DESTINATION 2040

MIDDLESEX COUNTY ◆ NJ
STRATEGIC PLAN

STRONG FARMING.
LOCAL FOODS.

PROPOSED

Farmland Preservation Plan

An Element of the County Master Plan

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MIDDLESEX
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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.

As of 2015, Middlesex County has a population of over 830,000 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. Middlesex County has two major airports within 30 minutes of the County line, and many Fortune 500 companies have chosen to establish corporate headquarters 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 entire population of the County was 16,000 persons living in a predominately rural landscape of farmlands. Most of the early settlers consisted of farmers 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 significant change because of industrialization, which brought about relatively large-scale urbanization and gave rise to the establishment of modern transportation networks that now crisscross the land. Scattered farms 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, which 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 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 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 dairy farm and the first company in the U.S. to produce modified milk suitable for infant feeding. This nationally renowned dairy farm, established in 1897 on a farmstead, was originally 140 acres. In 1929, Walker-Gordon Laboratories became a wholly owned subsidiary of the Borden Company. The dairy operation in Plainsboro grew 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, mainly 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 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, 235 acres of this landmark farming operation became preserved farmland in 1998.

In 1976 Middlesex County had 42,300 acres of assessed farmland. It lost 5,280 acres to non-agricultural development between 1976 and 1983, and another approximately 22,000 acres

between 1983 and 2019. The loss of assessed farmland between 1983 and 2019 equates to an average daily rate of 1.7 acres per day.[3]

The leadership of Middlesex County and the impacted municipalities were not blind to the issue of declining farmland. As early as October 1978, the Comprehