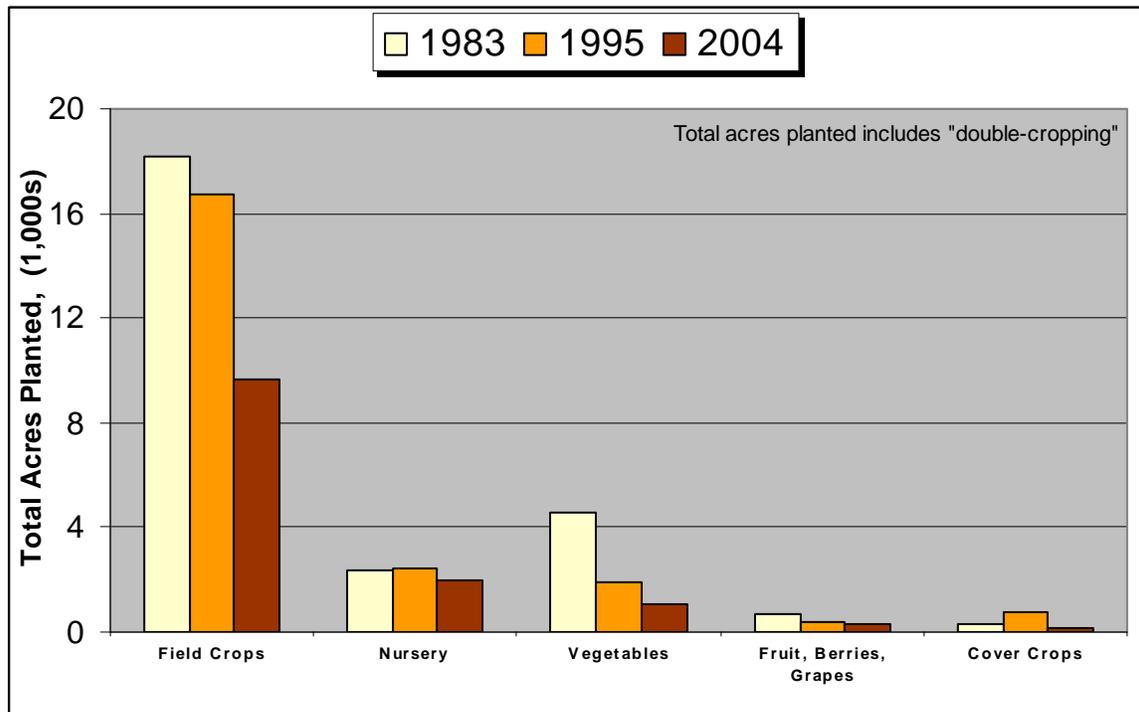


Figure II-4: Major Crop Categories by Percent Total Acres Planted as reported on Middlesex County Farmland Assessment Forms (1983, 1995 & 2004)

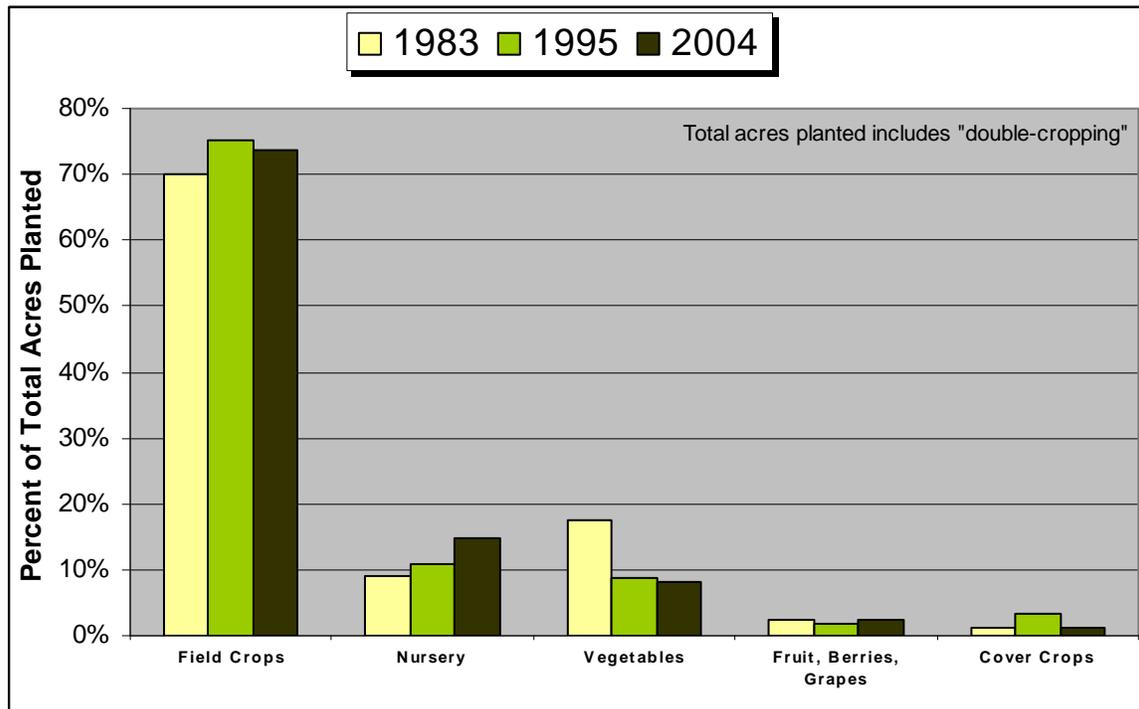




Table II-4: Trends in Acres Planted: Reported by Major Crop Categories, Middlesex County Farmland Assessment Data (1983 to 2004)

Acres by Major Crop Category	1983	1995	2004		1983 to 1995		1995 to 2004		1983 to 2004	
			Number	% Total	Number Change	Percent Change	Number Change	Percent Change	Percent Change	Percent Change
Field Crops	18,187	16,720	9,669	73.6%	-1,467	-8.1%	-7,051	-42.2%	-8,518	-46.8%
Cover Crops	282	758	150	1.1%	476	168.8%	-608	-80.2%	-132	-46.8%
Fruit	598	333	253	1.9%	-265	-44.3%	-80	-24.0%	-345	-57.7%
Berries	47	68	45	0.3%	21	44.7%	-23	-33.8%	-2	-4.3%
Grapes	3	10	11	0.1%	7	233.3%	1	10.0%	8	266.7%
Nursery	2,332	2,442	1,950	14.9%	110	4.7%	-492	-20.1%	-382	-16.4%
Vegetables	4,539	1,921	1,053	8.0%	-2,618	-57.7%	-868	-45.2%	-3,486	-76.8%
Grand Total	25,988	22,252	13,131	100.0%	-3,736	-14.4%	-9,121	-41.0%	-12,857	-49.5%

All acreage figures include "double-cropping", which is the practice of consecutively producing two crops of either like or unlike commodities on the same land within the same year. An example of double cropping might be to harvest a wheat crop by early summer and then plant corn or soybeans on that acreage for harvest in the fall.

Table II-5: Top 5 Agriculture Commodity Groups in Middlesex County by Market Value: 1997 vs. 2002

All Market values are \$1,000's

1997			2002		
Rank	Commodity Group	Value	Rank	Commodity Group	Value
1	Nursery, greenhouse, floriculture, sod	\$25,324	1	Nursery, greenhouse, floriculture, sod	\$15,073
2	Vegetables & melons	\$3,341	2	Vegetables & melons	\$3,699
3	Soybeans	\$2,084	3	Grains, oilseed, dry beans & peas	\$1,787
4	Corn for grain	\$1,440	4	Fruits, nuts, berries	\$311
5	Fruits, nuts, berries	\$448	5	Christmas Trees	\$277
All other commodity groups combined		\$1,718	All other commodity groups combined		\$1,556
Total Market Value		\$34,355	Total Market Value		\$22,703





2. Crop Acres, Production and Yields: 1986 to 2006

The graphs and tables found on the following pages provide detailed crop production, acreage and yield data. This was assembled from data downloaded from USDA's National Agricultural Statistical Service (NASS) web site, which was then compiled into the figures and tables shown here. New Jersey statewide data and data for "surrounding counties" with an agriculture economy are included for context and comparison purposes (*Mercer, Monmouth and Somerset*). The years queried were from 1986 to 2006. **For some crops, the full 20-years of data are not reported by NASS.**

(a) Corn for Grain

Middlesex County's total harvested acres are in decline, as are those in the surrounding counties and the state. Between 1986 and 2005, Middlesex County harvested corn acres shrank by 28%, comparable to the 34% decline experienced statewide. The three surrounding counties saw more rapid rates of decline, with losses of 50% or greater. Middlesex County corn for grain production shows a great deal of fluctuation from year to year, with a high of 567,000 bushels achieved in the early 1990s. In terms of yield, Middlesex leads, with a high yield of 150 bushels per acre in 2004.

Table II-6: Grain Corn Harvested Acres for Selected Years, 1986 to 2006 (Middlesex, Surrounding Counties & NJ)

Year					Change (1986-2005)	
Location	1986	1996	2005	2006	Acres	%
Middlesex	4,300	3,500	3,100	Not Reported	-1,200	-27.9%
Mercer	6,200	4,500	3,100	2,900	-3,100	-50.0%
Monmouth	5,500	3,800	1,600	1,600	-3,900	-70.9%
Somerset	5,000	3,900	2,200	2,200	-2,800	-56.0%
State Total	94,000	94,000	62,000	64,000	-32,000	-34.0%





Figure II-5: Grain Corn Production, 1986 to 2006 (Middlesex & Surrounding Counties)

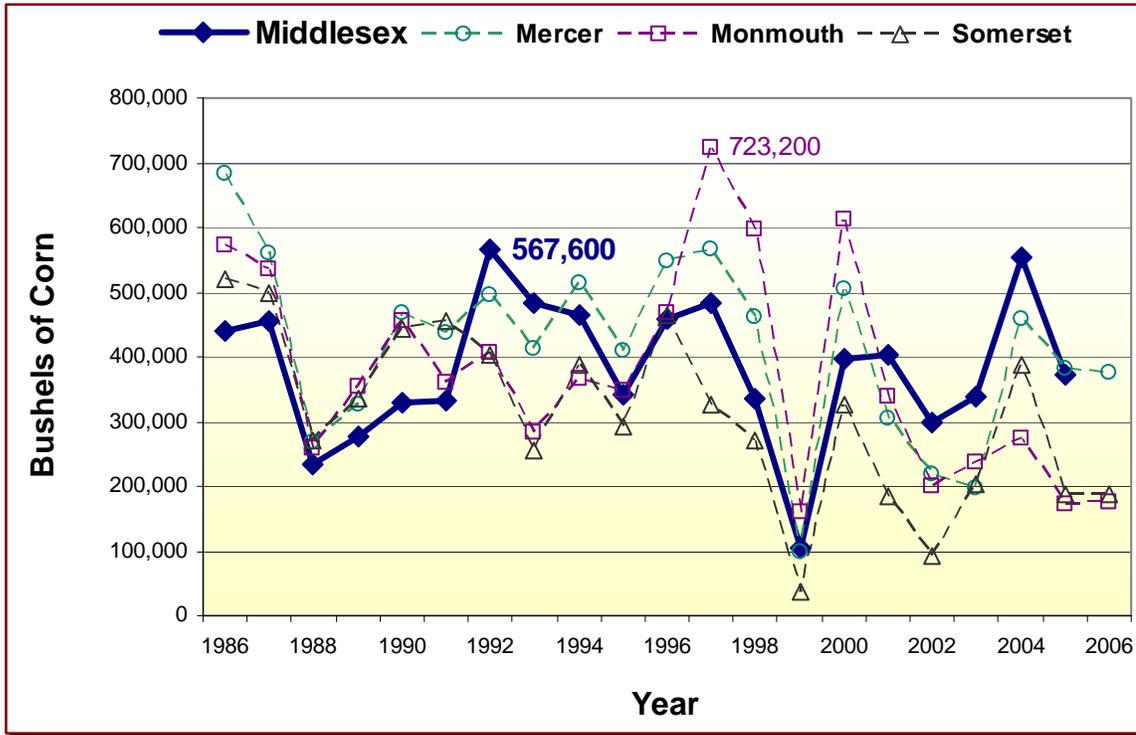
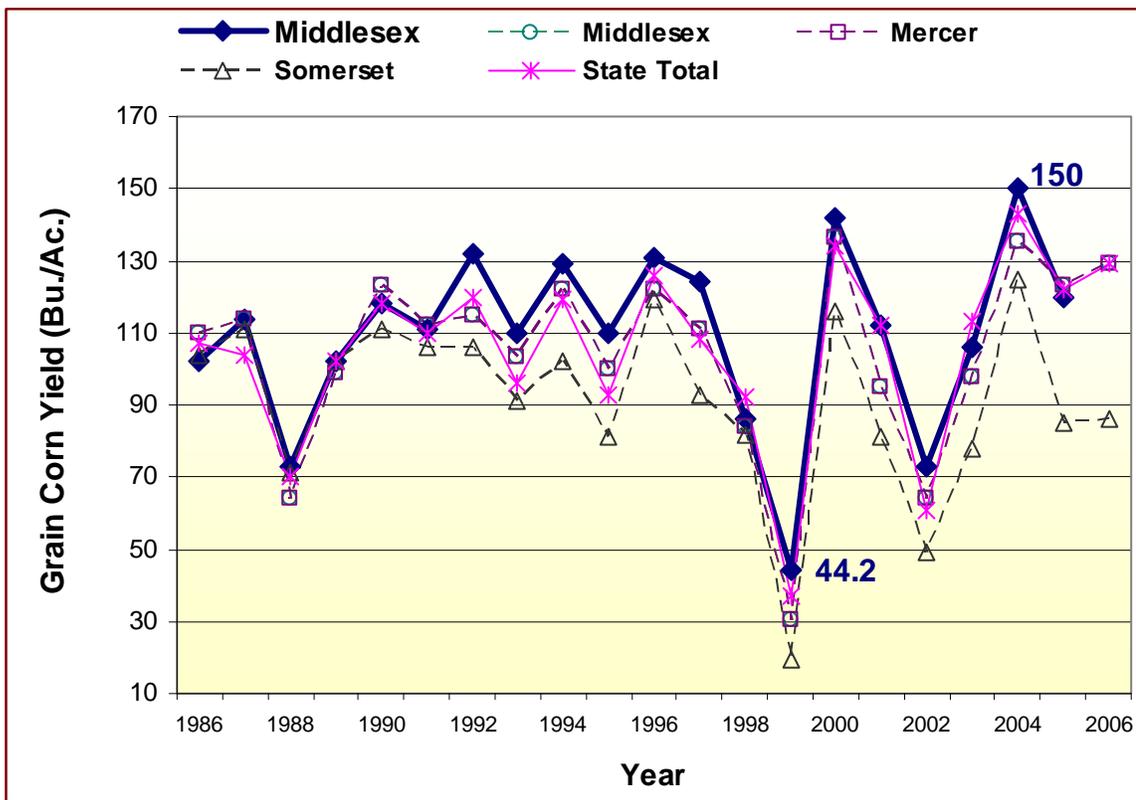


Figure II-6: Grain Corn Yields, 1986 to 2006 (Middlesex, Surrounding Counties & NJ)





(b) Soybeans

Between 1983 and 2001, Middlesex showed an increase of 800 soybean acres for the period evaluated, unlike the substantial declines seen in the surrounding counties and the state as a whole. Middlesex also had the most acres harvested when measured against the surrounding counties. Middlesex County annual soybean production ranged from an annual low of 204,000 bushels per year in 1986 to a high of 476,000 bushels per year in the mid-1990s. Production leveled off in 2001 (last year data is available) at 250,000 bushels per year. Middlesex production is on par with Monmouth and Mercer (Somerset lags behind in this commodity). Middlesex County yields (measured as bushels per acre) were fairly consistent with the state and the surrounding counties (fluctuating between the mid 20s and upper 30s).

Table II-7: Soybean Acres Harvested for Selected Years, 1986 to 2006 (Middlesex, Surrounding Counties & NJ)

Year Location	1986	1996	2001	2006	Change (1986-2001)	
					Acres	%
Middlesex	7,300	9,100	8,100	Not Reported	800	11.0%
Mercer	11,400	8,700	6,200	5,500	-5,200	-45.6%
Monmouth	14,800	8,700	7,000	4,400	-7,800	-52.7%
Somerset	6,700	4,100	1,500	1,200	-5,200	-77.6%
State Total	117,000	119,000	101,000	86,000	-16,000	-13.7%





Figure II-7: Soybean Production, 1986 to 2006 (Middlesex & Surrounding Counties)

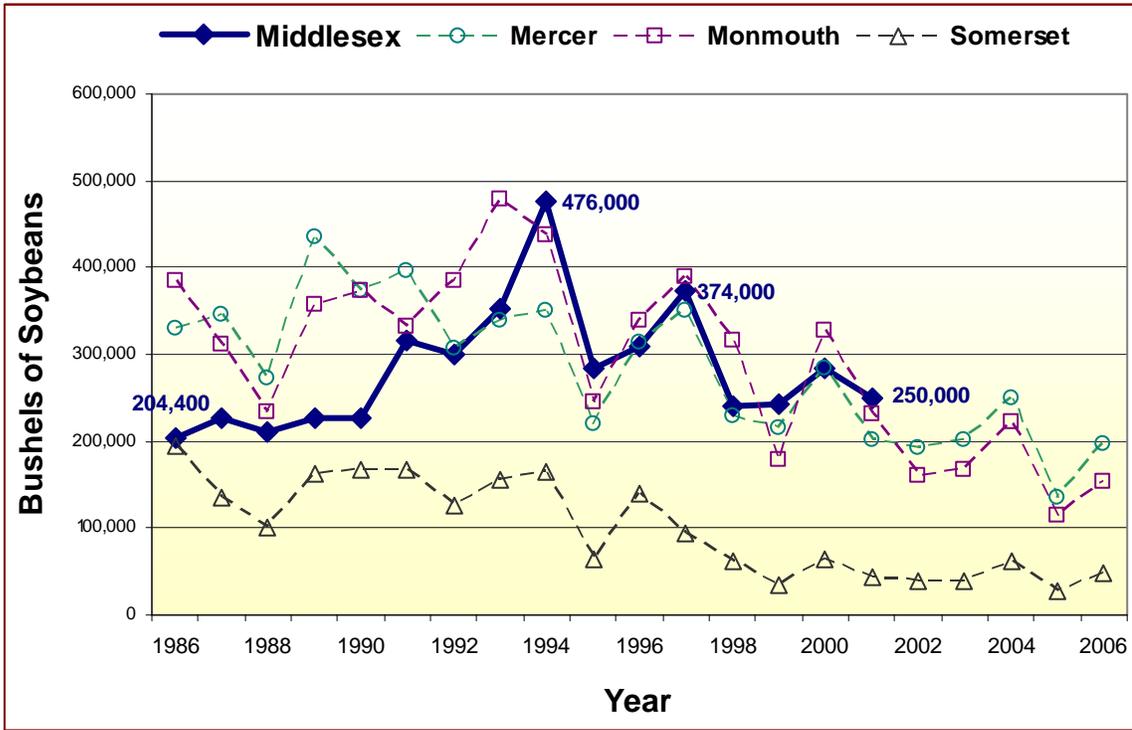
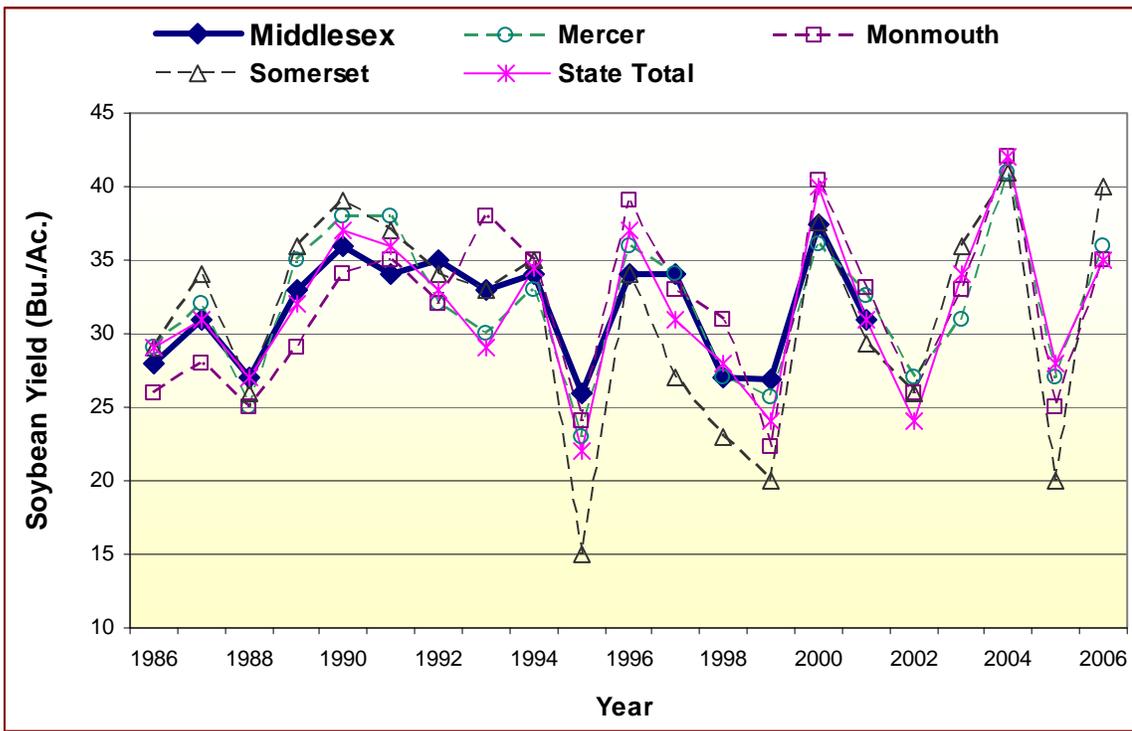


Figure II-8: Soybean Yields, 1986 to 2006 (Middlesex, Surrounding Counties & NJ)





(c) Hay Production

From 1986 to 2005, Middlesex County lagged behind the surrounding counties in terms of acres harvested, tonnage and yields. Production was consistently less than 5,000 tons per year and there were fewer than 1500 harvested acres.

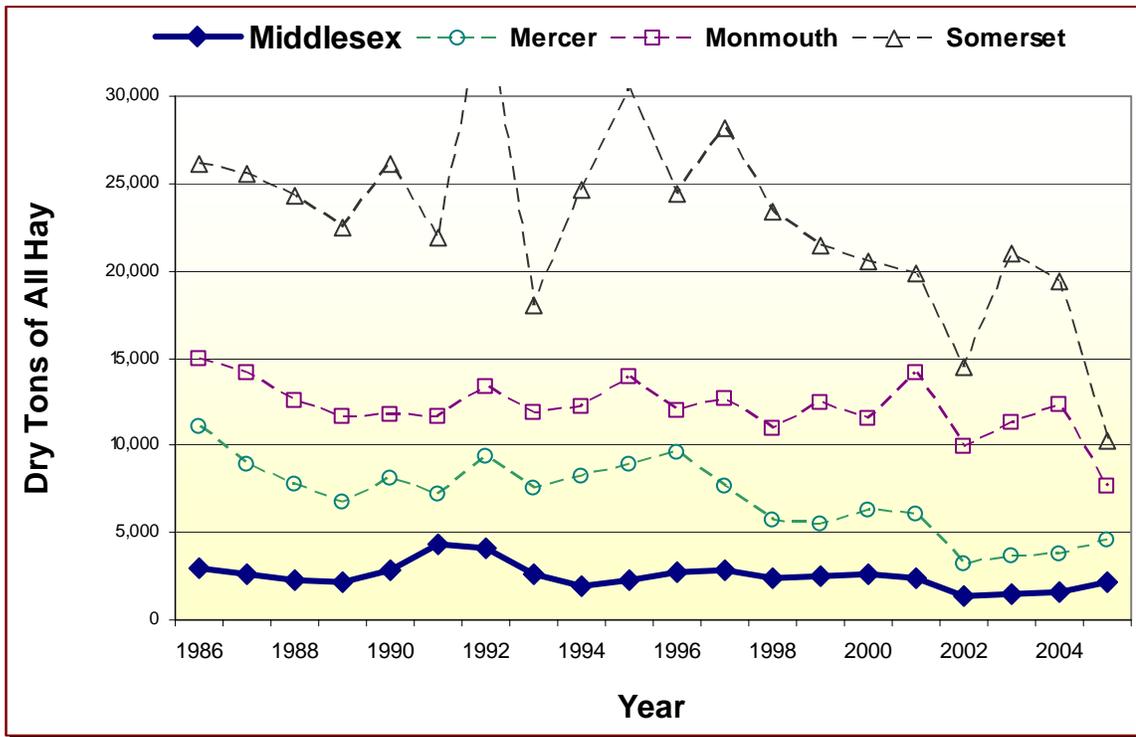
Table II-8: Hay (all types) Harvested Acres for Selected Years, 1986 to 2005 (Middlesex, Surrounding Counties & NJ)

Year Location	1986	1996	2005	Change (1986-2005)	
				Acres	%
Middlesex	1,200	1,600	1,300	100	8.3%
Mercer	4,400	4,400	2,400	-2,000	-45.5%
Monmouth	5,500	5,100	4,400	-1,100	-20.0%
Somerset	11,900	11,100	8,700	-3,200	-26.9%
State Total	115,000	120,000	115,000	0	0.0%

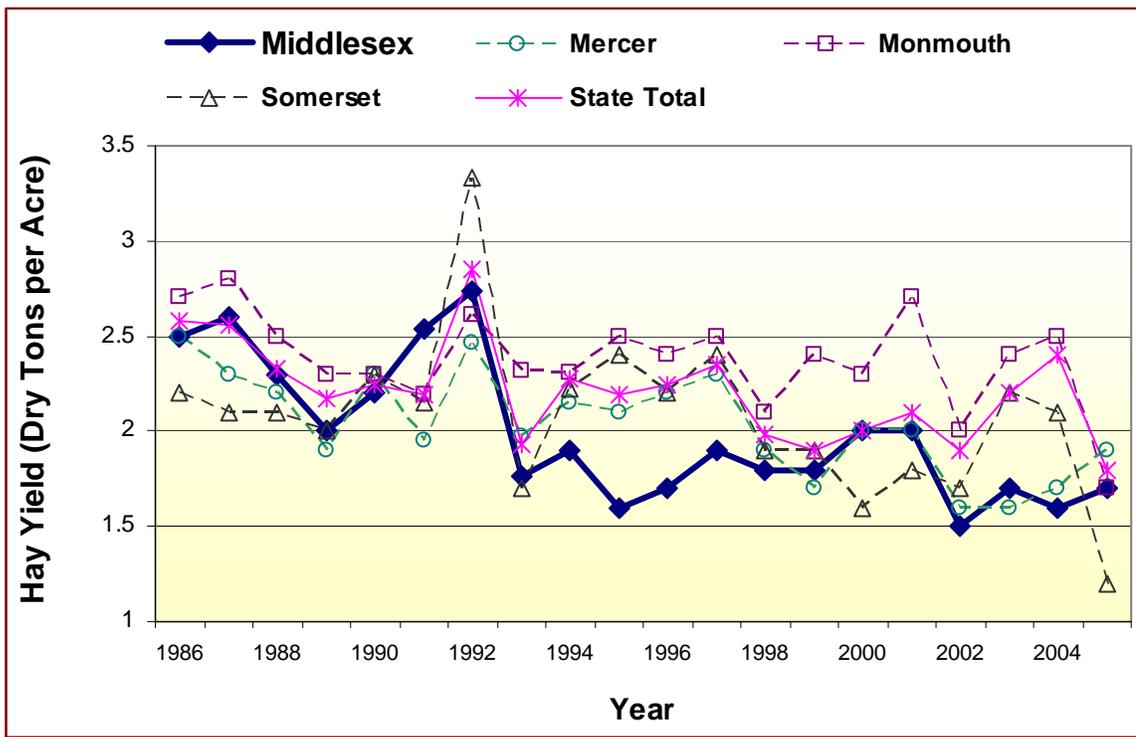




**Figure II-9: Hay Production (all types), 1986 to 2005
(Middlesex & Surrounding Counties)**



**Figure II-10: Hay Yields (all types), 1986 to 2005
(Middlesex, Surrounding Counties & NJ)**





(d) Apple Production

Middlesex County apple production fell 80% between 1986 and 2006 (from five to one million pounds). In 2005, Middlesex County was ranked 9th among New Jersey counties in apple production. The one million pounds produced in Middlesex County in 2005 represents about 2.2% of the state's total of 45 million pounds of apples. Because of growing globalization of the fruit industry since the early-1990's, apple production has been unable to rebound in New Jersey, with minor exceptions noted in Hunterdon and Warren Counties.

**Figure II-11: Apple Production, 1986 to 2005
(Middlesex, Surrounding Counties & NJ)**

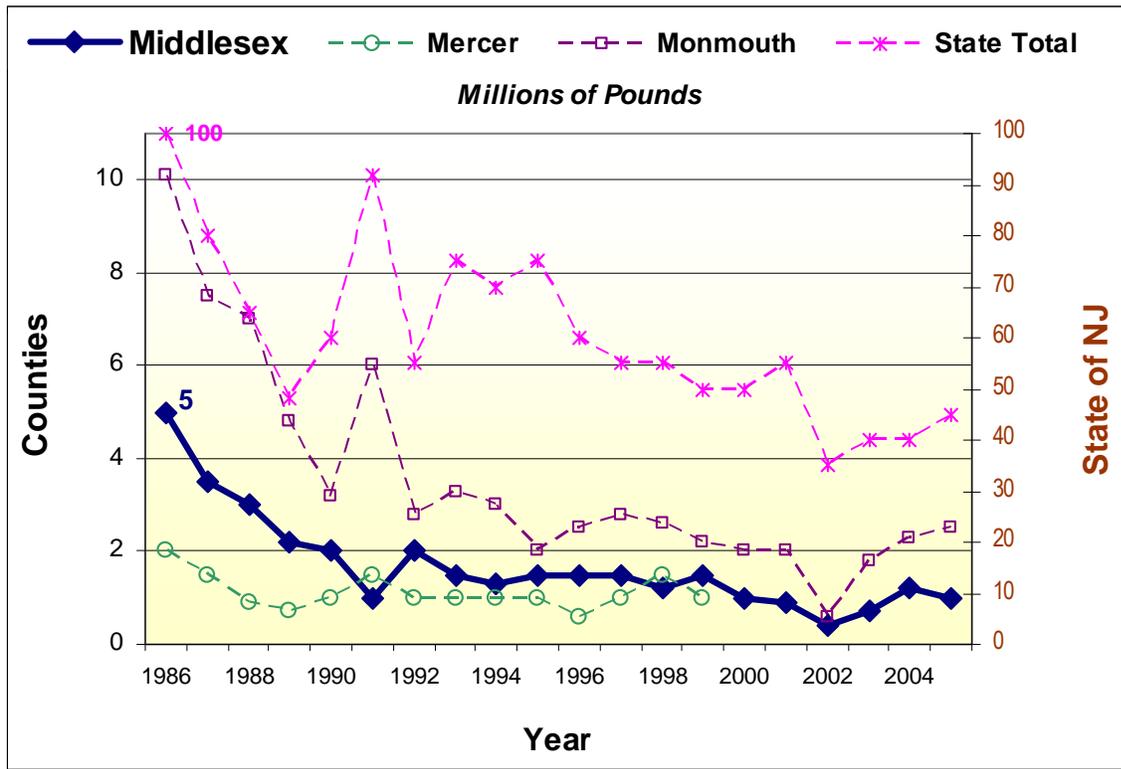




Table II-9: Statewide Apple Production by New Jersey County, 1986 & 2005

County	1986			2005			86-05
	Pounds	Percent Total	Rank	Pounds	Percent Total	Rank	Percent Change
Atlantic	7,000,000	7.0%	5	3,500,000	7.8%	5	-50.0%
Bergen	1,000,000	1.0%	14	0	0.0%	-	-
Burlington	12,100,000	12.1%	2	4,800,000	10.7%	2	-60.3%
Camden	8,000,000	8.0%	4	2,500,000	5.6%	7	-68.8%
Cumberland	7,000,000	7.0%	5	0	0.0%	-	-
Gloucester	29,600,000	29.6%	1	14,500,000	32.2%	1	-51.0%
Hunterdon	3,000,000	3.0%	11	3,500,000	7.8%	5	16.7%
Mercer	2,000,000	2.0%	13	0	0.0%	-	-
Middlesex	5,000,000	5.0%	7	1,000,000	2.2%	9	-80.0%
Monmouth	10,100,000	10.1%	3	2,500,000	5.6%	7	-75.2%
Morris	2,200,000	2.2%	12	0	0.0%	-	-
Salem	4,100,000	4.1%	8	0	0.0%	-	-
Sussex	4,000,000	4.0%	9	3,700,000	8.2%	4	-7.5%
Warren	3,700,000	3.7%	10	4,000,000	8.9%	3	8.1%
All Other Counties Combined	1,200,000	1.2%	-	5,000,000	11.1%	-	316.7%
State Total	100,000,000	100%	-	45,000,000	100%	-	-55.0%



3. Certified Nurseries

Table II-10: Number of Certified Nurseries and Acres in Nursery Stock (Middlesex County vs. New Jersey, Selected Years 1996 to 2005)

	1996	1999	2002	2005	Change 1996-2005	
					Number	Percent
Middlesex County						
Number of Certified Nurseries	65	65	68	70	5.0	7.7%
Acreage in Nursery Stock	621.5	575	724.7	716.7	95.2	15.3%
Average Size of Nursery (acres)	9.6	8.8	10.7	10.2	0.6	6.3%
% of State's Certified Nurseries	5.3%	5.1%	5.3%	5.4%	0.1%	2.1%
% of State's Certified Nursery Acreage	4.7%	3.7%	4.2%	3.8%	(0.9%)	(18.7%)
State of New Jersey						
Number of Certified Nurseries	1,230	1,277	1,290	1,297	67.0	5.4%
Acreage in Nursery Stock	13,313.6	15,406	17,261.1	18,877.3	5,563.7	41.8%
Average Size of Nursery (acres)	10.8	12.1	13.4	14.6	3.8	35.2%

Data Source: NJ Division of Plant Industry, NJ Dept. of Agriculture

4. Equine Industry

The horse industry is not at this time a major part of Middlesex County's agricultural economy. Even so, according to a recently issued report by the Equine Science Center (ESC) of the Rutgers New Jersey Agricultural Experiment Station (in New Brunswick), Middlesex County has 160 horse operations with 2,400 acres of land directly related to equine use, of which 1,900 acres are devoted to hay, pasture and grain.



Among New Jersey counties, in terms of number of equine operations, Middlesex County is tied at 14th place with Camden County. Ranked by acres that are equine-related, Middlesex County is 11th, or one place ahead of Mercer County but three places behind Somerset County.

Statewide, equine operations consist of mainly smaller farms. The ESC study indicates that more than 70 percent of the state's 7,200 equine operations had fewer than eight horses in 2006. The equine operations included in the survey was not limited to commercial facilities, but included horses kept in back yards, along with crop commodity farms that keep a few horses. The inherent value of advancing an equine industry in Middlesex County is its indirect, or secondary, economic benefits. Equine is associated with job inducement, tax revenue and the associated asset value of the buildings and land on which the facilities are located. Last but not least is the fact that equine operations are supportive of grain and forage producers.

C. *Support Services within Market Region*

The Middlesex County Planning Board report of 1978 entitled “Preserving Farmland in Middlesex County” states:

“Technological advances in farming practices have made farmers more dependent on outside supply services for fertilizer, pesticides, machinery and parts. However, as the urbanization of an agricultural area takes place, the demand for agricultural support services declines to the point where these services either go out of business or move elsewhere; remaining farmers are likely to find themselves far from essential services. Inaccessibility to the services then adds to the disincentive to continue farming.”



Middlesex County's agricultural industry relies on a combination of local and regional suppliers, service providers and market venues. For example, the County's vegetable growers are fortunate to have the “Tri-County Cooperative Auction Market” nearby in Hightstown, Mercer County. This cooperative market has been in existence since 1933 and offers local growers and buyers an open air farmers' market in addition to holding evening auctions three times a week.¹² It is an excellent venue to buy and sell products, enabling direct marketers (farm stands) to offer customers a broader product line. Other community farmers' markets are also located throughout the region. These markets are typically held on a weekly basis in a pre-determined location, and invite vendors and farmers to set up stalls (see Chapter VI and related appendices for more details on farm stands and community farmers' markets).

For agricultural input supplies (i.e. fertilizer and seed), a local provider is still in operation on Station Road in Cranbury, on the border with Monroe (see photo on this page; also provides other support services). This company also is a grain buyer. In addition, Cranbury is still host to a major supplier of fertilizers and fertigation supplies (established in 1946, moved to Cranbury on 15-acres in 1962). The Route 33 Corridor of Monroe, Millstone and Manalapan is home to local agricultural tractor sales, supplies and services. However, agricultural product processing facilities and distributors are virtually non-existent in the region.

Farmers requiring additional support industries not available locally must travel to places such as the Bordentown Agway or, considerably farther, to Lancaster Feed in highly agricultural Lancaster County, Pennsylvania. Farmers also use agricultural journals, newsletters and the internet to locate needed supplies that can be shipped to their agricultural operation. The Rutgers Cooperative Extension of Salem County Green Pages is an excellent publication available on the internet, and provides a comprehensive listing of agricultural service providers and support industries.¹³



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III. Land Use Planning Context

A. State Development and Redevelopment Plan Planning Areas, Designated Centers and Endorsed Plans

The New Jersey State Development and Redevelopment Plan (SDRP) was initially adopted in 1992, and re-adopted in March 2001. A third-generation Preliminary State Plan, entitled Building a Better New Jersey was released in 2004 under the “cross-acceptance” process whereby State agencies, County and municipal governments, and the general public have an opportunity to review and comment. A Draft SDRP based on the results of the latest round of cross-acceptance is anticipated sometime in 2008. After completing and considering an impact assessment, and soliciting additional comments on the Draft SDRP, the State Planning Commission will adopt the latest version of the SDRP.

1. Statewide Goals, Strategies & Policies Related To Agriculture

Goal #2

The State Development and Redevelopment Plan notes “Conserve the State’s Natural Resources and Systems” as Goal #2 of a total of eight Statewide Goals and Strategies. In the discourse for this goal, farmlands are grouped with grasslands and other natural landscape types for open space and habitat preservation (page 37).

Goal #3

Within Goal #3, “Promote Beneficial Economic Growth Development and Renewal for all Residents of New Jersey” and under the heading “Agriculture” (pages 59-61), The SDRP proposes a two pronged approach to agriculture. First, statewide policies are designed to provide an effective agricultural strategy throughout the state. Second, the Planning Areas are designed to guide development toward Centers, protecting outlying agricultural areas from development pressures and from suburban residents’ concerns about necessary farming operations that are perceived as nuisances.

Policy Statement #15 Agriculture

The SDRP Policy Statement for Agriculture (page 159 through 162) is more direct, providing six policies for Sustainable Agriculture and Comprehensive Planning, nine policies for Agriculture and Economic Development, two policies for Agricultural and Environmental Protection and six policies for Human Resources related to upgrading quality of life for workers, outreach and education to encourage agricultural industry innovation and growth.

These measures all are intended to raise the understanding of agriculture as a vital industry and to position productive farmland as a valued resource not to be converted to other land use types.



2. Current Revisions to the State Plan Related to Agriculture

Agricultural issues figure strongly in the current SDRP and the recent Cross Acceptance process. A common theme of the Cross Acceptance discourse was for more recognition of preserved farmland and for strengthening policies to support agriculture as a viable land use. The revisions tentatively slated to be included in the next version of the SDRP can be summarized by the proposed revision to Agriculture Policy #3:

“Strategically coordinate planning efforts at all levels of government to promote the agricultural industry and farmland preservation efforts, including agriculture retention programs and policies, with emphasis on proactive land use initiatives, updating data for farmland preservation activities, and better coordination of farmland preservation efforts with open space, recreation, and historic preservation.”

The foregoing statement results in suggested revisions and additions to the SDRP for:

- target indicators monitoring the retention of agriculture,
- addition of agriculture areas to the Smart Growth Areas Map, and
- provisions for a new agriculture Node classification.

All the above measures will raise the value and importance of agriculture sustained land use both regionally and from a statewide perspective.

3. State Plan Policy Map (SPPM)

The SDRP includes a State Plan Policy Map (SPPM) comprised of seven Planning Areas differentiating between type and intensity of development, proximity to existing developed areas, public and private infrastructure, and environmental resources. Planning Areas are geographically delineated to reflect existing criteria of infrastructure capacities, natural resources, topographical and environmental constraints deemed compatible with levels of economic and land use growth which support levels of population density, and land use economies. These seven planning areas are:

Planning Area	1	Metropolitan
Planning Area	2	Suburban
Planning Area	3	Fringe
Planning Area	4	Rural
Planning Area	4b	Rural/Environmentally Sensitive
Planning Area	5	Environmentally Sensitive
Planning Area	5b	Environmentally Sensitive / Barrier Island

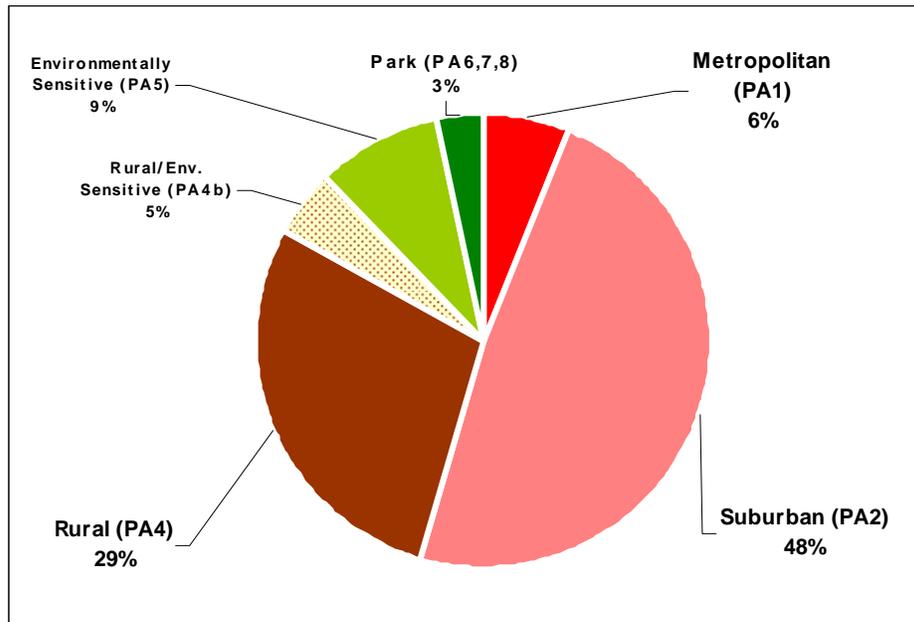
Each Planning Area has specific intentions and Policy Objectives that guide the application of the statewide Policies. The Policy Objectives seek to ensure that the Planning Areas guide the development and location of Centers and protect the Environs. Where a municipality or county has more than one Planning Area within its jurisdiction, growth is ideally guided in the following order: Metropolitan, Suburban, Fringe, then Rural or Environmentally Sensitive. However, it is important to note that the SDRP, including the SPPM, does not constitute a binding regulation, but is a statement of State policy adopted by the State Planning

Commission which is intended as a guide for State, regional, county and local agencies in carrying out their respective duties, especially in terms of long-range planning.

**Table III-1: NJDEP Agricultural Land Use/Cover Acres (2002)
Middlesex County by State Plan Planning Areas (2007)**

State Plan Planning Area	Acres
Metropolitan (PA1)	1,094
Suburban (PA2)	8,448
Rural (PA4)	5,024
Rural/Environmentally Sensitive (PA4b)	824
Environmentally Sensitive (PA5)	1,565
Park (PA6,7,8)	572
Grand Total	17,528

**Figure III-1: NJDEP Agriculture Land Cover Acres (2002)
Middlesex County by State Plan Planning Areas (2007)**



According to the Policy Objectives of the SDRP, priority for farmland preservation funding should be given to Rural Planning Areas (PA4/4B) in order to maintain and enhance large contiguous areas of farmland and open space around development Centers (Urban Centers, Towns, Regional Centers, Villages, and Hamlets). To achieve this policy objective, Policy Topic #15 Agriculture, Policy #1 remains unchanged in Building a Better New Jersey. The SDRP provides some flexibility in that this priority may be modified by the adoption of county or municipal comprehensive farmland preservation plans approved by the SADC.

Rural Planning Areas 4 and 4B in Middlesex County are generally consistent with a substantial percentage of existing agricultural areas and prime farmland soils in the southern part of the County (for an illustration see the map entitled: "NJ State Planning Areas, Designated Centers and Endorsed Plans", which includes a depiction of the current Agricultural



Development Area, “ADA”, boundary). Forty-eight percent of Middlesex County farmland can be found in PA2 and 29% within PA4. To lesser degrees some existing farmland and ADA lands remain situated in PA5- 9%, PA1- 6%, PA4b- 5% and parklands- 3%.(See Above Table). More important however is that Planning Area boundaries generally do not coincide with county or municipal boundaries, and represent general geocentric policies subject to reasonable exceptions.

Middlesex County is preparing this Farmland Preservation Plan with the understanding that it is important to preserve farmland and sustain agriculture within *both* a rural and suburban context. This is especially true since this county’s agriculture land base can be characterized as “farming on the fringe” – an area where suburban landscape and more rural countryside often blend seamlessly into one another.

4. Designated Centers and Endorsed Plans

The Plan’s provisions for Planning Areas are meant to be integrated and complement the Centers and Environs component of the SDRP. Planning Area provisions describe the opportunities and limitations for both development and conservation. Centers provide for concentrated development and support facilities for the Environs areas of municipalities and Planning Areas. Within different Planning Areas, different development patterns are prescribed as are the different degrees of development intensity of each Center Type.

Existing Centers designated by the State Planning Commission are as follows: the Urban Center of New Brunswick City; two designated Town Centers, Metuchen Borough (expires 01/7/2008) and Milltown Borough (expires 09/18/2008); and, three Village Centers of Cranbury in Cranbury Township (expires 01/07/2008), Historic Old Bridge in East Brunswick Township (expires 05/19/2010) and Kingston (expires 01/07/2008) partially in South Brunswick Township and partially in Franklin Township, Somerset County.

Each municipality, county and recognized regional planning agency is encouraged to participate in a Plan Endorsement process in order to ensure consistency in SDRP planning and the cooperation of state agencies with funding and implementing improvements and programs. The State Planning Commission must review, endorse and recertify endorsed plan documents every ten years. An endorsed plan entitles municipalities and counties to a higher priority for available funding, streamlined permit reviews, and coordinated state agency services. Priority is given to county and regional strategic plans.

Each Endorsed Plan must contain a Center Element, an Action Plan and Planning and Implementation Agreement to be monitored by the State Planning Commission by timeframe, agency action and responsibility. County and local governments have to coordinate planning for the Environs outside the centers with farmland and open space preservation plans, as well as with development nodes. The guidelines in the SDRP for the Environs contain a list of planning tools that show how to permit carefully sited and designed developments while preserving most of the land for agriculture or open space. In addition, there are twenty-three statewide policies supporting agriculture that are supposed to be incorporated into municipal planning and zoning.



With regard to farmland preservation issues in Middlesex County, the recently endorsed Plainsboro Township Plan and the now pending South Brunswick Township Plan must both provide updated farmland preservation plans.

5. Relationship to Adjacent Counties: Regional Planning Context

As previously noted, the SDRP supports the protection of large contiguous areas of open space in its Rural Planning Areas, which generally are not aligned with county or municipal boundaries. The SDRP encourages collaborative planning across jurisdictional boundaries, especially in the area of farmland preservation strategies, which need to be regional. Successful regional farmland preservation requires the combined efforts of multiple counties and municipalities. For example, there are Agricultural Development Areas (ADAs) in Middlesex County adjacent to the boundaries of both Monmouth and Mercer Counties. Although Somerset County borders Middlesex on the west, the farming regions and associated ADAs of each are relatively distant from each other, with no reasonable opportunity for a concerted regional farmland preservation initiative.

The ADA in southern Monroe Township and the proposed “Southeastern” Project Area both are contiguous to several “First” and “Second” Priority areas for farmland preservation in northern Millstone Township and western Manalapan Township of Monmouth County (Monmouth County Planning Board, 2000). Two farms along this border region have already been cooperatively preserved—both bisected by county and municipal boundaries. As of the writing of this plan, the “Millstone-Manalapan-Freehold” Project Area proposed by Monmouth County overlaps Middlesex County’s “Southeastern” Project Area.¹⁴ Both Middlesex and Monmouth County are still seeking a common goal towards future farmland preservation in this region centered along the Route 33 corridor.

The ADAs in southern Cranbury and Plainsboro Townships are located on the boundary with Hightstown and East Windsor in Mercer County. According to staff-to-staff communications with the Mercer County farmland preservation program staff, the Mercer CADB has not pursued farmland preservation in this part of Mercer County.



B. New Jersey Planning Regions & Special Resource Areas

The State Plan Policy Map (SPPM) applies to all lands except mapped military installations, open water, and land under the jurisdiction of the Pinelands Commission and the Hackensack Meadowlands Development Commission. Current designations of the Pinelands Comprehensive Management Plan are identified in the SPPM, in accordance with the Memorandum of Agreement between the Pinelands Commission and the State Planning Commission (see discussion below).

The State Development and Redevelopment Plan (SDRP) acknowledges the special statutory treatment accorded the New Jersey Pinelands under the Pinelands Protection Act of 1979 and the Hackensack Meadowlands Area under the Hackensack Meadowlands Reclamation and Development Act. The State Planning Commission is explicitly directed to “rely on the adopted plans and regulations of these entities in developing the State Plan.”

The federal National Parks and Recreation Act of 1978 established the Pinelands National Reserve, encompassing parts of seven southern New Jersey counties, not including any portion of Middlesex County, but totaling 1.1 million acres. The Pineland Commission is mandated to exercise controls over development in order to preserve, protect and enhance the significant values of the land and water resources of the Pinelands.

A separate classification entitled Special Resource Area was established by the SDRP “to recognize an area or region with unique characteristics or resources of statewide importance and establish a receptive environment for regional planning efforts” (SDRP, page 171). The SDRP first used this term for addressing the unresolved issues of preservation of the New Jersey Highlands prior to adoption of the Highlands Water Protection and Planning Act of 2004. This classification can be recommended for farmland preservation of a specific region if there is a unique importance and value of regional and statewide significance.

As previously noted, there are only six communities in Middlesex County with significant remaining areas of farmland: Cranbury, East Brunswick, Monroe, Old Bridge, Plainsboro, and South Brunswick. These municipalities have many unique and valuable natural resources, but none are geopolitically located in the Special Resource Area of the New Jersey Highlands or the jurisdictional limits of either the New Jersey Pinelands or the New Jersey Meadowlands. Since farmland preservation planning within Middlesex County is not within the jurisdictional boundaries of these special planning areas there is no need to evaluate the relationship of this farmland preservation plan to the regional plans for the Highlands, Meadowlands or Pinelands areas.

Only one of the six farm communities, Old Bridge Township, has land within the jurisdictional area of the Coastal Areas Facilities Review Act (CAFRA) administered by the NJDEP. These areas are defined as Coastal Environmentally Sensitive Planning Area (CESPA) and Coastal Metropolitan Planning Area (CMPA). The related CESPA in Old Bridge Township contains Cheesequake State Park and floodplains and marsh wetlands of Cheesequake Creek



and the Crossways Creek, Flat Creek, and Stump Creek. The CMPA in the Lawrence Harbor area of Old Bridge Township is developed in marinas, commercial and high density residential land uses and support facilities, with no proximity to farmland preservation efforts in Middlesex County.

C. Middlesex County Master Plan

Land use planning in Middlesex County involves farmland preservation and agricultural operations issues at each level of government. At the State level, the original and each subsequent re-adoption of the State Development and Redevelopment Plan have more firmly supported the retention of farmland and of agriculture viability within Middlesex County. Middlesex County's 2001 Comprehensive Farmland Preservation Plan and 2003 Open Space and Recreation Plan (adopted Elements of the County Master Plan) and the Middlesex County State Plan Cross Acceptance Response Report of November 9, 2004 are the latest additions to the multiple-volume Middlesex County Master Plan and evolving County planning strategies. These documents express that a comprehensive strategy is developing to further coordinate easement purchase funding, public education about agriculture, assistance to local farm-related businesses, and links between Middlesex County agricultural production, County facility and open space purchase programs and Middlesex County Agriculture Development Board (CADB) activities.

Middlesex County has not carried out a full Comprehensive Master Plan update since 1970. However, the County does engage in strategic planning by focusing on particular issues and preparing plan elements to address these. More specifically, in recent years the County has published several Growth Management Plans (June 1990, July 1992 and December 1995), which are specifically, addressed in the Future Land Use Plan of this document. This Plan is consistent with and proactively supports many of the County growth management goals. The County has also authored a Transportation Plan (May 1999) and a Bicycling Guide (September 2001).

Other plans adopted by the County Planning Board as strategic Master Plan Elements include the Farmland Preservation Plan (2001), Open Space and Recreation Plan (2003) and the Lower Raritan-Middlesex County Water Quality Management Plan (Revised 2007). This Comprehensive Farmland Preservation Plan 2008 is consistent with and specifically supports the preservation of environmentally sensitive property as articulated in the County Open Space and Recreation Plan.

While the County does not have an updated full Comprehensive Master Plan in place, this Report is substantially consistent with and supportive of relevant policies and recommendations contained in the previously-cited County planning documents.

Historic and cultural preservation and farmland and open space preservation have been longstanding interlinked concerns in Middlesex County. The 1985 Supplement to the Middlesex County Inventory of Historic, Cultural and Architectural Resources (Middlesex County Cultural and Heritage Commission, 1985) makes reference to the intense development pressure on



historic agricultural districts in municipalities such as Cranbury, Monroe, Old Bridge, Plainsboro, and South Brunswick. This document recognizes the difficulty of preserving the historic landscape when historic preservation traditionally has been defined in terms of structures or buildings. However, there are parcels of farmland that apparently merit protection for their aesthetic and practical value, but do not qualify for historic district status because they do not contain historic structures. In addition, there are examples of historic farmhouses being preserved while the adjacent farmland is developed for housing. The inventory suggests that more effort should be directed to farmland acquisition in order to responsibly address preservation in a rural community. It also recognizes that this preservation may require innovative legal and land use techniques such as installment purchase, etc. Middlesex County has used the easement purchase program as well as full fee simple purchase through the Middlesex County Open Space, Recreation, Farmland and Historic Preservation Trust Fund.

If development pressures demand immediate action, Middlesex County can resort to direct purchase of a property. The 200-acre Van Dyke/Pulda Farm in South Brunswick is an example of potentially using the County's Trust Fund to purchase a farm with multiple features deserving of open space, historical and farmland preservation. After determining an area to support long-term farming operations, the County could approach the Middlesex CADB and pursue SADC reimbursement funding opportunities for a farmland preservation easement.

The 2003 Middlesex County Open Space and Recreation Plan (Middlesex County Planning Board, 2003) includes farmland preservation among its objectives. Mission Statement numbers 2 and 3 are:

Promoting environmental, agricultural, scenic, historic, cultural and social opportunities

Conserving natural resources including plant and animal life, farmland, woodland, streams and watersheds or preserve locations that have environmental, cultural, historic, or scenic value

The Open Space and Recreation Plan recommends the purchase of easements that permanently restrict non-agricultural development and preserve valuable rural or scenic features. Objective numbers 4 and 9 are:

Recommends that the Middlesex County Open Space, Recreation, 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.

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 rural landscape are important and irreplaceable components of a County's economy and aesthetic character.

D. Current Land Use and Development Trends

The six contiguous municipalities of the southern portion of Middlesex County have varying degrees of development influencing agriculture and farmland retention. In terms of land mass, these municipalities represent over half of Middlesex County and contain an overwhelming majority of the county's "greenfield" area - vacant lands and/or farmland attractive for large commercial and residential project developers. Prime farmlands are particularly attractive for development because they are cleared, well drained and usually relatively flat.

1. Construction Trends

Past construction activity may be used as a barometer to gauge future development trends and land use patterns. In southern Middlesex County, development trends have meant the irreversible conversion of farms into non-agricultural uses. The tables and graphs on the following pages illustrate the completion of residential dwellings and total square feet of non-residential space (for all use groups), using data on certificates of occupancy (years 1996 thru 2006).

(a) Residential

With only minor variations over the last ten years, residential development within the farm communities has generally mirrored a countywide trend of lowering rates of new housing production in Middlesex County. Of significance however is the fact that the number of residential dwellings units receiving certificates of occupancy in South Brunswick and Monroe combined account for more than one-third of all the residential dwelling units constructed in all of Middlesex County between 1996 and 2006 (9,511 dwelling units, or 865 per year on average). Countywide, from 1997 to 2006, there is a significant slowing of new residential construction (3,000 vs. 2,000 dwelling units annually) while the six farm communities are experiencing about the same level of annual activity as a decade ago (< 1,500 per year) [see trend line in Figure III-2].

(b) Nonresidential

Nonresidential trends (Table III-3 and Figure III-3) are quite different than in the residential market. Nonresidential development is on an upward trend, but with a greater deal of fluctuation from year to year. South Brunswick and Cranbury have had the greatest amount of nonresidential construction, over 22 million square feet from 1996 thru 2006 (or one-third of the county's total nonresidential growth). Most of this is new warehouse, office and flex-office space in the New Jersey Turnpike Exit 8A region immediately adjacent to the New Jersey Turnpike.

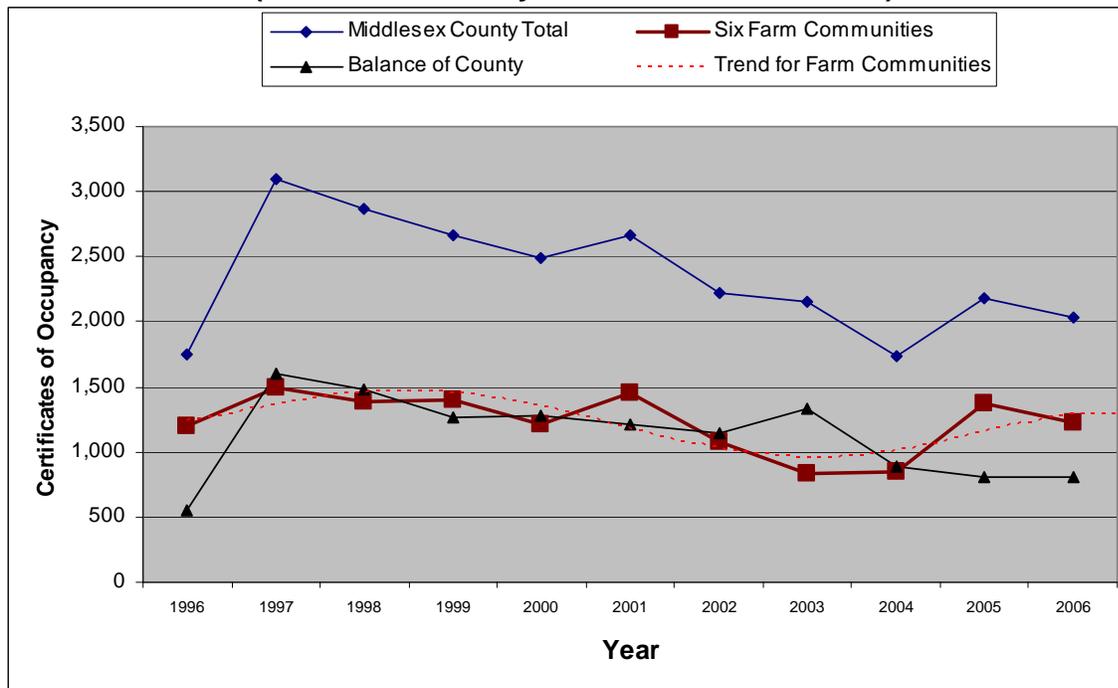


Table III-2: Residential Certificates of Occupancy, total 1996 to 2006 (Middlesex County vs. Farm Communities)

Location	Total 1996 thru 2006	
	Number	% Total
Cranbury Township	417	1.6%
East Brunswick Township	291	1.1%
Old Bridge Township	2,557	9.9%
Monroe Township	5,798	22.4%
Plainsboro Township	703	2.7%
South Brunswick Township	3,713	14.4%
Middlesex County Total	25,857	100%
Six Farm Communities	13,479	52.1%
Balance of County	12,378	47.9%

Source: NJDCA Annual Construction Reporters, compiled by Planning Dept.

Figure III-2: Residential Certificates of Occupancy, by year 1996 to 2006 (Middlesex County vs. Farm Communities)

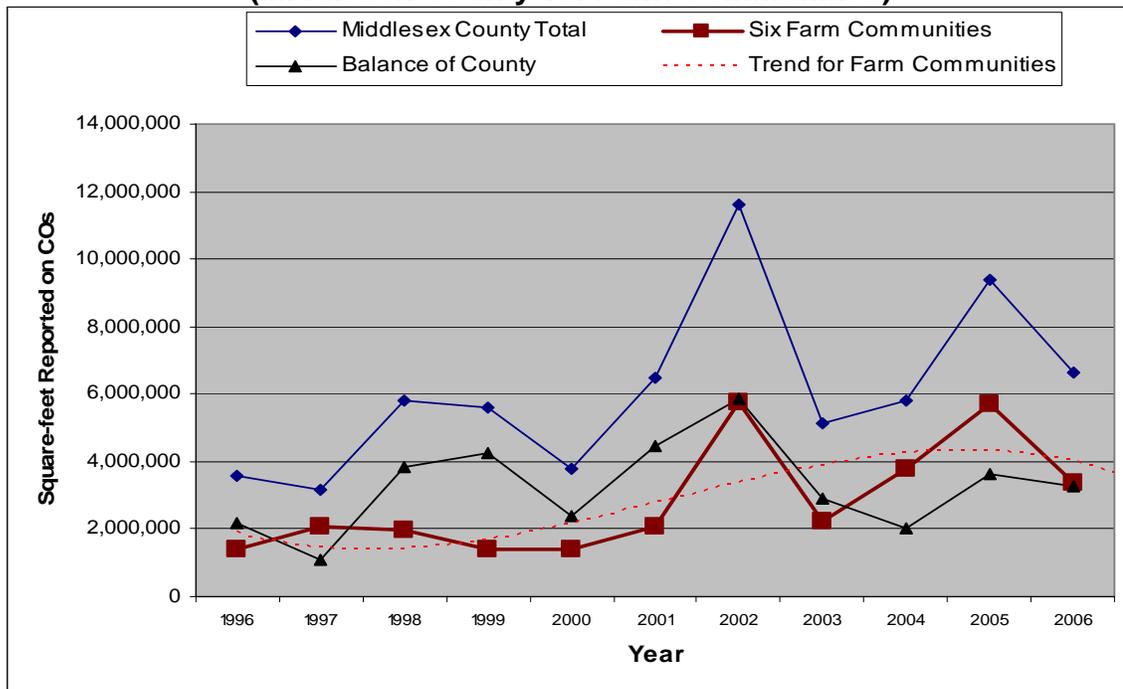


**Table III-3: Nonresidential Square-Foot Completed, total 1996 to 2006
(Middlesex County vs. Farm Communities)**

Location	Total 1996 thru 2006		Percent "Total Land" Area
	Square-feet	% Total	
Cranbury Township	10,951,077	16.3%	4.3%
East Brunswick Township	931,780	1.4%	7.0%
Old Bridge Township	2,020,185	3.0%	12.3%
Monroe Township	5,215,591	7.8%	13.5%
Plainsboro Township	857,046	1.3%	3.8%
South Brunswick Township	11,224,654	16.7%	13.1%
Middlesex County Total	67,039,309	100%	100%
Six Farm Communities	31,200,333	46.5%	54.1%
Balance of County	35,838,976	53.5%	45.9%

Source: NJDCA Construction Reporters, compiled by Planning Dept.

**Figure III-3: Nonresidential Square-Foot Completed, by year 1996 to 2006
(Middlesex County vs. Farm Communities)**



Warehouse construction creeping towards the Northwestern Project Area



2. Building Permit Trends

As a comparison to actual construction, the following tables and charts show recorded building permits for residential and non-residential units issued annually from 1996 to 2006. Building permits allow construction, as distinct from Certificates of Occupancy, which reflect completed construction.

(a) Residential

**Table III-4: Building Permits for New Housing Units
(Middlesex County vs. Farm Communities)**

Location	Total 1996 thru 2006		Percent "Total Land" Area
	Number	% Total	
Cranbury Township	456	1.5%	4.3%
East Brunswick Township	1,615	5.3%	7.0%
Old Bridge Township	2,828	9.2%	12.3%
Monroe Township	6,236	20.3%	13.5%
Plainsboro Township	1,094	3.6%	3.8%
South Brunswick Township	3,111	10.1%	13.1%
Middlesex County Total	30,665	100%	100%
Six Farm Communities	15,340	50.0%	54.1%
Balance of County	15,325	50.0%	45.9%

Source: NJDCA Construction Reporters, compiled by Planning Dept.

(b) Nonresidential

**Table III-5: Building Permits for New Nonresidential Buildings
(Middlesex County vs. Farm Communities)**

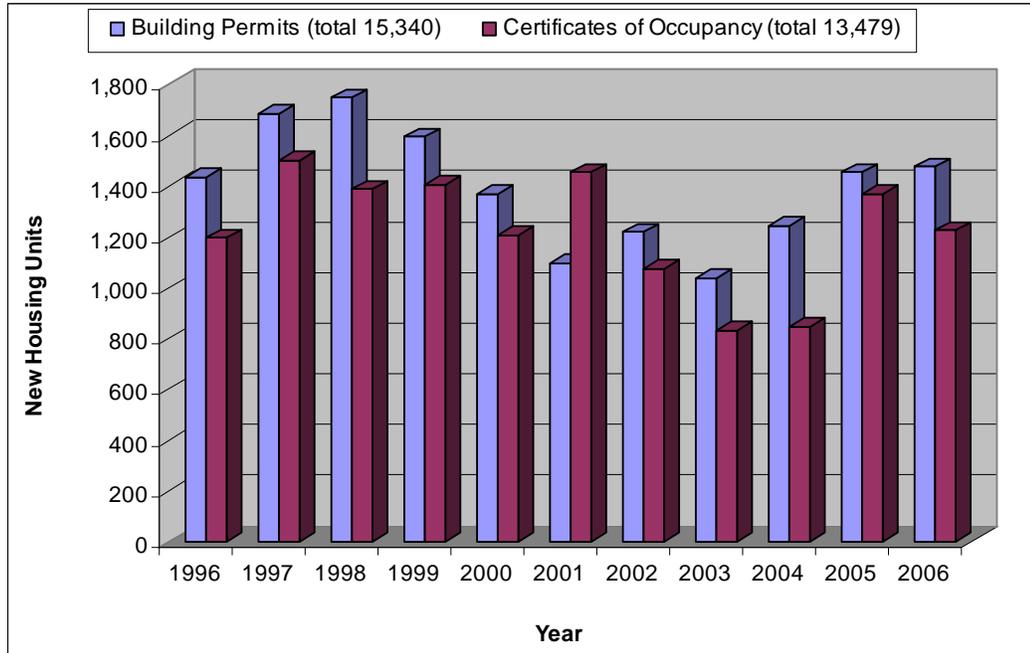
Location	Total 1996 thru 2006		Percent "Total Land" Area
	Square Feet	% Total	
Cranbury Township	15,272,454	16.3%	4.3%
East Brunswick Township	7,607,954	1.4%	7.0%
Old Bridge Township	3,207,200	3.0%	12.3%
Monroe Township	6,033,224	7.8%	13.5%
Plainsboro Township	1,795,772	1.3%	3.8%
South Brunswick Township	11,385,629	16.7%	13.1%
Middlesex County Total	98,756,912	100%	100%
Six Farm Communities	45,302,233	46.5%	54.1%
Balance of County	53,454,679	53.5%	45.9%

Source: NJDCA Construction Reporters, compiled by Planning Dept.



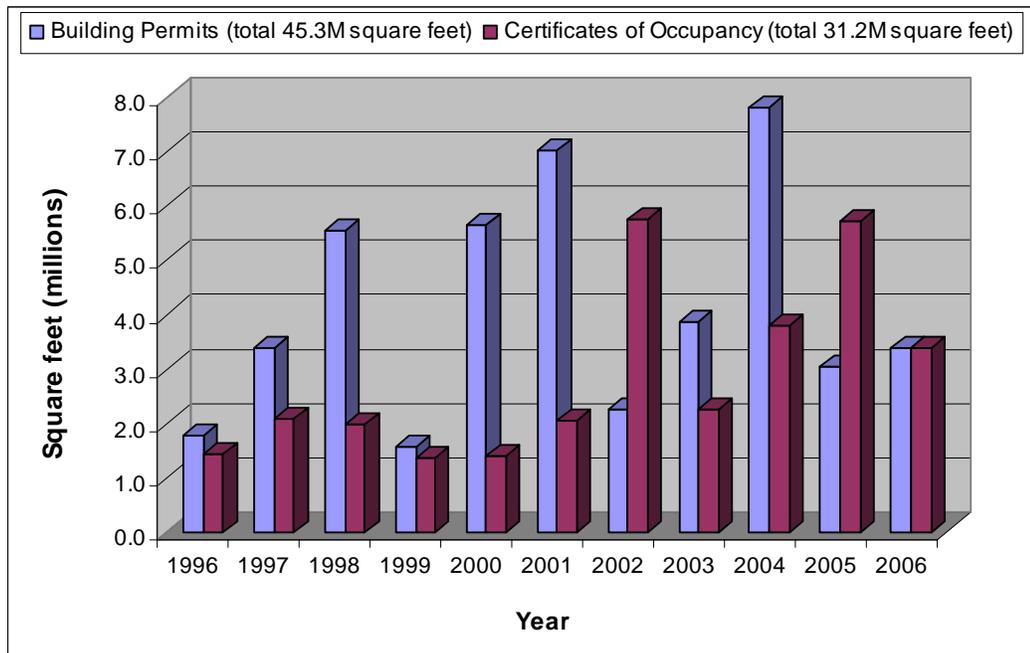
(c) Building Permits vs. Certificates of Occupancy

Figure III-4: New Housing Units: Building Permits vs. Certificates of Occupancy (1996 to 2006, six farm communities of Middlesex County)



Source: NJDCA Construction Reporters, compiled by Middlesex County Planning Department

Figure III-5: Nonresidential Construction: Building Permits vs. Certificates of Occupancy (1996 to 2006, six farm communities of Middlesex County)



Source: NJDCA Construction Reporters, compiled by Middlesex County Planning Department



3. Relationships to Recognized Strategic Growth Areas

The Route One Strategic Growth Corridor – Proximate to the Northwestern and Southwestern Project Areas, the most intensive area for conversion of land use is in the Route 1 corridor starting in New Brunswick and including South Brunswick and Plainsboro. The Route 1 corridor has access to the research facilities of Princeton University, Rutgers and various corporations, and extensive residential areas. Many corporate offices also are located in or adjacent to this corridor. The State Office of Economic Development actively promotes the Route 1 Corridor as “Einstein Alley”, a linear commerce, back office and technology incubator complex connecting and accessing the resources and business needs of Trenton, Princeton and New Brunswick. To the east of this area, Route 130 and the New Jersey Turnpike Interchange 8A present strong transportation corridors for commuters and major “logistic centers” for warehousing and distribution of import goods from Port Newark and Port Elizabeth. The Northwestern Project Area has been situated to preserve the best lands for sustainable agriculture which are still available and actively farmed at the fringe of the influence areas of this corridor, while also having easy access to established produce markets.

The Route 33 Corridor—Proximate to the Southeastern Project Area, this significant highway corridor connects New Jersey Turnpike Exit 8 with southern Middlesex County and western Monmouth County. This roadway is a relatively rare east-west aligned high capacity roadway within the region. It serves commuters and commerce by accessing employment centers and commercial areas of Mercer and Monmouth County and the coastal cities of New Jersey. In Monroe Township, the corridor represents a midpoint between Freehold Borough and the City of Trenton with abundant greenfields for residential and business uses. Recent planned residential development and business already line the highway frontage and the immediate corridor. The Southeastern Project Area has been situated to preserve the best lands for sustainable agriculture, just outside of the immediate highway strip corridor, with the Millstone River serving as the southern boundary of the ADA in this vicinity.

The Route 9 Corridor—Related to the Matchaponix and Northeastern Project Areas, this is a highly-developed corridor in combination with the Route 18 Corridor. It is a north-south axis high capacity system that connects with the highly developed Shore communities of New Jersey and major segments of the state highway system. Route 9 has interchanges with major routes, including the Garden State Parkway, Route 287/440, and Route 1. This corridor has very strong land use conversion pressure relating to commerce, general housing and age-restricted planned residential developments. The Matchaponix and Northeastern Project Areas have been situated to preserve the best lands for sustainable agriculture while also having proximity to the corridor for easy access to established produce markets. The Project areas also represent coordination of farmland preservation outside of potential developing SDRP Centers within Monroe Township and Old Bridge Township.



4. Generalized Zoning Composite Map

The Middlesex County Planning Department maintains a Generalized Zoning Composite Map to provide an estimation of potential “build-out” and approximate projections of employees generated by projects which adhere to municipal zoning requirements. This Map is a “living document” in that it is modified whenever local zoning changes are adopted, and serves as the most specific illustration of locally-planned land uses. Refer to Map 6, which is included in this plan as a resource reflecting the consistency of municipal zoning described in Sub-chapter F below and existing land use patterns as described above.

E. Sewer Service Areas / Public Water Supply Service Areas

The dominant areas of each of the pre-existing 2006 (76%) and the revised 2008 (80%) Agricultural Development Areas are within non-sewer service areas. Large-scale sanitary sewage treatment authorities, such as the Middlesex County Utilities Authority, dominate the sewer service areas within the county. Development within the ADA primarily relies on individual on-site treatment (package plant and/or septic fields). The table below summarizes sanitary service area acreages within the ADA. Map 7 depicts the location of sewer service areas and the County’s ADA.

Table III-6: Acres in Middlesex County’s Sewer Service Areas, 2006 ADA vs. 2008 ADA

Sewer Service Area Category/Facility Name	ADA 2006		ADA 2008		Net Change	
	Acres	% Total	Acres	% Total	Acres	% Pts.
Non-sewer Service Areas/septic	13,519	76%	12,126	80%	-1,393	4%
Sewer Service Areas (Subtotal)	4,263	24%	3,064	20%	-1,199	-4%
<i>East Windsor MUA</i>	3	0%	3	0%	0	0%
<i>Middlesex County Utilities Authority</i>	3,537	20%	2,563	17%	-974	-3%
<i>Pine Brook STP</i>	148	1%	8	0%	-140	-1%
<i>SBRSA River Road STP</i>	13	0%	0	0%	-13	0%
<i>Stony Brook Regional S.A.</i>	0	0%	213	1%	213	1%
<i>United Water Princeton Meadows</i>	562	3%	277	2%	-285	-1%
Grand Total	17,783	100%	15,190	100%	-2,593	N/A

Most developed residential areas are served by public water supply such as New Jersey American Water, Inc. or municipal wells. While proprietary rulings restrict disclosure of specific potable water service areas, the purveyors of the County’s southern municipalities are depicted on Map 8. Private wells provide the vast majority of farmers with their potable water as well as water for all related farm operation needs.



F. Municipal Master Plan and Zoning – Overview

Most of Middlesex County’s agricultural land base is currently zoned for rural large lot single family residential development with minimum lot size requirements of six, three and two acres. However, in some instances farmlands are zoned for suburban single family residential development with minimum lot size standards ranging between 30,000 square feet and 60,000 square feet. In addition, some agricultural lands have been zoned for light industrial (warehouse), office, and highway uses with acreage minimums of between 3 and 10 acres. The following summary table further outlines municipal zoning classifications of agricultural lands for each of the six municipalities:

Table III-7: General Municipal Zoning Classifications of Agricultural Areas

Municipality and General Location	PREDOMINATE Zoning District & [Lot Size]	Other Zones & [Lot Size]
Cranbury		
West of Village Center	A-100 Agricultural Preservation, [6-acre residential]	R-LI Residential – Light Impact [4-acre]
East of Village Center	LI Light Industrial [10-acre]	I-LI Light Impact Industrial [6-acre]
Plainsboro		
Cranbury Neck Road Corridor (CR615)	R-150 Rural Residential [2-acre]	R-100 Rural Residential [2-acre]
South Brunswick		
Dey & Friendship Roads	RR Rural Residential [2-acre]	I-3 General Industrial [3-acre]
Route 522 near Route 1	OR Office Research [3-acre]	OC Office Corporate [3-acre]
Davidson’s Mill Road	RR Rural Residential [2-acre]	
Monroe		
Route 33 Corridor	HD Highway District [7-acre]	R60 Residential [60,000 sq. ft.]; R30 Residential [30,000 sq. ft.]; PRC-2 Planned Retirement Community [3.5 DU/ac.]
North of Route 33 Corridor	RR-FLP Rural Residential-Farmland Preservation [6-acre]	FHC Flood Hazard Conservation [6 acre] R3A Residential [3-acre]
West of Matchaponix Brook at southerly end	R3A Residential [3-acre]	R-60 Residential [60,000 sq. ft.]
Between Jamesburg and NJ Turnpike	R30 Residential [30,000 sq. ft.]	FHC Flood Hazard Conservation [6-acre] R-60 Residential [60,000 sq. ft.]
East Brunswick		
West of NJ Turnpike / east of Dunhams Corner Road	RP Rural Preservation [6-acre]	RP Rural Preservation [2-acre]
Old Bridge		
Route 9 Corridor west of Cheesequake State Park	R-40 Residential [40,000 sq. ft.]	OG3 Office General [3-acre] OG5 Office General [5-acre] R-20 Residential [20,000 sq. ft.]
Southern end of CR527	R-30 Residential [30,000 sq. ft.]	

The SADC and the Middlesex CADB support and encourage the development of open space and rural preservation efforts by municipalities. Incorporation of a farmland preservation element in a municipal master plan is required for the municipality to be eligible for State Planning Incentive Grants (discussed in a subsequent section). Supporting elements include enactment of right-to-farm type ordinances, formation of agricultural districts, and municipal zoning categories such as Cluster/PUD Farmland Dedication, Lot Averaging, Non-contiguous Cluster/ Density Transfer and Transfer of Development Rights.

Municipalities that dedicate a percentage of property tax to a farmland trust fund for development easement purchases are prepared to participate in farmland preservation on a sustained and predictable basis. Cranbury, East Brunswick, Monroe, Plainsboro, South Brunswick and Old Bridge, all to varying degrees, use pro-active municipal planning and zoning approaches to farmland preservation. These municipalities should be encouraged to participate in the SADC’s Planning Incentive Grant Program available to individual municipalities.

Staff of the Middlesex County Planning Department reviewed Municipal Master Plan Elements and Zoning Ordinances for the six municipalities of primary interest to the Farmland Preservation Program. A matrix of the results is shown in Table III-3 and more detail from each municipality is provided below:

Table III-8: Adopted Planning Techniques to Support Agriculture and Farmland Preservation (Agriculture-Friendly Zoning)

Municipality	Master Plan Farmland Element	Right to Farm	Cluster/PUD Farmland Dedication Zoning	Lot Averaging Zoning	Non-contiguous Cluster/ Density Transfer	Transfer of Development Rights	Dedicate % of Property Tax
Cranbury	Yes	Yes	Yes	Yes	Yes	No	Yes
East Brunswick	Yes	Yes	Yes	Yes	Yes	No	Yes
Monroe	Yes	Yes	Yes	Yes	Yes	No	Yes
Plainsboro	Yes	Yes	Yes	Yes	Yes	No	Yes
South Brunswick	Yes	Yes	No	No	No	No	Yes
Old Bridge	Yes	Yes	No	No	No	No	Yes



1. Cranbury Township

(a) Overview

Farmland preservation is essential to achieving the primary goal of the Cranbury Township Master Plan, which is preserving the Township's rural character. Cranbury is characterized by rich agricultural land and a long farming history. The Township has been actively involved in preserving its agricultural heritage by various mechanisms, including purchase of development rights through the New Jersey Farmland Preservation Program, encouraging lot averaged development patterns, and outright acquisition of key properties. The Township also contains a designated Village Center to guide and contain other land uses, keeping them from intruding on agricultural land. The State Planning Commission designation as a Village Center will expire in 2008. Cranbury Township is preparing an Endorsement Plan to recertify the Cranbury Village Center.

The Cranbury Township Farmland Preservation Plan relies on three mechanisms for farmland preservation: participation in the state and county farmland preservation program, zoning, and lot-averaged development. Much farmland has been preserved, and the Plan Map identifies additional farms that should be preserved to maintain a large contiguous farmland area.

(b) Cranbury Farmland Preservation Plan

A Township Farmland Preservation Plan has been created for inclusion as an element of The Cranbury Township Master Plan (Township of Cranbury, 2000). This plan contains a listing of target properties for both immediate and future acquisition, projection of costs, and a course of action for implementing the plan. Additional efforts to preserve the rural character of Cranbury include enacting a municipal right-to-farm ordinance, zoning historically agricultural land as a farmland preservation district, establishing zones that encourage lot-averaged development to preserve open space, and approving an open space tax.

Cranbury has effectively used acquisition of development rights to preserve agricultural lands. As early as December 2000, Cranbury had permanently preserved over 1,640 acres, about 53% of the 3,110 total acres of farmland designated for preservation. At that time, those 1,640 acres included about 140 acres of preserved lands deed restricted through lot cluster provisions of its Master Plan and Zoning Ordinance, at no cost to the taxpayers.

As of October 2007, more than 2,300 acres of prime farmland have been preserved through a combination of strategies. Approximately 1,600 acres are now preserved through the County's easement purchase program. Another 500+ acres have been deed restricted through programs implemented directly with the State, 165 +/- acres have been deed restricted directly by the Township through clustering, and 32 +/- acres were purchased through the non-profit program.



Continued participation in the farmland preservation program is anticipated to permanently retain the desired additional farmland in Cranbury. Finally, the Township has enacted a Right to Farm ordinance to provide further protection for agricultural operations, and has actively participated with the Middlesex County Agriculture Development Board in establishing the local Agricultural Development Area and then preserving farmland within this area. Cranbury's Farmland Preservation Plan expresses a desire for continued participation in the traditional State and County Farmland Preservation Programs but also mentions that it may decide to establish a Municipal Planning Incentive Grant (PIG) program. This issue should be resolved within the pending State Planning Commission municipal Plan endorsement process.

(c) Cranbury Zoning

The Township has established zone districts encouraging agricultural use for the properties west of Cranbury Village. The majority of this area is located in the Agricultural Preservation (A-100) zone, which has a minimum lot size of six acres and is intended to encourage continued agricultural uses in the area. Properties located north of Cedar Brook are zoned Residential – Light Impact (R-LI) which has a minimum lot size of four acres and is intended to minimize the impact of development to environmentally sensitive areas. Properties located immediately adjacent to Cranbury Village just south of Plainsboro Road are zoned Residential – Low Density 3 (RLD-3), which is intended to preserve open space and agricultural uses in order to maintain a “hard edge” to the Cranbury Village Center. The RLD-3 zone has a minimum lot size of four acres for conventional development and a maximum density of one unit per three acres for lot averaged development. Under the lot averaged development regulations, seventy percent of the land is preserved as permanent open space or farmland. The Village/Environs character fostered in Cranbury Township may allow for more non-contiguous TDR initiatives and for affordable housing provisions coordinated with farmland preservation and a sustained agriculture land base.

(d) Cranbury Lot Averaging/Clustered Development

Cranbury Township also utilizes clustering in its Agricultural Preservation Zone (A-100). This zone district has a minimum lot size of six acres, but offers the option of reducing the minimum lot size to about one acre, provided that at least 70 percent of the tract is preserved in open space. The district offers the bonus of increasing the density to 25 percent over that which could be developed in a conventional subdivision if at least 70 percent of the land is permanently deed restricted for open space and/or agriculture. In the A-100 zone, for example, the maximum permitted density increases to five acres per dwelling unit instead of six acres per dwelling unit if the applicant chooses to lot average. This bonus is considered by the Township as a primary factor to support the cluster plan approach. The Township Master Plan also provides a detailed cluster plan blueprint for key agriculture properties. The design criteria maximizes preservation of both farmland and the rural road character through deep setbacks and the high percentage of required open space.

The lot-averaging provisions of the Land Development Ordinance have produced significant areas of land permanently preserved for agriculture. Five farm units have been



preserved through Cranbury’s lot-averaging / clustering provision of the zoning ordinance. The clustered residential lots have been built and the property values for the residential lots within these developments have remained high, generally at the upper end of the market.

2. Plainsboro Township

(a) Overview

During a 30-year period of rapid growth that transformed it from a small farming community, Plainsboro Township preserved approximately 45% of its land in a combination of preserved farmland and private and public open space through creative regulations, negotiations and acquisition. Now home to some 20,215 residents on 12 square miles in Middlesex County, Plainsboro had no long-range plans for its future until the early 1970s, when over 7,000 housing units were approved in a few years' time. In 1977, a progressive administration helped focus the direction of the township, and in 1979, the first master plan with land preservation goals was adopted. Since then, the Township has pursued a variety of means to concentrate development while preserving the surrounding land to "manage growth and provide passive recreational opportunities". By 2000, 45% of the township's land area had been preserved, including 540 acres of contiguous farmland and an 850-acre natural area encompassing the Plainsboro Preserve.

Plainsboro Township's total area amounts to 7,240 acres, of which approximately 2,611 are urbanized, 2,529 are still used for agriculture, 109 are vacant, and about 1,747 are environmentally sensitive. Plainsboro has a Master Plan prepared in 2004 and a State Planning Commission Endorsed Plan certified on January 18, 2006.

Plainsboro's residential development is a mix of large multi-family and single-family residential developments. The Township has been certified by COAH as in compliance with State affordable housing requirements, and maintains extra credits while pursuing additional affordable housing opportunities. The compact nature of most of its residential developments complements land conservation promoted in the State Plan. In 1999, the township adopted a Village Area Master Plan to create a pedestrian-oriented focal point for the community that would include a "downtown" type of area with two adjacent residential areas.

The area south of Cranbury Brook and north of the Millstone River is predominantly devoted to agricultural use. There are severe access problems for this area [for more intense uses] because of the watercourses and the road bottlenecks over the railroad.

Plainsboro's Master Plan conforms to the State Plan, which specifies a rural planning area in the south, suburban planning area in the mid-section, and environmentally sensitive land to the north (for an illustration see the map entitled “NJ State Planning Areas, Designated Centers and Endorsed Plans”). The Township's open space plan targets specific parcels for open land acquisition and even includes agriculture preservation as a specific open land category. This comprehensive strategy is complemented by the Township’s policy of deliberately excluding planned sewer service infrastructure from the preservation areas.

One major goal of Plainsboro's plans is to preserve large amounts of farmland and open space in its rural zones. All new growth would be located along Route 1 and between Dey Road and Plainsboro Road east of the Municipal Center, favoring a Village Center/Agricultural Environs scenario. The Southwestern Project Area proposed by the Middlesex CADB within Plainsboro is within the rural zones of the Township.

(b) Plainsboro Farmland Preservation Element

Plainsboro Township does not have a separate farmland preservation plan or element within its Master Plan. Creating such a plan will be encouraged in the pending State Plan endorsement process Plainsboro has entered into with the Office Smart Growth and the State Planning Commission.

Instead, clear references to Plainsboro's active Farmland Preservation efforts are noted in the Open Space and Recreation Plan Element. Planning for farmland and open space preservation are integral to the Master Plan and Township staff approach to issues involving farmed lands.

To illustrate the extent of Plainsboro's commitment to farmland preservation in its planning activities, some specific Master Plan goals are listed below:

- *Ensure that new developments are visually and functionally compatible with the physical character and desired images of the township.*
- *Preserve farmlands and encourage their continued use recognizing that farming is an important component of the economy of the township, the region, and the state, and that agricultural lands are irreplaceable natural resources.*
- *Coordinate local agricultural land use preservation guidelines with those of the state and the county and with those of adjoining municipalities.*
- *Preserve large agricultural areas from the intrusion of residential and other uses.*
- *Encourage agricultural uses like "pick your own" operations, nurseries, horse farms, and sod farms.*
- *Continue implementation of right-to-farm ordinance.*
- *Provide opportunities for agribusiness to support local and, if appropriate, regional farming needs.*
- *Assure that agricultural areas will be clearly defined by natural boundaries or land uses that are compatible with farming.*
- *Discourage and/or limit water, sewer, and roadway improvements which would increase undesirable growth pressures in agricultural areas.*

(c) Plainsboro Zoning

Plainsboro employs innovative acquisition and regulatory strategies to redirect growth and reduce the cost of land conservation. On 19 percent of the town's land, farmland zoning limited development to six-acre lots with a clustering provision that grants a higher density in exchange for preservation of 75% of the tract. A more recent "Internal Zone Clustering



Ordinance" permits density transfer between non-contiguous properties if 75% of the area is dedicated as open space. To date, over 500 acres of open space have been acquired via these provisions, at no cost to taxpayers. Plainsboro has also benefited from a zoning ordinance with defined open space requirements and successful negotiations with developers, which have led to the preservation of 442 acres of privately held land at a large office park, as well as other significant open space set-asides.

3. East Brunswick Township

(a) Overview

East Brunswick Township is highly suburban in its central and northern portions but still offers opportunities for agriculture and farmland preservation in the southern and southwestern portions. West of the New Jersey Turnpike alignment, agriculture use totals approximately 1,000 farmland assessed acres in 2000 (See Farmland Preservation Plan-Element, 2000 and newest statistics elsewhere in this Report). The Township wishes to continue to pursue the preservation of existing agriculture and open space in this part of its jurisdiction. Zoning and other ordinance protection measures with existing farmland preservation easement and outright purchase options will provide the means to achieve this goal.

East Brunswick has aggressively pursued both open space acquisition and farmland preservation. The Township pre-acquired the development rights on the Giamarese Farm and successfully submitted an application through the County's traditional easement purchase program, receiving reimbursement cost share dollars from the State and the County.

The Township has adopted Right to Farm Ordinances, enacted a dedicated tax to provide a Township Farmland Preservation/Open Space Fund, and endorsed the ADA areas adopted by the Middlesex CADB.

The Township intends to continue to pursue strategies to leverage monies from the State Agriculture Development Committee and Middlesex CADB programs with its own local Farmland Preservation/Open Space Fund for development right easement purchases, and actively seeks donations of permanent development easements. The Township has also simplified the permitting process for proposed agricultural uses and is considering "fast tracking" farm-related zoning and building applications.

(b) East Brunswick Farmland Preservation Element

East Brunswick's Master Plan includes objectives to retain a viable agricultural industry in the relatively rural western and southwestern portions of the Township. The 2000 Farmland Preservation Plan Element includes an inventory of farmland assessed properties in the Township, and presents general acquisition strategies (Township of East Brunswick Planning Board, 2000). A prior report on Rural Conservation commissioned by the Planning Board suggests that acquisition of open space in conjunction with zoning and subdivision provisions could be effective in reducing the impact of future development and maintaining a rural character in parts of the Township (Township of East Brunswick Planning Board, 1998). East



Brunswick has continued to use a multifaceted approach to maximize its open space and farmland preservation efforts.

(c) East Brunswick Zoning

East Brunswick is using zoning for open space and farmland preservation by encouraging clustered development with dedicated open space, and non-contiguous cluster options to free active farmland within the RP-Rural Preservation Zone. The Middlesex CADB proposed Northwestern Project Area includes lands within this zone.

(d) East Brunswick Lot Averaging/Clustering

As noted the Township encourages clustered development with dedicated open space and a non-contiguous cluster option within the Rural Preservation zone (one unit per six acres). This allows the preservation of congruous open land and promotes compact neighborhoods of one acre minimum homesteads which can better access supporting infrastructure.

4. South Brunswick Township

(a) Overview

As reported in the South Brunswick Master Plan of 2001, the Township of South Brunswick consists of 26,240 acres, of which 17,511 acres or 66.8% are presently developed or designated as park lands or open space. This information is based on land use surveys of the Township conducted in 1968, 1980, 1988, 1994 and April 2001.

A Vacant/Agriculture Land existing use classification indicates that over 33.2 percent of the Township's land (8,728 acres) is vacant or in agricultural use. Most of the vacant/agriculture land is located in the southern part of the Township. Pockets of farmland and vacant land are also located in the western and central sections. These areas include Agricultural Development Areas designated by both the Township and the Middlesex CADB. There are also extensive areas of vacant land with wetlands and other environmental restraints that may limit or prohibit development of these lands.

(b) South Brunswick Farmland Preservation Element

The South Brunswick Township Master Plan contains a Farmland Preservation Element and Farmland Preservation Map with a defined ADA area prepared in 2001. The ADA is referred to in the Farmland Preservation Element as signifying the Township's commitment to the preservation of its remaining farmland. The Township has enacted a Right to Farm ordinance to provide further protection for agricultural operations and has actively participated with the Middlesex County Agriculture Development Board (Middlesex CADB) in establishing the local Agricultural Development Area (ADA) and preserving farmland within this area. South Brunswick also has adopted a model agricultural lease for municipal lands to ensure continued maintenance of open space with agriculture values.



In the south portion of the Township today, additional farmland easements contiguous to properties previously preserved have resulted in an area viable for large field crop use by a single operator. The next re-examination of the Master Plan should include a new inventory, and reflect the changes to the ADA resulting from voluntary tract owners, new goals and the program objectives of the Middlesex County Agriculture Development Board.

(c) South Brunswick Zoning

Two of the five currently proposed Middlesex County Farmland Preservation Project Areas (Southwestern and Northwestern) are within the South Brunswick ADA areas and the Rural Residential (RR) zoning district. The RR district is located primarily in the southern and northeastern section of the Township and is designed to promote preservation of farms and the rural character of the area. In addition, the zoning calls for low-density residential development as well as recreational and agricultural activities compatible with the extensive environmentally sensitive natural features and the absence of existing or future public sanitary sewer service in these areas.

Permitted uses include single family dwellings, farm and agricultural activities, sale of farm produce, poultry and dairy products, public recreation and community center buildings and children's day camps.

This category currently includes 3,583 acres of vacant, wooded or farmed land of which approximately 2,256 acres are wetlands. This area lacks utilities and contains significant environmental constraints. It would be appropriate that a modified zoning category be introduced south of Friendship Road, with a density of only one dwelling unit per five acres. In addition, the area is indicated as a PA 5 (Environmentally Sensitive Planning Area) on the State Development and Redevelopment Plan. Major parts are also designated as an Agricultural Development Area.

(d) South Brunswick Lot Averaging/Clustering

Although cluster development with open space dedication is permitted in other zones in South Brunswick, this option is not being considered in the RR zone at this time to preserve farmland operations.

The area from Carnegie Lake to a point 1,500 feet west of Route 1 is zoned for single-family cluster development on minimum 20,000 square-foot-lots with 30% of the total tract to be devoted to open space. From that point to approximately one mile east of Route 1, the land is zoned Office-Research (OR), which also permits hotels and commercial development. In adjacent Plainsboro, the adjoining land has been placed into the PMUD zone which is compatible with both South Brunswick zones.

Continuing eastward along Perrine Road which forms the inter-municipal boundary as far as Dey Road in Cranbury, the land in South Brunswick is zoned Office/Computer Headquarters (OCH), R-2 single-family cluster residential on minimum 15,000 square foot lots



with 25% of the total tract to be devoted to open space, and Rural Residential which requires three (3) acre and two (2) acre minimum lots per dwelling unit. The OCH zone permits executive offices, corporate headquarters and campus development. All of these lands are characterized by poor soils interspersed with ongoing farm operations. The Plainsboro land use plan recommends that its adjoining areas be placed into R-200 and R-350 low density residential classifications.

5. Monroe Township

(a) Overview

The Township of Monroe is approximately 43 square miles of land area located in the southern portion of Middlesex County. The Boroughs of Helmetta and Spotswood and the Townships of Old Bridge, Manalapan, Millstone, East Windsor, Cranbury and South Brunswick surround Monroe while the Borough of Jamesburg forms a small island within the Township. Much of Monroe continues to be semi-rural, despite much growth in population from several active adult communities and other housing developments.

The population of Monroe Township has increased from 22,255 in 1990 to 27,999 in 2000. The 2000 median age in Monroe was 58.9 years, which was significantly older than Middlesex County's median age of 35.7 years. The average household size decreased from 2.31 persons in 1990 to 2.15 persons in 2000 as a result of the growth of the adult communities.

The Township's housing stock is predominantly single-family dwelling units both detached and attached (86.2% combined). Monroe is not a job intensive area compared with other municipalities within the County; regional employment is focused in two light industrial areas and miscellaneous services jobs including employment provided through the retirement communities. Farming is still viable in Monroe, with horse farms, several prosperous produce farms, and some field crops.

The single largest land use identified in Monroe is wetlands, which occupy 8,285.51 acres, just a little more than 30 percent of the total. Forest, which covers slightly more than 4,600 acres, is the second most predominant land use. Agriculture is the third significant land use in the Township, with many small farms covering nearly 4,650 acres of land. These three land uses combine to cover 65 percent of all the land in the community, and promote its low-density rural character. Unused barren land occupies 932 acres.

Two of this Plan's proposed Project Areas (Southeastern and Matchaponix) are largely situated in the farming areas of Monroe where sewer service is not available, and are in an ADA or have contiguous farmlands.

(b) Monroe Farmland Preservation Element

Monroe Township has a Farmland Preservation Element in its 2003 Master Plan. Additionally, extensive relevant information can be found in its Open Space and Recreation Element and Environmental Resources Inventory (Monroe Township Planning Board-2006).



Active expression of Municipal commitment to farmland preservation is found in the October 2007 Monroe Township website Mayor’s Column, entitled “Farmland Preservation”. The ADA within Monroe encompasses 5,200 acres. An additional 200 acres have been certified as voluntary ADAs that have applied to this program. The Township has enacted a Right to Farm ordinance to provide further protection for agricultural operations and has actively participated with the Middlesex County Agriculture Development Board in establishing the local Agricultural Development Area and preserving farmland within this area.

In order to provide education and demonstration of historic agriculture in Monroe, the municipality has purchased the 40 acre Dey Farm and is restoring the operations to create a circa 18th Century historical farm and museum which will be fully accessible to the public.

(c) Monroe Zoning

Monroe uses zoning to encourage open space and farmland preservation by permitting farms, truck gardens, and other agricultural activities in the following designated Zones:

- RR-FLP Rural Residential Farmland Preservation District,
Minimum Gross Density one residence per 6 acres
- R-3A Residential–Agricultural District
Minimum Gross Density one residence per 3 acres
- R-60 Residential–Agricultural District
Minimum Gross Density one residence per 60,000 SF
- R-30 Residential–Agricultural District
Minimum Gross Density one residence per 30,000 SF
- R-20 Residential–Agricultural District
Minimum Gross Density one residence per 20,000 SF

These zoning districts also have provisions for lot clustering within a contiguous parcel and clustering of lot yield between noncontiguous parcels within and among the above zoning districts. Monroe Township has adopted “Right to Farm” ordinances.

(d) Monroe Lot Averaging/Clustering

As noted above, Monroe Township zoning allows lot clustering and noncontiguous lot clustering in four rural designated zoning districts. The Township does not allow a bonus factor, relying on the savings of developing a smaller overall tract area as a developer incentive and the retention of development restricted farmland for the owner.

6. Old Bridge Township

(a) Overview

Only slightly smaller than Monroe, Old Bridge Township has experienced similar development pressures and has had more residential and commercial development in areas that once were productive farmland.



Old Bridge's total land area is 23,863 acres or approximately 37.3 square miles. The Township reports for the Year 2000, there were 5,015 acres in farmland assessment, or approximately 21% of Old Bridge. However, that figure includes much wooded area. Table I-1 indicates that only one out of every five Old Bridge farmland-assessed acres is actually in agricultural use (1,000 of 5,000 acres are considered tillable).

The latest Old Bridge Master Plan Re-Examination (2007) reveals that between the years of 2000 and 2006, the township experienced a decrease of nearly 1,500 farmland assessed acres. This results in 2007 total farmland assessed acreage of about 3,600 acres, an approximately 30% loss, with only 15.3% of Old Bridge Township being farmland assessed in 2007, compared with 21% in 2000. However, because there is so much woodland, these numbers do not necessarily mean a great loss of tillable fields. Further analysis by the Township in this regard would be helpful in order to understand the actual impact on the agricultural land base.

Although Old Bridge adopted a Farmland Preservation Plan Element in 2000, it did not contain clear implementation techniques and does not appear to have significantly stemmed the conversion of farmland to other use in the Township.

(b) Old Bridge Farmland Preservation Element

The Old Bridge Township Farmland Preservation Element was created for inclusion as an element of their Master Plan (Township of Old Bridge, 2000). The document presents the "express policy of the Township of Old Bridge to preserve agricultural land and to promote agriculture as a business within the Township." This plan contains a listing of target properties for potential future acquisition, a right-to-farm ordinance, and provisions to use the police powers through zoning regulations where applicable". However, since then the Township has only been able to preserve approximately 71 acres of farmland.

The recent Master Plan Re-Examination Report (the Planning Board of the Township of Old Bridge, adopted 09/11/2007) evaluated the loss of farmland assessed properties between 2000 and 2006. The Planning Board proposed a farmland preservation district, which would establish zones that encourage lot averaged development to preserve open space and farmland.

(c) Old Bridge Zoning

The Land Use Element Amendment of the 2000 Master Plan called for a redesignation of areas of the Township as Agriculture/Rural Conservation (ARC1, ARC2 and ARC3) in recognition of existing active farmland areas. While other Zoning Districts within Old Bridge Township allow for clustering with a 23% minimum set aside, the conditions and zone requirements for the ARC Districts are still under development.



At this point in time, an ARC2 Zoning District is shown only as a large area in the eastern portion of the 2000 Town Centre District, an area of Old Bridge Township found in the southeast quadrant of the interchange of US Route 9 and County Route 516 (aka Old Bridge to Matawan Road).

It is anticipated that the other locations recommended within the Land Use Element of 2000, the Agricultural Development Areas within Old Bridge Township, and the Matchaponix and Northeastern Project Areas will be designated as ARC Districts, implementing the recommendations adopted in the Old Bridge Township Master Plan Re-Examination (2007).

(d) Old Bridge Planned Unit Developments

Old Bridge has attempted to preserve land by working with developers on the formulation of Planned Unit Developments (PUD). This type of development must be on a minimum of 10 acres and is planned as a unit that includes residential and related land uses. Densities may be shifted such that large areas of open space are preserved. In Old Bridge, this zoning technique has not been used to preserve farmland.



G. Transfer of Development Rights (TDR) Opportunities

On March 29, 2004, P.L. 2004, c.2, the State Transfer of Development Rights (TDR) Act was signed into law, authorizing the transfer of development rights by municipalities. New Jersey is the first state in the nation to authorize TDR on a statewide level.

This legislation extended availability of TDR to municipalities statewide, allowing for both intramunicipal and intermunicipal transfers. This bill also formalized the planning process required to enact TDR and mandated a list of planning documents required prior to adopting a TDR ordinance. To assist municipalities, the Act authorized the State TDR Bank Board to provide Planning Assistance Grants.

Within New Jersey there are currently 11 municipalities pursuing intramunicipal TDR under the State TDR Act, with several expected to enact development transfer ordinances in the coming months. Still other municipal and regional TDR programs are under consideration.

Cranbury Township attempted to employ a Transfer of Development Rights Ordinance and process to preserve farmland in 1978. At that time this concept was new and not fully tested in New Jersey, and State enabling legislation permitting TDR had not been adopted.

As time and case studies in Chesterfield Township and elsewhere in Burlington County (1989) progressed, Middlesex County municipalities chose to use other legal options to preserve farmland. Non-Contiguous Lot Clustering has been found to be a viable and publicly acceptable solution in Cranbury, Monroe, and Plainsboro. Today both this method and TDR are permitted by State legislation and should be explored within the other municipalities actively seeking to preserve farmland.

One obstacle to the acceptance of TDR is in the complex process required prior to adoption. For many municipalities, this appears daunting, time consuming and expensive. There may be advantages to establishing a regional or countywide approach for TDR, with a regional TDR Bank. To encourage use of TDR, opportunities for developers and development credit receiving areas must be enhanced by State agency commitments to provide and help pay for infrastructure improvements. These may be necessary to enable municipalities to increase residential densities, and to revitalize rundown downtowns and abandoned commercial and industrial areas by implementing transit oriented development and NJ Transit Village style projects.



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IV. County's Farmland Preservation Program – Overview

A. Agricultural Development Areas

An Agricultural Development Area (ADA) is a geographic area where the CADB has determined that agriculture is the preferred land use and is viable over the long term, and which has subsequently been certified by the SADC. This designation of the land is a pre-requisite for preserving a farm using State cost share dollars. The designation of an ADA by the CADB must meet statutory provisions specifically enumerated in the Agriculture Retention and Development Act (ARDA). In accordance with N.J.S.A. 4:1C-18 the area must:

- a. *Encompasses productive agricultural lands which are currently in production or have strong potential for future production in agriculture and in which agriculture is a permitted use under the current municipal zoning ordinance or in which agriculture is permitted as nonconforming use;*
- b. *Is reasonably free of suburban and conflicting commercial development;*
- c. *Comprises not greater than 90% of the agricultural land mass of the county;*
- d. *Incorporates any other characteristics deemed appropriate by the board.*

While agriculture is the preferred use of land within an ADA, it is not necessarily the exclusive use of land. The ARDA further stipulates that an ADA which has been designated by the CADB shall be in no way construed to authorize exclusive agricultural zoning or any zoning which would have the practical effect of exclusive agricultural zoning. In addition, the adoption of an ADA may not be used by any tax official to alter the assessed value of the land for the assessment of property taxes.

B. County ADA Designation Criteria

The CADB has the discretion to adopt additional criteria as deemed appropriate to the county. The Middlesex CADB criteria for establishing an ADA currently consist of:

1. *The land must meet all the requirements for farmland assessment;*
2. *The land must encompass productive agricultural lands which are currently in production or have a strong potential for future production in agriculture;*
3. *Agriculture must be a permitted use under current municipal zoning, or must be permitted as a non-conforming use;*
4. *The land must be reasonably free of suburban and/or conflicting commercial development;*
5. *Total ADA land must not include greater than 90% of the County's agricultural land mass;*
6. *Soils must include a predominance of Prime Farmland and Soils of Statewide Importance;*
7. *The property must have a minimum contiguous acreage of 10 acres or more.*

The CADB may also grant a waiver provision from any one of its criteria as long as the State's criteria are met. The Middlesex CADB's set of criteria for ADA designation was last certified at the SADC meeting of December 20, 2001.



1. Brief History of the County ADA

Between 1985 and 1989, ADA designations were adopted on a parcel-by-parcel basis. After significant discussion in the late 1980's, the CADB decided to consider adoption of comprehensive ADAs in Middlesex County. In February 1990, the Middlesex CADB adopted a contiguous 5,600-acre ADA west of the village of Cranbury, encompassing parts of Cranbury, Plainsboro and South Brunswick. Concurrent with the larger ADA found west of the village of Cranbury, a smaller ADA covering the southeastern corner of Cranbury also was adopted.

These first two ADAs were mapped by Planning Department staff based upon the application of the County Agriculture Development Board's criteria in place at the time, including the presence of prime or statewide important farmland soils; concentrations of individual land parcels of 10 acres or more in size; the presence of active agricultural operations; and municipal support for agriculture retention through municipal recommendation of lands to be designated in Tier 6A or 6B during the cross acceptance process of the first State Plan (now designated on the State Plan as the "Rural Planning Areas": Planning Area 4 or 4B).

Subsequent to the adoption of the first two large contiguous ADA's, the county-wide ADA has been comprehensively modified on multiple occasions as follows:

- ◆ The CADB adopted a 5,300-acre ADA in south central Monroe Township on May 13, 1999 as an extension of the ADA that was already established in southeastern Cranbury.
- ◆ In the year 2000, an additional 2,000 acres of ADA lands was created in South Brunswick.
- ◆ An ADA designation in Old Bridge consisting of 4,000+ acres was certified in January of 2000.

In addition to the above summary of comprehensive revisions, the CADB has approved a number of ADAs that have been voluntarily requested by individual landowners. The last ADA revisions occurred in May/June of 2006, which consisted of two individual voluntary ADA designations related to the FY2008 round of applications. (See Appendix C for a list of all Voluntary ADAs for the entire life span of the County's farmland preservation program)

Historically, once land was confirmed to be in an Agricultural Development Area, a landowner was eligible to apply to the easement purchase program by submitting an application to the Middlesex CADB. The CADB then would review easement purchase applications and rank the applicant farms according to established criteria. With the transition into the State's County PIG Program, a landowner will be eligible only if the property is in the ADA *and is identified on the list of targeted farms included in the annual PIG application forms.*

2. Comprehensive Revisions to the ADA

Prior to beginning this update of the County's farmland preservation plan, the County's ADA was last amended and certified in late 2006 in conjunction with the processing and submittal of the 2008 Round of Traditional County Easement Purchase Applications. The primary impetus for preparing this comprehensive update of the farmland preservation plan was to shift from the County EP Program to the Countywide Planning Incentive Grant (PIG) program, as strongly recommended by the SADC. As detailed further in Chapter V, the PIG program requires a comprehensive analysis in order to develop farmland preservation Project Areas consisting of preserved farms, preserved open space that is compatible with agriculture, and **targeted farms**—farms deemed appropriate by the County for inclusion in the County's farmland preservation program.

In order for an application to qualify as a candidate for State dollars in the county-wide PIG application, the targeted farm also must be situated within the County's ADA. At the time this plan was being prepared, not all proposed targeted farms included in the 2009 Round PIG Application Form were included in the County's ADA, because the County's comprehensive analysis evaluated *all* potential targeting candidates, regardless of ADA status.

Therefore, as part of the PIG application review process and corresponding update of the County's farmland preservation plan, the Middlesex CADB staff found it necessary to adopt comprehensive revisions to the ADA, to ensure that all targeted farms are within the ADA. The proposed revisions were based on a systematic approach substantially similar to the approach used by Planning Department staff for the original two ADA designations of 1990. In addition, staff also took into account the SADC's new minimum eligibility requirements, adopted with the specific intent of qualifying only the state's most viable agricultural areas.

The proposed revisions were largely driven by the presence of agriculturally productive soils in active agricultural use. The nature of the comprehensive ADA revisions can be characterized as follows:

- ◆ **Additions for Targeted Farms**—The process of targeted farm identification was not limited to the ADA boundaries existing at the time of the targeted farm analysis. Since ADA designation is a pre-requisite for the state farmland preservation program, the ADA had to be amended to include all targeted farms not currently designated within an ADA.
- ◆ **Amendments to Rectify Farm Boundaries**—In a limited number of cases, staff recognized mapping errors in the property boundaries depicted on the 1998 farmland assessment map, the digital map file which was used as the base map for targeting farms.
- ◆ **Removals to Recognize Changes in Land Use**—Staff identified ADA lands that had been developed for non-agricultural uses since initial ADA designation (Chapter 3 notes the issuance of Certificates of Occupancy totaling 14,000 housing units and 31.2 million square feet of nonresidential space between 1996 and 2006 in the six farm municipalities alone).



- ◆ **Removals for Lands with Insufficient Tillable Acreage**—Staff removed parcels that did not meet the state’s minimum tillable acreage requirements. These consisted mostly of parcels with woodland management plans in place solely to retain local farmland assessment.
- ◆ **Removals of Recreation and/or Open Space Properties**—Properties permanently preserved for recreation or open space purposes were removed to minimize conflicts between the underlying policy of the ADA designation and any future plans for a property specifically held for public recreation or open space.
- ◆ **Modifications Requested By Municipalities**—Based upon conversations with the municipalities regarding the results of the initial staff analysis, the CADB incorporated some modifications requested by the municipalities in light of their more specific knowledge and goals.

The Middlesex CADB adopted the revised ADA map at their meeting of April 9, 2008. The map was certified by the SADC on June 26, 2008, the final step in the ADA revision process.

3. Geographic Information System Mapping of ADA

As part of ongoing mapping of the farmland preservation program activities, the County Planning Department’s Geographic Information System laboratory maintains a current digital map file of the ADA boundaries, which is updated as revisions are adopted and certified. The following table provides the number of acres in the ADA, by municipality, and percent total by municipality relative to the entire ADA as last certified by the SADC on June 26, 2008.

Table IV-1: Agricultural Development Area (ADA) Acreage, by Municipality (certified June 26, 2008)

Municipality	Acres	Percent Total
Cranbury	4,186	28%
East Brunswick	382	3%
Monroe	6,503	43%
Old Bridge	1,190	8%
Plainsboro	884	6%
Sayreville	17	<1%
South Brunswick	2,028	13%
Grand Total	15,190	100%

Source: tabulations by County GIS lab



C. Farmland Preserved to Date by Program and Municipality

The following series of graphs and tables illustrate and summarize farmland preservation to date in Middlesex County. Program types are fully described in the pages subsequent to the series of tables and graphs.

Of important note: the multiple approaches among the preservation partners during the past six years have resulted in total preserved farmland acreage exceeding the 1-, 5-, & 10-year goals set forth in the County's Farmland Preservation Plan of 2001.



Refer to Appendix A for a detailed listing of all farms preserved for all program types as of year-end 2007.

Figure IV-1: Preserved Acreage by Year for all Programs in Middlesex County: Cumulative 1988 to 2007, Pending & 2010 Goal of 2001 Plan

Pending acres includes: One County EP in Monroe (43 acres); and one SADC EP in Sayreville (17 acres)

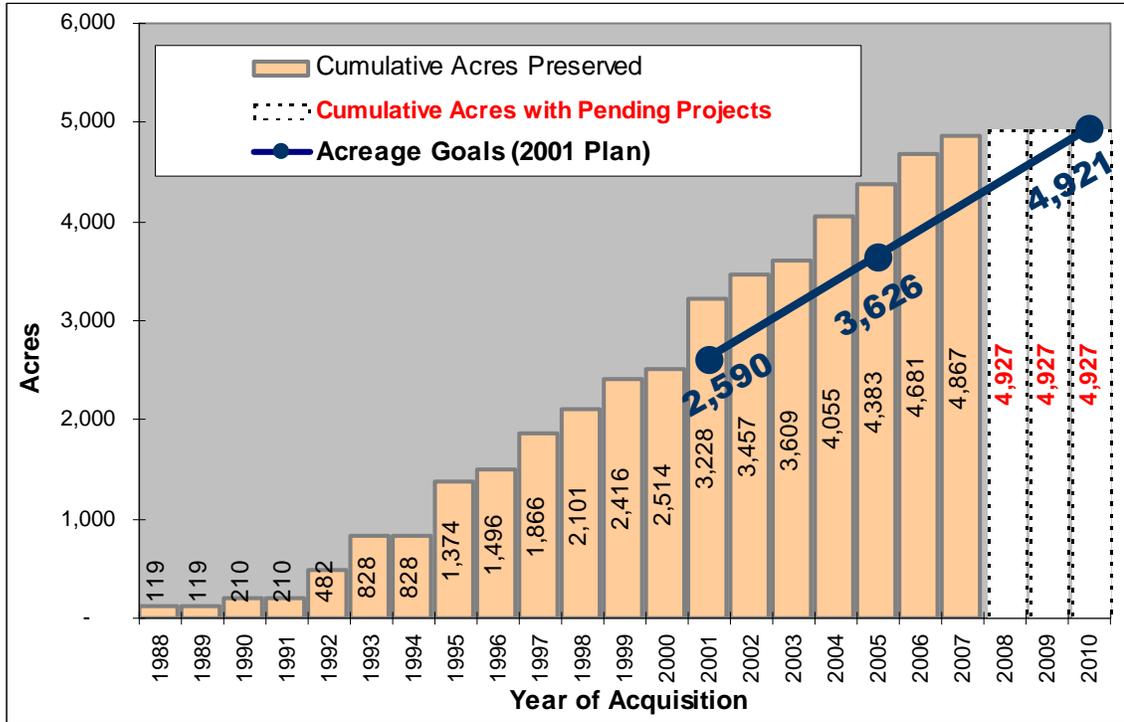




Figure IV-2: Preserved Acreage per Year for all Programs in Middlesex County

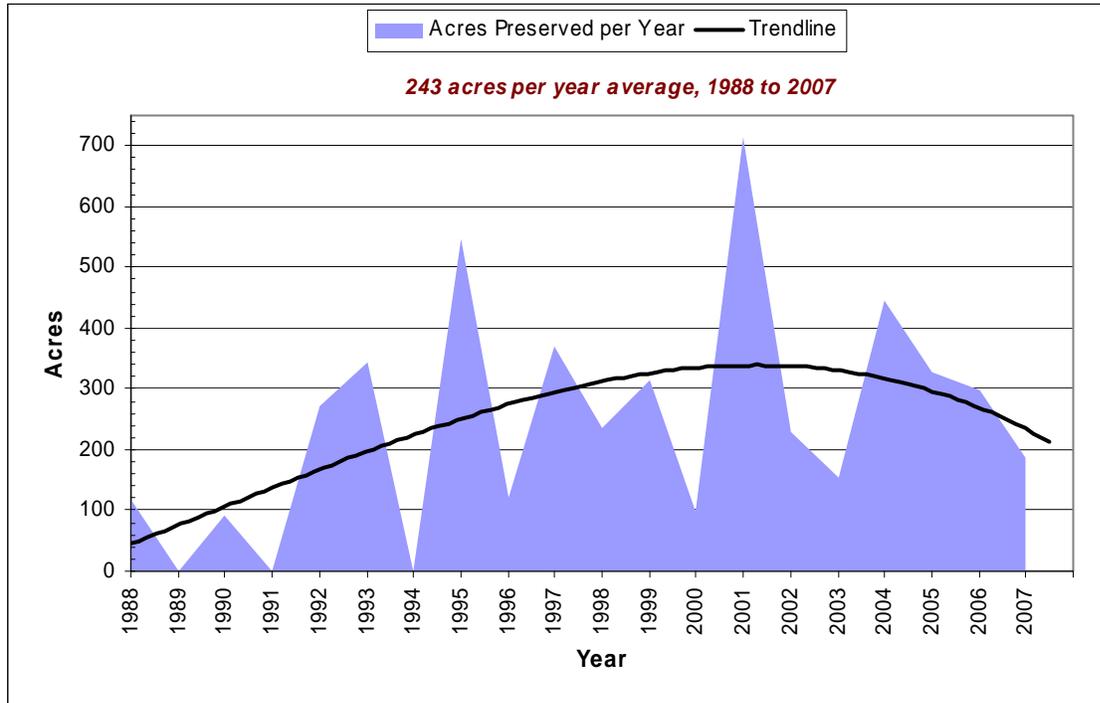


Table IV-2: Middlesex County's Preserved Farmland by Municipality

Municipality	Quantity	Total Acres	Percent Total Acres
Cranbury	23	2,316	48%
East Brunswick	2	81	2%
Monroe	8	978	20%
Monroe/Manalapan*	2	221	5%
Old Bridge	2	71	1%
Plainsboro	6	527	11%
Plainsboro/Cranbury*	1	91	2%
South Brunswick	7	581	12%
Grand Total	51	4,867	100%

* One farm is bisected by the municipal boundary between Plainsboro and Cranbury; and, two farms are situated in Monroe, Middlesex County and Manalapan, Monmouth County

**Table IV-3: Acres of Preserved “Active Agriculture” Land:
Percent Preserved by Middlesex County Municipality**

(2002 NJDEP “Active Agriculture” Land Cover intersected with Farmland Preservation Easements)

Municipality	"Active Agriculture" Acres on Preserved Farms	Total "Active Agriculture" Acres	Percent of Total "Active Agriculture" Preserved
Cranbury	1,930	3,647	53%
East Brunswick	53	759	7%
Monroe	715	6,124	12%
Old Bridge	30	1,013	3%
Plainsboro	490	1,455	34%
South Brunswick	346	3,727	9%
All other municipalities	0	803	0%
Grand Total	3,564	17,528	20%

Source: County Planning Department tabulations

Note: Tabulations do not include “active agriculture” lands situated on preserved open space properties

Table IV-4: Preserved Farmland by Program in Middlesex County

Program Type	Quantity	Total Acres	Percent Total Acres
County Easement Purchase (Cty. EP)	37	3,088	63%
Cluster Easement Donated to County (Cty. Don.)	1	235	5%
Municipal Cluster Easement (Muni. CE)	7	427	9%
State-owned Land (SOL)	1	571	12%
State Easement Purchase (SADC EP)	3	389	8%
State Fee-simple Purchase (SADC FS)	1	125	3%
Non-profit Grant (NPG)	1	32	1%
Grand Total	51	4,867	100%

**Table IV-5: Middlesex County's Preserved Farmland by Program and Municipality**

Type of Acquisition	Municipality	Quantity	Total Acres	Percent Total Acres
County Easement Purchase		37	3,088	63.5%
	Cranbury	13	1,606	33.0%
	East Brunswick	2	81	1.7%
	Monroe	5	145	3.0%
	Monroe/Manalapan*	2	221	4.6%
	Old Bridge	2	71	1.5%
	Plainsboro	5	292	6.0%
	Plainsboro/Cranbury*	1	91	1.9%
	South Brunswick	7	581	11.9%
Cluster Easement Donated to County		1	235	4.8%
	Plainsboro	1	235	4.8%
Municipal Cluster Easement		7	427	8.8%
	Cranbury	5	165	3.4%
	Monroe	2	263	5.4%
State-owned Land		1	571	11.7%
	Monroe	1	571	11.7%
State Easement Purchase		3	389	8.0%
	Cranbury	3	389	8.0%
State Fee-simple		1	125	2.6%
	Cranbury	1	125	2.6%
Non-profit Grant		1	32	0.7%
	Cranbury	1	32	0.7%
Grand Total		51	4,867	100.0%

* One farm is bisected by the municipal boundary between Plainsboro and Cranbury; and, two farms are situated in Monroe & Manalapan

**Table IV-6: Middlesex County's Preserved Farmland by Municipality and Program**

Municipality	Type of Acquisition	Quantity	Total Acres	Percent Total Acres
Cranbury		23	2,316	47.6%
	County Easement Purchase	13	1,606	33.0%
	Non-profit Grant	1	32	0.7%
	State Fee-simple	1	125	2.6%
	State Easement Purchase	3	389	8.0%
	Municipal Cluster Easement	5	165	3.4%
East Brunswick		2	81	1.7%
	County Easement Purchase	2	81	1.7%
Monroe		8	978	20.1%
	County Easement Purchase	5	145	3.0%
	State-owned Land	1	571	11.7%
	Municipal Cluster Easement	2	263	5.4%
Monroe/Manalapan*		2	221	4.6%
	County Easement Purchase	2	221	4.6%
Old Bridge		2	71	1.5%
	County Easement Purchase	2	71	1.5%
Plainsboro		6	527	10.8%
	County Easement Purchase	5	292	6.0%
	Donation to County	1	235	4.8%
Plainsboro/Cranbury*		1	91	1.9%
	County Easement Purchase	1	91	1.9%
South Brunswick		7	581	11.9%
	County Easement Purchase	7	581	11.9%
Grand Total		51	4,867	100.0%

* One farm is bisected by the municipal boundary between Plainsboro and Cranbury; and, two farms are situated in Monroe & Manalapan



1. County Easement Purchase Program

Beginning with the State's Fiscal Year 2009 Round of funding, Middlesex County is moving to the County PIG Program (described in following section of this chapter), which does not permit continued participation in the County Easement Purchase Program. The County Easement Purchase Program has been the principal means of farmland preservation in Middlesex County, accounting for more than two-thirds of all farmland acres preserved. In 1990, only five years after establishing the CADB, the County acquired its first farmland preservation easement through the Easement Purchase Program — the Stults Farm, an easement covering roughly 91 acres located along Cranbury Neck Road, with approximately 58 acres in Plainsboro and 33 acres in Cranbury. During the 17 years since that first easement purchase, Middlesex County has acquired a total of almost 3,100 acres of development easements on 37 farms situated within six municipalities of Middlesex County and one Monmouth County municipality — Cranbury, Plainsboro, South Brunswick, Monroe, East Brunswick and Old Bridge plus Manalapan in Monmouth County (two farmland preservation easements in Monroe purchased and held by Middlesex County extend into Manalapan).

The County Easement Purchase Program is a process where landowners voluntarily sell the development rights on their farmland to their county through the submission of an application to their county agriculture development board (CADB). When landowners sell their development rights — also known as development easements — they retain ownership of their land, but agree to permanent deed restrictions allowing only agricultural use. For a county to be eligible for state cost share dollars supporting the sale of the easement, the land must be in an Agricultural Development Area (ADA) and be eligible for Farmland Assessment. The CADB reviews applications and forwards those applications granted preliminary approval locally to the State Agriculture Development Committee (SADC).

The SADC provides counties with grants that typically fund 60-80 percent of the costs of purchasing development rights on approved farms. Contingent upon the availability of State appropriations, the SADC generally has held one funding round per year (multiple funding rounds occurred during a few calendar years). For all applications submitted for State preservation funding from all participating CADBs, the SADC then prioritizes applications on a statewide basis through a ranking system assigning points for a series of farmland quality factors including: farmland soils importance; percent tillable acres; suitable boundaries and buffers; the municipal commitment to agriculture (e.g., right to farm ordinances, financial commitment); size of the farm and agricultural density of the area; imminence of development, and local ranking by the CADB. This initial quality score is known as the preliminary quality score.

The preliminary quality score for each application establishes the SADC's preliminary priority list for preservation for that funding round. The SADC certifies development values for each farm based on independent appraisals conducted by two licensed appraisers from an SADC-approved list, retained and paid for by the county. These appraisals are given a desktop review by an SADC staff appraiser.

Once the SADC certifies development easement values, landowners have 30 days to submit their offers. A landowner can improve a farm's ranking on the preliminary priority list by offering to discount — or sell the development easement for less than the certified value — commonly referred to as a “bid-down”. For every one percent a landowner discounts, two points are added to the farm's quality score. Landowner offers establish the final priority list for preservation. The number of farms that will be preserved each round depends on available State, county and sometimes municipal funding.

2. Planning Incentive Grants

In this new program, the State Agriculture Development Committee (SADC) provides grants to municipalities or counties for the purchase of development easements to permanently protect large blocks of reasonably contiguous farmland in project areas identified as part of a comprehensive planning process. Municipalities seeking funding must forward applications to their county agriculture development board (CADB) for approval before submitting applications to the SADC. Municipalities not seeking county funding and county agriculture development boards apply directly to the SADC. Municipalities must have an agricultural advisory committee; for counties, county agriculture development boards serve this function. There has yet to be direct municipal participation in the Planning Incentive Grant (PIG) Program by any Middlesex County municipality, though Cranbury's farmland preservation plan mentions possible participation.

Both municipal and county applications must contain a comprehensive farmland preservation plan prepared in accordance with SADC guidelines. Municipalities or counties must establish and maintain a dedicated source of funding or other means of funding farmland preservation. The SADC will evaluate and rank applications based on: the local commitment to agriculture; soil productivity; size of the farms; agricultural density of the project area; proportion of tillable acres; and threat of development. Priority will be given to applications that leverage State funding through installment purchases, option agreements and donations. As in the earlier program, the SADC certifies development values for each farm based on independent appraisals conducted by two licensed appraisers and a review by an SADC staff appraiser. The SADC establishes preliminary funding allocations for all applications receiving preliminary approval. The maximum initial base grant allocation is \$1.5 million per municipal applicant per year. For each county, the initial base grant for the coming fiscal year (FY2009) is \$2 million. A county may seek additional funds on a competitive basis, pursuant to appropriations made by the SADC each year. The SADC may increase or decrease base grant allocations in subsequent years based on applicants' progress and the availability of State funding.



3. SADC Direct Easement and Fee Simple Purchases

The State Agriculture Development Committee (SADC) purchases development rights or farmland outright for preservation purposes under its State acquisition program. Landowners may sell either the development rights to their land and continue to own and farm the land, or may sell their land outright. Under the SADC Direct Easement Purchase Program, the landowner sells only the development rights to their land, similar to the County Easement Purchase Program except that the deed of easement is held by the SADC rather than the county. In the Direct Fee Simple Purchase program, the State purchases the property in its entirety.

In both cases, whether Direct Easement or Fee Simple, the land is permanently deed-restricted for agricultural use through the legal recording of a deed instrument at the county clerk's office. When the SADC purchases farms outright, it then resells them at public auction as permanently preserved farms.

Somewhat different than the quality score ranking system employed in the County Easement Program criteria, the SADC direct easement and fee-simple programs seek to preserve priority farms that are strategically located in each county. In recent years, priority farms are those that meet or exceed 75% of the county's average size and 90% of the average quality score. As adopted by the SADC on July 26, 2007, the minimum acreage requirement for qualifying as a priority farm in Middlesex County is 59 acres. For other counties the minimum acreage requirement varies from as high as 96 acres in Salem County to as low as 10 acres in Bergen County. Quality scores are determined based on a number of factors, including soil quality, proportion of tillable acres, proximity to other preserved farms and local support for agriculture. An applicant farm that is strategically located and meets or exceeds the minimum criteria for size and quality score will qualify for immediate consideration for preservation. Applications for farms not meeting these criteria may be accepted and considered for approval on a case-by-case basis.

The SADC and landowner enter into a 120-day option agreement in which the landowner agrees not to market the property for that time period. This provides time for two independent appraisers to evaluate the land. Based on the findings of those appraisers and the recommendations of its own review appraiser, the SADC will certify fair-market value and make an offer. If the offer is accepted, the landowner and SADC will enter into a sale agreement. The SADC will order a survey and title search and work directly with the landowner through closing.

The entire process – from application to closing – can be completed in 12 to 18 months provided there are no major complications associated with survey, title or related issues. Historically, applications are accepted year-round. However, because of current funding limitations at the state and the SADC's promotion of the new County PIG Program, the SADC is not earmarking new or additional funds to direct purchase, as of the writing of this plan. Landowners interested in this program option may contact the staff of the SADC for more information as to potential availability of funding in future years.

4. Non-profit

The SADC provides grants to nonprofit organizations to fund up to 50 percent of the fee simple or development easement values on farms, to ensure their permanent preservation. A notice of available funds is published in the New Jersey Register, and applications submitted by a nonprofit organization must be submitted within 90 days of that notice. Nonprofit groups also must publish a notice that an application has been filed and notify the municipality and county agriculture development board. The SADC reviews and ranks applications based on the following criteria: percentage of high-quality soils; percentage of tillable acres; suitable boundaries and buffers, such as other nearby preserved farms and open space; the local commitment to agriculture (e.g., right to farm ordinances, community financial support); size of the farm; agricultural density of the area, and imminence of development. The SADC certifies a development easement or fee simple value based on independent appraisals conducted by two licensed appraisers. Like all other land in the Farmland Preservation Program, farmland preserved by nonprofit organizations must be maintained for agricultural use.

5. Municipal Cluster Easements

Clustering is a zoning technique that concentrates buildings on a portion of land in order to allow the remainder to be preserved for agriculture, recreation, or environmental purposes. Clustering can be implemented on a voluntary or mandatory basis, and specific requirements vary from municipality to municipality. Municipalities may also elect to allow for clustering of non-contiguous properties.

As detailed in the preceding summary tables, a total of seven development projects preserved farmland by way of cluster zoning (five in Cranbury; two in Monroe). An eighth property, categorized in the summary tables as “Donated to County” signifying that the deed of easement was conveyed to the county, also used the mechanism of clustering via the municipal land development review process. Five out of the six farming communities have various forms of cluster zoning provisions (please refer to Chapter 3 Subchapter F for detailed descriptions of cluster techniques).

6. State-owned Lands

During Governor Whitman’s administration of the late-90s, she set a statewide goal of 500,000 preserved farmland acres and encouraged all state agencies that owned land considered surplus and suitable for agricultural production to donate easements for farmland preservation. During that initiative, New Jersey’s Juvenile Justice Commission made their New Jersey Training School in Middlesex County available for farmland preservation. (Most people from Middlesex County recognize this as the State Home for Boys at Jamesburg.) On the County’s list of preserved farms, it is known as the Jamesburg Farm, but is actually 570+ acres wholly located in Monroe Township. (Jamesburg was the U.S. Post Office for that section of Monroe until recently.)

Bayside State Prison in Cumberland County is another example of a correctional facility placed in the state’s farmland preservation program. Under the recommendation of the agencies



in charge of these State-owned facilities, the Department of Treasury donates the farmland preservation easement and the SADC records their standard easement language on the part of the land that the State agency was willing to enter into agriculture preservation.¹⁵

D. Consistency with SADC Strategic Targeting Project

The SADC released their Strategic Targeting Project Report in March of 2003. The intent of the Strategic Targeting Project is for the SADC to work with counties and other State agencies to develop a more strategic approach to identifying and prioritizing farmland preservation investments among all levels of government in each of the 18 of 21 counties that actively preserve farmland. One example of a more strategic approach in farmland preservation investment is to give a higher priority to agricultural areas with a predominance of prime and statewide important soils that are outside of public sewer service areas.

This coordinated planning approach is anticipated to improve preservation efforts and to guide decision making across all programs within the State's Farmland Preservation Program, ultimately enhancing the state's agricultural industry. The SADC's Strategic Targeting Project has three primary goals:

1. Coordinate farmland preservation/agricultural retention efforts with proactive planning initiatives;
2. Create and update maps to more accurately target preservation efforts in areas of important agricultural land;
3. Coordinate farmland preservation efforts with open space, recreation and historic preservation investments.

The Strategic Targeting Project served as the SADC's prelude to the Agricultural Smart Growth Plan of 2006 and was the impetus to the overhaul of their farmland preservation process rules (December 2006 proposal; July 2007 adoption). The rule proposal adoption has emphasized county-level participation in their Planning Incentive Grant (PIG) Program. Thus, as stated at the beginning of this plan, a principal reason for updating the Middlesex County Comprehensive Farmland Preservation Plan is to enable County participation in the countywide PIG, which in turn is consistent with the goals of the SADC's Strategic Targeting Project.

E. Eight-Year Programs

One farm in Middlesex is temporarily preserved by this program (see end of Appendix A for a listing). In this program farmland owners agree to voluntarily restrict nonagricultural development for a period of eight years in exchange for certain benefits. There are two types of eight-year programs: municipally approved programs, which require a formal agreement among the landowner, county and municipality, and non-municipally approved programs, which require an agreement between only the landowner and county. Landowners apply to their county agriculture development board. Land must be located in an ADA, be eligible for Farmland Assessment and meet local and/or county program criteria. Landowners enrolled in both municipally and non-municipally approved programs receive no direct compensation for

participating but are eligible to apply to the SADC for grants that fund up to 50% of the costs of approved soil and water conservation projects. Additionally, those in municipally approved programs enjoy greater protections from nuisance complaints, emergency fuel and water rationing, zoning changes and eminent domain actions. An eight-year agreement is recorded with the county clerk in the same manner as a deed. Land may be withdrawn prior to expiration of the eight-year period only in cases of death or incapacitating illness of the owner, or bankruptcy or other serious hardship. Withdrawal from the program must be approved by the county agriculture development board and, for municipally approved programs, by the municipality. An owner who wants to sell the farm while enrolled in an eight-year program must provide the SADC with an executed contract of sale for the property. The SADC then has the first right and option to match the conditions of that contract and purchase the property itself.

F. Coordination with Open Space Preservation Initiatives



The Middlesex County Farmland Preservation Program can act in partnership with County and municipal Open Space and Recreation initiatives, especially in the context of the rural southern areas where open space parcels are generally more compatible with agriculture. Formal County policies should be developed regarding open space purchases in Agricultural Development Areas, as well as purchases of farmland for land conservation purposes, in order to best coordinate actions of the County Open Space Trust Fund Committee and the County Agriculture Development

Board. Joint efforts could be implemented, when appropriate, to acquire portions of properties for open space and recreation purposes, with other parts preserved as farmland.

Implementing such joint efforts requires careful consideration of specific site characteristics such as adequate buffers, access restrictions, and wildlife management in order to assure that the interests of farming are protected. Uncontrolled public access may be cause for concern because of potential impacts of wildlife damage and vandalism to crops and livestock. Such issues must be evaluated to determine the appropriateness and compatibility of the partnership on a case-by-case basis.

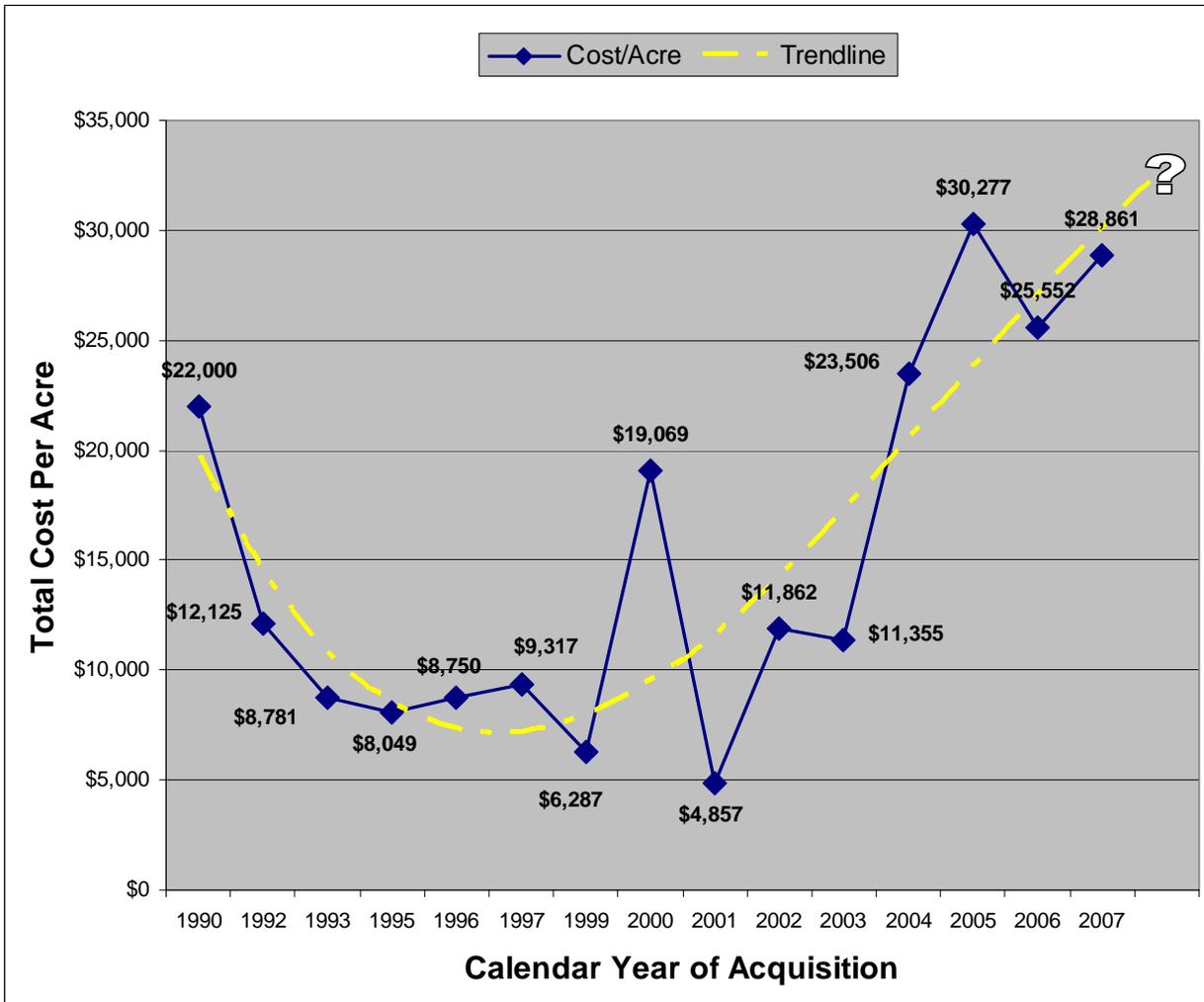


G. Farmland Preservation Program Funding Expended to Date

The following graph and two tables provide various cross-tabulations summarizing costs and cost share figures for all the Middlesex County farms preserved to date. It is important to note that these summary tables do not include those farmland preservation easements that did not include costs (i.e. State-owned lands, municipal cluster easements and donation to the County).

Figure IV-3: Total Easement Purchase Cost per Acre by Year, 1990 to 2007

(Only For Easements with Reported Program Costs in Middlesex County)





**Table IV-7: Middlesex County Easement Purchase Cost Summary:
By Program and Municipality**

(Only For Easements with Reported Program Costs)

Program Type	Municipality	Quantity	Acres	Cost per Acre	Total Cost	State Cost	County Cost	Local Cost
County Easement Purchase		37	3,088	\$13,590	\$41,970,080	\$26,255,810	\$8,825,924	\$6,888,346
	Cranbury	13	1,606	\$8,879	\$14,263,436	\$9,176,795	\$3,127,911	\$1,958,730
	East Brunswick	2	81	\$40,424	\$3,272,912	\$1,694,855	\$581,547	\$996,511
	Monroe	5	145	\$24,305	\$3,521,454	\$2,093,410	\$713,347	\$714,697
	Monroe/Manalapan*	2	221	\$5,139	\$1,138,060	\$765,763	\$268,008	\$104,289
	Old Bridge	2	71	\$53,148	\$3,772,524	\$2,439,723	\$882,146	\$450,655
	Plainsboro	5	292	\$9,061	\$2,643,845	\$1,602,446	\$529,317	\$512,082
	Plainsboro/Cranbury*	1	91	\$22,000	\$1,991,493	\$1,593,194	\$398,299	\$0
	South Brunswick	7	581	\$19,556	\$11,366,357	\$6,889,624	\$2,325,350	\$2,151,383
SADC Easement Purchase		3	389	\$16,615	\$6,462,200	\$5,814,725	\$0	\$647,475
	Cranbury	3	389	\$16,615	\$6,462,200	\$5,814,725	\$0	\$647,475
SADC Fee-simple		1	125	\$15,719	\$1,959,651	\$1,959,651	\$0	\$0
	Cranbury	1	125	\$15,719	\$1,959,651	\$1,959,651	\$0	\$0
Non-profit Grant		1	32	\$27,461	\$875,000	\$500,000	\$0	\$375,000
	Cranbury	1	32	\$27,461	\$875,000	\$500,000	\$0	\$375,000
Grand Total		42	3,634	\$14,109	\$51,266,931	\$34,530,186	\$8,825,924	\$7,910,821

* One farm is bisected by the municipal boundary between Plainsboro and Cranbury; and, two farms are situated in Monroe & Manalapan, Monmouth County

**Table IV-8: Middlesex County Easement Purchase Cost Share Summary:
By Program and Municipality**

(Only For Easements with Reported Program Costs)

Program Type	Municipality	Quantity	Acres	Total Cost	State Cost Share	County Cost Share	Local Cost Share
County Easement Purchase		37	3,088	\$41,970,080	62.6%	21.0%	16.4%
	Cranbury	13	1,606	\$14,263,436	64.3%	21.9%	13.7%
	East Brunswick	2	81	\$3,272,912	51.8%	17.8%	30.4%
	Monroe	5	145	\$3,521,454	59.4%	20.3%	20.3%
	Monroe/Manalapan*	2	221	\$1,138,060	67.3%	23.5%	9.2%
	Old Bridge	2	71	\$3,772,524	64.7%	23.4%	11.9%
	Plainsboro	5	292	\$2,643,845	60.6%	20.0%	19.4%
	Plainsboro/Cranbury*	1	91	\$1,991,493	80.0%	20.0%	0.0%
	South Brunswick	7	581	\$11,366,357	60.6%	20.5%	18.9%
SADC Easement Purchase		3	389	\$6,462,200	90.0%	0.0%	10.0%
	Cranbury	3	389	\$6,462,200	90.0%	0.0%	10.0%
SADC Fee-simple		1	125	\$1,959,651	100.0%	0.0%	0.0%
	Cranbury	1	125	\$1,959,651	100.0%	0.0%	0.0%
Non-profit Grant		1	32	\$875,000	57.1%	0.0%	42.9%
	Cranbury	1	32	\$875,000	57.1%	0.0%	42.9%
Grand Total		42	3,634	\$51,266,931	67.4%	17.2%	15.4%

* One farm is bisected by the municipal boundary between Plainsboro and Cranbury; and, two farms are situated in Monroe & Manalapan, Monmouth County



H. Monitoring Preserved Farmland

The staff of the Middlesex CADB conducts annual monitoring of properties on which the County holds deeds of easement in order to ensure landowner compliance. A monitoring questionnaire, filed with the SADC for each property, includes tracking of ownership, subdivision, residential units, labor housing, agriculture structures, construction activity, removal or dumping of resource or waste material and land use (See Appendix D: Middlesex County Easement Purchase Questionnaire). The annual monitoring also provides an opportunity for conversations between the CADB staff and the landowners regarding industry and operational trends and natural resource program assistance and participation.



V. Future Farmland Preservation Program

This chapter outlines the Planning Incentive Grant (PIG) strategy for additional farmland preservation activity over the next ten years. “Year One” of the PIG time horizon of this plan is calendar year 2009, to coincide with the initial PIG program year of the SADC (FY2009).

A. Preservation Goals (1, 5 and 10 year acreage targets)

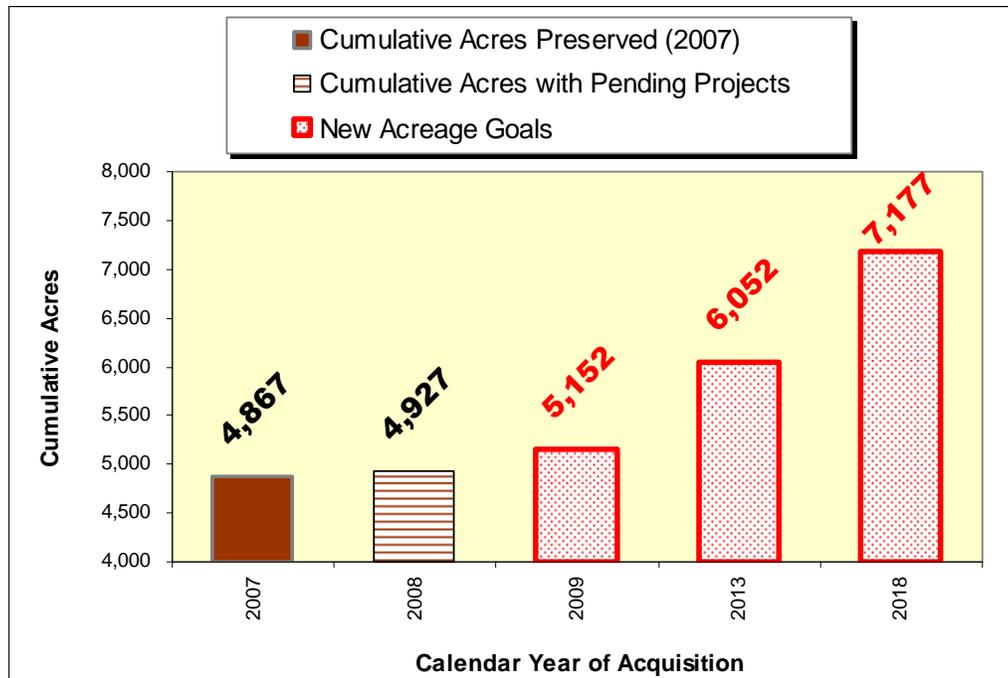
According to tax assessment record summations as of August 2007, Middlesex County had 24,744 acres of farmland assessed property. From 1988 through the end of 2007, through all the various program types described in the preceding Chapter 3, a total of 4,867 acres has been permanently preserved, which is 19.7% of the acreage in farmland assessment as of September 2007. This plan establishes the following goals for additional acres of permanently preserved farmland acres through the end of calendar year 2018:

Plan Year	Calendar Year Ending	PIG Application Acreage Goal	Cumulative Acreage Goal
1	2009	225	5,152
5	2013	1,125	6,052
10	2018	2,250	7,177

If these goals are obtained, Middlesex County will have secured approximately 29% of the September 2007 farmland assessed acreage.

Figure V-1: Middlesex County’s 1-, 5-, & 10-year Goals: Cumulative Acres to be Preserved

Pending projects include: One County EP in Monroe (43 acres); and one SADC EP in Sayreville (17 acres)





B. Project Area Summaries

The Planning Incentive Grant (PIG) application that is being submitted for the first year of the Program (FY2009) is subject to change in the years to come based upon yearly activity and miscellaneous factors arising during the 10-year horizon. As specified in SADC's PIG program rules, the PIG application is annually submitted in December, allowing for annual revisions, amendments and updates to the details of the countywide PIG. This flexibility is necessary because an effective farmland preservation program must be adaptable and responsive to change.

Revisions or technical amendments to the details of the year-to-year PIG application submission to the State do not require amending this Master Plan Element of the County's Master Plan **unless**: the overall countywide acreage goals established herein are in need of amendment **or** if deemed necessary by the Middlesex CADB for any other specific reason(s). If the CADB does make such a recommendation to initiate an amendment to this plan, then that recommendation along with the rationale for prompting an amendment would be transmitted to the Middlesex County Planning Board, in written form as per guidance from the CADB Attorney.

Detailed Project Area Summaries for the County's five project areas are submitted under separate cover in the PIG Application package sent to the State Agriculture Development Committee. The PIG Application package is the document setting forth the implementation details for achieving the acreage goals established in this plan. The following table summarizes the first annual PIG application (FY2009) of Middlesex County:

**Table V-1: Middlesex County Project Areas Summary Data:
FY2009 PIG Application**

Project Area Name	Project Area Aggregate Size (Acres)	Project Area Density (%)	Total # of Targeted Farms	Total Acreage of Targeted Farms	Targeted Farm Soil Productivity (%)	Total Estimated Cost For Targeted Farm Easement Purchase
Southwestern	7,006	75.9%	30	1,257	97.1%	\$33,553,530
Southeastern	3,428	57.7%	27	1,408	90.2%	\$25,254,400
Northwestern	4,436	63.9%	42	1,165	94.6%	\$40,174,460
Northeastern	2,852	66.2%	9	950	94.3%	\$71,224,500
Matchaponix	2,897	78.5%	21	565	87.4%	\$29,658,700
Project Area Totals	20,620	69.1%	129	5,344	93.2%	\$199,865,590

The formation of the five project areas were based upon identifiable contiguous networks of the following categories of land, as dictated by the SADC's definition of a Project Area:

- ◆ Preserved farms;
- ◆ Farms receiving final approval from the state for preservation;
- ◆ Preserved open space deemed compatible with agriculture; and,
- ◆ Farms targeted by the county for voluntary enrollment in the state's farmland preservation program (i.e. "targeted farms").

1. Targeted Farms

The foremost effort involved in the development of creating these five project areas was the identification of targeted farms. The list of targeted farms is the definitive list of specific properties deemed eligible for voluntary application into the County farmland preservation program of the Middlesex CADB, which is now administered pursuant to the county PIG Program utilizing PIG grant monies awarded by the SADC.

The identification of "targeted farms" was accomplished in a manner similar to the Planning Department's approach during the original inception of a county-wide farmland preservation strategy. The primary factors considered in the targeted farm process included: the presence of prime or statewide important farmland soils; concentrations of individual land parcels of 5 acres or more in size; and the presence of active agricultural operations.

In addition, staff also took into account the new minimum eligibility requirements that were adopted by the SADC and specifically intended to qualify the most viable farms statewide. Utilizing a digital Geographic Information System (GIS) map layer of nearly 3,000 farmland assessed parcels circa 1998 in Middlesex County, Planning staff preliminarily identified properties for inclusion as targeted farms according to the following standards:

- ◆ Parcels with a predominance of prime or statewide important farmland soils (USDA soils map).
- ◆ Parcels with a substantive acreage of active agricultural land use and that would meet the SADC's minimum tillable acreage requirement (2002 NJDEP land use shape file and aerial photographs from 2006).
- ◆ Parcels with potential for subdivision (an SADC requirement; staff evaluated zoning requirements & the presence of mapped wetlands).
- ◆ Parcels of at least 5 acres in area.

Based on the mapping exercise, County Planning staff preliminarily identified 160 parcels for potential inclusion as targeted farms in the County PIG Application. The results of this analysis along with an explanation of the methodology were transmitted to all the municipalities containing properties identified on this initial map of potential targeted farms. A more detailed description of the methodology as summarized above and transmitted to the municipalities is included as Appendix E: Middlesex County Planning Department's Methodology for Identifying Potential Targeted Farms.



Based on a communications between County staff and municipal representatives, the map of targeted farms was refined to address each municipality's comments. Refinements also recognized "farm units" by identifying contiguous tax parcels under common ownership. The final result of this systematic process is a list of nearly 130 targeted farms.

2. Brief Project Area Descriptions

The following narrative offers brief descriptions of Middlesex County's five project areas. Please refer to Map 11: Planning Incentive Grant Project Areas Location Map. Detailed mapping and related data are included in the FY2009 PIG Application package, prepared under separate cover.

(a) Southwestern Project Area

This project area is the southwesterly farming belt of Middlesex County, covering parts of Cranbury, Plainsboro and South Brunswick, generally situated to the west of the village of Cranbury, north of the Millstone River and south of County Route 522.

(b) Southeastern Project Area

This project area is the southerly farming belt of Middlesex County to the east of the village of Cranbury. It covers the southeastern corner of Cranbury (along the NJ Turnpike) and the mostly-rural southern end of Monroe, north of the Millstone River.

(c) Northwestern Project Area

This project area covers three municipalities: northeastern South Brunswick; southwestern East Brunswick; and, northwestern Monroe. Active farmland in this project area is found along the corridors of major roads such as Davidson's Mill Road, Fresh Ponds Road, County Route 535 (Cranbury-South River Road), County Route 522 (Deans Rhode Hall Road); and, Dock's Corner Road. Farmlands in this project area are interspersed by a network of open space parcels, including Pigeon Swamp State Park and Ireland Brook County Park among others.

(d) Northeastern Project Area

This project area is wholly situated in the Township of Old Bridge, north of County Route 516 along the Route 9 corridor. Cheesequake Farms, the Runyon Watershed and Cheesequake State Park are examples of some of the properties found in this project area.

(e) Matchaponix Project Area

This project area covers the remaining agricultural lands found in southeastern Monroe and the southerly tip of Old Bridge along the corridor of the project area's namesake—the Matchaponix Brook. Spotswood-Englishtown Road (CR613) and Old Bridge-Englishtown Road (CR613) are two major north-south roads running through this project area.



C. SADC Minimum Requirements

1. SADC's Minimum Eligibility Criteria

Concurrent with the adoption of the County PIG Program rules, the SADC also adopted minimum eligibility criteria for participation in the State's farmland preservation program and eligibility for State cost share dollars. Middlesex CADB staff will be required to confirm compliance with these criteria prior to transmitting an individual farm application to the State for potential funding. The following table summarizes the adopted criteria in effect at the time this plan was prepared. Waivers from the SADC minimum eligibility criteria are not permitted by their rules.

Table V-2: Summary Table of SADC Minimum Eligibility Criteria

As Adopted July 2, 2007 by the NJ State Agriculture Development Committee (SADC) [citation: N.J.A.C. 2:76-6.20 et seq.]

SADC Criterion	Land Area of Development Easement Application	Required
I. Minimum Value of Annual Agricultural or Horticultural Production	For lands ≤ 10 acres	\$2,500 per year
	For lands > 10 acres	No requirement
II. Minimum "Tillable" Acres*	For lands ≤ 10 acres	At least 75% of the land or 5 acres, whichever is less
	For lands > 10 acres	At least 50% of the land or 25 acres, whichever is less
III. Minimum Acreage of Soils Capable of Supporting Agricultural or Horticultural Production**	For lands ≤ 10 acres	At least 75% of the land or 5 acres, whichever is less
	For lands > 10 acres	At least 50% of the land or 25 acres, whichever is less
IV. Development Potential		
(1) Zoning – General	All applications	The municipal zoning ordinance for the land as it is being appraised must allow additional development, and in the case of residential zoning, at least one additional residential site beyond that which will potentially exist on the premises.
(2) Access for Additional Development	All applications	Where the purported development value of the land depends on the potential to provide access for additional development, the municipal zoning ordinances allowing further subdivision of the land must be verified. If access is only available pursuant to an easement, the easement must specify that further subdivision of the land is possible. To the extent that this potential access is subject to ordinances such as those governing allowable subdivisions, common driveways and shared access, these facts must be confirmed in writing by the municipal zoning officer or planner
(3) Maximum Acreage of Freshwater Wetlands (as per NJDEP wetlands maps; or onsite analysis if in dispute)	For lands < 25 acres	No more than 80% of the land
	For lands ≥ 25 acres	No requirement
(4) Maximum Acreage of Steep Slope Areas (i.e. slopes in excess of 15 percent as per current version of USDA Soil Survey)	For lands < 25 acres	No more than 80% of the land
	For lands ≥ 25 acres	No requirement
V. Transfer of Development Rights (TDR) Eligibility	All applications	If the land is eligible for the allocation of development credits pursuant to a TDR program authorized and duly adopted by law, then none of the above requirements will apply to the application

* For evaluation purposes, the term "tillable" means the sum of lands that are classified as cropland harvested, cropland pastured and permanent pasture as specified on the farmland assessment form(s) for the land in question, subject to verification.

**Soils capable of supporting agricultural or horticultural production are those soils classified by the most current edition of the county soil survey (USDA) as Prime Importance and/or Statewide Importance and in some instances Local/Unique Importance



2. SADC's "Minimum Score" Criteria

In addition to meeting all the minimum requirements summarized in the immediately preceding section, the SADC has also incorporated a supplemental requirement for targeted farms. To qualify as an "eligible farm" in the PIG Program, a targeted farm must obtain an individual rank score pursuant to N.J.A.C. 2:76-6.16 that is equal to or greater than 70 percent of the county's average quality score of all farms granted preliminary approval by the SADC through the county easement purchase program and/or the county PIG Program within the previous three fiscal years. This requirement was adopted to ensure that counties only request a State cost share grant on applications that rank significantly higher than its average ranked farms, in particular since there is no factor of competition in the PIG Program to select the highest ranked farms. However, if a farm fails to meet the 70 percent threshold, the county may request a waiver from the SADC of the minimum score criteria.

D. Middlesex CADB Minimum Criteria for Accepting an Application

The Middlesex CADB "Minimum Criteria for Accepting Applications", last approved on February 1, 2006 is as follows:

CADB Criterion	Required
I. Minimum Size	10 acres
II. Quality of Soils	Soils must be a minimum of 50% Prime and/or of Statewide Importance
III. Number of Exceptions	There may be one exception for one house per every 25 acres with a maximum of three exceptions per farm
IV. Waivers	The CADB may waive any of the above for a specific situation.

E. Middlesex County Ranking Criteria

The Middlesex CADB has adopted and implemented the use of an Evaluation/Priority Ranking Criteria. Each application is reviewed and scored (142 points maximum) for the following ten categories of evaluation (full criteria is included as Appendix F):

Evaluation Category	Maximum Point Value	Percent Weight
1 Soils	25	18%
2 Size of Farm	25	18%
3 Development Pressure	8	6%
4 Compatibility with Surroundings	20	14%
5 Municipal Right-to-Farm Ordinance	15	11%
6 Municipal Funding Commitment	20	14%
7 Consistency with Municipal Plans & Ordinances	20	14%
8 Number of Exceptions	zero to -3	zero to -2%
9 Tillable Acres	5	4%
10 Density of Preserved Farms	4	3%
Maximum Possible Point Score	142	100%

F. Policies Related to Farmland Preservation Applications and Preserved Farms

1. Middlesex County Agriculture Development Board (CADB)

The Middlesex County Agriculture Development Board (CADB) does not currently have formal uniform policies regarding any of the following items that commonly pertain to farmland preservation applications and/or for permanently preserved farms:

- ◆ Approval of Exceptions (no CADB policy per se, but see acreage requirements in Middlesex CADB Minimum Criteria for Accepting Applications, previous page)
- ◆ Access to Exception Areas
- ◆ Placement of Septic Systems to Service Uses on Exception Areas
- ◆ Approval of Residential Opportunities (agricultural labor housing, residual dwelling site opportunity allocation, house replacement)
- ◆ Divisions of Permanently Preserved Farmland

Of importance to note, despite not having a formal policy adopted for each of the above items, the Middlesex CADB does not disregard the above policy issues, and actively considers each when a property is evaluated as it relates to specific characteristics of the property and its contextual setting. There is an understanding that the Middlesex CADB relies upon SADC policy, regulation, or standard deed of easement language for each of the above. Formal policies and rules governing these issues are summarized below and are available in detail on the SADC web site.¹⁶

2. State Agriculture Development Committee (SADC)

As stated in the immediately preceding section, the Middlesex CADB follows the SADC's policies regarding: exception areas, agricultural labor housing, residual dwelling site opportunity allocation, house replacement and divisions of preserved farmland. Below is a brief summary of the SADC's policies for each of these issues:

(a) Approval of Exceptions

Exceptions are areas within a farm being preserved that are not encumbered by the terms of the deed of easement contained in N.J.A.C. 2:76-6-15. When an exception is made, the landowner does not receive any compensation in the excepted area. According to SADC rules, *"Exception areas shall be permitted only if they do not cause a substantially negative impact on the continued use of the land for agricultural purposes"*. [N.J.A.C. 2:76-17.9(a)3].



There are two types of exceptions that can be requested by a landowner, severable and non-severable:

Severable: According to the SADC Appraiser Handbook 2007, a severable exception is an “area which is part of an existing Block and Lot owned by the applicant that will be excluded from the restrictions of the Deed of Easement and may be sold as a separate lot in the future.”¹⁷ This option is chosen by landowners who would like to reserve the right to subdivide a specific area from the remaining deed-restricted property and sell it separately and apart from the restricted premises.

Non-severable: According to the SADC Appraiser Handbook 2007, a non-severable exception is an “area which is part of an existing Block and Lot owned by the applicant that will not be subject to the restrictions of the Deed of Easement but cannot be sold separately from the remaining premises.”¹⁸ Unlike a severable exception, a non-severable exception is attached to the protected farm in perpetuity. This option is chosen by landowners if there is a specific area that they do not want encumbered by the deed restrictions but where they have no desire to subdivide the exception area from the remaining deed-restricted farm.

Exceptions made to preserved farmland have the potential to impact the value of the property. When an appraisal occurs, both severable and non-severable exceptions are considered in the determination of the restricted/after value of the property. A detailed explanation of the availability and types of exception areas is included in the Middlesex CADB farmland preservation application form.

Exceptions must be requested at the time of application, especially since an exception cannot be created after the deed restriction has been recorded. The consequences for the landowner, if there are no exception areas, are considered during the CADB application review process. If the landowner requests the establishment of an exception area, the CADB staff is available to discuss with the applicant about the location and type of exception area taken, which are both subject to Middlesex CADB review and approval.

(b) Access to Exception Areas

The SADC adopted Policy P-41, effective July 25, 2002, which established a written policy on access to exception areas. The SADC defines “access” as lanes or driveways that provide vehicular ingress and egress to and from the exception area. For exception areas that may be severed and subdivided from the preserved property (i.e. severable exception areas), access to the area must be included within the exception area.

For exception areas that cannot be severed or subdivided from the preserved property (i.e. non-severable exceptions), access to the exception area must be included within the exception area if the access is used for exclusively non-agricultural purposes. However, the access does not need to be included within the exception area if the lane or driveway provides access to: a residential building associated with the onsite agricultural operation, any portion of the farm used for agricultural production, or an agricultural use on the exception area, including,

but not limited to, farm markets. Landowners who would like to construct a lane or driveway to access a non-severable exception area must obtain the approval of the SADC and the CADB. In deciding whether to grant approval, the SADC and CADB must consider how much agricultural land will be displaced by the driveway, or whether the driveway interferes with, or acts as a barrier to, the agricultural operation.

(c) Placement of Septic Systems to Service Uses on Exception Areas

The SADC recently adopted Policy P-49, effective September 27, 2007, to establish a policy regarding the location of septic systems that service residential and agricultural uses located within exception areas. Septic systems that service structures in a severable exception area (i.e. an exception that may be severed from the preserved farm) are not permitted on the preserved portion of the farm, in any case.

In contrast, but subject to the specific conditions and limitations set forth in SADC Policy P-49, a septic system serving a use on a non-severable exception may be located outside the boundary of the exception area. Generally, if the septic system serves a residential use or an agricultural use associated with onsite agricultural production then the septic system may be located outside the boundary of the exception. An application to consider the placement of a septic system serving a use on an exception area located outside of an exception area must be directed first to the CADB (or other easement holder) for initial review and approval. Subsequently, a copy of the application and CADB resolution approving or denying the application must be forwarded to the SADC. If an approval is granted by the CADB, the SADC would then consider an approval or denial of the application according to the limitations and conditions of Policy P-49.

(d) Approval of Residential Opportunities

Residential development opportunities on preserved farms are limited to: agricultural labor housing, Residual Dwelling Site Opportunities (RDSOs), the replacement of an existing house and exception areas which permit a residential unit. These residential opportunities are further described as follows:

Agricultural labor housing: Onsite housing for individuals employed on a farm is not a land use currently protected in New Jersey under the Right to Farm Act. However, the SADC rules acknowledge the need for this type of housing by requiring that their standard deed of easement language include a specific provision that permits agricultural labor housing. [N.J.A.C. 2:76-6.15(a)14.i.].

As per standard SADC deed of easement language, structures for the housing of agricultural labor employed on a preserved farm may be provided subject to the permission of the SADC and the CADB (or other holder of easement). The rule cited above also states that if agricultural housing is approved, such housing shall not be used as a residence for the owner of the preserved farm or any of the following members of



the owner's family: spouse, parents, lineal descendants, adopted or natural, spouse's parents, or spouse's lineal descendants, adopted or natural.

Residual Dwelling Site Opportunity (RDSO): A RDSO represents the potential to construct a residential unit and other appurtenant structures on a deed-restricted farm in accordance with N.J.A.C. 2:76-6.17. Allocations for RDSOs on permanently preserved farms accommodate future agricultural flexibility through an allowance for limited opportunities for the future construction of dwelling units solely devoted to an agricultural purpose.

Upon a landowner's request during the application review process leading up to preservation, the CADB is authorized to allocate RDSOs on deed-restricted farms pursuant to SADC rules and policies. These prospective residential units can be allocated to parcels that are at least 100 acres in size, but at a density not to exceed one residential unit per 100 acres (this density calculation includes existing and proposed residential buildings associated with the premises to be preserved).

The allocation of a RDSO, however, does not grant permission to construct a particular dwelling unit at any specific location on the farm. A landowner must submit a request to exercise a RDSO. As noted in the 2007 issue of the SADC Appraiser Handbook, "The exercising of an opportunity to construct a residential unit must be approved by the CADB. The purpose of the building must be for *single family* residential housing and its appurtenant uses. Furthermore, the use of the residential unit shall be for agricultural purposes".¹⁹ SADC Policy P-31 outlines two sets of review procedures and guidelines for reviewing a request to exercise a RDSO. The set of procedures and guidelines to be used when reviewing a particular request to exercise a RDSO is dependent upon when the deed of easement was recorded (i.e. prior or subsequent to the 1994 SADC Funding Round).

House replacement: The standard deed of easement language of the SADC allows the construction of a single-family residential building anywhere on a preserved farm that replaces any single family residential building in existence at the time the deed of easement is conveyed. However, the replacement house may be constructed only with the approval of the SADC and the CADB (or other holder of easement). This review process is to ensure that there are minimal impacts to the viability of agricultural operations on the preserved farm.

Residences on Exception Areas: Since the land situated within an exception area is not encumbered by the provisions of the deed of easement, construction of a residential dwelling on an exception area may occur without the requirement of SADC or CADB review and approval. However, it is acknowledged that the appraisal process considers residential opportunities on exception areas in the determination of the restricted/after value of the property.

(e) Divisions of Permanently Preserved Farmland

One of the goals of the SADC is to preserve large tracts of viable farmland. Therefore, a division of a preserved farm is not an encouraged practice. A landowner wishing to divide permanently preserved farmland must submit a written request. The request for division must be jointly approved, in writing, by both the SADC and the CADB. The specific language related to approving the division of a particular preserved farm must be verified because there are three variations of deed restrictions depending upon the deed of easement used at the time the easement was acquired.

The review and approval process for the division of permanently preserved farmland is outlined in SADC Policy P-30-A. The SADC carefully considers the criteria contained in this policy to evaluate whether a permanently preserved farm may be divided. When division occurs it must be for agricultural purposes and must result in agriculturally viable land parcels. For the purposes of Policy P-30-A, an **“Agriculturally viable parcel”** means that the parcel is capable of sustaining a variety of agricultural operations that yield a reasonable economic return under normal conditions, solely from the parcel’s agricultural output.

G. Funding Plan

This section of the plan outlines the costs, cost share policies and funding sources related to the achievement of farmland preservation goals set forth in this plan. Historically, the traditional easement purchase program of Middlesex County has been largely funded by leveraging State monies made available pursuant to SADC cost share rules, in combination with a local funding partnership between the County and the individual host municipalities.

1. Anticipated Costs

The two graphs found on the following page provide an overview of the anticipated acquisition costs for each of the five project areas. The first graph summarizes anticipated acquisition costs for all targeted farms listed in the FY2009 PIG application. These amounts are not representative of the 10-year acreage goals for each project area, but were calculated as required by the State PIG application forms.



More importantly, the second graph summarizes anticipated costs associated with achieving the 10-year acreage goals set forth in this plan. This second graph represents the total costs of farmland preservation for the entire 10-year planning horizon.



Figure V-2: Middlesex County Project Area Cost Summary: For all "Targeted Farms"

FY2009 PIG application data; subject to change during year-to-year PIG application updates

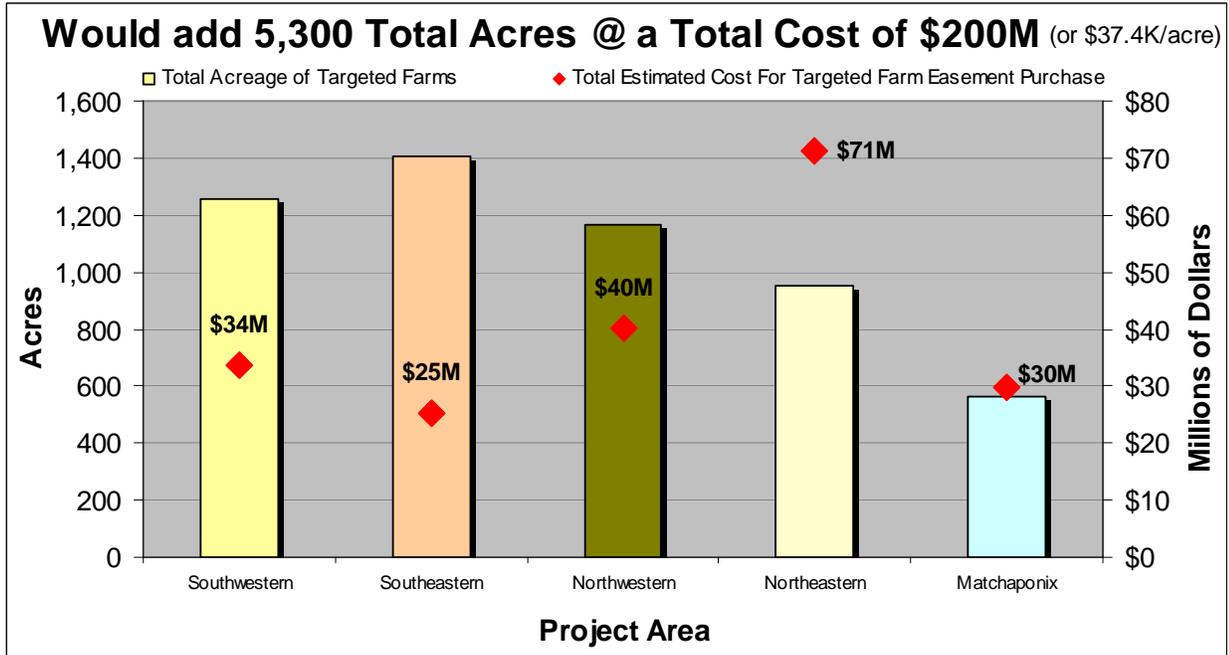
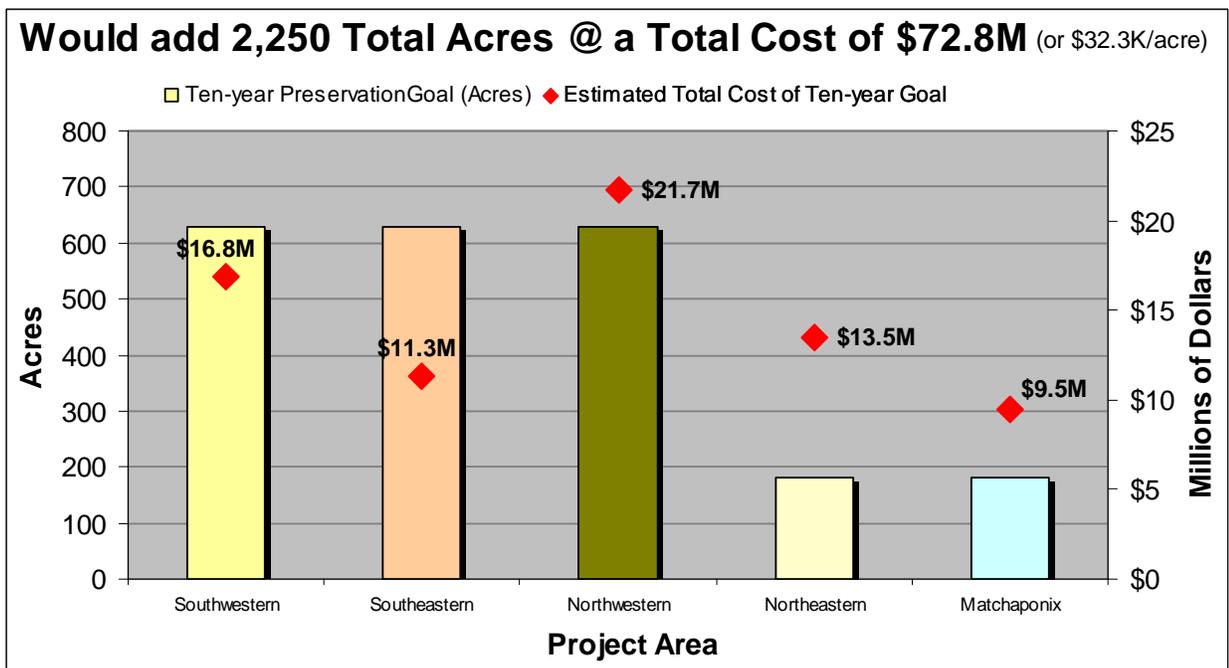


Figure V-3: Middlesex County Project Area Cost Summary: Achieving 10-Year Goal

FY2009 PIG application data; subject to change during year-to-year PIG application updates





Full supporting information and details of cost projections and anticipated cost share amounts associated with the 1-, 5-, and 10-year goals of this plan are included in the PIG Application forms that are submitted annually to the SADC. The following table and graph summarize the detailed cost data found within the FY2009 PIG Application.

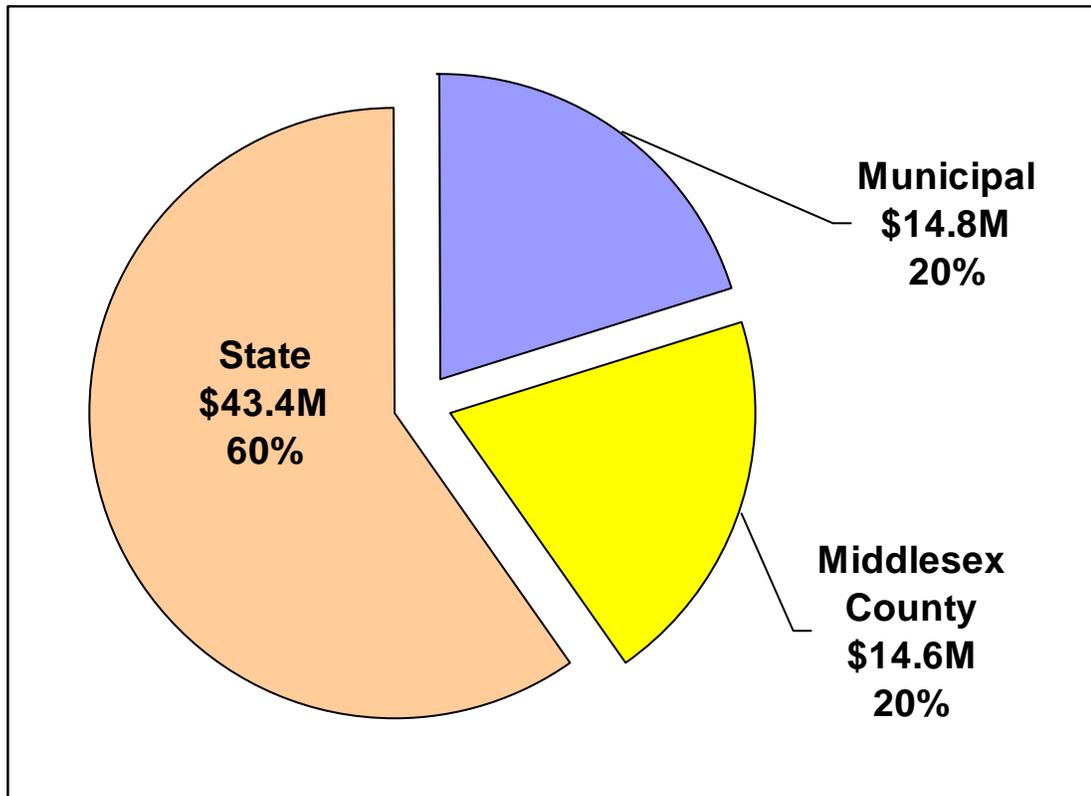
Table V-3: Middlesex County Cost Projections & Anticipated Cost Share Values for 1-, 5-, & 10-year Goals

FY2009 PIG application data; subject to change during year-to-year PIG application updates

Year	Acres	Estimated Cost	Municipal Funds	County Funds	State Funds	Other Funding Sources	Total Estimated Funding
1	225	\$4,819,500	\$963,900	\$963,900	\$2,891,700	\$0	\$4,819,500
Year 5 Cumulative	1,125	\$36,040,500	\$7,332,104	\$7,208,100	\$21,500,296	\$0	\$36,040,500
Year 10 Cumulative	2,250	\$72,783,000	\$14,804,609	\$14,556,600	\$43,421,791	\$0	\$72,783,000

Figure V-4: Middlesex County Cost Share Pie Chart: 10-year Goal

FY2009 PIG application data; subject to change during year-to-year PIG application updates





2. New Jersey Acquisition Cost Share Policy

A State cost share of **60 percent** of the total acquisition cost is the most typical cost share amount applied in calculating the State's funding for purchasing an individual farmland preservation easement. This 60 percent share is the typical SADC cost share value because the vast majority of acquisitions statewide have fallen within the per acre value range of \$9,000 to \$50,000 per acre. In situations where the per acre value falls outside that range, the SADC's percent cost share value increases or decreases based upon their "Sliding-Scale" rule. The SADC percentage "slides-up" when the value is \$9,000 or less per acre and "slides-down" when the cost is greater than \$50,000. The SADC's "Sliding Scale" is as follows:

<u>Landowner's asking price</u>	<u>Percent SADC cost share</u>
From \$ 0.00 to \$ 1,000	= 80% above \$ 0.00
From > \$1,000 to \$3,000	= \$800 + 70% above \$1,000
From > \$3,000 to \$5,000	= \$2,200 + 60% above \$3,000
From > \$5,000 to \$9,000	= \$3,400 + 50% above \$5,000
From > \$9,000 to \$50,000	= 60%
From > \$50,000 to \$75,000	= \$30,000 + 55% above \$50,000
From > \$75,000 to \$85,000	= \$43,750 + 50% above \$75,000
From > \$85,000 to \$95,000	= \$48,750 + 40% above \$85,000
From > \$95,000 to \$105,000	= \$52,750 + 30% above \$95,000
From > \$105,000 to \$115,000	= \$55,750 + 20% above \$105,000
From > \$115,000	= \$57,750 + 10% above \$115,000

Important Note: If the landowner's asking price is greater than the certified market value, the Committee's cost share grant shall be based upon the Committee's certified market value
 Source: N.J.A.C. 2:76-6.11.d.1 (in effect as of the writing of this plan)

3. Middlesex County Acquisition Cost Share Policy

The cost share policy established by Middlesex County circa 1991 is for the County to provide 20 percent of the **certified appraised value** of the farmland preservation easement. For most easement purchase values, the State's cost share is usually 60 percent of the total purchase price, with the balance of 20 percent coming from the municipality. This would account for a 'State/County/municipal' split of '60/20/20' on the **total purchase price**.

Since the County's cost share policy is to provide 20 percent of the certified value, which is not necessarily 20 percent of the total cost, there are instances of deviation from a 60/20/20 cost share arrangement because of other variables such as: SADC's sliding scale (explained above); or, when a farm owner elects to sell the development easement for a price less than the certified easement value (to improve the final quality score of an application); or, when Federal



funding is available for an easement purchase (Federal funds have been used on a limited basis in Middlesex). Furthermore, if the purchase price is greater than the certified appraised value, the SADC’s cost share must be based upon the SADC’s certified appraised value. Ultimately, the municipality’s share of the total cost of the easement is primarily dependent upon two factors: the State’s cost share formula; and, whether or not the farm owner’s selling price for the easement is higher or lower than the certified appraised value.

If a particular farmland preservation easement purchase costs in excess of \$50,000 per acre then the State’s cost share “slides down” pursuant to a sliding scale table found in their rules enumerated at N.J.A.C. 2:76-6.11.d.1 (fully described on previous page). When this happens, the municipality’s share would increase at a proportion equal to the “sliding down” of the State’s share. Conversely, for the municipality, if a landowner sells for a price lower than the certified value, the municipality’s cost share would decrease proportionate to the discounted purchase price offered by the farm owner.

The following table summarizes the relationship of the County’s cost share policy to the cost share allocations among the three primary cost share partners.

Table V-4: Middlesex County Cost Share Calculation Formula Summary

	Cost Share	Notes
Middlesex County	20% of “certified appraised value”	May be more or less than 20% of total purchase price; dependent upon owner’s bid and/or SADC sliding scale
New Jersey (SADC)	Usually 60% of the “total cost” (or “certified value” whichever is less) but with variation as determined by SADC’s sliding scale table	Maximum allowable share is no greater than 80% of the purchase price; sliding scale can result in less than a 50% share
Municipality	Responsible for the remaining balance of total cost after subtracting amounts provided by other cost share partners	The 20% range is the norm but dependent upon: (1) state’s sliding scale table; and, (2) the purchase price as compared to certified appraised value.

The County’s current policy for its own share, which is based on a share of the certified value rather than the total price, was prompted in consideration of the "Bid-Down" process. If there are savings realized on total price when there is a bid lower than the certified value and/or if Federal funds are available, then the amount of those particular savings are given to the municipality first. Conversely, if a landowner bids more than the certified value and/or if the SADC’s cost share slides to an amount lower than 60 percent, the County’s policy calls for any extra local “price premium” to come from the host municipality.



As the County's current cost share policy approach has worked successfully to date, Middlesex County's transition into the Planning Incentive Grant Program does not include any revisions or amendments at this time to its established cost share policy. However, if deemed necessary because of future changes in the level of available funding among the three funding partners, this policy may be reevaluated and modified so as to maintain the viability of the County's farmland preservation program.

4. Middlesex County Ancillary Costs

To date, the County's Planning Department has absorbed in-house staff expenses of processing applications, and the County has paid expenses related to: certified property appraisals; professional surveying; and legal work related to title and closing of the deed of easement. Typically, SADC then offers 50 percent (50%) reimbursement on the survey and title expenses after the real estate closing is complete. The County will continue to seek reimbursement from the State as long as such funding is available.

5. Funding Sources

(a) County of Middlesex

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, farmland, and historic preservation. This initial levy generated approximately \$4 million annually for open space, farmland, and historic preservation and provided 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 was passed by the voters in November 2001 which established an increased levy of \$.03 on each \$100.00 of equalized value (still the current tax rate). The updated levy initially generated an estimated \$16.5 million annually but it is anticipated to generate in excess of \$30 million annually in the coming years.

As of October 2007, the current balance totals \$55 million, consisting of \$20 million in cash reserves and another \$35 million in bonds. Annual debt service is currently \$10 million.²⁰ County open-space tax revenues can be used to leverage additional grants, loans, or matches from State, Federal and municipal governments, and from the private sector, maximizing the value of each County dollar spent on land preservation. Currently, there is no formal allocation of the County's dedicated tax revenue between open space and farmland preservation.

(b) Municipalities

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 the funding plan.

(c) State of New Jersey

Currently there is some uncertainty regarding long-term State funding for farmland preservation. If long-term State funding is no longer available, Middlesex County will need to revisit its current cost share policy to ensure continued preservation of farmland in accordance with the acreage goals of this plan, but without State funding.

(d) Others

Federal monies have been used in limited numbers to date. Typically the Federal monies will “draw-down” the State and municipal shares since the County’s policy is a fixed amount (see the preceding explanation of the County’s cost share policy). A non-profit grant was used on one project so far in Middlesex. The funding plan proposed in the new countywide PIG application does not assume the availability of these two funding sources. The County would obviously capitalize on an opportunity for utilization of other funding sources if they become available.

6. Installment Purchase Agreements

An installment purchase agreement is a contract by which a development easement is acquired through a long-term payment plan. The landowner receives regular interest payments over the course of the contract, and the purchase price is payable at the end of the contract term.

Installment purchase agreements can enable the County to acquire more easements. An installment purchase is commonly financed through the purchase of securities that have a total value at maturity equal to the easement purchase price. A landowner benefits in that the interest payments are based on the pre-tax principal, and capital gains taxes may be deferred by some sellers until the principal is paid at the end of the contract term. In addition, the interest payments are tax exempt. The landowner maintains the right to sell the deed-restricted land at any time, and typically may sell the installment purchase agreements to date.

To date, Middlesex County has not facilitated the use of an installment purchase agreement; however, communication between County Planning Department staff and the County financial departments indicate that the County may be open to an installment purchase agreement if prompted by a landowner’s request. Formal authorization by the Board of Chosen Freeholders would be required before entering into any installment purchase agreement.



H. Farmland Preservation Program / CADB Administration

Administering the Middlesex County Farmland Program is one of the responsibilities of the Middlesex County Planning Department, carried out by its Division of Environment, Parks & Comprehensive Planning, as follows:

- One planner serves as CADB Administrator on a less-than-full-time basis (hours devoted to farmland program vary as needed, based upon overall Division responsibilities and priorities during the year).
- Additional program support is provided on an as needed basis by other in-house professionals, technical and administrative staff members.
- Hiring property appraisers certified by SADC for farmland preservation easements is done through the County Purchasing Department.
- Hiring professional surveyors certified by SADC for farmland preservation easements is done through the County Purchasing Department in collaboration with the office of the County Engineer, which has Licensed Professional Surveyors (NJ) on its staff.
- All legal work is performed by the CADB Attorney, retained through the office of County Counsel.

I. Factors Limiting Farmland Preservation Implementation

The main limiting factor is dwindling landowner interest, caused in part by the recent trend of declining certified easement values, attributable to increasing deed-restricted land values (the agricultural value) and decreasing unrestricted land value (full development value). This could change somewhat if and when the real estate market again flourishes. However, it may also be the case that the most interested farmers already have placed their land in preservation.

This will be further studied in order to develop and implement a strategic outreach approach to improve program activity that will meet or exceed the 1-, 5-, and 10-year acreage goals set forth in this plan.



VI. Economic Development

A. Consistency with State Strategies

Preserving the county's farmland does not guarantee the retention of sustainable agriculture. As a business and land use practice, successful agriculture requires the strengthening and expansion of existing markets for agricultural products, establishing new market opportunities, and adapting production to meet shifting market needs and thus provide adequate revenue to the farmer.

The act of seeking out new economic opportunities and retaining existing business wealth, for the benefit of a region's inhabitants, is called economic development. The 2006 Agricultural Smart Growth Plan for New Jersey describes the goals of economic development as:

"Stabilizing and fostering an active and productive agricultural industry" to retain viable farms; "facilitating investments in agricultural infrastructure" to support, maintain and expand the business of farming; and "identifying and facilitating the creation of new markets" to help farmers "access an ever-changing marketplace."

There are many strategies for agricultural industry retention, expansion and recruitment. Each year, the delegates of the annual State Agricultural Convention are asked to endorse economic development strategies for various sectors of New Jersey's food and agricultural industry. The 2007 document, entitled New Jersey Department of Agriculture 2007 Economic Development Strategies, lists 121 strategies organized around the following sectors: produce, horticulture, field and forage crops, dairy, livestock and poultry, organic, seafood, equine, wine and general. Middlesex County and its partners strive for consistency with this document by strengthening existing agricultural institutions and businesses and working to attract new ones, marketing local farms, conducting crucial scientific research, and anticipating agricultural trends and support needs.

B. Agricultural Industry Retention, Expansion & Recruitment Strategies

1. Institutional

Governmental agencies, academic institutions and community groups all work hard to provide support and marketing services to farming operations. These services include such things as seller-buyer matching programs, estate planning, public relations campaigns and market research coordination.



2. Farmer Support

Staff of the Middlesex CADB receives numerous inquiries each year from potential buyers interested in purchasing preserved farms. Staff also receives occasional calls from sellers. Staff regularly refers existing and potential farmers to the SADC's Farm Link Program.

According to its web site (www.state.nj.us/agriculture/sadc/farmlink.htm), the Farm Link Program is "a resource and referral center for new farmers seeking access to land and farming opportunities, landowners seeking farmers, and farmers working on estate and farm transfer plans." The web site lists farming opportunities both available and desired, such as farms for sale or lease, internships, and relocation and expansion options.

Residents contact staff about educational opportunities related to entering the farming profession, converting an operation from one type to another, or assuming responsibility for an inherited farm. The Northeast Organic Farmers Association of New Jersey (NOFA-NJ) periodically offers workshops entitled Exploring the Small Farm Dream, based on materials from the New England Small Farm Institute, and helped organize a full course at Mercer County Community College.

Rutgers Cooperative Extension also offered a new farmers course in 2006 using a similar curriculum. In addition, there is a wealth of Internet resources available to aspiring farmers, including the web sites Growing New Farmers, www.growingnewfarmers.org and The New Farm, www.newfarm.org. Along with offering courses, Rutgers Cooperative Extension will deploy its agents to work with landowners to select crops and livestock suited to the soils of a particular site.

Along with figuring out what to grow and how to grow it, farmers need to finance their businesses, buying equipment and land, and erecting barns, buildings, and housing. First Pioneer Farm Credit provides loans and financial services to new and established farmers. The USDA Farm Service Agency coordinates various conservation and loan programs for which area farmers are eligible. Whole Foods Market has instituted a privately funded loan program. It has set aside \$10 million for low interest loans to farmers and plans to host a conference in New Jersey. Traditionally owner-farmers take advantage of relatively inexpensive home equity loans for business-related needs.

Nearby Monmouth County and its nonprofit and municipal partners periodically offer workshops on topics related to estate planning. Monmouth Conservation Foundation also sponsored a seminar on tax incentives and installment purchase agreements (IPAs in April 2007). Middlesex CADB staff also directs many landowners to the SADC's December 2004 publication "Transferring the Family Farm: What Worked, What Didn't for 10 NJ Families". The report offers case studies on the process of intergenerational transfer of farmland and farm assets.

3. Marketing and Public Relation Support

(a) From Middlesex County Government

On several occasions the Middlesex County Board of Agriculture has undertaken initiatives to market local farm products. In some instances it worked with local governments and citizen groups. For example, in 2003 the Middlesex County Board of Agriculture website hosted directories of 12 renowned chefs of the New Brunswick and Princeton areas and 25 Middlesex County restaurants that were eager to participate in the “Jersey Fresh/Middlesex Fresh” program and purchase locally grown fresh produce for use in their menus.

The County Board of Agriculture also posts a site with Direct Farm Services for the county. The guide contains 20 entries and includes the contact information for and directions to each farm, and the main products and services each offers. The farms are then indexed by Farm Products, Calendar of Availability, Farm Services, and Municipality. The County is planning to update the directory, although much of the information is now available online on the Department of Agriculture’s and other web sites. A “Pick Your Own” fruits and vegetables site is also available with similar features. These sites are enormously popular, getting 25 million yearly visits.

(b) State Government

The New Jersey Department of Agriculture instituted the Jersey Fresh promotional campaign over 20 years ago to increase awareness of locally grown produce and food products. Numerous farmers and venues use the Jersey Fresh logo. In recent years the program has expanded to include the designations Jersey Bred (for horses and lambs), Jersey Seafood, Jersey Grown (for horticulture) and Jersey Vintner’s Choice for grapes and wines. The New Jersey Department of Agriculture also maintains a web site, www.state.nj.us/jerseyfresh/index.htm, which is a great place to locate roadside stands, community farmers’ markets and pick-your-own facilities.

4. Agricultural Education and Market Research Coordination

Rutgers University and its affiliated programs (graduate and post-graduate level) are the backbone of agricultural education in the State. Rutgers Cooperative Extension (RCE), which falls under the umbrella of the New Jersey Agriculture Experiment Station (NJAES), provides technical assistance and recommendations related to crops and livestock. RCE works to sustain and enhance agricultural production. The agency runs educational and research programs in all 21 NJ counties. Producers contact RCE agents for assistance with issues such as soil fertility, water quality and supply (including drought and irrigation management), integrated pest management, and crop management. Two local agricultural agents are based in the Middlesex County EARTH CENTER (County Agricultural Building) at 42 Riva Avenue, North Brunswick, New Jersey. They work not only with commercial agriculture, horticulture and aquaculture operations but also homeowners, school groups, and government agencies. Personnel manning the EARTH CENTER are paid staff of Middlesex County.



The School of Environmental and Biological Sciences, Rutgers University, operates research and teaching programs in livestock management, fruits and vegetables, horticultural sciences and equine science and management at its Cook Campus. In New Brunswick and North Brunswick, The Rutgers Fruit and Ornamental Research Extension Center conducts and disperses research related to the production of tree and small fruits such as apples, peaches, apricots, nectarines, brambles, strawberries and ornamental nursery crops. Rutgers Plant Science Research supports research on fine turf and athletic field turf. NJAES manages several other stations in State. Research focuses on increasing quality and yields, protecting plants from diseases and biological hazards, and decreasing production costs and pesticide use. Researchers work on adapting products to local climate and conditions. Locally bred fruit, for instance, is less susceptible to disease and environmental stresses and reduces the need for chemical inputs. Other scientists affiliated with the center research growing media, irrigation, and fertility management practices.

Middlesex County's agricultural agents are involved in their own research projects and have access to the research results of all agricultural agents working throughout the State on issues for agricultural economic development and agriculture and horticulture sciences and technology.

For example, an agricultural agent has been conducting research on ethnic vegetables and expansion of market opportunities. In fact, a six-member team affiliated with the Rutgers School of Environmental and Biological Sciences, has been conducting demographic and taste preference research among households of Chinese, Indian, Puerto Rican and Mexican origins in 17 East Coast states. According to the research, Chinese homes have an affinity for bok choy; Indians for bitter gourds; Puerto Ricans for batatas; and Mexicans for jalapeños. If researchers and farmers manage to successfully grow these crops in the local climate, they hold promise with ethnic populations and mainstream buyers interested in expanding their palate.

The Rutgers University Equine Science Center promotes economic development of the equine industry. It strives to identify problems, offer solutions to the horse industry and horse owners, and influences public policy. The Food Policy Institute applies academic knowledge to pressing issues and challenges facing the food system. According to its literature it is interested in the whole system from "farm to fork." The work of the institute encompasses regulation, production, distribution, sales and consumption. Other Rutgers institutes of interest include the Biotechnology Center for Agriculture and the Environment, Advanced Food Technology, and Rutgers Energy Institute. The Rutgers University educational system offers many courses and degrees related to agriculture. Rutgers School of Environmental and Biological Sciences (formerly Cook College) offers undergraduate degrees in fields such as agricultural science, animal science, and plant science. The Cook College Office of Continuing Education offers a number of courses related to the equine, horticulture and sod industries.

5. Community Farmers' Markets

Community farmers' markets enable farmers to sell their products directly to the public. These markets are usually held weekly in a pre-determined location and invite vendors and farmers to set up stalls. Most markets establish rules about what can be sold and how much product must be locally grown. Aside from fresh produce, many vendors offer value-added items such as baked goods and jams.

Four Middlesex County municipalities currently host seasonal Farmers' Markets on a regular basis. Highland Park has been hosting a successful Farmers' Market for 11 years. Metuchen, Middlesex and Woodbridge also host seasonal farmers' markets in their downtowns. Other area farmers venture outside the county to weekly suburban and urban markets. Organic produce demand is increasing and a certification program is developing. The Middlesex County Agriculture Development Board and Middlesex County Board of Agriculture should study a program to encourage other municipalities to explore starting a farmers' market in a central location in the municipality, for either an individual or a group of vendors. Consumer demand is high, so there may be excellent opportunities for more and bigger farmers' markets in the county. For reference, a listing of nearby Farmers' Markets is included as Appendix H and shown on Map 12 (included at the end of this chapter).

6. Roadside Farm Stands, Farm Markets, Specialty Markets

The Middlesex County Planning Board and Middlesex CADB support roadside stands and farmers' markets. There are many farm stands along with the farmers' markets in the county (see above), as well as, several large specialty markets and stands devoted exclusively to horticulture products. There are 28 roadside markets, Pick Your Own farms and shops that are registered in the New Jersey Department of Agriculture "Jersey Fresh" certification program. The Jersey Fresh certification review includes strict monitoring of product quality and sanitary conditions. Display of the logo has become positive market branding to indicate freshness and quality in locally produced foods. A listing of Roadside Markets in Middlesex County is provided in Appendix I and shown on Map 12.

Direct sales have been on the rise in recent years and present additional growth opportunities for area farmers. At least 20 of these operations are located in Middlesex County. Some use various combinations of farm stands, "Pick Your Own", Agri-tourism, Agri-tainment events programming and elementary school outreach strategies to increase seasonal visibility and popularity with the local and regional public.

It is important that the Middlesex CADB is informed of farm stand and related development considerations, so that it may assist the farmer entering farmland preservation in properly designing accessory use locations, to avoid unforeseen restrictions and potential violations of the conditions of the Deed of Easement.



7. Direct Sales to Supermarkets

Supermarket chains in and near Middlesex County that promote local produce include Wegmans and Whole Foods. Whole Foods has seven supermarkets in New Jersey, and has been running a “buy local” marketing campaign. The campaign includes a brochure placed on tables in each participating market’s eating area. The brochures highlight interesting idiosyncrasies of each participating farm. The Middletown, NJ (Monmouth County) Whole Foods store buys from Cheesequake Farms in Old Bridge. It has signs denoting fruits and vegetables that were supplied by local growers, and sponsors an event to showcase local produce and food products. The store is always on the lookout for local vendors, and would like to offer more products from local farmers. However, participating farms must be willing to deliver produce and be able to provide quantities large enough to meet the needs of the supermarket.

Even more traditional markets such as Wegmans and Pathmark promote corn and other fruits and vegetables grown locally.

8. Community Supported Agriculture (CSA)

With a CSA, the consumer pre-pays for a season’s “share” and receives a weekly supply of produce or proportional share of each harvest crop. Organizing a CSA enables the farmer to predetermine his/her customer base, reduce risks, pre-survey acceptance of new types of vegetables, and avoid going into debt at the beginning of the season. There are no organic CSAs in the Middlesex County, but the potential for this enterprise is promising. Among Middlesex County’s active farms, only the Cook College Student CSA located at 67 Ryders Lane in East Brunswick provides shares of fresh produce to its participants.

A CSA provides a funding pool of stakeholders, value commitments, and assurances of sustainability. It enhances establishment and management flexibility for new farm owners and lease farmer-operators, as well as providing a hands-on educational experience for direct contact with agriculture as a part of lifestyle. CSA managers like to point out the rewards of dealing directly with his customers plus the importance of consumers understanding where food comes from and how it is grown. CSAs are an area of potential growth in the local agricultural economy.

9. Food Co-Operatives

A food co-operative unites a group of families to purchase food together, share labor, save money and obtain better or different food products than might otherwise be available in an area. The Rutgers/New Brunswick Co-op is one co-op with a fine track record. It offers mainly organic products to its members and also is focused on recycling. According to a member of the group, most of the food comes from the Northeast but there is not a lot from Middlesex County. This presents an opportunity for local farmers.

Recently, when the Rutgers New Brunswick cafeteria system chose to feature Jersey Fresh vegetables it went to the Landisville Co-Op and its 150 participant farms. The Landisville



Cooperative Association is the oldest operating agricultural cooperative in the state of New Jersey. Co-op facilities are located adjacent to US Route 40 midway between Atlantic City and the Delaware Memorial Bridge. The recent improvement to its facilities and production equipment has transformed this direct marketing operation into a major player in the sale and distribution of fresh produce in the region. For more information contact: Landisville Cooperative Association, James Quarella, President by telephone at (609) 697-2271.

10. Agri-tourism and Agri-tainment

Agri-tourism and Agri-tainment, are catch phrases for methods of attracting the recreation-minded public to working farms for direct sales during leisure hours. Examples range from pick-your-own operations to farm tours and farm animal petting zoos, Bed and Breakfast Inns and wineries. Many roadside markets also have a pick-your-own component, in which the public is invited into the fields to pick apples, peaches, berries, pumpkins, flowers, etc. Farms typically charge by the pound. In many Christmas tree farm operations, trees are selected by the consumer then cut and bundled. All these methods increase sales and eliminate costs of delivering products to remote markets, as well as spoilage in transit.

Aside from the staple of farm markets and pick-your-own offerings, innovative farmers offer additional seasonal attractions to draw customers and families. Options include haunted hayrides, corn mazes, birthday parties, and farm tours. Some of New Jersey's more southerly counties have Bed and Breakfasts in the heart of that expansive agricultural region. Nearer home, the Earth Friendly Organic Farm and Bed and Breakfast in Millstone Township, Monmouth County, allows guests to pick berries and sample its fresh vegetables and eggs. Peacefields Inn, in Upper Freehold, lies in the midst of many preserved farms.

New Jersey's wine industry, the nation's fifth-largest, hopes to get a boost from two bills in the state legislature that would permit vineyards to expand their sales and winemaking operations. There are 20 wineries in the state, a number expected to increase in the next few years, according to the Garden State Wine Growers Association. The Association sponsors four music festivals at member vineyards, featuring jazz and other music. Cream Ridge Winery in nearby Monmouth County holds its own special events, such as an annual bluegrass festival.

Central Jersey is home to several wineries, with three each in Monmouth and Hunterdon Counties and one each in Mercer and Warren Counties. Visit the Garden State Wine Growers Association's Web site, www.newjerseywines.com, or call the Wine Line at (609) 588-0085 for more information.

As of 2004, only eight acres are recorded as producing grapes in Middlesex County. Whether these are table grapes or wine grapes is unknown, but this new commodity in the County may indicate potential for introduction of wineries and raisin production in Middlesex County.



All told, the continued popularity of family-oriented and agri-tourism activities are having a positive influence on viability of many small and large farm operations in the State and may help many Middlesex County farms maintain long-term sustainability.

11. Direct to Restaurant Sales

Being in the heart of the New York to Philadelphia metropolitan corridor means a populous and affluent restaurant-going public. Thus, a number of local farms have begun to sell produce directly to restaurants in major dining and entertainment venues such as New Brunswick and Princeton. The Jersey Fresh Information Exchange, a web site of the New Jersey Agricultural Experiment Station, lists restaurants and chefs in both of those localities that are open to direct sales.²¹ The Middlesex County Agriculture Development Board and Middlesex County Board of Agriculture should continue to promote this approach and expand the restaurant base to include regional sites and coordination of production and distribution.

Because of increased consumer and food purveyor awareness about and interest in local foods, there appears to be expanded opportunities for direct sales to restaurants.

12. Equine-specific Issues

New Jersey's equine industry has experienced some challenges in recent years. Attendance at the Meadowlands is down significantly. Attendance at Monmouth Park hit an all-time low in 2006 but has rebounded slightly. However, there were some bright spots such as the Breeders Cup.

The equine racing industry and New Jersey in general has been particularly concerned about competition from neighboring states. Both Monmouth Park and Freehold Raceway are located in nearby Monmouth County. Municipalities in southern portions of Middlesex County have adopted rural residential zoning regulations designed to accommodate equine boarding as a permitted use, though keeping horses for pleasure riding and dressage appear to be the dominant themes for small farm owners. In nearby Somerset and Hunterdon Counties, a desire for classic horse and rider activities and competitions is reviving a humane version of foxhunting, along with polo as active recreation experiences. The Amwell Valley Fox Chase and January Farms foxhunting and polo instruction (Stanton, NJ) are examples that could be reproduced in Middlesex County. There is even a potential for horses to be integrated into smaller Center/Environs transportation schemes for Smart Growth development via the State Development and Redevelopment Plan. All of these trends could factor into the future of the horse, the official State mammal of New Jersey. Middlesex County may have an even more direct say in assisting the vitality of this industry if the small sulky track at Johnson Park in Piscataway is revived and other County-owned parks and preserves develop greenways trails to accommodate horse and rider, which has been done in Sayreville as part of their greenway plan.

13. Anticipated Agricultural Trends

With the high land prices of central New Jersey, only certain sectors of the agricultural economy can afford to remain in Middlesex County. Horses should continue to be a key component of local agriculture. Traditional horseracing may decline, but there are potential opportunities for other sport and show events, boarding, lessons and recreational use. As long as the equine industry remains reasonably stable, hay and forage operations also will retain their place in the region's agricultural economy.

Nurseries almost certainly will continue to be a large component of the County's agricultural industry, based on high demand from builders, homeowners and landscapers. However, it is difficult for many small greenhouse and nursery operators to stay in business given high fuel, insurance and other costs. There is also significant competition from southern New Jersey and nearby more southerly states which puts even large operations under pressure. For example, Princeton Nurseries, formerly principally located in South Brunswick and Plainsboro and the biggest player in the state's wholesale nursery industry, recently left New Jersey.

Crop farms in the County are holding their own. There has even been a slight increase in corn production in the last year attributable to national interest in bio-fuels. This industry may get an unexpected boost in Middlesex County because of the recent movement to use ethanol to supplement gasoline in newer dual-fuel vehicles.

The overall trend on large farms has been away from the labor-intensive truck garden diversity of the 60's and toward field crop machine-based operations. Such farmers appear to be satisfied with the profits of corn and hay production and seem to have little need for the monetary benefits of development rights easement purchases or similar measures. In contrast, the small farmer in Middlesex County is likely to become extinct without encouragement and incentives for diversification, sustainability and permaculture farming innovations. This is an important factor in Middlesex County's agricultural future, since the availability of large farmland parcels is dwindling.

For example, small farmers may supplement vegetables with herbs, cut flowers and shrub fruits by developing edge areas of properties, without disturbing their present cash crops' acreage. Direct market sales - selling directly to consumer or retail outlets - are increasingly important as family-owned small farms can garner better prices by eliminating the middleman.

The Middlesex County Planning Department staff anticipates more organic operations and CSAs on the horizon. Organics are the fastest growing agricultural industry in the United States. Also, the rise of the "slow foods" (fresh, perishable food vs. drive up "fast food") movement means potentially greater interest among consumers in buying and eating local produce. Ethnic vegetables and niche crops also are growing sectors of the economy. Middlesex County has some very large South Asian and East Asian populations that may provide a lucrative market for the return of vegetable farms in the County, if the most popular



vegetables, herbs and spice plants can be locally grown. With the County's large and increasing Hispanic population, tomatillos, cilantro, etc. are in demand and represent a potentially untapped market.

14. Agricultural Support Needs

Support for the agricultural industry is important to Middlesex County's quality of life. However, at this time the County does not expect to play a lead role in siting new agricultural facilities and infrastructure, although the Middlesex CADB and Planning Department staff are available and willing to provide information and feedback to anyone interested in such ventures. The private ethanol bulk transfer station currently planned in the Sewaren section of Woodbridge Township is being given such encouragement as it seeks site plan and access permit approvals.

As seen in Chapter III, the Planning Board and Middlesex CADB work closely with agricultural municipalities to ensure that land use regulations are tenable for farmers and that the county's agricultural operations are adequately protected by right-to-farm ordinances.

VII. Natural Resource Conservation

A. Natural Resource Protection Coordination & Programs

Permanently preserving economically viable farmlands can make major contributions to local, regional and statewide environmental systems and green infrastructure. When effective conservation and proper stewardship practices are implemented on productive farmlands, they in turn become a valuable land base resource which conserves prime food-producing soils, sustains watersheds and aquifers, manages wildlife and protects riparian areas and stream corridors. Improved stewardship and management on our agriculture land base will significantly contribute to minimizing the environmental degradation sometimes associated with agricultural production activities.

Establishing an equitable and balanced comprehensive approach to protecting our irreplaceable natural resources while at the same time sustaining a viable agricultural industry over the long term is best accomplished by implementing agricultural conservation practices, joined with strategies to preserve the profitability of farming. The importance of this balanced and equitable approach is clearly expressed in the vision statement of Productive Lands—Healthy Environment: Natural Resources Conservation Service Strategic Plan 2005-2010:

*“The foundation of [Productive Lands—Healthy Environment] is a vision of the landscape that Americans want—a landscape in which a productive agricultural sector and a high-quality environment are **both** achieved.*

Productive use of privately-owned cropland, rangeland, pastureland, and forestland is essential to the Nation’s security and the health and well-being of its citizens. Those lands form the foundation of a substantial and vibrant agricultural economy that provides food, fiber, forest products, and energy for the Nation. Those lands can also produce environmental benefits that people need—clean and abundant water, clean air, and healthy ecosystems...

...Where natural resource use and management are compatible with the framework of the systems of the land, agricultural production can continue unhindered, watersheds can function, wildlife populations can flourish, communities can prosper, and new and old residents alike can enjoy a quality environment. (Source: page 2 excerpt, bold text emphasis added).

This vision of retaining a viable agricultural industry and preserving the essential natural resources of our society can be achieved only by the cooperative effort of individual farm operators, government agencies, allied industry organizations and private groups across the land. A cooperative network of federal, state and county natural resource protection agencies has been specifically tasked with promoting farmer implementation of natural resource protection practices. In general, these best management practices are developed with the clear objective of striking the required equitable balance between the needs of maintaining a sustainable agricultural industry **and** preserving a sustainable ecosystem.



The cooperative relationships that have been developed among Federal, State, local (i.e. county) resource agencies and allied organizations share common objectives, although their particular level of responsibilities and scope of perspective may differ. Nationwide, the traditional governmental agriculture partners—local conservation districts of the Natural Resources Conservation Service (NRCS) at the Federal level, state departments of agriculture, state conservation agencies, and Resource Conservation and Development Councils (RC&D)—have been key to past successes and remain essential to future progress in the conservation of our green infrastructure.

The following narrative offers a brief overview of the coordination of programs offered by the various levels of government which are made available to the Middlesex County agricultural community. Also included is a summary table of selected natural resource programs which are cooperatively administered by the various agencies that are ultimately implemented voluntarily by our farmers.

1. Rutgers Cooperative Extension Service of Middlesex County

The office of the Rutgers Cooperative Extension Service of Middlesex County is committed to working with the county's farmers and agribusinesses to promote and establish sound natural resource management practices. This is accomplished by a staff of qualified professionals who can furnish practical assistance and technical advice regarding agriculture operations, including natural resource management on agricultural lands.



The Middlesex County office, known as the E.A.R.T.H. Center, is located within one of our County's parks—Davidson's Mill Pond Park—a former dairy farm ideally situated in South Brunswick (in the County's PIG Northwestern Project Area). Formerly the office was housed in downtown New Brunswick. The newly re-located office provides an improved level of service by virtue of its closer proximity to the agriculture land base. More importantly, as it is located on the land of a former agricultural operation, the grounds serve as a laboratory where conservation practices can be implemented. As a "cooperative" agency the staff works hand-in-hand with the NJ Agriculture Experiment Station (NJAES), which is the agriculture research branch of Rutgers, the State University of New Jersey. The current Director of the County Extension Services - the County Agriculture Agent - is a professor teaching agriculture coursework in the School of Environmental & Biological Sciences (SEBS) formerly Cook College, the land grant college of New Jersey. [see Appendix H for a directory of Middlesex County Agricultural Organizations]

The Extension Service of Middlesex County is a critical link between the farmers and the programs offered by the multiple layers of governmental agencies. County staff members continually gain a better understanding of the most crucial needs of Middlesex County's

agricultural industry by cultivating personal relationships with individual farm operators. With this personalized perspective, the County staff is well-equipped to provide relevant and realistic natural resource protection solutions to its constituency of Middlesex County farmers.

One current example of natural resource conservation protection being actively promoted by Middlesex County staff is Integrated Pest Management (IPM). This is a custom tailored pest management system intended to reduce crop and environmental damages by incorporating a number of specific treatments for the specific pests found in specific areas of a field, which tends to prevent over-treatment of pests and may result in a reduced volume and quantity of pesticides, which in turn reduces negative impacts on water quality of adjacent and farther-flung streams.

2. Natural Resource Conservation Service (Federal)



The Natural Resources Conservation Service (NRCS) is a technical Agency of the United States Department of Agriculture (USDA). NRCS was established in 1935 as the Soil Conservation Service (SCS) to carry out a continuing program of soil and water conservation and natural resource protection on agriculture lands. The U.S. Secretary of Agriculture organized NRCS in 1994 through authority provided in the Federal Crop Insurance Reform and the Department of Agriculture Reorganization Act of 1994. NRCS combines the authorities of the former SCS as well as additional programs providing financial assistance for natural resource conservation.

The current mission statement of the NRCS is “Helping People Help the Land”. NRCS provides products and services that enable people to be good stewards of the Nation’s soil, water, and related natural resources on non-Federal lands. The NRCS works effectively with the New Jersey Department of Agriculture, Rutgers University, and other State and Federal agencies.

In its founding year of 1935, the former SCS opened New Jersey’s statewide office on the Douglass College campus in New Brunswick, **Middlesex County**. Over the years, it moved to Bayard Street in New Brunswick, then to Hamilton Street in Somerset (Franklin Township), Somerset County, and finally to its present location at 220 Davidson Avenue, also in Somerset. The NRCS of New Jersey provides technical and financial assistance for programs that protect and improve natural resources and the environment, to ensure that Garden State residents can continue to enjoy the benefits of productive soils, clean air and water, and open space.



The NRCS employs soil conservationists, natural resource specialists, soil scientists, agronomists, biologists, and engineers. These technical experts help farmers and landowners (whom they refer to as customers) develop conservation plans, create and restore wetlands, restore and manage other natural ecosystems, and provide advice on nutrient and animal waste management and watershed planning. Eligible New Jersey landowners and agricultural producers receive funding assistance for USDA's voluntary conservation programs, which are provided through the Farm Security and Rural Investment Act of 2002 (Farm Bill).

There are 21 counties and 15 Soil Conservation Districts (SCDs) sharing common boundaries. NRCS has strong partnerships with the Soil Conservation Districts and the NJ Association of Conservation Districts. SCDs are best known for oversight of soil erosion and sedimentation control plans associated with construction activities, but also are tasked with education, outreach and research on regional conservation issues in their district.

Middlesex County landowners seeking customer service from the NRCS fall within the jurisdiction of their Freehold Service Center which is jointly located with the office of the Freehold SCD in Freehold, Monmouth County. The federal Farm Service Agency (FSA) is conveniently located in the same office, offering one-stop shopping for farmers. [Refer to Appendix I for NRCS offices contact information to obtain additional information]

3. State of New Jersey

As an incentive to promote the State's farmland preservation program, the State Agriculture Development Committee (SADC) within the Department of Agriculture has established their own Soil and Water Conservation Grants program for farm operators on preserved farms and farms enrolled in the 8-year program (see following summary table below for general description of the SADC grants). The New Jersey Department of Environmental Protection (NJDEP) also offers a program that may provide financial and technical assistance to landowners, including farmers that are interested in protecting threatened and endangered species. Both State programs complement the USDA menu of programs. The annual monitoring of preserved farms provides an opportunity for exchange between the CADB Staff and the landowners regarding natural resource program assistance and participation.



Summary List of Selected Conservation Assistance Programs Offered in New Jersey for Agricultural Land Owners and Managers

Conservation of Private Grazing Land Program (CPGP)		Natural Resource Conservation Service (NRCS)
Description:	Helps owners and managers of private grazing land address natural resource concerns while enhancing grazing land and rural communities.	
Eligibility:	Privately owned grazing land is eligible, including private, State, Tribal, and other non-federally owned land managed to produce livestock and wildlife.	
Program Assistance:	Technical assistance in maintaining and improving grazing land; or conserving, improving, and maintaining water quality, fish and wildlife habitat, and recreational opportunities on grazing lands.	
Conservation Reserve Program (CRP)		NRCS
Description:	Provides for annual rental payments and cost-share assistance to establish long-term resource conserving covers on eligible farmland.	
Eligibility:	Marginal pastureland or highly erodible cropland that has been planted for 4 to 6 of the years prior to the 2002 Farm Bill is eligible for CRP.	
Program Assistance:	Annual rental payments are made on land based on the agricultural rental value. Cost-share payments are made for up to 50% of cost of establishing conservation practices. Payments are made for 10-15 years.	
CRP Enhancement Program (CREP)		NRCS
Description:	Provides for annual rental payments and cost-share assistance for buffer practices such as riparian borders, filter strips, waterways, and contour strips.	
Eligibility:	CREP is open to any eligible land that is suitable for the buffer practice.	
Program Assistance:	Annual rental payments are made on land based on the agricultural rental value. Reimbursement for practice implementation can be up to 100%. Payments are made for 10-15 years.	
Environmental Quality Incentives Program (EQIP)		NRCS
Description:	Addresses resource concerns on farms through installation of permanent conservation measures or adoption of new management strategies. Promotes agricultural production and environmental quality as compatible goals.	
Eligibility:	Private agricultural land, including eligible cropland, rangeland, pasture, private non-industrial forest land, and other farm or ranch lands.	
Program Assistance:	Financial and technical assistance provided. Conservation payments are made based on the extent of the practice(s) implemented.	
Wildlife Habitat Incentives Program (WHIP)		NRCS
Description:	Helps enhance the habitat for target species and ecosystems through financial and technical assistance on eligible lands.	
Eligibility:	Non-federal lands that could meet the NJ farmland tax assessment definition or are public or private owned with public access.	
Program Assistance:	Financial and technical assistance provided. Conservation payments are made based on the extent of the practice(s) implemented.	
Wetlands Reserve Program (WRP)		NRCS
Description:	Provides financial incentives to landowners to enhance and restore wetlands on lands previously drained for agricultural use.	
Eligibility:	Landowners must have owned the land for at least 12 months before enrollment. Land must be restorable and meet certain eligibility requirements.	
Program Assistance:	Permanent easement – 100% of permanent easement and construction costs; 30-yr. Easement – 75% of permanent easement and construction costs; Restoration Cost-Share Agreement – 75% cost-share for construction costs; agreements up to 10 years	
Soil and Water Conservation Grants		State Agriculture Development Committee (SADC)
Description:	Provides grants to landowners for the costs of approved soil and water conservation projects. Eligible projects include projects designed for the control and prevention of soil erosion and sediment damages; the control of pollution on farmland; the impoundment, storage and management of water for agricultural purposes; or the improved management of land and soils to achieve maximum agricultural productivity.	
Eligibility:	Farms must be permanently preserved or enrolled in an eight-year preservation program. Permanently preserved farms receive first priority for grant funding.	
Program Assistance:	Provides grants to landowners for up to 75 percent of the costs of approved soil and water conservation projects. Projects must be completed within three years of the SADC funding approval. Grants may be renewed for a one-year period under certain circumstances, such as seasonal constraints or other unavoidable delays, only upon approval of the local Soil Conservation District, the State Soil Conservation Committee and the SADC.	
Landowner Incentive Program (LIP)		NJ Department of Environmental Protection
Description:	Provides private landowners interested in conserving threatened and endangered species on their property with financial and technical assistance.	
Eligibility:	Eligibility for funds includes private landowners as well as individuals, non-profit organizations and corporations with a documented long-term lease on private property (possessing a minimum of five years remaining on their lease agreement). In addition, applicants will be required to implement a project as outlined in the management agreement. Applicants must also be willing to sign a project agreement and management plan with the Division of Fish and Wildlife.	
Type of assistance:	LIP is a cost-share program. Successful applicants will be required to provide a minimum of 25 percent of the program's total cost. Projects must be maintained for at least five years with documented measurable results.	



B. Water Resources

Water resource conservation is two-fold—water supply and water quality. Conservation plans for farming operations should include best agricultural management practices for conserving water supply sources and for protecting water quality.

Within future rural residential/agricultural communities, alternative solutions promoting water resources conservation within a comprehensively integrated and sustainable planning and design approach will be encouraged through outreach and advisory review of such mixed use projects, based upon recommendations of EPA, NJDEP, NJOSG and other Smart Growth advocacy organizations.

The NRCS recommends a total resource management system within the individual Farmland Conservation Plan which identifies which conservation practices would contribute to an environmentally and economically sound farm. Some potential best management practices with water resources conservation potential are:

- ◆ **Farm Pond** – A farm pond is a pool of water formed by a dam or pit that supplies water for livestock, recreation, wildlife, and helps control gully erosion. Well-planned farm ponds prevent soil erosion and protect water quality by collecting and storing runoff water, provides water for livestock, fish, wildlife, and recreational activities and provides a water supply for emergencies.
- ◆ **Drip Irrigation** – Drip irrigation conserves water by reducing evaporation in the delivery process, by precision application to crops.
- ◆ **Integrated Pest Management** – Integrated Pest Management (IPM) incorporates a number of treatments respective of particular pests found on specific areas of a field, which tends to prevent a broad over-treatment of pests and ultimately results in a reduced volume and quantity of chemicals. Negative impacts to water quality may be minimized by IPM through a reduction in chemical pesticides being applied.
- ◆ **Filter Strips and Grassed Waterways and Swales** – These are landform strips of grass, trees, or shrubs that filter or clean runoff and remove contaminants before they reach water bodies or water sources, such as wells. Ground cover reduces soil erosion. The vegetative strip moves row-crop operations farther from a stream.
- ◆ **Contour Strip-cropping** – Contour strip-cropping is crop rotation and contouring combined in equal-width strips of corn or soybeans planted on the contour and alternated with strips of oats, grass, or legumes. This practice reduces soil erosion and protects water quality. Contour strip-cropping may help reduce fertilizer costs by naturally providing nutrients.

C. *Waste Management Planning*

Water quality degradation can be minimized by reducing amounts of nutrients, chemicals, animal waste, and sediment entering the stream. Conservation plans for farming operations should include best agricultural management practices for waste management. Farmers should coordinate with State and local programs to reuse the products of waste recycling operations. New technologies are emerging that may greatly benefit agricultural operations and reduce negative environmental impacts and costs.



- ◆ **Manure Storage Structures** - these structures protect water bodies from manure runoff by storing manure until conditions are appropriate for field application. This practice protects water quality by preventing runoff from feedlots reduces fertilizer costs and nutrient losses and allows for field application when conditions are right.
- ◆ **Agricultural Plastics Recycling** - State programs have been in place for 12 years for recycling aging plastic film from greenhouses and temporary hoopouses that warm fields for extension of the growing season, as well as bulky plastics from pesticide containers.
- ◆ **Drip Irrigation Strips** – These plastic strips are collected through separate programs with specific conditions for acceptance for recycling.
- ◆ **Food Waste Composting** - Middlesex County will shortly have the first in-vessel food waste composting facility in New Jersey. The facility will be able to accept up to 500 tons /day of food waste for processing into agricultural fertilizer.
- ◆ **Crop Residue Management** - Crop residue management means leaving last year's crop residue on the soil surface by limiting tillage. It includes no-till, mulch till, ridge till, and strip till. Ground cover prevents soil erosion and protects water quality. Residue improves soil health and adds organic matter to the soil as it decomposes. Fewer machinery trips and less tillage reduce soil compaction and save time, energy and labor.
- ◆ **Animal Waste Management** - Rules for animal waste management are evolving through a cooperative effort of the NJ Department of Agriculture and the NJDEP. These agencies conduct outreach programs to help to keep these operations as well as equine operations up to date and informed of opportunities for funding support for mechanical methods to achieve compliance with regulations.



D. Energy Conservation Planning

Using renewable energy sources such as wind, solar and biofuels in agricultural operations is encouraged. Conservation plans for farming operations should incorporate the practical application of using renewable energy sources wherever possible. SADC policy actions in the past generally are favorable toward accepting alternate technology installations that support agricultural operations within preserved farmlands and farmland-assessed farms in ADA areas.

1. Wind Energy

Power harnessed from the wind has long been tied to agriculture. Mechanical water pumping windmills and then electric power generating refined wind turbines were essential in rural areas not served by power lines from hydropower and coal fueled urban “dynamo” electric plants. Today comprehensive energy conservation planning includes consideration of wind-generated electricity where windmills can take advantage of persistent winds.



2. Solar Energy

Rising energy costs and continued improvements in technology have renewed interest in using alternative sources to supplement electric power use on farms. As new technologies develop, incentive programs often become available to encourage these alternatives to become more mainstream. Among those emerging for New Jersey farmers is solar power. Farmers may find that implementing solar technology stabilizes or reduces energy costs, allowing on-site energy generation and providing crucial back up power in periods of public supply grid failure.



3. Biomass Energy Conversion

The Middlesex County Planning Department contacted Ms. Margaret Brennan, Associate Director of the New Jersey Agricultural Experiment Station (NJAES) and project director for the “Assessment of Biomass Energy Potential in New Jersey” Study published in July 2007. She was asked to comment upon the potential for biomass and alternative energy technologies to enhance agricultural operations and farmland preservation in Middlesex County. Her reply is presented below:

“The 2004 Census of Agriculture indicates that there is approximately 8,900 acres of Middlesex County farmland being used to grow grain and forage crops. While this is not enough land to supply a stand-alone biofuels production plant, it could contribute significant amounts of biomass to a regional facility. There is also additional acreage in Middlesex County that is currently utility right-of-ways, marginal farmland, and open space that could also produce bioenergy crops (these acreages were not included in the Rutgers Biomass Report). Enterprising farmers may want to consider selling corn grain and biomass or wood pellets as fuel for home heating systems within their community.”

An interesting option for Middlesex would be to combine the agricultural-based cellulosic biomass with the cellulosic biomass generated by human activity within the county for bioenergy projects. Middlesex County produces approximately 10% of the available waste biomass generated in the State so there is an existing concentration of feedstock that will improve the economics of a bioenergy facility. On-farm or local anaerobic digesters, especially where there is a concentration of horses, may be economical when combined with food waste and waste grease. The combination of the three items; manure, food waste and waste grease, maximize the amount of biogas that can be produced by a digester. Waste water treatment plants are also ideal locations for this type of bioenergy production. With all the expertise in bioenergy located at the main campus of Rutgers University, Middlesex County is a very good location for pilot-scale demonstrations of emerging technologies because of its proximity to the campus.

Solar energy is also another viable option for Middlesex farmers. With strong financial incentives from both the BPU and USDA to locate renewable energy projects on farms, the payback periods may be very reasonable. According to current wind resource maps, wind energy is probably not the best option for most locations.”



E. Outreach and Incentives

As evidenced in the reported level of plans and applications submitted to NRCS by Middlesex County farmers during FY2004 thru FY2007 (see table below²²), it appears that the collaborative approach among the agencies is effective at promoting genuine interest in planning for natural resource conservation on agricultural lands. This is an obvious testament to the extensive outreach initiatives of the various governmental partners. The possibility of receiving monetary assistance (though funding appears to be limited) in combination with the provision of technical support free of charge to the agricultural industry continues to be a major incentive for the planning and implementation of conservation plans of the NRCS.

Table VII-1: New Jersey NRCS Conservation Program Obligations & Accomplishments in Middlesex County, FY2004 thru 2007

Program		2004	2005	2006	2007	
Contractual Obligations						
Environmental Quality Incentives Program (EQIP)	Quantity		2	2	Data not provided in NRCS Annual Report	
	\$ Amount		\$12,145	\$4,632		
Wildlife Habitat Incentives Program (WHIP)	Quantity	1	1			
	\$ Amount	\$4,830	\$4,350			
Agricultural Management Assistance (AMA)	Quantity	1				
	\$ Amount	\$52,253				
Conservation Security Program (CSP)	Quantity			3		
	\$ Amount			\$65,853		
Planning & Implementation Accomplishments (Acres)						
Conservation Plans (all lands)	Planned*	1,656	542	2,482		1,365
	Applied**	1,742	755	340	726	
Nutrient Management	Planned	169	273	266	1,025	
	Applied	43		256	219	
Wildlife Habitat Management	Planned		2	3,631	35	
	Applied				30	
Wetlands Restoration	Planned			3		
	Applied					
Grazing Lands Management	Planned		4	38		
	Applied					
Comprehensive Nutrient Management Plan (CNMP)	Planned		12		1***	
	Applied	118	12		1***	

*Planned = conservation plan implementation arrangement with farmer; **Applied = completed conservation project; ***number of plans

However, outreach alone can go only so far in encouraging conservation plans to be put into practice. As shown in the above table, direct monetary assistance is modest at best and may not provide sufficient incentive for farmers to participate. As of the writing of this plan, the Federal Farm Bill, which appropriates funding for the NRCS programs, is up for renewal and expected to be passed in 2008. The New Jersey Department of Agriculture is actively promoting funding levels that will ensure that New Jersey, and the Northeast in general, gets an adequate and equitable proportion of Federal conservation program funding.

Direct monetary assistance is not the only incentive that can contribute to conservation practices on agricultural lands. The NRCS has identified numerous bottom-line operational profit margin benefits that can be realized by implementing conservation plans. An excellent resource on these benefits is a PowerPoint presentation entitled “*Conservation Choices: Your Guide to Conservation and Environmental Farming Practices*”.²³



VIII. Agricultural Industry Sustainability, Retention and Promotion

As quoted from the Agricultural Smart Growth Plan for New Jersey, April 2006:

“Creating an environment that supports the agricultural industry at the municipal, county and state levels demonstrates that agriculture is a preferred land use in New Jersey and encourages the retention of thriving and diverse farming operations. Educating the next generation of farmers, welcoming newcomers and ensuring the safety and well-being of today’s farm workers are critical components of maintaining a profitable, strong agricultural industry poised for a bright future.” [Page 48]

“Preserving Farmland in Middlesex County” (1978) marked the beginning of efforts to develop a concerted County/municipal partnership approach encouraging support of agriculture as a significant industry and the preferred land use where appropriate.

A. Existing Agricultural Industry Support Strategies

1. New Jersey Farmland Assessment Act

New Jersey’s Farmland Assessment Program was established in 1964 and was designed to reduce the property tax burden for the state’s farmers. According to Alison Mitchell’s *Gaining Ground* it “promotes the continuation of agriculture and assists in maintaining a supply of rental land, serving a critical purpose for agriculture in the state.” It is considered an important component for the continuation of agriculture in New Jersey because it reduces the yearly burden that municipal property taxes (based upon potential land use conversion/development values) place upon the farmer-owner. As a preservation measure, the reduced tax allows farmers to continue to grow agricultural products rather than houses, shopping centers and office buildings on farmland.

To be eligible for farmland assessment, a landholder must own at least five acres and generate at least \$500 of agricultural income annually. The land must have been actively devoted to agriculture or horticulture for the current tax year and the two prior years. The farm residence is not eligible for the lower tax rate. Currently, approximately 39 square miles are farmland-assessed in Middlesex County. Landowners with farmland-assessed property can save thousands of dollars a year.

2. Right-to-Farm Act & Agricultural Mediation Programs

The Right-to-Farm Act protects farmers from nearby residents who may feel disturbed by normal farming operations such as noise, traffic, fertilizer spreading, pesticide spraying, and dust. The Right-to-Farm Act also safeguards farmers from unnecessary ordinances or regulations restricting farming operations. The State of New Jersey adopted the Right-to-Farm Act in 1983 and amended it in 1998. The stated intention of the Act is “the protection of commercial farm operations from nuisance action, where recognized methods and techniques of agricultural production are applied, while, at the same time, acknowledging the need to



provide a proper balance among the varied and sometimes conflicting interests of all lawful activities in New Jersey.”

The 1998 amendments to the Right-to-Farm Act revised the definition of a “commercial farm” and expanded the list of agricultural activities that preempt county or municipal regulation, as long as the health and safety of the public are not threatened. The Act stipulates the types of activities a farm may engage in as well as the steps for various agencies to follow in reviewing disputes regarding any farm activity. The amendments expanded the jurisdiction of county agriculture development boards over right-to-farm issues and practices. As part of its responsibilities the Middlesex CADB oversees the State policies that protect commercial farm operations against nuisance action. The Board serves as an agency to review farming activities and offers municipalities assistance with interpreting provisions of the Right-to-Farm Act.

The Middlesex County Planning Department provides knowledgeable staff to handle Right-to-Farm Act issues as they are brought to the attention of the Middlesex CADB. Preliminary staff and legal review and mediation is always encouraged in initial inquiries. As a result, only three cases in the past five years have had to be heard by the Middlesex CADB, out of a number of right-to-farm inquiries. Several factors contribute to this. The population and property values of many formerly rural communities grew very quickly prior to the beginning of the Farmland Assessment Program. With increased development pressures and the additional tax burden, farms in strongly developing areas simply did not survive. The expansive fields constituting the bulk of Middlesex County’s present farmland base (though also becoming surrounded by industrial, commercial and residential uses) are better appreciated and valued by today’s public because of increasing public awareness of the value of farms, and the public relations success of Right to Farm legislation and NJ Department Agriculture promotions, such as Jersey Fresh. Still, there are new neighbors not accustomed to agricultural activity and despite otherwise enjoying having a farm and not another housing development next door, may be unsympathetic to the farming practices, marketing and related services that create traffic, odors, noises, or un-picturesque views.

Sometimes local ordinances or codes constrain agricultural practices or result in increased operating costs for farmers or the need to obtain a variance. The Township of Franklin v. den Hollander decision [338 N.J. Super. 373 (App. Div. 2001), affirmed. 172 N.J. 147, 151 (2002)] allows a county agriculture development board to hear such cases and to override local ordinances when appropriate. Sometimes municipalities merely have difficulty interpreting local codes as they apply to a farm, and seek advice from the Middlesex CADB.

There are two main types of right-to-farm matters, Site-Specific Agricultural Management Practice (SSAMP), and Conflict Resolution cases. A landowner or farmer files an SSAMP request with the Middlesex CADB. As long as the farmer is eligible for protection under the Right to Farm Act, the Board will review the request, visit the farm with appropriate professionals, and hold a public hearing to determine whether or not an operation or specific farming practices meet generally accepted standards. Sometimes SSAMPs are used proactively to protect a farmer from future complaints or legal action. At other times a landowner is already



aware of neighbor displeasure or has received municipal violation notices. Conflict resolution hearings are prompted by the filing of a complaint form with the Middlesex CADB by a neighbor or a municipality.

The review process is similar although the burden of proof, role of the SADC, and time limitations differ. Middlesex County has handled two SSAMP requests and one Conflict Resolution request since 2003 that resulted in Middlesex CADB Resolutions of Decision. In each case the Middlesex CADB was guided or deferred to SADC guidance and regulations while providing decisions and viewpoints responsive to the concerns of the farmer, the municipality and the neighboring public.

As noted above, not every inquiry or application results in a hearing. Sometimes requests do not get to the hearing stage because of eligibility issues or because differences are settled with a municipality or neighbor. Farmers and complainants are encouraged to resolve conflicts informally. The SADC runs a voluntary mediation program to help parties reach agreements.

A number of Middlesex County municipalities support the rights of the farmer and have adopted municipal right-to-farm ordinances. Those municipalities include Cranbury Township, East Brunswick Township, Plainsboro Township, Piscataway Township, Monroe Township, Old Bridge Township and South Brunswick Township. This action improves municipal status in competitively reviewed applications to SADC for additional participation in State farmland preservation grant programs.

3. Agriculture Support, Education & Promotion

(a) Middlesex County Board of Agriculture

The Middlesex County Board of Agriculture is a volunteer organization whose mission is to promote agriculture and related businesses throughout Middlesex County. Comprised of active farmers and assisted by Middlesex County Extension Service personnel, the Board is a proactive force in many programs to address issues of concern and bolster vitality within the diverse agricultural community. From web pages linked to the Middlesex County government website and popular websites for agricultural products and gardening inquiries, the Board of Agriculture promotes 20 “Direct Market” and “Pick Your Own” locations within Middlesex County. This website has recorded over 25 million hits since its establishment in 2000.

(b) The Rutgers New Jersey Agricultural Experiment Station

The Rutgers New Jersey Agricultural Experiment Station (NJAES) assists Garden State farmers in facing the challenge of operating a business in a heavily regulated environment, while enhancing market potential and using integrated management systems that are profitable, environmentally sound, and socially and politically acceptable. As a bonus for Middlesex County, the Station is located in New Brunswick and North Brunswick, with strong ties to the Middlesex County Extension Service offices (See Below).



Rutgers NJAES also helps consumers, commercial agriculture and other businesses develop and implement practices that maintain an efficient balance among the environment, human health, and economic benefits. With research connections, the Station provides cutting edge information and investigative services. The following is a listing of available services.

Summary List of NJAES Services

Animal Agriculture

Animal Agriculture Publications

BSE/Mad Cow Disease

Equine Science Center

Harmful Plants Gallery

Horse Pasture Management

Horses (from extension)

Pest Management

Pest Management Office

Greenhouse/Floriculture IPM

N.J. Weed Gallery

Nursery IPM

Pesticide Applicator Training Fact Sheets & Bulletins

Pesticide Safety Fact Sheets & Bulletins

School IPM

Vegetable IPM

For Consumers

Jersey Fresh Information Exchange

Pick Your Own Fruits & Vegetables in New Jersey (from NJDA)

Visit NJ Farms

Youth Farmstand Program

Plant Agriculture

Asian Soybean Rust (ASR)

Garden State Crop Insurance Education Initiative

Gardening & Landscaping Publications

Horse Pasture Management

If Plants Could Talk: A Gardening Television Series

Peach Science

Plant Agriculture Publications

Plant Diagnostic Laboratory & Nematode Detection Service

Rutgers Master Gardener Program

Rutgers Tomato

Rutgers Soil Testing Laboratory

Soil Profile Newsletter

Sudden Oak Death (SOD)

Farm Management and Safety

Farm Management, Marketing, & Safety Publications

Farm Safety

Visit NJ Farms: Publicize your public events!

Misc.

Agricultural Weather Advisory, Drought Web
N.J. Agricultural Leadership Development

(c) Department of Agricultural, Food and Resource Economics

The Department of Agricultural, Food and Resource Economics (DAFRE) was created in 1914. Since then, its mission has evolved as the needs of society have changed. The department's mission is to:

“Support society's agricultural, agribusiness, food, environmental and natural resource needs for economic analysis through an integrated program of teaching, research and outreach activities designed to improve the quality of public and private decisions.”²⁴

Their mission reflects and supports the missions of the Land-Grant university system, Rutgers, The State University of New Jersey, Cook College and the New Jersey Agricultural Experiment Station (NJAES).

With these abundant resources situated locally, there is an excellent opportunity to develop an internet-based Middlesex County Agriculture Operations Advisory Website service.

This would be GIS (geographic information system) based and satellite enhanced to provide daily advisory crop and area indexed bulletins, and would greatly expedite assistance through computers at farms and in local library systems. This option should be investigated by a Steering Committee composed of the NJ Department of Agriculture, university and county agencies.

(d) Middlesex County 4-H and County Fair

Middlesex County regularly brings together the various non-profit, public service and outreach organizations, mainly of the agricultural and domestic arts and crafts communities, for an annual exposition based upon the traditional county agricultural fair model spearheaded and managed by local 4-H clubs and Chambers of Commerce. Along with the arcades and festival rides, the daily agendas are filled with judging of local produce, livestock and various recreational activities related to farm and ranch operations. The Middlesex County Fair is a mainstay of public outreach and often the first physical contact point that the urban and suburban resident has with a farm experience.

B. Other Strategies

1. Addressing an Aging Farmer Demographic

In the course of research for this report, the demographic profile of operating farmers in New Jersey, and particularly in Middlesex, revealed that Middlesex County should consider strategies to address the fact that most farm operators in Middlesex County are at or above typical retirement age. This issue will impact several of the essential factors for sustaining agriculture on preserved farmland owned by these farmers. Continuing agriculture on preserved farmland when estates are liquidated is a concern, as is how to encourage the preservation of farmland belonging to owners yearning or needing to retire. The Middlesex CADB must study this issue in the light of similar situations elsewhere in order to determine what incentives and other measures are needed.

The question is “Who will be the Next Generation of Farmers?” Several groups are addressing this issue. Some collaborating organizations are: FarmsNet/Cornell University (NY); Pennsylvania Farm Link; Rutgers University; and the New England Small Farm Institute (MA). These organizations sponsor focus groups, prepare reports and are experimenting with several new farmer pilot initiatives under the Northeast New Farmer Network project. One active resource developed from these activities is the Growing New Farmers Consortium, an initiative with connections to other New Jersey county extension services (described below).

Growing New Farmers (GNF) is a regional initiative to provide future generations of Northeast farmers with the support and expertise they need to succeed. GNF brings together service providers from across the Northeast who are committed to working with and advocating for new and beginning farmers. GNF serves the Northeast states of Maine, Vermont, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Maryland, Delaware, and West Virginia.²⁵



The Middlesex CADB should review the potential for activities with this group as well as the New Jersey Chapter of Future Farmers of America within the Middlesex County College system. The New Jersey Agricultural Society and its Agricultural Leadership Development Program is a two-year professional development opportunity specifically designed for individuals in farming and agribusiness.

2. Sustaining Agricultural Viability on Publicly-owned Farmland Properties

Table VIII-1: Active Agricultural Land Use (NJDEP 2002) on Public Parks & Selected Public Properties (2007)

Public Property Category	GIS Acres
<i>Parks & Open Space Subtotal</i>	1,900
County Held Trust	388
County Parks & Open Space	139
Municipal Parks	416
Municipally Held Trust	390
State Parks	566
<i>Selected Public Lands Subtotal</i>	862
Cook Campus (Rutgers University)	331
County Complex (Route 130)	37
Jamesburg Boys Home	285
Proposed Route 92 holdings (NJ Turnpike Auth.)	94
Planned Municipal Golf Course (Old Bridge)	115
Grand Total	2,762
Percent of Total Active Ag. in Middlesex County	16%

Preserving open space and farmland have traditionally been linked topics. Public perception often disregards the need for sustained agricultural operations within the farmlands if areas are to retain a “rural” versus “wilderness” character. In many plans for acquisition of publicly owned open space and greenways, long term farmland and other management activities are not considered.

In reality, each land cover type needs a specific continuing management regimen to preserve a diverse open space. The SADC/Middlesex CADB development rights easement purchase approach is comprehensive, with its detailed process leading to permanent deed restriction and resale only as a property for agricultural use. Even though preserved farmland land can be used for nothing else, these measures alone do not guarantee sustained agricultural operations.

Outright purchase of open space and farmland is sometimes used mainly as a measure to thwart undesired land development, with little thought to preserving farming on the land. But discontinuing active agriculture on the preserved land has negative impacts often inadequately understood by the public. Farmland gone fallow is not only unproductive. Unmanaged and poorly managed farmland represents a potential source for stream eutrophication, insect borne diseases and blights, and proliferation of invasive, non-native flora and fauna detrimental to



native ecological habitats. Clear and sustainable agricultural management plans with appropriate implementation funds and protocols are essential for responsible, long-term preservation of agriculture and farmlands within a public open space system.

For instance, negative impacts to a publicly preserved farmland tract at the closing of a farm operator lease can be avoided if compliance to a farmland management plan approved by Middlesex County Cooperative Extension Service staff is required in lease conditions. With approximately one out of every ten acres of the active agriculture land of Middlesex County within public lands today, this measure alone could significantly improve the future of the county's agriculture.

Additionally, Middlesex CADB easement purchase grant monies from the SADC could be used to complement outright tract purchases for open space and historic preservation in conjunction with non-profit and public partnerships. This approach has had success elsewhere in New Jersey, but is relatively untried in Middlesex County.

Further study is needed to determine the appropriate incentives and controls for publicly-owned properties currently available to the county's farmers, in order to initiate a coordinated strategy for sustained permanent agriculture on these properties. Middlesex County must continue to encourage and strengthen positive public perception of the tangible values as well as aesthetic values of agriculture for Middlesex County's future, through sustainable agricultural activities within appropriate public lands.

It is recommended that an interagency cooperative effort be initiated, to produce more efficient and predictable protocols for sustained agriculture. This would greatly enhance the likelihood of future success of the easement purchase program and agriculture preservation in general within the county.

3. Youth Outreach and Education

High school agriculture, food and natural resource education programs provide classroom laboratory instruction, work-based learning, and career and leadership development for future farmers and other students considering one of over 300 possible careers in the field of agriculture.

More than 2,200 students in 46 school districts around New Jersey are enrolled in agriculture, food and natural resource education programs. The programs consist of three parts: class/lab instruction, field work, and membership participation in Future Farmers of America (FFA), a national youth organization with New Jersey county branches. FFA prepares its members for leadership careers in the science, business and technology of agriculture.²⁶

Pending Farm Bill, H.R. 2419, "The Food and Energy Security Act of 2007", contains an amendment by Senator B. Sanders (D-VT) that would authorize \$10 million to establish a pilot program for community gardens in public schools throughout the country.



The amendment would establish a grant program for public schools to develop gardens that students would plant, cultivate, and harvest. The program's focus would be to teach participating students the importance of agriculture, sound environmental farming practices, and proper nutrition. Schools would use produce from the garden to supplement the school's food program, distribute these to participating students' families, or donate them to a local food bank.

There are other opportunities to provide more outreach and education for appreciation of agriculture and fresh food in schools. Nutrition, Environmental Science and Home Economics programs have partnered with community service associations to create neighborhood and schoolyard gardens. The curricula of classroom programs can introduce gardening skills and appreciation of fresh and nutritious foods for children and adults alike. Teacher/facilitators could be provided by the New Jersey Chapter of the Organic Farmers Association, with funding support from local non-profit groups and from school boards. Middlesex County's schools should be encouraged to investigate these types of program, in tandem with the farming community. Some federal funds may be available for such programs.

Presently, several small farms throughout Middlesex County volunteer to bring domesticated farm animals to elementary schools for short "petting farm" events, and also host "farm visit" school bus tours as neighborly gestures. Pending federal funding may present the opportunity for an integrated "School to Farm" partnership program. This would consist of a four season agriculture awareness program, with Spring Start in-School seedling starting, Summer infield transplanting, a "Farm Cam" interactive computer for live field-to-classroom status reports of crop growth planting. Finally, there could be Fall harvesting for early crops and final care for late season and cold tolerant winter root crops such as peppers, kale, beets, squash and potatoes, closing with Winter waste stream reductions through recycling, composting for farms and contributions to charitable food service programs.



*Located on the Cook Campus of Rutgers University in **Middlesex County**, the New Jersey Museum of Agriculture is a premier destination offering educational programs and informative exhibits, which promotes an appreciation of the dynamic role of agriculture in the Garden State.*

The Middlesex County Fair History and Background 70 Years – 1938 to 2008



The Middlesex County Fair was founded by the Milltown Grange in 1938 as a successor to their Flower and Crop Show, which had been held at the Grange in 1937. Incorporated as a non-profit organization, the original Trustees had to be members of the East Brunswick Grange. The Grange had been in the process of changing their name having moved to East Brunswick in 1936 to the new Grange Hall built near the corner of Dunhams Corner Road and Ryders Lane. The Fair was a great success even in its first year. Total receipts for the first fair were \$1,079.23 with a profit of \$140.80.

After the Second World War, there was much debate in the Grange about continuing to sponsor the Fair. After much discussion, the Grange agreed to allow the Fair to continue on their property, but asked that another sponsor be found. The Middlesex County Board of Agriculture agreed to be the sponsor as long as it did not cost them any money. In 1960, the Certificate of Incorporation was changed to reflect the sponsorship by the Middlesex County Board of Agriculture. That same year, the Trustees of the Fair Association realized that they could no longer continue on the Dunhams Corner Road properties and entered into negotiation for the purchase of the Scott Farm on Cranbury Road for the creation of a permanent Middlesex County Fair Grounds. A closing took place on September 15, 1961. After gaining approvals and preparing the site for parking and activity space, the Fair opened on its own property for the Fair of 1965.

In recent years permanent buildings and structures have been added to the Fair Grounds, including: a Fair Office Building and meeting place for the Fair Trustees (the Middlesex County Board of Agriculture met at the Fair Office Building until 2006 when the meetings were changed to their new facility on Riva Avenue); a Home Arts Building; a large refreshment stand; a chicken dinner pavilion; an entertainment dressing room; and, the 4-H home building donated to the 4-H for that purpose.

The Fair has come a long way since 1938, but it remains faithful to its original charter, which states in part “The purposes for which this corporation is formed are: to hold an agricultural fair of an educational nature, to advance the agricultural and industrial interests of Middlesex County, to encourage better relationships between rural and urban people, and to maintain increasingly higher standards in homemaking practices.”

While the nature of the county has changed dramatically since 1938 and there are very few truly rural areas left in the county, the Fair still has the feeling of country, which they strive to reinforce at every turn. The Fair essentially remains a voluntary activity involving hundreds of Middlesex County residents. Farmers, businesses, housewives, and 4-H’ers have donated hundreds of thousands of hours over the years to build the Middlesex County Fair into the outstanding tradition it has become.

Source: Middlesex County Board of Agriculture File (2007)



Glossary of Acronyms

Agricultural Development Area (ADA)
Agriculture Retention and Development Act (ARDA)
Agriculture/Rural Conservation (ARC)
Board of Public Utilities (BPU)
Certificate of Occupancy (CO)
Coastal Areas Facilities Review (CAFRA)
Coastal Environmentally Sensitive Planning Area (CESPA)
Coastal Metropolitan Planning Area (CMPA)
Community Supported Agriculture (CSA)
Council on Affordable Housing (COAH)
County Agriculture Development Board (CADB)
Delaware and Raritan (D & R)
Dwelling Unit (DU)
Easement Purchase Program (EP Program)
Equine Science Center (ESC)
Farm Service Agency (FSA)
Fiscal Year (FY)
Geographic Information System (GIS)
Installment Purchase Agreement (IPA)
Integrated Pest Management (IPM)
Middlesex County (MC)
Million Square Feet (MSF)
National Agriculture Statistical Service (NASS)
Natural Resources Conservation Service (NRCS)
New Jersey (NJ)
New Jersey Administrative Code (N.J.A.C.)
New Jersey Agriculture Experiment Station (NJAES)
New Jersey Department of Community Affairs (NJDCA)
New Jersey Department of Environmental Protection (NJDEP)
New Jersey Statutes Annotated (N.J.S.A.)
Northeast Organic Farmers Association in New Jersey (NOFA-NJ)
Planning Area (PA)
Planning Incentive Grant Program (PIG Program)
Resource Conservation and Development Council (RC & D)
Rutgers Cooperative Extension (RCE)
School of Environmental and Biological Sciences (SEBS)
Site-Specific Agricultural Management Practices (SSAMP)
Soil Conservation District (SCD)
Soil Conservation Service (SCS)
State Agriculture Development Committee (SADC)
State Development and Redevelopment Plan (SDRP)
State Plan Policy Map (SPPM)
Transfer of Development Rights (TDR)
United States Department of Agriculture (USDA)
Watershed Management Area (WMA)

End Notes

- ¹ Facts and stories of the county's agricultural history contained in the Preface were adapted and excerpted from: The History Buff's Guide to Middlesex County, compiled and written by Walter A. De Angelo, County Administrator (Printed June 2007).
- ² "A Brief History of the Walker-Gordon Laboratory Company", attributed to Mr. Henry Jeffers, III and Mr. Leo Fenity: Middlesex County Planning Department preserved farm file
- ³ Acreage in Farmland Assessment is the sum of acreage classified as farm-qualified and filed with municipal tax assessors (i.e. Property Class "3B"). The 2001 Farmland Preservation Plan cites 42,291 of farmland assessed acres in 1976. For 1983, Table I-11 in Chapter 1 reports 38,775 acres. For the 2007 figure, county planning staff performed a county-wide MOD-IV database query and summation of farmland assessed records last revised August 2007. The results of the year 2007 query and summation reflects a total of 24,744 acres.
- ⁴ Kummel, H.B. (1940). *The Geology of New Jersey*. State of New Jersey Department of Conservation and Development Bulletin 50.
- ⁵ Powley, Van R. (1987). Soil Survey of Middlesex County New Jersey: United States Department of Agriculture—Soil Conservation Service, page 2.
- ⁶ Narrative and description of farmland soils adapted largely from the "Report Description - Prime and Other Important Farmland" Middlesex County Soil Survey, Version 6.0, dated 12/07/2006; USDA, Natural Resources Conservation Service
- ⁷ Annual average rainfall of 49 inches per year according to Middlesex County Web Site (09/2007)
- ⁸ Personal interview with the staff of the Middlesex County Agriculture Extension Service, 11/09/2007
- ⁹ Glosser, Deanna (December 2007). "Viewpoint" an op-ed found at page 58 in: *Planning—The magazine of the American Planning Association*
- ¹⁰ Source for market value adjustment to 2002 Dollars: "Inflation Conversion Factors for Years 1665 to Estimated 2017-Revised 01/18/2007", by Robert C. Sahr; Oregon State University, Political Science Department; downloaded from <http://oregonstate.edu/cla/polisci/faculty/sahr/sahr.htm>
- ¹¹ Powley, Van R. (1987). Soil Survey of Middlesex County New Jersey: United States Department of Agriculture—Soil Conservation Service, page 2.
- ¹² Tri-County Coop information pursuant to <http://www.hightstovnauction.com/main.htm> (08/29/2007)
- ¹³ Salem County Green Pages: <http://saalem.rutgers.edu/greenpages/service.pdf> (Spring 2008)
- ¹⁴ Monmouth County Planning Board & Agriculture Development Board: Monmouth County Farmland Preservation Plan: September 2007 Preliminary Draft, Map 5.1, p. 63
- ¹⁵ Description of the state-owned lands preservation program during the Whitman administration is attributed to personal e-mail and telephone communications on and around August 30, 2007 with Charles Roohr, of the SADC staff.
- ¹⁶ Statutes/Rules/Policies of the SADC are available at: <http://www.nj.gov/agriculture/sadc/rules/> (April 2008).
- ¹⁷ State Agriculture Development Committee. (May 24, 2007). "New Jersey Farmland Program Appraiser Handbook", page 15
- ¹⁸ Ibid. page 15
- ¹⁹ Ibid. Page 16
- ²⁰ Up-to-date financial data of the Middlesex County Open Space, Recreation, Farmland and Historic Preservation Trust Fund is pursuant to personal telephone communications with the County Treasurer on October 3, 2007. History of tax levy is from the Middlesex County Open Space and Recreation Plan—2003.
- ²¹ Restaurants Serving Jersey Fresh: <http://njfarmfresh.rutgers.edu/servingjerseyfresh.asp> (October 2008)
- ²² Contractual Obligations and Conservation Planning and Implementation Accomplishments Data were compiled from a series of New Jersey NRCS Annual Reports for FY2004, FY2005, FY2006, and FY2007 as retrieved from <http://www.nj.nrcs.usda.gov/about/> (October 10, 2007 and April 4, 2008)
- ²³ "Conservation Choices: Your Guide to Conservation and Environmental Farming Practices" is downloadable at ftp://ftp-fc.sc.egov.usda.gov/NJ/technical_resources/ecological_sciences/conservation_choices.ppt or see web page http://www.nj.nrcs.usda.gov/technical/agriculture/conservation_choices.html [as of 10/10/2007]
- ²⁴ <http://www.dafre.rutgers.edu>
- ²⁵ http://growingnewfarmers.org/about_gnf/index.htm
- ²⁶ <http://www.njagsociety.org/aitc/aitc.htm>

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APPENDIX A

**SUMMARY OF STATE, COUNTY AND MUNICIPALLY
PRESERVED FARMLAND**

As of 12/18/07

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**MIDDLESEX COUNTY FARM AND PRESERVATION PROGRAM
SUMMARY OF STATE, COUNTY AND MUNICIPALLY PRESERVED FARMLAND – As of 12/18/07**

APPLICANT/ MUNICIPALITY	BLOCK, LOT	YEAR PURCHASED	RDSO	TOTAL ACRES SURVEYED	TOTAL ACRES FOR PAYMENT	CERTIFIED EASEMENT VALUE PER ACRE	OFFER PER ACRE	STATE COST AND %	COUNTY COST 20% OF CERTIFIED	MUNICIPAL COST	TOTAL COST
M. Halpern/Princeton Nurseries Cranbury	Bl. 21, Lot 8,19 Bl. 22, Lot 8,01 (Joseph Bartonek)*	1988	0	99.5900	Municipal Cluster Easement	Municipal Cluster Easement	Municipal Cluster Easement	---	---	---	---
A & H Ochsnier/M. Toth Cranbury	Bl. 24, Lot 2,011 (Vimalakar & Sarala Bathema)*	1988	0	19.7200	Municipal Cluster Easement	Municipal Cluster Easement	Municipal Cluster Easement	---	---	---	---
Stanley & Jill Ellen Stults Cranbury Neck Rd. Plainsboro/Cranbury	Bl. 12, Lot 1, Bl. 11, Lots 17, 18 (58 ac) (Plainsboro) Bl. 22, Lot 1, Bl. 23, Lot 103 (32.5 ac) (Cranbury)	1990	0	90.5224	90.5224	\$22,000	\$22,000	\$1,593,194.24 (80%)	\$398,298.56	\$0.00	\$1,991,492.80
Arthur, Barbara, Alan Danser Plainsboro Rd. Cranbury	Bl. 24, Lot 1	1992	1	131.1163	125.9163	\$18,000	\$12,500	\$1,180,465.20 (75%)	\$393,488.50	\$0.00	\$1,573,953.70
Kevin White Cranbury Neck Rd. Cranbury	Bl. 22, Lot 2	1992	1	79.0606	75.0606	\$16,200	\$11,988	\$629,878.53 (70%)	\$243,196.34	\$26,751.60	\$899,826.47
Margaret White John White Rd. Cranbury	Bl. 22, Lot 14 (Kevin White)*	1992	0	62.3527	62.3527	\$18,000	\$13,320	\$581,376.57 (70%)	\$224,469.72	\$24,691.67	\$830,537.96
Donald & Lynda Patterson Plainsboro Rd. Cranbury	Bl. 23, Lot 11	1993	2	184.6830	184.6830	\$10,000	\$8,900	\$1,012,132.03 (65%)	\$349,916.00	\$195,078.17	\$1,557,126.20
Stanley White John White Rd. Plainsboro	Bl. 12, Lot 2, 5,05 (Millstone, River Holdings, LLC)*	1993	0	91.2680	88.9900	\$10,500	\$10,495	\$560,370.03 (60%)	\$186,879.00	\$186,701.02	\$933,930.05
Edward & Joyce Barclay Dey Rd. South Brunswick	Bl. 1, Lot 1,062	1993	0	69.2140	69.2140	\$10,450	\$7,800	\$377,908.44 (70%)	\$144,657.26	\$17,303.50	\$539,869.20
Estate of Hostetler Cranbury Neck Rd. Plainsboro	Bl. 11, Lot 19,10 (S & J Stults)*	1995	0	106.6930	106.6930	\$8,600	\$8,600	\$554,803.60 (60.47%)	\$183,511.96	\$179,244.24	\$917,559.80
Greenberg/Aronson Plainsboro Rd. Cranbury	Bl. 25, Lot 40 (A.H. Lowe & Son, Inc.)*	1995	0	104.1290	104.1290	\$8,150	\$8,000	\$509,012.00 (61.25%)	\$169,324.40	\$152,703.60	\$831,040.00
Peddie School Cranbury Neck Rd. Cranbury	Bl. 23, Lot 99 (Kuttambakkam & Chitta)*	1995	1	133.6620	133.6620	\$8,100	\$8,000	\$627,954.60 (61.25%)	\$207,609.48	\$189,667.92	\$1,025,232.00
Gordon Dey & Estate of Dorothy Dey Dey Rd. South Brunswick	Bl. 22, Lot 4 (Bl. Shakerly – 55.5)* Bl. 1, Lots 8, 9,01	1995	0	201.6390	197.7800	\$8,500	\$8,200	\$988,920.00 (60.98%)	\$336,232.80	\$296,676.00	\$1,621,828.80
Alan Danser Cranbury	Bl. 24, Lot 9,01	1996	0	8.6800	Municipal Cluster Easement	Municipal Cluster Easement	Municipal Cluster Easement	---	---	---	---
Asa Davison Ancil Davison Rd. Cranbury	Bl. 22, Lot 6 (Patterson, Barnes, Davison)*	1997	0	113.3780	113.3780	\$8,750	\$8,750	\$598,068.95 (60.29%)	\$198,411.50	\$195,577.05	\$992,057.50

*Current Ownership

APPLICANT/ MUNICIPALITY	BLOCK, LOT	YEAR PURCHASED	RDSO	TOTAL ACRES SURVEYED	TOTAL ACRES FOR PAYMENT	CERTIFIED EASEMENT VALUE PER ACRE	OFFER PER ACRE	STATE COST AND %	COUNTY COST 20% OF CERTIFIED	MUNICIPAL COST	TOTAL COST
Zaitz Trust Old Trenton Rd. Cranbury Neck Rd. Cranbury	Bl. 21, Lot 601 Bl. 22, Lot 3 (Stanley White Trust)* Bl. 13, Lot 11.01 Bl. 23, Lot 100 (Kevin White)*	1997	1	370.2360	365.0820	\$9,500	\$9,449	\$2,069,795.89 (60%)	\$693,655.81	\$686,208.12	\$3,449,659.82
Walker-Gordon Cranbury Neck Rd. Plainsboro	Bl. 11, Lots 27.90, 27.92, 28.01 Bl. 13, Lot 11.01 Bl. 14, Lots 22.59, 24.01	1998	0	234.7957	234.7957	Municipal Cluster (Easement Donated to County)	Municipal Cluster (Easement Donated to County)	Municipal Cluster (Easement Donated to County)	---	---	---
Conrad & Jones Plainsboro Rd. Cranbury	Bl. 23, Lots 3 & 3Q (Patterson, Barnes, Davison)*	1999	0	182.8000	179.700	\$6,500	\$6,475	\$743,508.75 (63.90%)	\$233,610.00	\$186,438.75	\$1,163,557.50
Cranbury Heights Estates 1 Cranbury	Bl. 21, Lots 6 and 12 (Peter & Gizelle Sockler)*	1999	0	10.0000	10.0000	Municipal Cluster Easement	Municipal Cluster Easement	Municipal Cluster Easement	---	---	---
De Sandre Cranbury Neck Rd. Plainsboro	Bl. 11, Lot 22.01	1999	0	46.4200	46.4200	\$7,250	\$7,225	\$209,470.25 (62.46%)	\$67,309.00	\$58,605.25	\$335,384.50
Simonson Dey Rd. Cranbury	Bl. 25, Lots 3 & 4 Bl. 25.01, Lots 71 & 72 (Carol Applegate & Martha Jany)*	1999	0	75.9600	72.3467	\$6,750	\$5,800	\$274,917.46 (65.52%)	\$97,668.05	\$47,025.35	\$419,610.86
C. Gordon Stults Indian Run Associates Brickyard Rd. Cranbury	Bl. 16, Lot 4	2000	0	64.1000	62.6000	\$6,000	\$3,960	\$185,922.00 (75%)	\$61,974.00	\$0.00	\$247,896.00
Janesburg Training School Monroe	Bl. 53, Lots 11.01, 16	2000	0	570.8700	STATE-OWNED LAND	STATE-OWNED LAND					
Gasko Ltd. Partnership** Federal Rd. Monroe/Manalapan	Bl. 22, Lots 5.05, 9.01 --- Monroe Bl. 59, Lots 13.02, 13.03 -- Manalapan (Peter & Susan Gasko)*	2001	0	126.0100 - Mid. 17.8770 - Mon. 143.8870 - Total	125.1520 - Mid. 17.8280 - Mon. 142.9800 - Total	\$5,750	\$4,887.50	\$476,480.85 (68.18%)	\$164,427.00	\$57,906.90	\$698,814.75
M. & S. Sarkuni Plainsboro Rd. Cranbury	Bl. 23, Lot 2	2002		124.6660	124.6660	\$23,500*** (fee simple value) STATE TRANSACTION	STATE TRANSACTION	\$2,929,651.00 -\$ 970,000.00 \$1,959,651.00 (net after sale)	---	---	\$2,929,651.00 -\$ 970,000.00 \$1,959,651.00 (net cost after sale)
Lanier*** Dey Grove Rd. Monroe/Manalapan	Bl. 11, Lot 5.14 - Monroe Bl. 69, Lot 4 - Manalapan	2002	0	54.5630 - Mid. 23.0000 - Mon. 77.5630 - Total	54.4000 - Mid. 23.0000 - Mon. 77.4000 - Total	\$5,875	\$5,675	\$289,282.50 (65.86%)	\$ 63,920.00 - Mid. \$ 39,660.62 - Mon. \$103,580.62 - Total	\$41,480.00 - Monr. \$ 4,901.88 - Man. \$46,381.88 - Total	\$308,720.00 - Mid. \$130,525.00 - Mon. \$439,245.00 - Total
Cranbury Heights Estates 2 Township of East Brunswick (Giamarese) Fresh Ponds Rd.	Bl. 21, Lots 6 & 13 (Robert M. Swanson)	2002	0	26.5900	26.5900	Municipal Cluster Easement	Municipal Cluster Easement	Municipal Cluster Easement	---	---	---
Township of East Brunswick (Giamarese) Fresh Ponds Rd. Cranbury Neck Rd. Plainsboro	Bl. 3.10, Lots 74.01 & 73.09	2003	0	33.5080	33.4830	\$34,800	\$20,880	\$699,125.04 (43.33%)	\$233,041.68	\$681,196.13	\$1,613,362.85
Luchansky & Andrews Cranbury Neck Rd. Plainsboro	Bl. 13, Lot 6	2003	0	22.9000	22.7000	\$7,450	\$7,400	\$104,420.00 (62.16%)	\$33,823.00	\$29,737.00	\$167,980.00

Man. = Manalapan

Mid. = Middlesex County

Mon. = Monmouth County

Monr. = Monroe Township

*Current ownership

** 125.152 acres for in-county payment calculation

***54.4 acres for in-county payment calculation

APPLICANT/ MUNICIPALITY	BLOCK, LOT	YEAR PURCHASED	RDSO	TOTAL ACRES SURVEYED	TOTAL ACRES FOR PAYMENT	CERTIFIED EASEMENT VALUE PER ACRE	OFFER PER ACRE	STATE COST AND %	COUNTY COST 20% OF CERTIFIED	MUNICIPAL COST	TOTAL COST
Dennis White Nosstrand Rd. Plainshoro	Bl. 12, Lot 5.06	2003	0	24.4890	24.4890	\$11,800	\$11,800	\$173,382.12 (60%)	\$57,794.04	\$57,794.04	\$288,970.20
Cranbury/Wright North Plainsboro Rd. Cranbury	Bl. 25, Lot 31 (Princeton Research Lands, Inc.)*	2003	0	80.1290	80.1290	\$11,875	\$11,875	\$570,135.38 (60%)	\$190,045.12	\$190,045.12	\$950,225.62
Cranbury/Wright South Wheatfield Rd. Cranbury	Bl. 23, Lot 13 Q FARM (David A. Smith)*	2003	0	24.8240	24.8240	\$13,000	\$13,000	\$193,627.20 (60%)	\$64,542.40	\$64,542.40	\$322,712.00
Susan & Gary Ippoliti (Farrington Farms) Davidson Mill Rd. South Brunswick	Bl. 28, Lots 8 & 7.04	2004	0	10.7630	10.7381	\$17,500	\$16,800	\$108,240.05 (60%)	\$37,583.35	\$34,576.68	\$180,400.08
Ann Miller Cottrell Rd. Old Bridge	Bl. 10252, Lot 23	2004	0	11.9210	11.9210	\$22,500	\$20,833.33	\$149,012.50	\$52,929.24	\$46,412.39	\$248,354.13
Seven Kty Associates (AJ Kainer & KM Kainer) Dey Rd. South Brunswick	Bl. 1, Lot 16.01	2004	0	52.6300	52.6300	\$25,400	\$25,350	\$800,502.30 (60%)	\$267,360.40	\$266,307.80	\$1,334,170.50
T. Ochsner/Windhaven Monroe Township	Bl. 16, Lot 2.01	2004	0	10.1300	Municipal Cluster Easement	Municipal Cluster Easement	Municipal Cluster Easement	---	---	---	---
Robert C. Von Thun, Sr. Ridge Rd. South Brunswick	Bl. 40, Lot 7 Bl. 41, Lot 14.011	2004	0	74.9070	74.9070	\$49,400	\$49,300	\$2,215,749.06 (60%)	\$740,081.16	\$737,084.88	\$3,692,915.10
Kovacs Estate Federal Rd. Monroe Township	Bl. 19, Lot 4 Block 20, Lot 22 (Jack Galicynski)*	2004	0	43.1440	42.4810	\$8,500	\$8,500	\$218,777.15 (60.59%)	\$72,217.70	\$70,093.65	\$361,088.50
Michael & Sharon Birardi Cymbeline Drive Old Bridge	Bl. 13000.16, Lot 15.11	2004	0	59.0610	59.0610	\$70,200	\$59,670	\$2,290,710.42 (65%)	\$829,216.44	\$404,243.01	\$3,524,169.87
Skeba/Southfield Estates Monroe Township	Bl. 4, Lot 2.08 Bl. 13, Lot 9.05 Bl. 6, Lot 4.02	2004	0	252.6095	Municipal Cluster Easement	Municipal Cluster Easement	Municipal Cluster Easement	---	---	---	---
Kissler Farm/D&R Greenway Cranbury	Bl. 22, Lot 11	2004/2006	0	31.8630	31.8630	D&R GREENWAY TRANSACTION	N/A	\$500,000.00 (57.14%)	N/A	\$375,000.00 - NP	\$875,000.00
E. Barelay Family & Trust/Cranbury Ancil Davison Rd., Cranbury	Bl. 22, Lot 7	2004/2006	0	77.3420	77.3420	CRANBURY TWP. TRANSACTION	\$19,200 (SADC only)	\$1,187,973.12 - SADC \$ 296,993.28 - FF \$1,484,966.40 - Total (94.30%)	\$0.00	\$89,738.60 (net after sale)	\$1,574,705.00 (net after sale)
Simonson Family Associates- Cranbury Neck Rd. Cranbury	Bl. 23, Lot 102.01	2004/2006	0	128.8920	128.8920	CRANBURY TWP. TRANSACTION	\$17,920 (SADC only)	\$2,224,893.44 (55.62%)	\$0.00	\$1,775,106.56 (44.38%)	\$4,000,000.00
Cranbury/Barelay Farms 147 Plainsboro Rd., Cranbury 123 North Main St., Cranbury	Bl. 23, Lot 12.01 Bl. 25, Lot 19.01	2004	0	182.7140	182.7140	CRANBURY/STATE TRANSACTION	\$11,520 (SADC only)	\$2,104,865.28 (>100%)	N/A	-\$1,217,370.28 (net after sale)	\$887,495.00 (net after sale)
Edward Budrewicz 62 Gravel Hill Spotswood Rd. Monroe Township	Bl. 31, Lot 13.02	2005	0	28.6410	28.6410	\$22,500	\$22,500	\$386,653.50 (60%)	\$128,884.50	\$128,884.50	\$644,422.50

NP = Non-Profit Organization Mon. = Monmouth County FF = Federal Funds Mid. = Middlesex County

APPLICANT/ MUNICIPALITY	BLOCK, LOT	YEAR PURCHASED	RDSO	TOTAL ACRES SURVEYED	TOTAL ACRES FOR PAYMENT	CERTIFIED EASEMENT VALUE PER ACRE	OFFER PER ACRE	STATE COST AND %	COUNTY COST 20% OF CERTIFIED	MUNICIPAL COST	TOTAL COST
William J. Warren III Fresh Ponds Rd. East Brunswick	Bl. 310, Lots 64.1, 65, 70, 72	2005	0	47.4560	47.4157	\$36,750	\$35,000	\$995,729.70 (60%)	\$348,505.40	\$315,314.40	\$1,659,549.50
Barrie & Geraldine Barclay 25-45 Orchardside Dr. So. Brunswick	Bl. 1, Lot 6.052	2006	0	22.7920	22.7920	\$36,300	\$36,300	\$496,409.76 (60%)	\$165,469.92	\$165,469.92	\$827,349.60
John & Evelyn Gasko 113 Federal Rd. Monroe	Bl. 22, Lot 2.04	2006	0	36.7240	36.3990	\$9,000	\$9,000	\$157,243.68 - SADC \$ 39,310.92 - FF \$196,554.60 - Total (60%)	\$65,518.20	\$39,310.92 - Monroe \$26,207.28 - FF \$65,518.20 - Total	\$327,591.00
Co-Trustees of J.H. Barclay Trust 11-23 Orchardside Dr. So. Brunswick	Bl. 1, Lot 6.053	2007	0	149.2740	148.8180	\$21,300	\$21,300	\$1,901,894.04 (60%)	\$633,964.68	\$633,964.68	\$3,169,823.40
Barbara Byrne Schauer 242 Cranbury Station Rd. Monroe Township	Bl. 25, Lot 19.05	2007	0	26.9858	26.9823	\$66,000	\$66,000	\$1,046,913.20 (58.79%)	\$356,166.36	\$377,752.24	\$1,780,831.80
William & Sharon Farmer 113 Old Forge Rd. Monroe	Bl. 107, Lot 2.07	2007	0	9.3920	9.056	\$50,000	\$45,000	\$244,512.00 (60%)	\$90,560.00	\$72,448.00	\$407,520.00
GRAND TOTAL				4,825.8100 - Mid. 40,8770 - Mon. 4,866,6870 - Total	3,561.0258 - Mid. 40,8280 - Mon. 3,601.8538 - Total			\$34,193,881.83 - SADC \$ 336,304.20 - FF \$34,530,186.03 - Total (67.34%)	\$8,786,262.97 - Mid. \$ 39,660,62 - Mon. \$8,825,923.59 - Total (17.22%)	\$7,884,613.66 - Mun. \$ 26,207.28 - FF \$7,910,820.94 - Total (15.43%)	\$51,266,930.56

FF = Federal Funds Mid. = Middlesex County Mon. = Monmouth County Mun. = Municipal

MUNICIPALLY APPROVED FARMLAND PRESERVATION PROGRAM

APPLICANT/ MUNICIPALITY	BLOCK, LOT	ACRES	DATE OF AGREEMENT	AGREEMENT EXPIRATION DATE
Henry Realty Co., LLC 1234 South River Rd. Cranbury	B1.2, Lot 1	21.25	September 9, 2004	November 17, 2012

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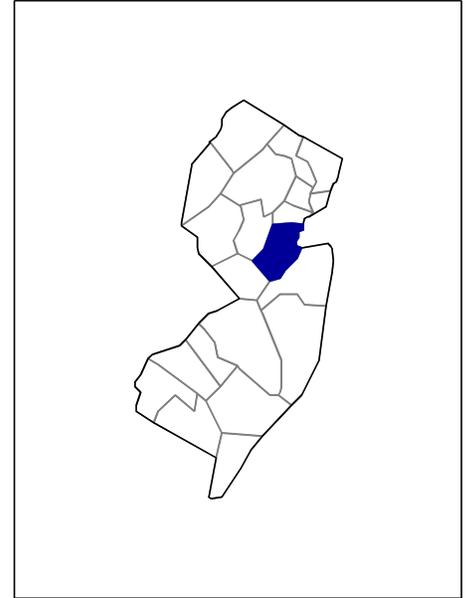
APPENDIX B

2002 CENSUS OF AGRICULTURE PROFILES

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2002 Census of Agriculture County Profile

Middlesex, New Jersey



Number of farms

275 farms in 2002, 300 farms in 1997, down 8 percent.

Land in farms

21,824 acres in 2002, 28,635 acres in 1997, down 24 percent.

Average size of farm

79 acres in 2002, 95 acres in 1997, down 17 percent.

Market Value of Production

\$22,703,000 in 2002, \$34,468,000 in 1997, down 34 percent.

Crop sales accounted for \$21,296,000 of the total value in 2002.

Livestock sales accounted for \$1,407,000 of the total value in 2002.

Market Value of Production, average per farm

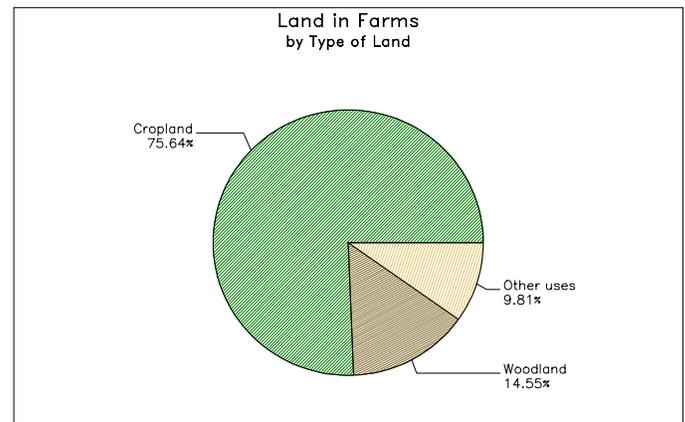
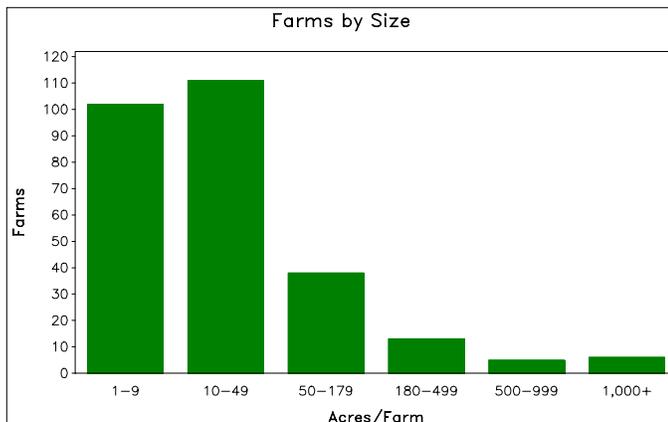
\$82,555 in 2002, \$114,894 in 1997, down 28 percent.

Government Payments

\$177,000 in 2002, \$136,000 in 1997, up 30 percent.

Government Payments, average per farm receiving payments

\$16,062 in 2002, \$5,055 in 1997, up 218 percent.



**2002 Census of Agriculture
County Profile
United States Department of Agriculture, New Jersey Agricultural Statistics Service**

Middlesex, New Jersey

Ranked items among the 21 state counties and 3,078 U.S. counties, 2002

Item	Quantity	State Rank	Universe ¹	U.S. Rank	Universe ¹
MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD (\$1,000)					
Total value of agricultural products sold	22,703	10	20	1,975	3,075
Value of crops including nursery and greenhouse	21,296	9	20	1,122	3,070
Value of livestock, poultry, and their products	1,407	11	20	2,805	3,070
VALUE OF SALES BY COMMODITY GROUP (\$1,000)					
Grains, oilseeds, dry beans, and dry peas	1,787	8	16	1,603	2,871
Tobacco	-	-	-	-	560
Cotton and cottonseed	-	-	-	-	656
Vegetables, melons, potatoes, and sweet potatoes	3,699	9	20	380	2,747
Fruits, tree nuts, and berries	311	15	20	711	2,638
Nursery, greenhouse, floriculture, and sod	15,073	8	20	185	2,708
Cut Christmas trees and short rotation woody crops	277	8	18	196	1,774
Other crops and hay	149	13	18	2,659	3,046
Poultry and eggs	17	15	20	1,760	2,918
Cattle and calves	116	11	19	2,957	3,053
Milk and other dairy products from cows	-	-	11	-	2,493
Hogs and pigs	(D)	(D)	18	(D)	2,919
Sheep, goats, and their products	(D)	(D)	18	(D)	2,997
Horses, ponies, mules, burros, and donkeys	128	14	20	1,545	3,014
Aquaculture	-	-	14	-	1,520
Other animals and other animal products	(D)	(D)	20	(D)	2,727
TOP LIVESTOCK INVENTORY ITEMS (number)					
Layers 20 weeks old and older	1,417	11	19	1,155	2,983
Horses and ponies	689	13	20	1,765	3,065
Hogs and pigs	617	8	18	1,535	2,926
Colonies of bees	(D)	5	20	(D)	2,392
Broilers and other meat-type chickens	363	10	18	1,237	2,599
TOP CROP ITEMS (acres)					
Soybeans	6,370	7	16	1,143	2,076
Corn for grain	3,855	6	17	1,378	2,592
All Vegetables harvested	2,089	8	20	273	2,710
Forage - land used for all hay and haylage, grass silage, and greenchop	1,236	13	19	2,849	3,059
Spinach	(D)	1	11	(D)	377

Other County Highlights

Economic Characteristics	Quantity
Farms by value of sales	
Less than \$1,000	80
\$1,000 to \$2,499	53
\$2,500 to \$4,999	25
\$5,000 to \$9,999	24
\$10,000 to \$19,999	26
\$20,000 to \$24,999	10
\$25,000 to \$39,999	9
\$40,000 to \$49,999	2
\$50,000 to \$99,999	10
\$100,000 to \$249,999	20
\$250,000 to \$499,999	8
\$500,000 or more	8
Total farm production expenses (\$1,000)	17,740
Average per farm (\$)	64,275
Net cash farm income of operation (\$1,000)	6,800
Average per farm (\$)	24,639

Operator Characteristics	Quantity
Principal operators by primary occupation:	
Farming	154
Other	121
Principal operators by sex:	
Male	245
Female	30
Average age of principal operator (years)	57.1
All operators ² by race:	
White	395
Black or African American	6
American Indian or Alaska Native	-
Native Hawaiian or Other Pacific Islander	-
Asian	13
More than one race	-
All operators ² of Spanish, Hispanic, or Latino Origin	10

(D) Cannot be disclosed. (Z) Less than half of the unit shown. See "Census of Agriculture, Volume 1, Geographic Area Series" for complete footnotes.

¹ Universe is number of counties in state or U.S. with item.

² Data were collected for a maximum of three operators per farm.

2002 Census of Agriculture State Profile

New Jersey

Number of farms

9,924 farms in 2002, 10,045 farms in 1997, down 1 percent.

Land in farms

805,682 acres in 2002, 856,909 acres in 1997, down 6 percent.

Average size of farm

81 acres in 2002, 85 acres in 1997, down 5 percent.

Market Value of Production

\$749,872,000 in 2002, \$707,161,000 in 1997, up 6 percent.

Crop sales accounted for \$657,494,000 of the total value in 2002.

Livestock sales accounted for \$92,378,000 of the total value in 2002.

Market Value of Production, average per farm

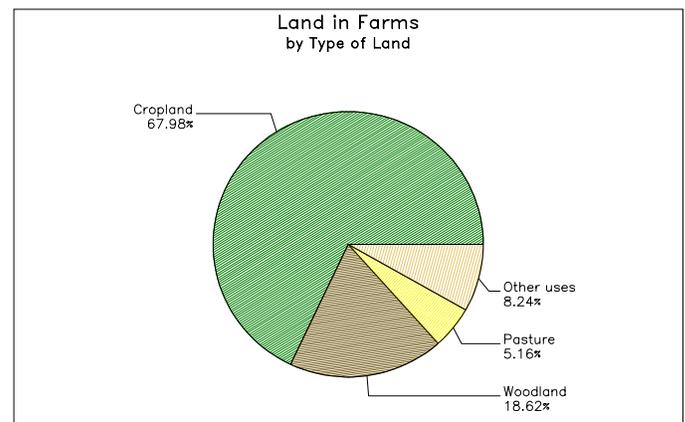
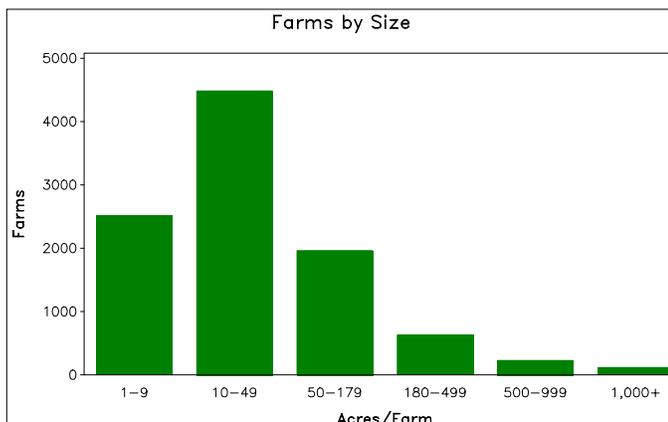
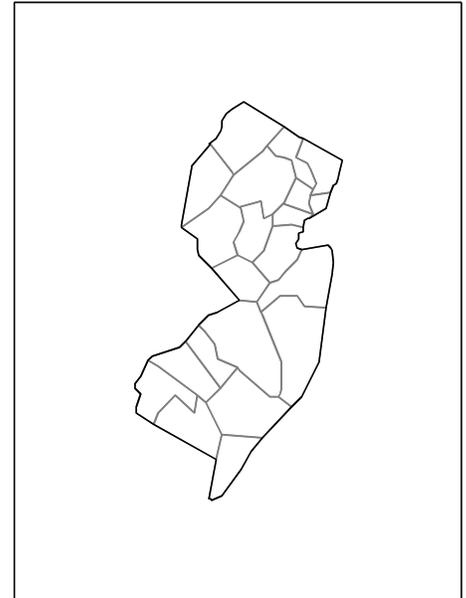
\$75,561 in 2002, \$70,399 in 1997, up 7 percent.

Government Payments

\$4,441,000 in 2002, \$3,001,000 in 1997, up 48 percent.

Government Payments, average per farm receiving payments

\$7,630 in 2002, \$4,631 in 1997, up 65 percent.



**2002 Census of Agriculture
State Profile
United States Department of Agriculture, New Jersey Agricultural Statistics Service**

New Jersey

Ranked items within U.S., 2002

Item	Quantity	U.S. Rank	Universe ¹
MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD (\$1,000)			
Total value of agricultural products sold	749,872	39	50
Value of crops including nursery and greenhouse	657,494	33	50
Value of livestock, poultry, and their products	92,378	46	50
VALUE OF SALES BY COMMODITY GROUP (\$1,000)			
Grains, oilseeds, dry beans, and dry peas	29,885	39	50
Tobacco	-	-	23
Cotton and cottonseed	-	-	17
Vegetables, melons, potatoes and sweet potatoes	167,956	15	50
Fruits, tree nuts, and berries	87,148	13	50
Nursery, greenhouse, floriculture, and sod	356,863	11	50
Cut Christmas trees and short rotation woody crops	3,852	15	50
Other crops and hay	11,791	44	50
Poultry and eggs	26,041	37	50
Cattle and calves	7,094	45	50
Milk and other dairy products from cows	29,154	45	50
Hogs and pigs	2,313	40	50
Sheep, goats, and their products	1,482	37	50
Horses, ponies, mules, burros, and donkeys	18,314	16	50
Aquaculture	2,223	38	50
Other animals and other animal products	5,758	32	50
TOP LIVESTOCK INVENTORY ITEMS (number)			
Layers 20 weeks old and older	2,065,685	33	50
Pheasants	155,168	4	50
Quail	44,798	19	50
Cattle and calves	41,747	46	50
Ducks	30,149	7	50
TOP CROP ITEMS (acres)			
Forage - land used for all hay and haylage, grass silage, and greenchop	119,052	43	50
Soybeans	96,032	29	41
Corn for grain	66,128	32	49
All Vegetables harvested	59,024	14	50
All Wheat for grain	30,460	38	48

Other State Highlights

Economic Characteristics	Quantity
Farms by value of sales	
Less than \$1,000	2,927
\$1,000 to \$2,499	2,306
\$2,500 to \$4,999	991
\$5,000 to \$9,999	820
\$10,000 to \$19,999	692
\$20,000 to \$24,999	259
\$25,000 to \$39,999	347
\$40,000 to \$49,999	142
\$50,000 to \$99,999	381
\$100,000 to \$249,999	463
\$250,000 to \$499,999	256
\$500,000 or more	340
Total farm production expenses (\$1,000)	647,202
Average per farm (\$)	65,242
Net cash farm income of operation (\$1,000)	149,535
Average per farm (\$)	15,074

Operator Characteristics	Quantity
Principal operators by primary occupation:	
Farming	5,193
Other	4,731
Principal operators by sex:	
Male	8,002
Female	1,922
Average age of principal operator (years)	55.1
All operators ² by race:	
White	14,715
Black or African American	107
American Indian or Alaska Native	33
Native Hawaiian or Other Pacific Islander	2
Asian	100
More than one race	55
All operators ² of Spanish, Hispanic, or Latino Origin	239

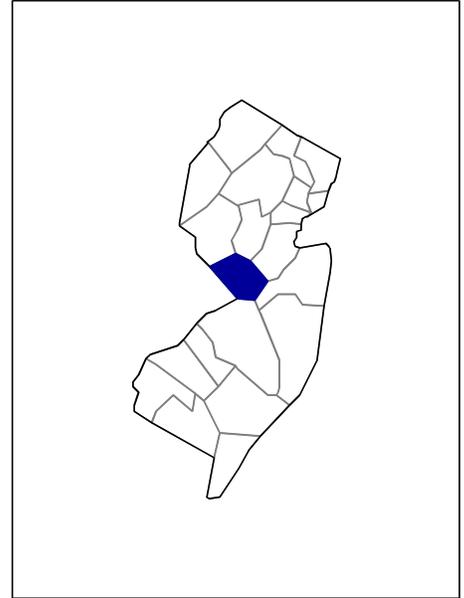
(D) Cannot be disclosed. See "Census of Agriculture, Volume 1, Geographic Area Series" for complete footnotes.

¹ Universe is number of states in U.S. with item.

² Data were collected for a maximum of three operators per farm.

2002 Census of Agriculture County Profile

Mercer, New Jersey



Number of farms

304 farms in 2002, 309 farms in 1997, down 2 percent.

Land in farms

25,070 acres in 2002, 28,395 acres in 1997, down 12 percent.

Average size of farm

82 acres in 2002, 92 acres in 1997, down 11 percent.

Market Value of Production

\$12,247,000 in 2002, \$13,292,000 in 1997, down 8 percent.

Crop sales accounted for \$10,904,000 of the total value in 2002.

Livestock sales accounted for \$1,343,000 of the total value in 2002.

Market Value of Production, average per farm

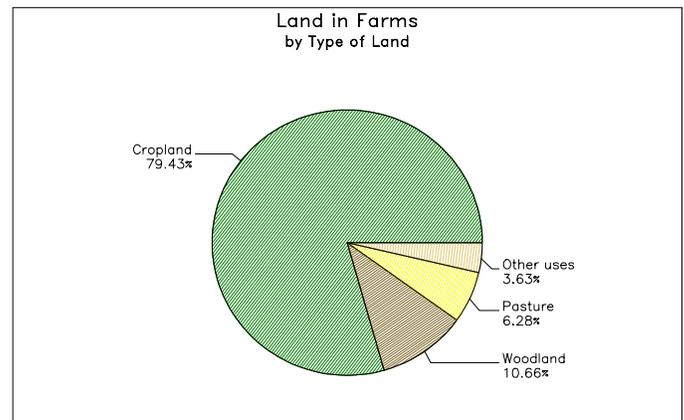
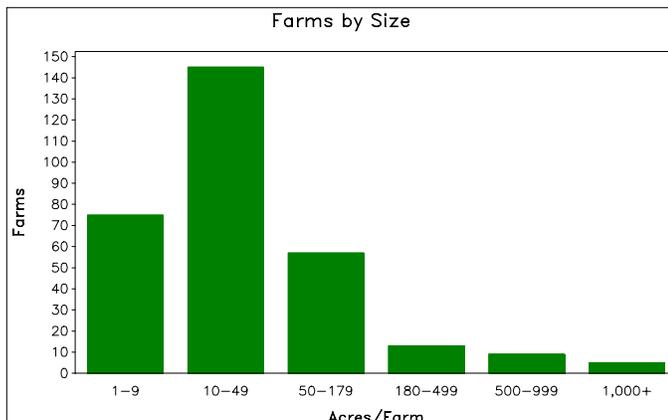
\$40,286 in 2002, \$43,016 in 1997, down 6 percent.

Government Payments

\$140,000 in 2002, \$185,000 in 1997, down 24 percent.

Government Payments, average per farm receiving payments

\$4,815 in 2002, \$4,207 in 1997, up 14 percent.



**2002 Census of Agriculture
County Profile
United States Department of Agriculture, New Jersey Agricultural Statistics Service**

Mercer, New Jersey

Ranked items among the 21 state counties and 3,078 U.S. counties, 2002

Item	Quantity	State Rank	Universe ¹	U.S. Rank	Universe ¹
MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD (\$1,000)					
Total value of agricultural products sold	12,247	14	20	2,398	3,075
Value of crops including nursery and greenhouse	10,904	12	20	1,590	3,070
Value of livestock, poultry, and their products	1,343	12	20	2,813	3,070
VALUE OF SALES BY COMMODITY GROUP (\$1,000)					
Grains, oilseeds, dry beans, and dry peas	1,918	6	16	1,580	2,871
Tobacco	-	-	-	-	560
Cotton and cottonseed	-	-	-	-	656
Vegetables, melons, potatoes, and sweet potatoes	2,014	11	20	531	2,747
Fruits, tree nuts, and berries	561	12	20	494	2,638
Nursery, greenhouse, floriculture, and sod	6,125	14	20	401	2,708
Cut Christmas trees and short rotation woody crops	44	16	18	677	1,774
Other crops and hay	242	11	18	2,430	3,046
Poultry and eggs	(D)	(D)	20	(D)	2,918
Cattle and calves	78	12	19	2,981	3,053
Milk and other dairy products from cows	(D)	(D)	11	(D)	2,493
Hogs and pigs	4	16	18	2,589	2,919
Sheep, goats, and their products	28	11	18	1,683	2,997
Horses, ponies, mules, burros, and donkeys	453	8	20	441	3,014
Aquaculture	(D)	(D)	14	(D)	1,520
Other animals and other animal products	34	11	20	1,298	2,727
TOP LIVESTOCK INVENTORY ITEMS (number)					
Turkeys	(D)	1	18	(D)	2,328
Layers 20 weeks old and older	1,220	14	19	1,244	2,983
Horses and ponies	818	10	20	1,542	3,065
Sheep and lambs	764	9	18	1,162	2,867
Cattle and calves	536	10	19	2,975	3,059
TOP CROP ITEMS (acres)					
Soybeans	8,244	4	16	1,077	2,076
Corn for grain	3,159	7	17	1,433	2,592
Forage - land used for all hay and haylage, grass silage, and greenchop	2,012	11	19	2,739	3,059
All Vegetables harvested	722	14	20	529	2,710
All Wheat for grain	646	10	16	1,704	2,517

Other County Highlights

Economic Characteristics	Quantity
Farms by value of sales	
Less than \$1,000	90
\$1,000 to \$2,499	73
\$2,500 to \$4,999	24
\$5,000 to \$9,999	22
\$10,000 to \$19,999	18
\$20,000 to \$24,999	14
\$25,000 to \$39,999	12
\$40,000 to \$49,999	4
\$50,000 to \$99,999	17
\$100,000 to \$249,999	16
\$250,000 to \$499,999	8
\$500,000 or more	6
Total farm production expenses (\$1,000)	15,284
Average per farm (\$)	50,113
Net cash farm income of operation (\$1,000)	729
Average per farm (\$)	2,390

Operator Characteristics	Quantity
Principal operators by primary occupation:	
Farming	141
Other	163
Principal operators by sex:	
Male	247
Female	57
Average age of principal operator (years)	55.8
All operators ² by race:	
White	444
Black or African American	2
American Indian or Alaska Native	-
Native Hawaiian or Other Pacific Islander	-
Asian	5
More than one race	2
All operators ² of Spanish, Hispanic, or Latino Origin	14

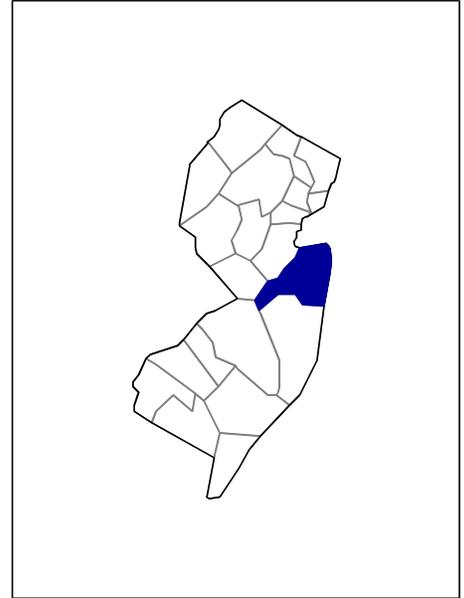
(D) Cannot be disclosed. (Z) Less than half of the unit shown. See "Census of Agriculture, Volume 1, Geographic Area Series" for complete footnotes.

¹ Universe is number of counties in state or U.S. with item.

² Data were collected for a maximum of three operators per farm.

2002 Census of Agriculture County Profile

Monmouth, New Jersey



Number of farms

892 farms in 2002, 977 farms in 1997, down 9 percent.

Land in farms

47,198 acres in 2002, 61,358 acres in 1997, down 23 percent.

Average size of farm

53 acres in 2002, 63 acres in 1997, down 16 percent.

Market Value of Production

\$81,551,000 in 2002, \$68,841,000 in 1997, up 18 percent.

Crop sales accounted for \$72,701,000 of the total value in 2002.

Livestock sales accounted for \$8,850,000 of the total value in 2002.

Market Value of Production, average per farm

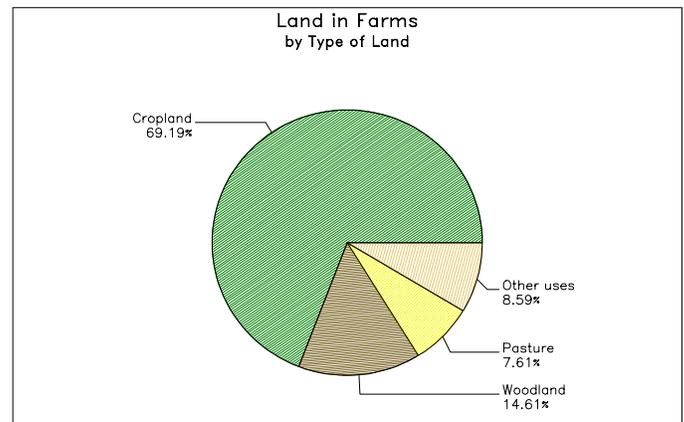
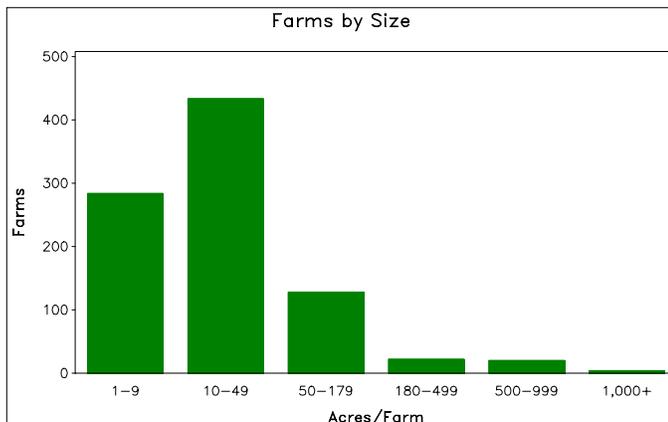
\$91,425 in 2002, \$70,461 in 1997, up 30 percent.

Government Payments

\$127,000 in 2002, \$222,000 in 1997, down 43 percent.

Government Payments, average per farm receiving payments

\$5,094 in 2002, \$5,997 in 1997, down 15 percent.



**2002 Census of Agriculture
County Profile
United States Department of Agriculture, New Jersey Agricultural Statistics Service**

Monmouth, New Jersey

Ranked items among the 21 state counties and 3,078 U.S. counties, 2002

Item	Quantity	State Rank	Universe ¹	U.S. Rank	Universe ¹
MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD (\$1,000)					
Total value of agricultural products sold	81,551	3	20	685	3,075
Value of crops including nursery and greenhouse	72,701	4	20	267	3,070
Value of livestock, poultry, and their products	8,850	4	20	1,973	3,070
VALUE OF SALES BY COMMODITY GROUP (\$1,000)					
Grains, oilseeds, dry beans, and dry peas	1,856	7	16	1,591	2,871
Tobacco	-	-	-	-	560
Cotton and cottonseed	-	-	-	-	656
Vegetables, melons, potatoes, and sweet potatoes	8,621	6	20	192	2,747
Fruits, tree nuts, and berries	1,288	7	20	304	2,638
Nursery, greenhouse, floriculture, and sod	59,625	2	20	48	2,708
Cut Christmas trees and short rotation woody crops	361	5	18	160	1,774
Other crops and hay	950	5	18	1,287	3,046
Poultry and eggs	(D)	(D)	20	(D)	2,918
Cattle and calves	145	9	19	2,942	3,053
Milk and other dairy products from cows	-	-	11	-	2,493
Hogs and pigs	11	14	18	2,287	2,919
Sheep, goats, and their products	94	4	18	845	2,997
Horses, ponies, mules, burros, and donkeys	6,007	1	20	15	3,014
Aquaculture	(D)	(D)	14	(D)	1,520
Other animals and other animal products	(D)	(D)	20	(D)	2,727
TOP LIVESTOCK INVENTORY ITEMS (number)					
Layers 20 weeks old and older	(D)	3	19	(D)	2,983
Horses and ponies	5,029	1	20	49	3,065
Turkeys	(D)	3	18	(D)	2,328
Pigeons	1,165	2	13	32	1,368
Pheasants ³	(D)	(D)	14	(D)	1,541
TOP CROP ITEMS (acres)					
Soybeans	6,015	8	16	1,158	2,076
Nursery stock	5,188	2	20	9	2,129
Forage - land used for all hay and haylage, grass silage, and greenchop	4,476	7	19	2,376	3,059
All Vegetables harvested	2,953	6	20	217	2,710
Corn for grain	2,495	8	17	1,499	2,592

Other County Highlights

Economic Characteristics	Quantity	Operator Characteristics	Quantity
Farms by value of sales		Principal operators by primary occupation:	
Less than \$1,000	269	Farming	507
\$1,000 to \$2,499	174	Other	385
\$2,500 to \$4,999	72	Principal operators by sex:	
\$5,000 to \$9,999	70	Male	684
\$10,000 to \$19,999	91	Female	208
\$20,000 to \$24,999	36	Average age of principal operator (years)	55.2
\$25,000 to \$39,999	35	All operators ² by race:	
\$40,000 to \$49,999	15	White	1,342
\$50,000 to \$99,999	41	Black or African American	22
\$100,000 to \$249,999	35	American Indian or Alaska Native	2
\$250,000 to \$499,999	25	Native Hawaiian or Other Pacific Islander	-
\$500,000 or more	29	Asian	17
Total farm production expenses (\$1,000)	67,461	More than one race	2
Average per farm (\$)	75,884	All operators ² of Spanish, Hispanic, or Latino Origin	26
Net cash farm income of operation (\$1,000)	19,551		
Average per farm (\$)	21,992		

(D) Cannot be disclosed. (Z) Less than half of the unit shown. See "Census of Agriculture, Volume 1, Geographic Area Series" for complete footnotes.

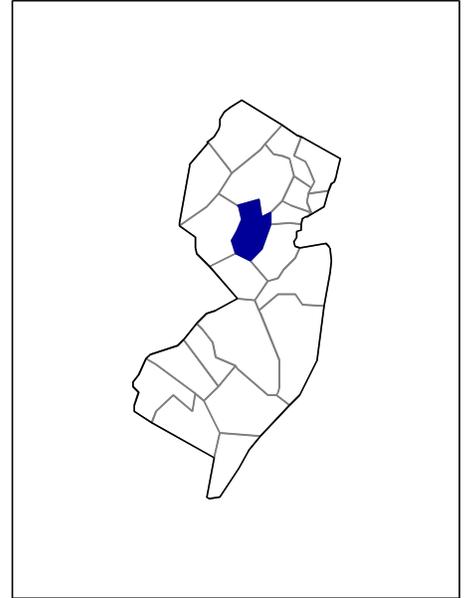
¹ Universe is number of counties in state or U.S. with item.

² Data were collected for a maximum of three operators per farm.

³ Items with a rank that cannot be disclosed are separated by a blank line, position in table does not indicate rank.

2002 Census of Agriculture County Profile

Somerset, New Jersey



Number of farms

442 farms in 2002, 486 farms in 1997, down 9 percent.

Land in farms

36,237 acres in 2002, 48,299 acres in 1997, down 25 percent.

Average size of farm

82 acres in 2002, 99 acres in 1997, down 17 percent.

Market Value of Production

\$15,064,000 in 2002, \$14,602,000 in 1997, up 3 percent.

Crop sales accounted for \$8,264,000 of the total value in 2002.

Livestock sales accounted for \$6,800,000 of the total value in 2002.

Market Value of Production, average per farm

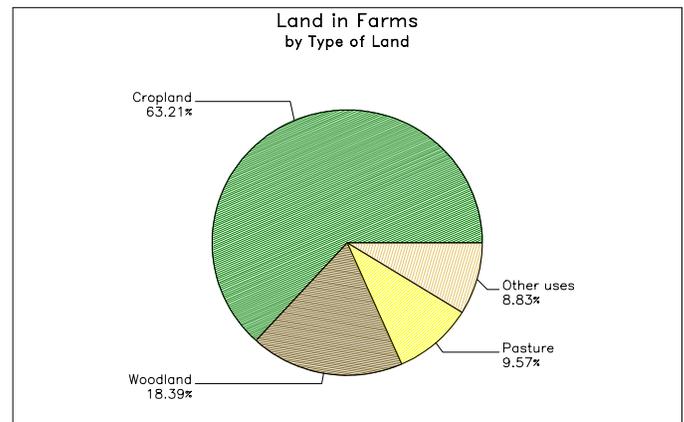
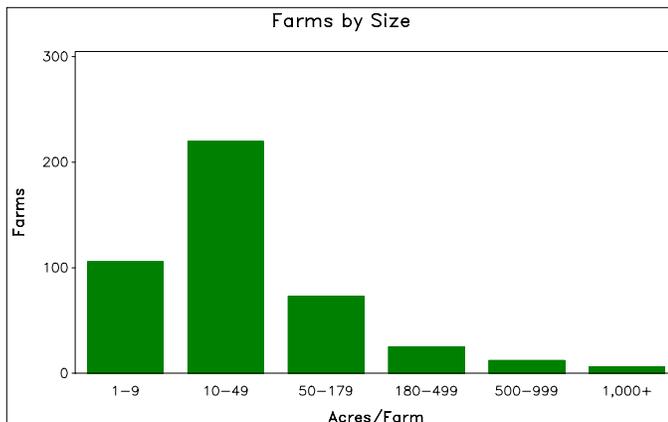
\$34,081 in 2002, \$30,045 in 1997, up 13 percent.

Government Payments

\$210,000 in 2002, \$154,000 in 1997, up 36 percent.

Government Payments, average per farm receiving payments

\$8,393 in 2002, \$4,805 in 1997, up 75 percent.



**2002 Census of Agriculture
County Profile
United States Department of Agriculture, New Jersey Agricultural Statistics Service**

Somerset, New Jersey

Ranked items among the 21 state counties and 3,078 U.S. counties, 2002

Item	Quantity	State Rank	Universe ¹	U.S. Rank	Universe ¹
MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD (\$1,000)					
Total value of agricultural products sold	15,064	11	20	2,269	3,075
Value of crops including nursery and greenhouse	8,264	15	20	1,785	3,070
Value of livestock, poultry, and their products	6,800	6	20	2,150	3,070
VALUE OF SALES BY COMMODITY GROUP (\$1,000)					
Grains, oilseeds, dry beans, and dry peas	757	10	16	1,854	2,871
Tobacco	-	-	-	-	560
Cotton and cottonseed	-	-	-	-	656
Vegetables, melons, potatoes, and sweet potatoes	173	18	20	1,434	2,747
Fruits, tree nuts, and berries	249	16	20	802	2,638
Nursery, greenhouse, floriculture, and sod	6,089	15	20	403	2,708
Cut Christmas trees and short rotation woody crops	248	9	18	221	1,774
Other crops and hay	748	7	18	1,533	3,046
Poultry and eggs	(D)	(D)	20	(D)	2,918
Cattle and calves	(D)	(D)	19	(D)	3,053
Milk and other dairy products from cows	1,315	8	11	1,231	2,493
Hogs and pigs	16	13	18	2,148	2,919
Sheep, goats, and their products	53	9	18	1,218	2,997
Horses, ponies, mules, burros, and donkeys	661	5	20	244	3,014
Aquaculture	(D)	(D)	14	(D)	1,520
Other animals and other animal products	(D)	(D)	20	(D)	2,727
TOP LIVESTOCK INVENTORY ITEMS (number)					
Broilers and other meat-type chickens	(D)	1	18	(D)	2,599
Layers 20 weeks old and older	9,122	4	19	752	2,983
Cattle and calves	2,838	6	19	2,725	3,059
Pheasants ³	(D)	(D)	14	(D)	1,541
Quail ³	(D)	(D)	12	(D)	1,412
TOP CROP ITEMS (acres)					
Forage - land used for all hay and haylage, grass silage, and greenchop	8,525	5	19	1,920	3,059
All Wheat for grain	2,043	6	16	1,291	2,517
Corn for grain	1,823	10	17	1,595	2,592
Soybeans	1,640	10	16	1,420	2,076
Corn for silage	813	7	14	1,202	2,307

Other County Highlights

Economic Characteristics	Quantity	Operator Characteristics	Quantity
Farms by value of sales		Principal operators by primary occupation:	
Less than \$1,000	114	Farming	191
\$1,000 to \$2,499	127	Other	251
\$2,500 to \$4,999	47	Principal operators by sex:	
\$5,000 to \$9,999	44	Male	355
\$10,000 to \$19,999	29	Female	87
\$20,000 to \$24,999	11	Average age of principal operator (years)	56.2
\$25,000 to \$39,999	17	All operators ² by race:	
\$40,000 to \$49,999	9	White	648
\$50,000 to \$99,999	15	Black or African American	3
\$100,000 to \$249,999	20	American Indian or Alaska Native	2
\$250,000 to \$499,999	3	Native Hawaiian or Other Pacific Islander	-
\$500,000 or more	6	Asian	5
Total farm production expenses (\$1,000)	14,187	More than one race	1
Average per farm (\$)	32,243	All operators ² of Spanish, Hispanic, or Latino Origin	17
Net cash farm income of operation (\$1,000)	1,346		
Average per farm (\$)	3,059		

(D) Cannot be disclosed. (Z) Less than half of the unit shown. See "Census of Agriculture, Volume 1, Geographic Area Series" for complete footnotes.

¹ Universe is number of counties in state or U.S. with item.

² Data were collected for a maximum of three operators per farm.

³ Items with a rank that cannot be disclosed are separated by a blank line, position in table does not indicate rank.

New Jersey

State and County Data

Volume 1, Geographic Area Series
Part 30

AC-02-A-30

2002

CENSUS OF AGRICULTURE

Issued June 2004

U.S. Department of Agriculture
Ann M. Veneman, Secretary
Dr. Joseph J. Jen, Under Secretary for
Research, Education, and Economics
NATIONAL AGRICULTURAL STATISTICS SERVICE
R. Ronald Bosecker, Administrator

Table 1. County Summary Highlights: 2002

[For meaning of abbreviations and symbols, see introductory text]

Item	New Jersey	Atlantic	Bergen	Burlington	Camden	Cape May	Cumberland
Farms	9,924	456	91	906	216	197	616
Land in farms	805,682	30,337	1,283	111,237	10,259	10,037	71,097
Average size of farm	81	67	14	123	47	51	115
Median size of farm	22	21	6	21	15	21	30
Estimated market value of land and buildings ¹ :							
Average per farm	741,808	414,096	684,924	867,945	519,176	341,959	585,323
Average per acre	9,245	5,796	48,159	6,778	11,446	7,049	4,714
Estimated market value of all machinery and equipment ¹ :							
Average per farm	53,954	76,470	32,405	65,531	34,859	31,825	88,585
Farms by size:							
1 to 9 acres	2,511	94	61	240	65	45	124
10 to 49 acres	4,481	229	24	387	106	107	263
50 to 179 acres	1,959	95	5	162	36	34	138
180 to 499 acres	629	30	1	55	6	9	58
500 to 999 acres	228	5	-	30	1	2	20
1,000 acres or more	116	3	-	32	2	-	13
Total cropland	8,342	392	71	759	203	167	556
Harvested cropland	547,668	19,151	660	67,466	6,686	5,450	54,430
Irrigated land	2,124	186	43	248	75	67	258
Market value of agricultural products sold (see text)	749,872	78,508	7,564	83,253	13,638	11,251	122,672
Average per farm	75,561	172,166	83,123	91,891	63,141	57,110	199,143
Crops	657,494	77,718	7,293	72,869	13,509	10,760	119,958
Livestock, poultry, and their products	92,378	790	271	10,384	130	491	2,715
Farms by value of sales:							
Less than \$2,500	5,233	193	32	415	119	105	229
\$2,500 to \$4,999	991	46	9	81	16	24	55
\$5,000 to \$9,999	820	35	2	78	17	19	53
\$10,000 to \$24,999	951	48	18	88	21	18	52
\$25,000 to \$49,999	489	27	7	56	14	7	44
\$50,000 to \$99,999	381	17	6	59	6	8	37
\$100,000 or more	1,059	90	17	129	23	16	146
Government payments	582	10	1	53	4	2	47
Total income from farm-related sources, gross before taxes and expenses (see text)	4,441	(D)	(D)	629	(D)	(D)	254
Total farm production expenses ¹	2,850	88	14	272	48	30	164
Average per farm	37,345	(D)	385	6,731	209	334	1,886
Net cash farm income of operation (see text) ¹	9,920	456	90	909	215	199	616
Average per farm	149,535	26,616	2,010	22,164	3,775	5,351	32,421
Principal operator by primary occupation:							
Farming	5,193	289	49	511	124	126	381
Other	4,731	167	42	395	92	71	235
Principal operator by days worked off farm:							
Any	5,560	254	40	488	111	113	311
200 days or more	3,862	168	22	336	80	74	232
Livestock and poultry:							
Cattle and calves inventory	1,513	20	5	65	22	19	47
Beef cows	41,747	93	46	3,695	106	85	1,629
Milk cows	535	7	2	23	5	2	12
Cattle and calves sold	8,037	28	(D)	734	21	(D)	211
Hogs and pigs inventory	136	-	-	8	-	-	5
Hogs and pigs sold	12,497	-	-	1,548	-	-	591
Sheep and lambs inventory	1,227	18	3	57	17	11	27
Layers 20 weeks old and older inventory	15,540	44	11	2,012	53	41	430
Broilers and other meat-type chickens sold	357	12	-	19	8	7	16
Sheep and lambs sold	14,162	(D)	-	722	222	1,984	1,315
Wheat for grain, All	378	15	-	25	8	8	17
Oats for grain	30,820	385	11	2,196	334	2,280	(D)
Wheat for grain, Winter	894	15	-	48	13	10	23
Oats for grain, Winter	15,336	276	129	849	115	158	229
Wheat for grain, Spring	1,042	27	7	88	14	34	36
Oats for grain, Spring	2,065,685	1,272	3,082	6,037	422	863	1,801
Broilers and other meat-type chickens sold	154	2	1	11	2	2	6
Selected crops harvested:							
Corn for grain	691	25	1	63	17	8	42
Corn for silage or greenchop	66,128	493	(D)	7,226	174	(D)	4,673
Wheat for grain	4,031,251	18,310	(D)	506,835	5,703	(D)	227,757
Wheat for grain, All	261	3	-	20	-	-	8
Wheat for grain, Winter	14,328	14	-	1,386	-	-	712
Wheat for grain, Spring	162,232	84	-	21,252	-	-	6,845
Oats for grain	418	2	-	30	8	1	59
Oats for grain, Winter	30,460	(D)	-	3,428	376	(D)	6,682
Oats for grain, Spring	1,717,558	(D)	-	146,598	20,900	(D)	421,616
Wheat for grain, Winter	418	2	-	30	8	1	59
Wheat for grain, Spring	30,460	(D)	-	3,428	376	(D)	6,682
Wheat for grain, Total	1,717,558	(D)	-	146,598	20,900	(D)	421,616
Oats for grain	74	-	-	3	-	-	-
Oats for grain, Winter	2,250	-	-	50	-	-	-
Oats for grain, Spring	144,613	-	-	3,016	-	-	-

See footnote(s) at end of table.

--continued

Table 1. County Summary Highlights: 2002 - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Essex	Gloucester	Hudson	Hunterdon	Mercer	Middlesex	Monmouth
Farms	15	692	-	1,514	304	275	892
Land in farms	153	50,753	-	109,241	25,070	21,824	47,198
Average size of farm	10	73	-	72	82	79	53
Median size of farm	9	22	-	24	22	17	15
Estimated market value of land and buildings ¹ :							
Average per farm	495,369	671,557	-	882,975	1,296,915	1,060,696	791,503
Average per acre	45,867	9,485	-	11,994	18,855	14,664	17,187
Estimated market value of all machinery and equipment ¹ :							
Average per farm	28,048	55,112	-	41,567	45,689	87,190	63,417
Farms by size:							
1 to 9 acres	10	197	-	341	75	102	284
10 to 49 acres	5	283	-	722	145	111	434
50 to 179 acres	-	151	-	328	57	38	128
180 to 499 acres	-	39	-	86	13	13	22
500 to 999 acres	-	15	-	28	9	5	20
1,000 acres or more	-	7	-	9	5	6	4
Total cropland	11	578	-	1,220	268	240	709
Harvested cropland	71	37,422	-	78,288	19,913	16,507	32,658
Irrigated land	(D)	511	-	1,026	224	218	557
Market value of agricultural products sold (see text)	8	176	-	114	61	84	228
Average per farm	19	11,522	-	1,058	1,100	2,806	5,409
Market value of agricultural products sold (see text)	737	66,009	-	42,267	12,247	22,703	81,551
Average per farm	49,116	95,389	-	27,917	40,286	82,555	91,425
Crops	728	61,958	-	34,707	10,904	21,296	72,701
Livestock, poultry, and their products	9	4,051	-	7,560	1,343	1,407	8,850
Farms by value of sales:							
Less than \$2,500	4	389	-	915	163	133	443
\$2,500 to \$4,999	2	50	-	168	24	25	72
\$5,000 to \$9,999	2	56	-	121	22	24	70
\$10,000 to \$24,999	2	56	-	140	32	36	127
\$25,000 to \$49,999	1	23	-	69	16	11	50
\$50,000 to \$99,999	1	13	-	45	17	10	41
\$100,000 or more	3	105	-	56	30	36	89
Government payments	-	36	-	101	29	11	25
Total income from farm-related sources, gross before taxes and expenses (see text)	4	177	-	460	96	57	277
Total farm production expenses ¹	10	1,151	-	5,111	1,320	975	6,598
Net cash farm income of operation (see text) ¹	15	691	-	1,512	305	276	889
Average per farm	299	10,348	-	-10,339	729	6,800	19,551
Principal operator by primary occupation:							
Farming	8	365	-	715	141	154	507
Other	7	327	-	799	163	121	385
Principal operator by days worked off farm:							
Any	10	372	-	882	162	149	482
200 days or more	7	266	-	632	111	100	336
Livestock and poultry:							
Cattle and calves inventory	-	91	-	311	28	20	82
Beef cows	-	2,570	-	5,969	536	295	644
Milk cows	-	24	-	109	16	4	29
Cattle and calves sold	-	345	-	1,648	(D)	30	226
Hogs and pigs inventory	-	7	-	9	1	-	-
Hogs and pigs sold	-	967	-	718	(D)	-	-
Sheep and lambs inventory	-	61	-	295	28	9	57
Layers 20 weeks old and older inventory	-	745	-	2,237	253	200	268
Broilers and other meat-type chickens sold	1	29	-	67	3	15	18
Selected crops harvested:							
Corn for grain	(D)	5,652	-	833	18	617	176
Wheat for grain, All	1	31	-	65	3	11	18
Winter wheat for grain	(D)	9,731	-	1,623	37	(D)	144
Oats for grain	-	50	-	235	31	16	65
Corn for silage or greenchop	-	1,001	-	3,815	764	210	785
Wheat for grain, All	-	45	-	177	33	23	80
Winter wheat for grain	-	1,090	-	5,382	1,220	1,417	(D)
Oats for grain	-	5	-	26	3	4	8
Selected crops harvested:							
Corn for grain	-	(D)	-	5,224	100	(D)	223
Corn for grain	-	39	-	90	23	26	39
acres	-	2,063	-	6,171	3,159	3,855	2,495
bushels	-	89,189	-	323,240	202,655	280,544	192,761
Corn for silage or greenchop	-	12	-	25	2	6	5
acres	-	1,274	-	1,180	(D)	207	(D)
tons	-	13,093	-	12,451	(D)	1,913	(D)
Wheat for grain, All	-	44	-	56	12	10	27
acres	-	2,867	-	3,311	646	758	911
bushels	-	146,622	-	169,802	33,653	45,104	47,866
Winter wheat for grain	-	44	-	56	12	10	27
acres	-	2,867	-	3,311	646	758	911
bushels	-	146,622	-	169,802	33,653	45,104	47,866
Oats for grain	-	3	-	23	-	1	1
acres	-	44	-	1,143	-	(D)	(D)
bushels	-	3,474	-	82,083	-	(D)	(D)

See footnote(s) at end of table.

--continued

Table 1. County Summary Highlights: 2002 - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Morris	Ocean	Passaic	Salem	Somerset	Sussex	Union	Warren
Farms	407	217	70	753	442	1,029	18	814
Land in farms	17,233	12,239	1,526	96,238	36,237	75,496	182	78,042
Average size of farm	42	56	22	128	82	73	10	96
Median size of farm	16	13	11	40	23	27	6	31
Estimated market value of land and buildings ¹ :								
Average per farm	1,025,669	455,399	707,097	593,464	911,321	505,823	962,630	773,777
Average per acre	26,419	14,522	32,161	4,572	14,440	7,136	93,158	7,428
Estimated market value of all machinery and equipment ¹ :								
Average per farm	36,572	35,164	22,793	78,473	50,486	27,611	63,259	46,112
Farms by size:								
1 to 9 acres	123	86	24	135	106	219	13	167
10 to 49 acres	191	87	42	306	220	462	5	352
50 to 179 acres	77	28	3	176	73	242	-	188
180 to 499 acres	13	11	1	88	25	88	-	71
500 to 999 acres	3	5	-	31	12	13	-	29
1,000 acres or more	-	-	-	17	6	5	-	7
Total cropland	340	175	52	670	373	855	12	691
Harvested cropland	9,768	4,490	403	77,228	22,907	38,033	104	56,033
Irrigated land	78	61	20	153	66	93	7	98
Market value of agricultural products sold (see text)	41,879	10,727	6,074	72,522	15,064	14,756	6,750	39,701
Average per farm	102,897	49,434	86,768	96,310	34,081	14,340	374,975	48,772
Crops	40,842	8,967	5,981	55,799	8,264	8,077	6,727	18,437
Livestock, poultry, and their products	1,037	1,760	92	16,723	6,800	6,679	22	21,264
Farms by value of sales:								
Less than \$2,500	221	113	41	383	241	655	5	434
\$2,500 to \$4,999	56	17	5	70	47	132	-	92
\$5,000 to \$9,999	34	23	6	62	44	73	2	77
\$10,000 to \$24,999	34	25	3	69	40	74	5	63
\$25,000 to \$49,999	17	14	2	36	26	29	1	39
\$50,000 to \$99,999	11	4	8	27	15	21	-	35
\$100,000 or more	34	21	5	106	29	45	5	74
Government payments	9	2	-	99	25	40	-	88
Total income from farm-related sources, gross before taxes and expenses (see text)	53	(D)	-	699	210	332	-	623
Total farm production expenses ¹	140	59	31	210	127	324	1	271
Average per farm	2,748	777	610	2,078	1,411	3,031	(D)	1,125
Net cash farm income of operation (see text) ¹	406	215	71	753	440	1,030	18	814
Average per farm	10,378	1,548	676	9,043	1,346	-1,107	3,916	4,009
Principal operator by primary occupation:								
Farming	180	112	43	404	191	487	12	394
Other	227	105	27	349	251	542	6	420
Principal operator by days worked off farm:								
Any	242	124	32	416	253	645	11	463
200 days or more	147	76	21	302	182	437	8	325
Livestock and poultry:								
Cattle and calves inventory	44	18	3	174	95	230	3	236
Beef cows	430	320	3	8,102	2,838	6,069	48	8,269
Milk cows	12	6	-	75	27	89	3	90
Cattle and calves sold	(D)	(D)	-	1,488	744	1,098	20	1,111
Hogs and pigs inventory	2	1	-	22	5	30	-	46
Hogs and pigs sold	(D)	(D)	-	2,631	608	1,943	-	3,196
Sheep and lambs inventory	34	12	2	138	88	182	1	187
Layers 20 weeks old and older inventory	257	106	(D)	2,739	1,138	2,367	(D)	2,626
Broilers and other meat-type chickens sold	13	14	5	27	11	48	-	44
Sheep and lambs sold	66	310	16	348	(D)	276	-	692
Oats for grain	16	16	6	22	12	62	-	42
Wheat for grain, All	133	442	53	1,397	194	526	-	631
Winter wheat for grain	48	13	9	51	42	122	-	92
Oats for grain	550	182	72	1,369	1,046	1,865	-	1,921
Broilers and other meat-type chickens sold	54	33	13	52	32	168	1	125
Broilers and other meat-type chickens sold	2,198	1,238	384	(D)	9,122	6,806	(D)	(D)
Broilers and other meat-type chickens sold	2	4	5	6	10	25	-	32
Broilers and other meat-type chickens sold	(D)	160	140	118	(D)	1,623	-	2,183
Selected crops harvested:								
Corn for grain	13	9	-	131	18	29	-	118
Corn for silage or greenchop	876	378	-	14,374	1,823	1,480	-	16,840
Wheat for grain, All	72,441	16,532	-	810,372	88,158	93,009	-	1,101,930
Wheat for grain, All	4	4	-	33	11	50	-	78
Wheat for grain, All	36	126	-	2,849	813	2,579	-	2,902
Wheat for grain, All	282	2,022	-	30,819	6,468	32,019	-	31,861
Wheat for grain, All	3	1	-	94	24	4	-	43
Wheat for grain, All	210	(D)	-	7,339	2,043	122	-	1,546
Wheat for grain, All	8,690	(D)	-	489,725	87,939	8,570	-	76,865
Wheat for grain, All	3	1	-	94	24	4	-	43
Wheat for grain, All	210	(D)	-	7,339	2,043	122	-	1,546
Wheat for grain, All	8,690	(D)	-	489,725	87,939	8,570	-	76,865
Oats for grain	3	-	-	3	7	9	-	21
Oats for grain	(D)	-	-	13	114	266	-	418
Oats for grain	(D)	-	-	920	10,283	13,199	-	23,664

See footnote(s) at end of table.

--continued

Table 1. County Summary Highlights: 2002 - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	New Jersey	Atlantic	Bergen	Burlington	Camden	Cape May	Cumberland
Selected crops harvested - Con.							
Barley for grain	farms 81	1	-	6	2	1	15
	acres 2,358	(D)	-	127	(D)	(D)	349
	bushels 167,426	(D)	-	7,753	(D)	(D)	22,422
Sorghum for grain	farms 27	2	-	2	-	1	-
	acres 2,071	(D)	-	(D)	-	(D)	-
	bushels 75,119	(D)	-	(D)	-	(D)	-
Sorghum for silage or greenchop	farms 21	-	-	1	-	-	3
	acres 439	-	-	(D)	-	-	67
	tons 4,133	-	-	(D)	-	-	(D)
Soybeans for beans	farms 611	5	-	85	5	3	78
	acres 96,032	(D)	-	22,022	158	400	12,726
	bushels 2,301,468	1,085	-	557,068	1,308	9,177	271,125
Dry edible beans, excluding limas	farms 5	-	-	-	-	-	-
	acres 14	-	-	-	-	-	-
	cwt 146	-	-	-	-	-	-
Potatoes	farms 103	3	-	11	2	6	12
	acres 2,951	(D)	-	295	(D)	(D)	855
	cwt 756,867	(D)	-	67,291	(D)	(D)	216,380
Sweet potatoes	farms 92	17	-	8	9	5	5
	acres 1,208	425	-	25	262	2	12
	cwt 149,249	48,748	-	3,424	35,867	57	975
Forage - land used for all hay and all haylage, grass silage, and greenchop (see text)	farms 3,117	59	4	182	54	48	156
	acres 119,052	1,105	63	7,011	1,278	892	3,835
	tons, dry 236,270	1,213	111	16,244	1,989	1,621	6,134
Sunflower seed, All	farms 6	-	-	-	-	-	-
	acres 8	-	-	-	-	-	-
	pounds 5,150	-	-	-	-	-	-
Vegetables harvested for sale (see text)	farms 1,435	89	19	116	56	54	143
	acres 59,024	5,596	161	4,548	1,762	395	13,151
Land in orchards	farms 721	42	11	43	23	9	33
	acres 12,155	510	64	568	1,271	28	1,540
Item	Essex	Gloucester	Hudson	Hunterdon	Mercer	Middlesex	Monmouth
Selected crops harvested - Con.							
Barley for grain	-	9	-	7	2	1	2
	acres -	512	-	135	(D)	(D)	(D)
	bushels -	41,071	-	10,861	(D)	(D)	(D)
Sorghum for grain	-	3	-	8	2	1	1
	acres -	(D)	-	935	(D)	(D)	(D)
	bushels -	2,250	-	43,820	(D)	(D)	(D)
Sorghum for silage or greenchop	-	2	-	8	-	-	-
	acres -	(D)	-	206	-	-	-
	tons -	(D)	-	2,787	-	-	-
Soybeans for beans	-	76	-	58	28	20	37
	acres -	8,165	-	6,374	8,244	6,370	6,015
	bushels -	135,096	-	146,365	225,616	173,133	157,513
Dry edible beans, excluding limas	-	-	-	-	1	-	2
	acres -	-	-	-	(D)	-	(D)
	cwt -	-	-	-	(D)	-	(D)
Potatoes	-	2	-	8	1	3	5
	acres -	(D)	-	10	(D)	4	2
	cwt -	(D)	-	1,137	(D)	74	214
Sweet potatoes	-	18	-	1	-	2	5
	acres -	269	-	(D)	-	(D)	5
	cwt -	34,356	-	(D)	-	(D)	418
Forage - land used for all hay and all haylage, grass silage, and greenchop (see text)	-	176	-	649	64	37	154
	acres -	4,239	-	32,265	2,012	1,236	4,476
	tons, dry -	9,407	-	60,312	3,449	2,129	9,494
Sunflower seed, All	-	-	-	2	-	-	2
	acres -	-	-	(D)	-	-	(D)
	pounds -	-	-	(D)	-	-	(D)
Vegetables harvested for sale (see text)	5	117	-	101	42	87	142
	(D) acres	7,248	-	747	722	2,089	2,953
Land in orchards	1	51	-	119	21	33	59
	(D) acres	4,809	-	633	120	(D)	463

See footnote(s) at end of table.

--continued

Table 1. County Summary Highlights: 2002 - Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Morris	Ocean	Passaic	Salem	Somerset	Sussex	Union	Warren
Selected crops harvested - Con.								
Barley for grain farms	-	1	-	29	-	2	-	3
acres	(D)	(D)	-	964	-	(D)	-	44
bushels	-	(D)	-	67,813	-	(D)	-	1,700
Sorghum for grain farms	-	-	-	4	2	-	-	1
acres	-	-	-	251	(D)	-	-	(D)
bushels	-	-	-	9,635	(D)	-	-	(D)
Sorghum for silage or greenchop farms	-	-	-	2	2	2	-	1
acres	-	-	-	(D)	(D)	(D)	-	(D)
tons	-	-	-	(D)	(D)	(D)	-	(D)
Soybeans for beans farms	1	3	-	151	15	4	-	42
acres	(D)	(D)	-	18,240	1,640	103	-	5,134
bushels	(D)	(D)	-	406,947	39,941	(D)	-	165,228
Dry edible beans, excluding limas farms	-	-	-	-	-	2	-	-
acres	-	-	-	-	-	(D)	-	-
cwt	-	-	-	-	-	(D)	-	-
Potatoes farms	3	6	2	12	-	15	-	12
acres	11	21	(D)	1,690	-	16	-	13
cwt	(D)	2,430	(D)	461,399	-	771	-	489
Sweet potatoes farms	1	3	-	16	-	-	-	2
acres	(D)	20	-	185	-	-	-	(D)
cwt	(D)	1,680	-	23,580	-	-	-	(D)
Forage - land used for all hay and all haylage, grass silage, and greenchop (see text) farms	116	28	2	364	178	490	1	355
acres	3,770	654	(D)	11,388	8,525	21,195	(D)	15,075
tons, dry	7,096	1,091	(D)	27,574	14,956	40,552	(D)	32,858
Sunflower seed, All farms	2	-	-	-	-	-	-	-
acres	(D)	-	-	-	-	-	-	-
pounds	(D)	-	-	-	-	-	-	-
Vegetables harvested for sale (see text) farms	69	36	19	104	42	95	6	93
acres	896	875	95	14,555	159	870	(D)	2,098
Land in orchards farms	47	13	5	12	35	84	-	80
acres	213	47	10	(D)	166	410	-	486

¹ Data are based on a sample of farms.

1997 Census of Agriculture County Profile

United States Department of Agriculture
New Jersey Agricultural Statistics Service



MIDDLESEX NEW JERSEY

Land in farms

Increased 12 percent from 25,011 acres in 1992 to 28,100 acres in 1997.

Average size of farms

Decreased 2 percent from 104 acres in 1992 to 102 acres in 1997.

Full time farms

Decreased 11 percent from 138 farms in 1992 to 123 farms in 1997.

Market value of agricultural products sold

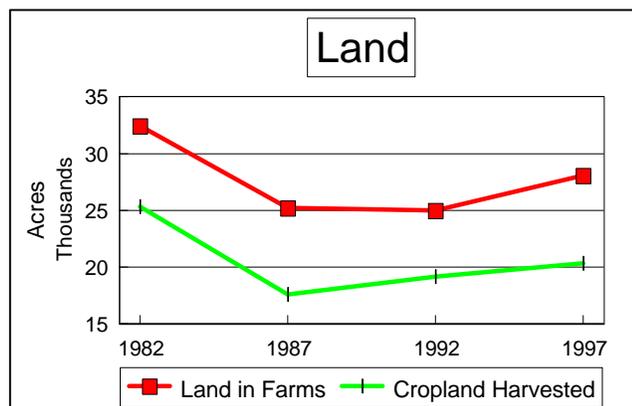
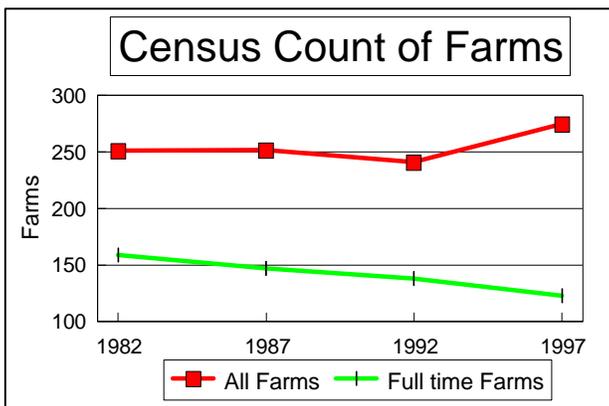
Increased 46 percent to \$34,355,000 in 1997.

Crop sales accounted for 97 percent of the market value.

Livestock sales accounted for 3 percent of the market value.

Market value of agricultural products sold, average per farm

Increased 28 percent from \$97,585 in 1992 to \$124,927 in 1997.



1997 Census of Agriculture County Profile

United States Department of Agriculture, New Jersey Agricultural Statistics Service

MIDDLESEX NEW JERSEY

Ranked Items Within State and U.S., 1997

Item	Quantity	State		U.S.	
		Rank	Universe*	Rank	Universe*
MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD (\$1,000)					
Total value of agricultural products sold	34,355	9	20	1,591	3,076
Value of crops including nursery	33,211	7	20	868	3,070
Value of livestock and poultry	1,144	12	20	2,850	3,069
TOP FIVE ALL COMMODITIES - VALUE OF SALES (\$1,000)					
Nursery and greenhouse crops	25,324	4	20	81	2,790
Vegetables, sweet corn, and melons	3,341	9	20	253	2,739
Soybeans	2,084	6	15	968	2,136
Corn for grain	1,440	7	16	1,220	2,582
Fruits, nuts, berries	448	11	20	485	2,547
TOP FIVE COMMODITIES - LIVESTOCK SOLD (number)					
Hogs and pigs sold	(D)	4	20	1,444	2,976
Rabbits and their pelts sold	(D)	1	16	100	1,593
Sheep and lambs sold	(D)	2	19	419	2,765
All goats sold	(D)	1	17	53	2,686
Cattle and calves sold	359	10	19	2,949	3,063
TOP FIVE COMMODITIES - LIVESTOCK INVENTORY (number)					
Layers 20 weeks and older inventory	1,236	12	20	1,092	3,002
Rabbit inventory	(D)	2	19	161	2,456
Horse and pony inventory	462	14	20	1,701	3,066
Sheep and lamb inventory	390	10	18	1,542	2,864
Ducks, geese, and other poultry inventory	367	13	19	1,175	2,884
TOP FIVE COMMODITIES - CROP AREA					
Soybeans for beans-acres	9,972	6	15	999	2,144
Corn for grain-acres	3,915	7	17	1,425	2,691
Wheat-acres	1,952	7	16	1,433	2,612
Land used for vegetables-acres	1,824	7	20	307	2,741
Hay crops-acres	1,472	12	20	2,794	3,061

Some counties do not have five commodities in a group.

Other County Summary Highlights

Item	1997	1992	Percent Change
Farms by value of sales:			
Less than \$10,000	137	114	20
\$10,000 or more	138	127	9
Total farm production expenses\$1,000..	21,919	19,792	11
Average per farmdollars..	79,706	82,467	-3
Net cash return from agricultural sales			
for the farm unit\$1,000..	11,567	3,029	282
Average per farmdollars..	42,061	12,623	233
Farms by type of organization:			
Individual or family	208	185	12
Partnership or corporation	61	52	17
Other	6	4	50
OPERATOR CHARACTERISTICS			
Operators by principal occupation:			
Farming	123	138	-11
Other	152	103	48
Operators by sex:			
Male	239	205	17
Female	36	36	
Operators by race:			
White	269	235	14
Black and other races	6	6	
Average age of operator	56.0	55.9	0

(D) Cannot be disclosed. See "Census of Agriculture Volume 1 Geographic Area Series" for complete footnotes.

* Universe is number of counties in state or U.S. with item.

USDA, National Agricultural Statistics Service
1(800)727-9540 www.usda.gov/nass nass@nass.usda.gov

1997 Census of Agriculture State Profile

United States Department of Agriculture
New Jersey Agricultural Statistics Service



NEW JERSEY

Land in farms

Decreased 2 percent from 847,595 acres in 1992 to 832,600 acres in 1997.

Average size of farms

Decreased 2 percent from 93 acres in 1992 to 91 acres in 1997.

Full time farms

Decreased 7 percent from 4,218 farms in 1992 to 3,920 farms in 1997.

Market value of agricultural products sold

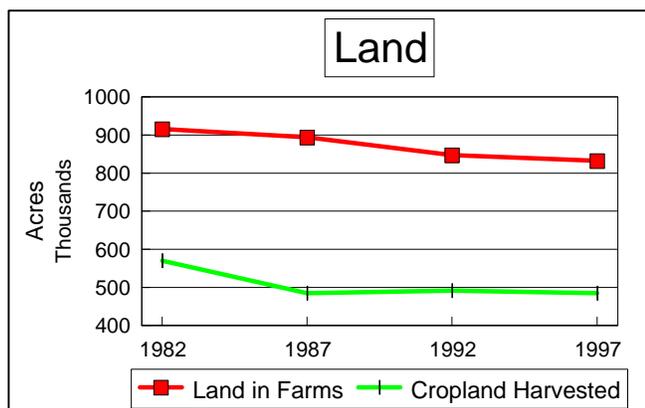
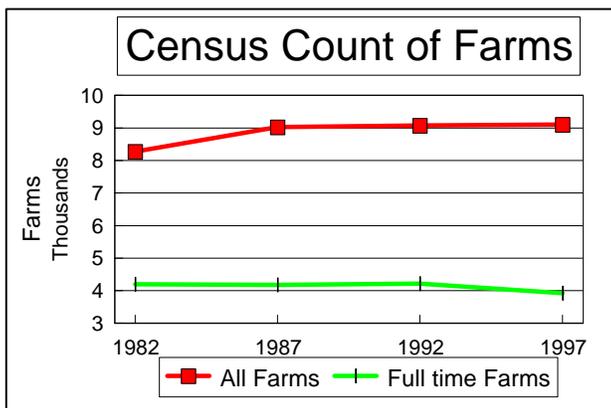
Increased 31 percent to \$697,380,000 in 1997.

Crop sales accounted for 85 percent of the market value.

Livestock sales accounted for 15 percent of the market value.

Market value of agricultural products sold, average per farm

Increased 31 percent from \$58,706 in 1992 to \$76,627 in 1997.



1997 Census of Agriculture State Profile

United States Department of Agriculture, New Jersey Agricultural Statistics Service

NEW JERSEY

Ranked Items Within U.S., 1997

Item	Quantity	U.S.	
		Rank	Universe*
MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD (\$1,000)			
Total value of agricultural products sold	697,380	39	50
Value of crops including nursery	592,713	35	50
Value of livestock and poultry	104,666	45	50
TOP FIVE ALL COMMODITIES - VALUE OF SALES (\$1,000)			
Nursery and greenhouse crops	277,957	11	50
Vegetables, sweet corn, and melons	150,508	10	50
Fruits, nuts, berries	89,768	13	50
Dairy products	37,603	43	50
Poultry & poultry products	35,519	37	50
TOP FIVE COMMODITIES - LIVESTOCK SOLD (number)			
Layers, pullets, and pullet chicks sold	(D)	36	50
Ducks, geese, and other poultry sold	252,484	21	50
Turkeys sold	69,263	28	49
Broilers and other meat-type chickens sold	40,712	42	50
Hogs and pigs sold	40,396	38	50
TOP FIVE COMMODITIES - LIVESTOCK INVENTORY (number)			
Layers 20 weeks and older inventory	2,086,908	31	50
Ducks, geese, and other poultry inventory	152,330	16	50
Pullets 13 to less than 20 weeks inventory	(D)	41	50
Cattle and calves inventory	56,643	46	50
Hogs and pigs inventory	23,189	39	50
TOP FIVE COMMODITIES - CROP AREA			
Soybeans for beans-acres	116,557	28	42
Hay crops-acres	114,523	43	50
Corn for grain-acres	89,252	31	48
Land used for vegetables-acres	59,675	13	50
Wheat-acres	38,104	38	46

Other State Summary Highlights

Item	1997	1992	Percent Change
Farms by value of sales:			
Less than \$10,000	5,554	5,455	2
\$10,000 or more	3,547	3,624	-2
Total farm production expenses\$1,000..	513,326	430,843	19
Average per farmdollars..	56,447	47,434	19
Net cash return from agricultural sales			
for the farm unit\$1,000..	175,896	95,771	84
Average per farmdollars..	19,342	10,544	83
Farms by type of organization:			
Individual or family	7,604	7,553	1
Partnership or corporation	1,418	1,448	-2
Other	79	78	1
OPERATOR CHARACTERISTICS			
Operators by principal occupation:			
Farming	3,920	4,218	-7
Other	5,181	4,861	7
Operators by sex:			
Male	7,745	7,805	-1
Female	1,356	1,274	6
Operators by race:			
White	8,963	8,956	0
Black and other races	138	123	12
Average age of operator	55.4	53.9	3

(D) Cannot be disclosed. See "Census of Agriculture Volume 1 Geographic Area Series" for complete footnotes.

* Universe is number of states in U.S. with item.

USDA, National Agricultural Statistics Service
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APPENDIX C

VOLUNTARY AGRICULTURAL DEVELOPMENT AREAS

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Middlesex County
Voluntary Agricultural Development Areas (ADAs)

<u>Year Certified</u>	<u>Landowner/Municipality</u>	<u>Block, Lot/Acres</u>	<u>Preservation Status</u>	<u>Year Preserved</u>
1987	S & J Stults/Cranbury & Plainsboro	Block 22, Lot 1 (Cranbury) Block 23, Lot 103 (Cranbury) Block 11, Lots 17, 18 (Plainsboro) Block 12, Lot 1 (Plainsboro) 90.50 acres	Preserved	1990
1987	J & S Giamarese/East Brunswick	Block 310, Lot 74.01 19 acres	Preserved	2003
1988	E & J Barclay/South Brunswick	Block 1, Lot 1.062 69.21 acres	Preserved	1993
1989	H. Giamarese/East Brunswick	Block 310, lot 73.09 17 acres	Preserved	2003
1989	K. White/Cranbury	Block 22, Lot 2 79.06 acres	Preserved	1992
1989	Danser/Cranbury	Block 24, Lot 1 131.10 acres	Preserved	1992
1989	M. White/Cranbury	Block 22, Lot 14 62.35 acres	Preserved	1992
1990	Indyk/Monroe	Block 54, Lot 7 42.9 acres	Not preserved	N/A
1990	Estate of Clayton/Monroe	Block 14, Lot 10.2 Block 25, Lot 19.2 72.90 acres	Not preserved	N/A
1990	Owens/Monroe	Block 15, Lot 18.01, 25.1 81.77 acres	Not preserved	N/A
1990	Kaufman/Monroe	Block 13, Lot 1 Block 4, Lot 1.2 160 acres	Not preserved	N/A
1990	Skeba/Monroe	Block 4, Lots 2.2, 2Q 153 acres	Not preserved	N/A
1990	Patterson/Cranbury	Block 23, Lot 11 184.68 acres	Preserved	1993
1996	Rosenblum/Monroe	Block 53, Lot 18.3 40 acres	Not preserved	N/A
1998	Gasko/Monroe	Block 22, Lots 5.05, 9.01 126 acres	Preserved	2001

Voluntary ADAs
Page 2

<u>Year Certified</u>	<u>Landowner/Municipality</u>	<u>Block, Lot/Acres</u>	<u>Preservation Status</u>	<u>Year Preserved</u>
1999	Smutz/Monroe	Block 16, Lot 3.02 29.5 acres	Not preserved	N/A
1999	Lantier/Monroe	Block 11, Lot 5.14 54.4 acres	Preserved	2002
2000	Barnes/Monroe	Block 60, Lot 28.02 30 acres	Not preserved	N/A
2000	Baker/Byrne/Brown/Monroe	Block 81, Lots 5.01, 4 31 acres	Not preserved	N/A
2000	Bowne/East Brunswick	Block 317.14, Lots 17, 6.03, 9 26.36 acres	Not preserved	N/A
2001	Warren/East Brunswick	Block 310, Lots 64.1, 65, 70, 72 47.4 acres	Preserved	2005
2001	Von Thun/South Brunswick	Block 40, Lot 7, Block 41, Lot 14.011 74.9 acres	Preserved	2004
2001	Cornell Farm/Piscataway	Block 495.5, Lot 4.07, 4.07Q8 74 acres	Not preserved	N/A
2001	Hague/East Brunswick	Block 316.01, Lot 12.22 12 acres	Not preserved	N/A
2001	Geerlings Greenhouses/Piscataway	Block 358, Lots 18, 26.02 Block 349, Lot 3.03 32 acres	Not preserved	N/A
2002	Ippoliti/South Brunswick	Block 28, Lots 8 & 7.04 10.76 acres	Preserved	2004
2002	Tee N Jay/Monroe	Block 36, Lots 14, 15 124.3 acres	Not preserved	N/A
2003	Sigle/South Brunswick	Block 18, Lot 10.02 13.54 acres	Not preserved	N/A
2004	Henry/Cranbury	Block 2, Lot 1 21.25 acres	Not preserved – In 8 Year Program	N/A
2004	Clark/East Brunswick	Block 320, Lot 19.01 20.4 acres	Not preserved	N/A
2004	Dieker/Sayreville	Block 416, Lots 1, 2 7.86 acres	Not preserved	N/A

Voluntary ADAs
Page 3

<u>Year Certified</u>	<u>Landowner/Municipality</u>	<u>Block, Lot/Acres</u>	<u>Preservation Status</u>	<u>Year Preserved</u>
2005	Farmer/Monroe	Block 107, Lot 2.7 10 acres	Preserved	2007
2006	Winter/Monroe	Block 18, Lots 27.04, 28 8.7 acres	Not preserved	N/A
2006	Lo Presti/Monroe	Block 52, Lot 5.02 8.8 acres	Not preserved	N/A

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Revised 12/12/07

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APPENDIX D

EASEMENT PURCHASE QUESTIONNAIRE

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MIDDLESEX COUNTY AGRICULTURE DEVELOPMENT BOARD

EASEMENT PURCHASE QUESTIONNAIRE – June 2008

Use additional paper where necessary. Previous questionnaire was June 2007.

1. Current Property Owner(s): _____
2. Date: _____
3. Farm, corporate or business name: _____
4. County: _____
5. Municipality: _____
6. Block: _____ Lot: _____ Block: _____ Lot: _____ Block: _____ Lot: _____
7. Acres: _____
8. Change in Ownership:
 - a. Has ownership of the Premises changed since June 2007? Yes _____ No _____
If yes, please explain: _____
 - b. Are there any plans to sell the Premises during the next year? Yes _____ No _____
If yes, please explain: _____
9. Residential Units:
 - a. Have any residential units been built or are under construction since the last questionnaire?
Yes _____ No _____
If yes, please identify: _____
 - b. Are there any plans to construct, replace or expand any residential unit(s) on the Premises during the next year?
Yes _____ No _____
If yes, please explain: _____
10. Agricultural Labor Housing:
 - a. Has any new agricultural labor housing been built since the last questionnaire? Yes _____ No _____
If yes, please identify: _____
 - b. Are there any plans to build any new agricultural labor housing during the next year?
Yes _____ No _____
If yes, please explain: _____

11. Agricultural Buildings:

a. Have any new agricultural buildings been built since the last questionnaire? Yes _____ No _____

If yes, please identify: _____

b. Are there any plans to build any new agricultural buildings during the next year? Yes _____ No _____

If yes, please identify: _____

12. Non-Agricultural Uses or Activities:

a. Describe the type(s), extent and frequency of use of **pre-existing non-agricultural** uses or activities on the Premises. (excavation, veterinary practice, landscaping, trucking and others)

b. Since the last questionnaire, identify abandonment of use, change in use, expansion in use and structures used for any listed **non-agricultural** uses or activities.

c. During the next year, identify any **anticipated** abandonment of use, change in use, expansion in use and structures used for any listed **non-agricultural** uses or activities.

13. Have any of the following activities occurred on the Premises:

a. Removal of sand, gravel, loam, rock, peat, etc. Yes _____ No _____

b. Trash accumulation, dumping Yes _____ No _____

c. Construction of roads, parking lots, swimming pools, tennis courts, utility lines, conduits, etc.

Yes _____ No _____

If yes, please identify: _____

14. Land Use:

a. What are the current agricultural activities on the Premises:

b. Land Use Acreage (approximate):

Cropland: _____ Woodland: _____

Pasture: _____ Wetland: _____

Orchard: _____ Other(s): _____

Total Acres: _____

c. Has a USDA Soil Conservation Service (SCS) Farm Conservation Plan been prepared?

Yes _____ No _____

If no, please explain: _____

d. Did the SADC/State Soil Conservation Committee approve soil and water conservation project(s) on the Premises? Yes _____ No _____

Project and date: _____

e. Condition of Farm: _____

15. Are there any problems associated with the Premises? (encroachment, trespassing, municipal regulations, state regulations, SADC requirements or approvals, deed of easement, etc.)

Yes _____ No _____

Please explain: _____

Landowner signature: _____ Date: _____

Received by
County Administrator: _____ Date: _____

Please return the questionnaire to:

Middlesex County Agriculture Development Board
c/o Middlesex County Planning Department
40 Livingston Avenue
New Brunswick, NJ 08901

RWR:lak

Revised 6/12/08

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APPENDIX E

**MIDDLESEX COUNTY PLANNING DEPARTMENT'S
METHODOLOGY FOR IDENTIFYING
POTENTIAL TARGETED FARMS**

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Middlesex County Planning Department's Map of "Potential Targeted Farms" Working Draft Map Dated August 21, 2007

Intent & Overview

In our efforts towards a transition into the County Planning Incentive Grant (PIG) program, the Geographic Information System (GIS) staff of the Middlesex County Planning Department, Division of Comprehensive Planning developed and implemented the methodology outlined below in order to create a preliminary working draft map of potential targeted farms. This methodology was primarily intended as a means to identify farmland assessed properties which would likely meet the minimum eligibility criteria recently adopted by the State Agriculture Development Committee (SADC).

Due to inherent limitations of the data utilized for this GIS exercise, some parcels identified as potential candidates may not actually satisfy the minimum eligibility criteria. Conversely, there also may be certain parcels that have been inadvertently removed from consideration as a targeted farm candidate. An example of one limitation is that we substituted certain GIS layers found in the NDJEP Land Use/Land Cover Map that are similar to "tillable acres" whereas actual tillable acres data to be used by the SADC will be found on the farmland assessment forms that are filed annually with the local tax assessor. In addition, specifically for parcels less than 10-acres where the SADC requires a minimum of \$2,500 in annual agriculture production, we have been unable to demonstrate compliance due to the lack of suitable available information.

In addition, we were unable to comprehensively consider adjacency of tax parcels under common ownership due to the fact that no associated relational database was developed when our farmland assessed parcel map was created in 1999. Consequently, there may be instances where individual tax parcels were eliminated from consideration, but if evaluated according to contiguous ownership (as "farm units") might have qualified as a potential targeted farm candidate.

Regardless of the potential shortcomings in this systematic approach, some of which are mentioned above, the methodology employed results in a map of our best quality farms that have yet to be preserved. We are confident that the map of potential targeted farms will prove to be useful in the initiation of a collaborative discussion with our municipal farmland preservation partners.

In conclusion, we are looking for guidance and insight as to what parcels should be removed from consideration in light of municipal land use planning efforts and priorities. Equally important, we are looking for similar guidance and insights on properties that have not been identified as potential targeted farms but should be given consideration as such.

Step-by-step Methodology of Developing "Potential Targeted Farms"

- 1) We began with the "Farmland Assessed" GIS layer prepared for us by CDM (circa 1999 of 1998 farmland assessed properties). This parcel layer did not include any parcel identifier information such as block & lot, street address and/or property ownership data etc.

- 2) We sorted the approximately 2,800 parcels into the following categories:
 - a) those of less than 5 acres in area
 - b) those between 5 and 10 acres in area
 - c) those between 10 and 25 acres in area
 - d) those greater than 25 acres in area
- 3) We deleted those parcels less than 5 acres in area
- 4) As a substitution for "Tillable Acres", which would be specified on individual farmland assessment forms, we used the NJDEP 2002 Land Use/Land Cover shape file and joined the "Agriculture" category with the "Modified Agriculture Wetland" subcategory
- 5) We intersected this newly created "Tillable Acres" layer with each of the three remaining "Farmland Assessed" layers
- 6) We then removed those "Farmland Assessed" parcels in the "5 to 10 acre" layer that were less than 75% tillable, unless they had at least 5 tillable acres
- 7) We then removed those "Farmland Assessed" parcels in the "10 to 25 acre" and "25+ acre" layers that were less than 50% tillable, unless they had at least 25 tillable acres
- 8) We then worked with the newest USDA Soils layer provided to us by the SADC, creating a separate layer for the "Prime", "Statewide Importance" and "Local Importance" subcategories
- 9) We intersected this newly created "Capable Soils" (CS) layer with each of the three remaining "Farmland Assessed" layers
- 10) We then removed those remaining "Farmland Assessed" parcels in the "5 to 10 acre" layer that were less than 75% CS, unless they had at least 5 acres of CS
- 11) We then removed those remaining "Farmland Assessed" parcels in the "10 to 25 acre" and "25 + acre" layers that were less than 50% CS, unless they had at least 25 acres of CS
- 12) We then removed all parcels that lacked development potential, due to the fact they were:
 - a) already preserved farmland, or in the municipal 8-year program
 - b) already preserved open space (municipal, county, county trust, joint purchase, or state parks)
 - c) less than twice the minimum allowed lot size in residential zones
 - d) less than the minimum allowed lot size in nonresidential zones
- 13) We then again worked with the 2002 Land Use/Land Cover layer provided by the NJDEP, selecting the "Wetlands" subcategory for use as a separate layer
- 14) We intersected this newly created "Wetlands" layer with each of the three remaining "Farmland Assessed" layers
- 15) We then removed those remaining "Farmland Assessed" parcels in the "5 to 10 acre" and "10 to 25 acre" parcel layers that were more than 80% "Wetland"
- 16) We then again worked with the newest Soils layer provided to us by the SADC, creating a separate layer for "Soils on slopes of greater than 15% [SSG15]"
- 17) We intersected this newly created "SSG15" layer with the "5 to 10 acre" and "10 to 25 acre" "Farmland Assessed" parcel layers
- 18) We then discovered this produced no intersection, so no parcels were removed

- 19) We then performed a visual check of all remaining "Farmland Assessed" parcels against our latest 2006 aerial imagery, and removed all parcels that were obviously developed into residential subdivisions or commercial property
- 20) In consultation with books of tax maps (dated 2002), we printed a map of all remaining parcels and then manually labeled them by tax block and lot numbers
- 21) We then manually cross-indexed each of these block and lots with a current MOD-IV list of Farmland Assessed parcels (last revised May 2007), and removed those parcels that appeared to be no longer in farmland assessment
- 22) Remaining parcels are identified as a new shape file called "Potential Targeted Farms". Countywide, this layer consists of 160 total tax parcels of which 21 parcels fall within the "5 to 10 acre" parcel layer, 60 parcels are within the "10 to 25 acre" parcel layer, and, the remaining 79 parcels are within the "25 + acre" parcel layer.

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APPENDIX F
COUNTY RANKING CRITERIA

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MIDDLESEX COUNTY AGRICULTURE DEVELOPMENT BOARD

AGRICULTURE DEVELOPMENT EASEMENT PURCHASE APPLICATION/2009 ROUND

EVALUATION CRITERIA

APPLICANT:

OF ACRES:

MUNICIPALITY:

BLOCK: LOT:

LOCATION:

RDSO'S:

OF EXISTING RESIDENCES:

EXCEPTIONS:

CROPS/FARM ACTIVITIES:

COMMENTS:

Total Point Score:

(Out of 142 Points)

**PRIORITY RANKING CRITERIA
FOR EASEMENT PURCHASE APPLICATIONS**

1. Soils

<u>Rating Factor</u>	<u>Points</u>	<u>Rating Factor</u>	<u>Points</u>
90 to 100% prime soil	25	90 to 100% Statewide soils	8
80 to 89% prime soil	20	80 to 89% Statewide soils	7
70 to 79% prime soil	15	70 to 79% Statewide soils	6
60 to 69% prime soil	10	60 to 69% Statewide soils	4
50 to 59% prime soil	7	50 to 59% Statewide soils	2
40 to 49% prime soil	5	40 to 49% Statewide soils	1
10 to 39% prime soil	3	Under 40%	0

2. Size of Farm (Net Acreage = Gross Acreage - Exception)

<u>Rating Factor</u>	<u>Points</u>
125 or more acres	25
100 - 124 acres	23
75 - 99 acres	20
50 - 74 acres	15
25 - 49 acres	10
10 - 24 acres	5

3. Development Pressure

<u>Rating Factor</u>	<u>Points</u>
There is evidence that this site is being considered for imminent development as per the Interim Criteria for Evaluating Imminence of Change – adopted 11/28/95 by the CADB (listed below)	Maximum 8 points
1. Infrastructure (water, sewers) at the site or close to the site. Development very close to site.	
2. Developers are interested in the site as evidenced by submission of written documentation which must include specific proposals including terms of purchase.	
3. Subdivision approvals on the site.	
4. Subdivision approvals on sites contiguous to or close to the application site.	
5. Property is an estate, institution or involved in bankruptcy proceedings.	
6. If site were to be developed and not be preserved, it would jeopardize the integrity of the ADA and the preservation area.	
7. Community support letters indicate concern with potential development of site. This information could come from the administration, commissions, committees, home owners associations, etc.	
8. Documentation of recent zoning change that makes the property more marketable.	

4. Degree of Compatibility with Surrounding Land Use

Boundaries and Buffers Surrounding Farm

Category 1

- Deed restricted farmland
- Deed restricted wildlife areas or state, county or municipal owned parcels
- Restricted watershed lands
- Farms which have final CADB and SADC approval but are not yet purchased

Category 2

- Easement Purchase Applications and Eight Year Programs
- Parks (limited public access)
- Farmland (Unrestricted)
- Streams, wetlands, woodlands
- Railroads

Category 3

- Parks (high use)
- Roadways*
- Highways

Percent of perimeter of farm contiguous to land use as defined by Categories 1, 2, and 3

<u>Category</u>	<u>>0 - <25%</u>	<u>25% - 75%</u>	<u>>75%</u>	<u>Points</u>
1	10	15	20	
2	1	3	5	
3	<u>0</u>	<u>1</u>	<u>3</u>	

*The best possible surrounding land use category will determine the point value. e.g. The boundary of a farm which is separated from a deed restricted farm by a roadway will be considered as being bounded by the restricted farm.

5. Right To Farm Ordinance

<u>Rating Factor</u>	<u>Points</u>
Municipality has Right To Farm Ordinance	15
Ordinance has been proposed	10
No ordinance exists	0

6. Municipal Factor Contribution

<u>Rating Factor</u>	<u>Points</u>
The municipality has documented that funding for Easement Purchase will be allocated through the Budget or Capital Plan or the governing body has adopted a resolution of intent to participate financially with the easement purchase program.	20
The municipality has indicated a willingness to consider funding for easement purchase	10
The municipality will not make a financial commitment to the easement purchase program	0

7. Consistency with County and municipal land use, infrastructure plans and ordinances

<u>Rating Factor</u>	<u>Points</u>
Consistent with all plans and ordinances	20
Moderately consistent	10
Inconsistent with most plans and ordinances	0

8. Exception Policy

	<u>Points</u>
For each non-severable exception	-1
For each severable exception	-3

9. Tillable Acres

The percentage of the premises in Cropland Harvested, Cropland Pastured, and Permanent Pasture is between 50% and 75%	2
The percentage of premises in Cropland Harvested, Cropland Pastured, and Permanent Pasture is greater than 75%	5

10. Density of Preserved Farms

	<u>Points</u>
Number of farms that are within ½ mile linear distance of the subject Application and have received CADB approval for easement purchase or are permanently deed restricted.	Maximum 4 points

APPENDIX G

**SUMMARY TABLE OF
MUNICIPAL OPEN SPACE REFERENDA**

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**Municipal Referenda
Current Open Space Taxes**

Municipality	Current Tax?	Year of Initial Adoption	Cents/Hundred (adoption)	Increased/Decreased When?	Current cents/hundred	Total collected since adoption	Total revenue anticipated for 2008	Total expended	Allocated/Budgeted for future acquisition	Can funds be used for farmland preservation?
Cranbury	Yes	1999	3¢	Decreased 2007	2¢	\$1,428,738	\$130,000*	\$1,403,968	\$0.00	Yes
East Brunswick	Yes	2001	2¢	No	2¢	\$3,874,073 thru 12/31/07	\$405,000	\$3,874,073	\$0.00	Yes
Monroe	Yes	2002	1.5¢	Increased 2004	2.5¢	\$2,448,800 thru 12/31/06	\$1,000,000*	Not Reported	Not reported	Yes
Old Bridge	Yes	2000	2¢	No	2¢	\$4,638,905	\$1,004,628.75	\$2,581,846.01	Balance	Yes
Plainsboro	Yes	1999	1¢	No	1¢	\$1,743,139.96	\$370,000*	\$1,032,858.36	Not reported	Yes
South Brunswick	Yes	1996 '97 tax year	2¢	Increased 2003	4.1¢	\$11,785,000 thru 12/31/07	\$1,600,000	\$7,650,000	\$4,113,500 balance as of 12/31/07	Yes
Totals						\$25,918,655.96	\$4,509,628.75	\$11,264,704.37	Not calculated	

*data not reported by municipality, figure is an estimate by Planning Department staff based on historic trends

Data Sources: Municipal finance officials and Abstract of Municipal Property Taxes (www.state.nj.us/dca/lgs/taxes/taxmenu.shtml)

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APPENDIX H

NEARBY FARMERS' MARKETS TO SUPPORT MIDDLESEX COUNTY AGRICULTURE

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**NEARBY FARMERS' MARKETS TO SUPPORT
MIDDLESEX COUNTY AGRICULTURE**

<p>Highland Park Farmers' Market Raritan Avenue, Highland Park 732-819-3787 July 11 to November 2, Fridays, 11 a.m. to 5 p.m.</p> <p>Offering a variety of fruits & vegetables. Jersey Fresh Cooks cookbooks, breads, flowers, eggs, crab cakes, steaks, plants, & mozzarella are also available. WIC & Senior FMNP checks are accepted by some farmers.</p>	<p>Lawrenceville Farmers' Market 16 Gordon Avenue, Lawrenceville 609-206-0344 June 8 - October 26, Sundays, 9 a.m. to 1 p.m.</p> <p>Offering conventional and organic fruits, vegetables, flowers, herbs, poultry, & grass-fed meat products. WIC & Senior FMNP vouchers accepted by some farmers.</p>
<p>Metuchen Farmers' Market Central & Middlesex Avenues, Metuchen 732-548-2964 June 21 to October 3, Saturdays, 9 a.m. to 2 p.m.</p> <p>Offering a variety of fruits & vegetables. WIC & Senior FMNP checks are accepted by some farmers.</p>	<p>West Windsor Farmer's Market Princeton Junction Train Station, West Windsor 609-577-5113 May 17 - October 25, Saturdays, 9 a.m. to 1 p.m.</p> <p>Offering a variety of fruits & vegetables, organic vegetables, & specialty Asian vegetables. Meat products, bread, & flowers are also available. WIC & Senior FMNP vouchers accepted by some farmers.</p>
<p>Middlesex Farmers' Market On Route 28 - Union Avenue, Middlesex 732-356-7400, ext. 236 or 237 June 22 to September 21, Fridays, 11 a.m. - 5 p.m.</p> <p>Offering a variety of fruits & vegetables. WIC & Senior FMNP checks are accepted by some farmers.</p>	<p>Whole Foods Market Farmer's Market 3495 Route 1 South, Princeton 609-799-2919 June 9, July 14, August 11, September 8, & October 6, Mondays, 3 p.m. to 7 p.m.</p> <p>Offering a variety of fruits & vegetables. Eggs, flowers, meat products, cheese, jam, candles & honey are also available.</p>
<p>Woodbridge Farmers' Market 1 Main Street, Woodbridge 732-602-6015 June 14 to October 25, Saturdays, 9 a.m. to 2 p.m.</p> <p>Offering a variety of fruits & vegetables. Baked goods, flowers, & ice cream are available. WIC & Senior FMNP vouchers are accepted by some farmers.</p>	<p>Englishtown Auction Sales Off County Road 527, Englishtown 732-446-9644 Open seasonally, Saturdays & Sundays, 8 a.m. to 4 p.m.</p> <p>Offering a variety of fruits & vegetables.</p>
<p>Greening Princeton Farmers' Market Firestone Library/Chapel Plaza, Princeton 609-258-5144 September 23 - October 21, Tuesdays 11 a.m. to 3 p.m.</p> <p>Offering a variety of fruits and vegetables. Jersey Fresh honey, grass-fed beef & lamb, heirloom pork, free-range eggs, cave ripened raw mil cheeses, artisan handmade breads & baked goods, locally produced organic ice cream, & gourmet artisan coffee are available.</p>	<p>Freehold Farmers' Market 1 East Main Street, Freehold 732-462-3584 Open June 10 - October 21, Tuesdays, 11 a.m. to 3 p.m.</p> <p>Offering a variety of fruits & vegetables. WIC & Senior FMNP checks are accepted by some farmers.</p>
<p>Rutgers Gardens Farmers' Market 112 Ryders Lane, New Brunswick, NJ 08901 May 23 through October 23, Fridays, 2 p.m. to 6 p.m.</p> <p>Offering a variety of fruits & vegetables.</p>	

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APPENDIX I

LISTING OF ROADSIDE MARKETS IN MIDDLESEX COUNTY

Roadside Markets

<p>Ann's Market 173 Davidson Mill Rd., So. Brunswick 732-821-9290 Open daily, 9 a.m. to 7 p.m.</p> <p>Roadside market offering tomatoes, sweet corn, peppers, squash, string beans, lima beans, cabbage, broccoli, cauliflower, collards, & eggplant.</p>	<p>Cranbury Brook Farm 308 Federal Rd., Monroe 609-918-0351 Open seasonal. Call for hours.</p> <p>Roadside market offering fresh raspberries, blueberries, hybrid tomatoes, & lavender. Cut flowers, registered pygmy goats, toggenberg dairy goats, & buff orpington chickens are also available.</p>
<p>Cheesequake Farms 191 Highway 34, Matawan 732-583-6780 Open from Palm Sunday through Christmas 9 a.m. to 7 p.m.</p> <p>Roadside market offering peppers, tomatoes, eggplant, pickles, corn (sweet, yellow, bicolor), squash, cucumbers, pumpkins, sweet potatoes, & winter squash. Also available: Easter flowers, bedding plants, hanging baskets, ornamental & unique gourds, straw, corn stalks, grave covers, wreaths, trees, & poinsettias. WIC & Senior FMNP checks accepted</p>	<p>E.R. & Son Organic Farm 572 Buckelew Ave., Monroe 732-521-2591 Open Tuesday through Friday, 10 a.m. to 6 p.m. & Saturday & Sunday, 10 a.m. to 5 p.m.</p> <p>Roadside market offering all vegetables that can be grown in NJ, beans to zucchini & tomatoes.</p>
<p>Cheesequake Farms Route 9 & Jake Brown Rd., Old Bridge 732-721-5728 Call for hours.</p> <p>Roadside market offering a variety of fruits & vegetables. WIC & Senior FMNP checks accepted</p>	<p>El Shakry Farm 75 Cranbury Neck Rd., Cranbury 609-409-7900 Call for hours.</p> <p>Herbs, cut flowers & flowering shrubs are available.</p>
<p>Cohen's Farm 543 Spotswood-Englishtown Rd., Monroe 732-521-0711 Call for hours.</p> <p>Roadside market offering pumpkins, corn stalks, Indian corn & gourds.</p>	<p>Farmer Al's Market & Greenhouses 387 Buckelew Ave., Monroe 732-521-1888 Open April to December, 9 a.m. to 5 p.m. & Sunday 9 a.m. to 4 p.m.</p> <p>Roadside market and pick your own offering lima beans, string beans & black-eyed peas. Bedding plants are also available. WIC and Senior FMNP checks are accepted.</p>

<p>Foerter Farm Market 245 Riva Avenue, Milltown 732-821-8862 Open July through October, daily, dawn to dusk</p> <p>Roadside market offering tomatoes, green bell peppers, Hungarian sweet peppers, jalapeno peppers, sweet corn, pumpkins, squash, zucchini & eggplant.</p>	<p>Joe Indyk 595 Spotswood-Englishtown Rd., Jamesburg 732-521-2548 or 732-521-0729 Open June through November. Call for hours.</p> <p>Roadside market offering watermelon, pumpkins, cabbage, cauliflower, tomatoes, collards, turnips, mustard, kale & strawberries. Pick your own strawberries available.</p>
<p>Giamarese Farm 155 Fresh Pond Rd., East Brunswick 732-821-9494 Open last week of June through December 23, Tuesday to Saturday 10 a.m. to 6 p.m. & Sunday 10 a.m. to 3 p.m.</p> <p>Roadside market offering a large variety of fruits & vegetables. Pick your own offerings include apples, pumpkins & Christmas trees. Jersey Fresh Cooks cookbooks, jams, ice cream, milk, eggs & pies also available. WIC & Senior FMNP checks accepted.</p>	<p>John & Joan's Road Stand 285 Stelton Rd., Piscataway 732-752-1218 Open daily. Call for hours.</p> <p>Roadside market offering fruits, vegetables & pumpkins. Easter flowers, Christmas trees, wreaths & grave blankets are also available.</p>
<p>Habiak Farms 315 Deans Rhode Hall Rd., South Brunswick 732-297-0751 Open weekends in October & December 10 a.m. to 5 p.m.</p> <p>Pick your own offerings include pumpkins, gourds, jack-b-littles & Christmas trees. Corn stalks, straw, choose & cut Christmas trees, wreaths & grave blankets are also available.</p>	<p>John Himich Farms 701 Cranbury Rd., East Brunswick 732-257-1538 Open August 15 to November 1. Call for hours.</p> <p>Roadside market offering tomatoes, eggplant, peaches, pears, a wide variety of apples, flowers, pumpkins, & cut & choose Christmas trees. Mums, cut flowers & local honey also available.</p>
<p>Hauser Hill Farms 261 Ticetown Rd., Old Bridge 732-591-1966 Open Tuesday to Sunday, 9 a.m. to 6 p.m.</p> <p>Roadside market offering apples, broccoli, potatoes, peaches, cauliflower, zucchini, plums, cabbage, cucumbers, nectarines, peppers, eggplant, pears, tomatoes, onions, raspberries, collards, yams, strawberries, asparagus, winter squash, cantaloupes, beans, & watermelon. Bedding plants, hanging pots, & mums are also available. WIC & Senior FMNP checks accepted.</p>	<p>Kelemen Farm Market Cranbury Rd. & Rues La., East Brunswick 732-254-0636 Open April through October, 9 a.m. to 6 p.m.</p> <p>Roadside market offering seasonal farm produce, tomatoes, sweet corn, peaches, melons, peppers, beans, eggplant, & pumpkins. Gourds, bedding plants & mums are also available.</p>

<p>Krackerjack Farms/Flowers by Stefanie Route 33 West, Monroe 609-448-8345 Open daily April to October, 9 a.m. to 7 p.m.</p> <p>Roadside market offering all farm grown corn, tomatoes, cantaloupes & watermelons. Bedding plants, hanging baskets, shrubs, & roses are also available.</p>	<p>Pop's Farm Market 238 Cranbury Station Rd., Monroe 609-655-4175 Open April to December, Monday to Saturday 9 a.m. to 6 p.m.</p> <p>Roadside market offering Jersey Fresh fruits & vegetables, cut flowers, honey & much more.</p>
<p>Maple Tree Farm Market 2708 Route 27, North Brunswick 732-297-7746 Open Monday to Friday, 9 a.m. to 7 p.m., Saturday, 9 a.m. to 6 p.m. & Sunday, 9 a.m. to 5 p.m.</p> <p>Roadside market selling all local produce. Jersey Fresh Cooks cookbooks, baked goods, fresh chickens, preserves, nuts, ravioli, cheeses, dressings, chips and more.</p>	<p>R & K Farm 215 Rhode Hall Rd., Jamesburg 732-521-0314 Open April to October 31, Wednesday to Saturday 10 a.m. to 6 p.m.</p> <p>Roadside market offering asparagus, broccoli, cabbage, cantaloupe, cauliflower, corn, cucumbers, eggplant, peppers, pumpkins, radishes, squash, tomatoes, watermelon, potatoes, beans, onions & chestnuts. WIC & Senior FMNP checks accepted.</p>
<p>Martz Farm 164 Disbrow Road, Old Bridge 732-566-5529 Open April to December, 9 a.m. to 5 p.m.</p> <p>Roadside market offering fruits & vegetables. Bedding plants, wreaths & trees also available.</p>	<p>Schmidt's Farm 1762 Englishtown Rd., Old Bridge 732-251-8892 Call for hours.</p> <p>Roadside market offering tomatoes, corn, okra, hot peppers, cantaloupe, squash & sweet peppers.</p>
<p>PJ's Raspberries 124 Applegarth Rd., Monroe 609-448-4173 Open July to October, Monday to Saturday. Call for hours.</p> <p>Roadside market offering raspberries.</p>	<p>Stiles Apiaries 859 King Georges Road, Fords 732-661-0700 Call for hours.</p> <p>Honey available for sale.</p>

<p>Stults Farm 62 John White Rd. or 146 Cranbury Neck Rd., Cranbury 609-799-2523 Open May to October 31, Monday to Friday 3 p.m. to 7 p.m. and Saturday & Sunday 10 a.m. to 6 p.m.</p> <p>Roadside market offering strawberries, raspberries, blackberries, peaches, watermelon, cantaloupe, sweet corn, tomatoes, peppers, eggplant, squash, cucumbers, herbs, pumpkins, gourds, winter squash. Pick your own offering strawberries, peas, raspberries, blackberries, cucumbers, squash, tomatoes, eggplant, peppers, bitter melon, pumpkins, beans (green & Italian), & lima beans. Daytime hay rides in October are also available.</p>	<p>Von Thun's County Farm Market 519 Ridge Road (Rt. 522) Monmouth Junction 732-329-8656 Open April to October, Monday to Friday 10 a.m. to 6:30 p.m. and Saturday & Sunday 9 a.m. to 6 p.m.</p> <p>Roadside market offering sweet corn, tomatoes, peppers, strawberries, raspberries, string beans, melons, pumpkins, other assorted home-grown fruits & vegetables. Pick your own offering strawberries, raspberries, blackberries, pumpkins, peas (snap & pod), & string beans. Also offering Jersey Fresh Cooks cookbooks, cut flowers, mums, Indian corn, perennials, annuals, hanging baskets, vegetable plants, fall festival with pick you own pumpkins & free hayrides. WIC and Senior FMNP checks accepted.</p>
<p>Twin Sweet Farm Market 589 Englishtown Road, Monroe 732-792-1101 Open year round, call for hours.</p> <p>Roadside market offering vegetables, fruits & watermelons. Christmas trees and greenhouse items are also available.</p>	

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APPENDIX J

**DIRECTORY OF MIDDLESEX COUNTY AND
ALLIED AGRICULTURAL ORGANIZATIONS**

County Board of Agriculture and Allied County Organizations

Middlesex County

Middlesex County Board of Agriculture

42 Riva Avenue
Davidson's Mill Pond Park
North Brunswick, NJ 08902
(732) 398-5262
Fax (732) 398-5276

<i>President</i>	Robert Von Thun 519 Ridge Road , Monmouth Junction, NJ 08852	(732) 274-9431
<i>Vice President</i>	George Conover 1793 Englishtown Road , Old Bridge, NJ 08857	(732) 251-0845
<i>Treasurer</i>	Rudolph B. Wellnitz 65 Scotts Corner Road , Cranbury, NJ 08512	(609) 799-0734
<i>Secretary</i>	Carolyn Hauser 336 Ticetown Road , Old Bridge, NJ 08857	(732) 591-0470

Rutgers Cooperative Extension of Middlesex County

42 Riva Avenue
Davidson Mill Pond Park
North Brunswick, NJ 08902
(732) 398-5260
Fax (732) 398-5276

<i>Extension Dept. Head/Agent</i>	William T. Hlubik
<i>4-H Agent</i>	Laura Karp Bovitz
<i>Office Manager</i>	Joanne Connolly
<i>Public Information Assistant</i>	David Smela
<i>Program Associate, Agriculture</i>	Richard Weidman

Middlesex County Agriculture Development Board

Middlesex County Planning Department
40 Livingston Avenue
New Brunswick, NJ 08901
(732) 745-4014
Fax (732) 745-3011

<i>Chairperson</i>	Alan A. Danser
<i>Administrator</i>	Ryan Rapp

County Board of Agriculture and Allied County Organizations

Middlesex County

Freehold Soil Conservation District

4000 Kozloski Road
P.O. Box 5033
Freehold, NJ 07728
(732) 683-8500
Fax (732) 683-9140

<i>District Chairperson</i>	Charles Buscaglia	(732) 462-3575
<i>District Manager</i>	Ines M. Grimm	(732) 683-8500
<i>NRCS District Conservationist</i>	Nicole Ciccaglione	(732) 462-0075

Farm Service Agency (Monmouth-Middlesex-Mercer)

USDA - Farm Service Agency
4000 Kozloski Road
PO Box 5033
Freehold, NJ 07728
(732) 462-0075
Fax (732) 462-5274

<i>County Executive Director</i>	Timothy Dey	(732) 462-0075
<i>Farm Loan Manager</i>	Virginia Brophy	(908) 852-2576

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APPENDIX K

DIRECTORY OF NRCS OFFICES IN NEW JERSEY



Programs and Offices



WHAT IS THE NATURAL RESOURCES CONSERVATION SERVICE?

The Natural Resources Conservation Service (NRCS), an agency of the United States Department of Agriculture, provides assistance to private land owners to conserve and manage soil, water, and other natural resources.

Local, state and federal agencies and policymakers also rely on our expertise. We deliver science-based technical assistance specific to our customer's needs. Cost shares and financial incentives are available in some cases. Participation in our programs is voluntary.

NRCS offices are located throughout the state providing service to New Jersey communities. Visit our website to learn more about our work in the Garden State.

Working with Conservation Partners

In New Jersey, NRCS's natural resource conservationists, soil scientists, planners, agronomists, biologists, engineers, and geologist work together with NJ Soil Conservation Districts and other local, state and federal partners to:

- Promote wise land use
- Reduce erosion and improve soil quality
- Improve water quality
- Conserve soil, water, and other natural resources
- Restore wetlands
- Improve wildlife habitat
- Maintain land in grass cover and improve pasture quality

NRCS PROGRAMS

Conservation Technical Assistance and Farm Bill Programs

Through programs authorized by the 2002 Farm Bill and other voluntary conservation programs, NRCS works with farmers, private landowners, communities, units of state and local government, and other federal agencies to plan and implement conservation practices.

Soil Surveys

Soil surveys completed by NRCS soil scientists provide soil maps and interpretations needed for technical assistance to farmers, community planners and others.

Resource Conservation and Development (RC&D)

RC&D Areas exist to coordinate the efforts of soil conservation districts, county and local governments, and local groups for the improvement of environmental, social, and economic conditions in communities of the region served by the RC&D Council.

Plant Materials Center (PMC)

PMC specialists develop plants and plant establishment technologies to be used to reduce cropland erosion, to restore and stabilize eroding areas, to improve water quality, and to enhance wildlife habitat.

Emergency Watershed Protection

NRCS engineers provide assistance to reduce soil erosion and sedimentation following natural disasters, such as floods.

Watershed Protection and Reduction of Flood Damage

NRCS watershed specialists assist communities to protect water supply, reduce flood damage, control erosion and sediment loss, improve water quality and fish and wildlife habitat.

To learn more about how NRCS is helping to advance conservation in New Jersey, visit

<http://www.nj.nrcs.usda.gov/programs> and select "New Jersey Conservation Success Stories."



The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotype, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

USDA - NRCS State Office

220 Davidson Avenue, 4th Floor
Somerset, NJ 08873
TEL: (732) 537-6040
FAX: (732) 537-6095

Thomas Drewes
State Conservationist

Helping People Help the Land

<http://www.nj.nrcs.usda.gov>

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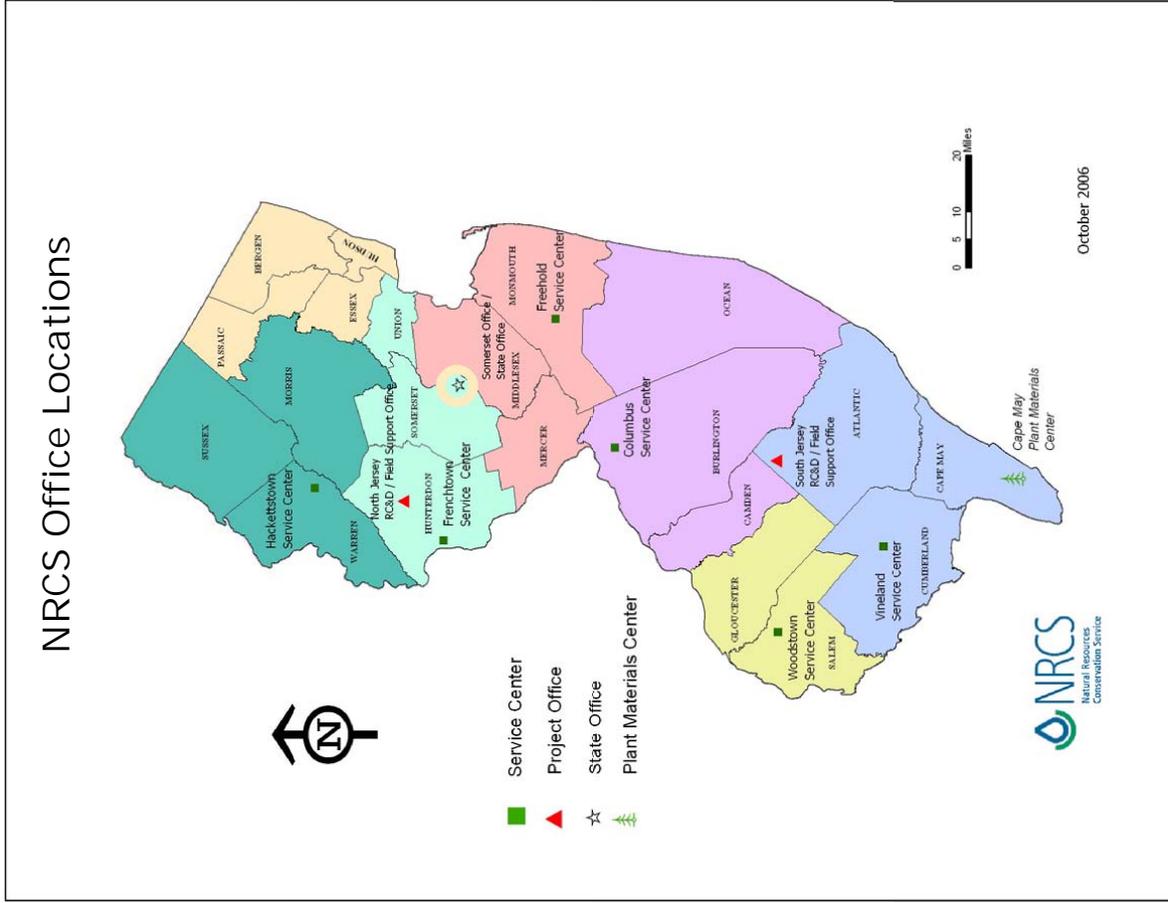
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NRCS SPECIAL PROJECT OFFICE LOCATIONS

North Jersey Resource Conservation & Development serving Hunterdon, Morris, Somerset, Sussex, Union, and Warren Counties
 54 Old Highway 22, Suite 201
 Clinton, NJ 08809
 PHONE: (908) 735-0733
 FAX: (908) 735-0744
 e-mail address: njrcdouncil@northjerseyrcd.org
 web site: <http://www.northjerseyrcd.org>

South Jersey Resource Conservation & Development serving Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, Mercer, Middlesex, Monmouth, Ocean, and Salem Counties
 1971 Jacksonville-Jobstown Road
 Columbus, NJ 08022
 PHONE: (609) 267-1639, ext. 193
 FAX: (609) 261-3007
 e-mail address: Coordinator@sjrcd.org
 web site: <http://www.sjrcd.org>

Cape May Plant Materials Center serving New Jersey and eight other Atlantic coast states
 1536 Route 9 North
 Cape May Court House, NJ 08210
 PHONE: (609) 465-5901
 FAX: (609) 465-9284
<http://plant-materials.nrcs.usda.gov/njpmc/index.html>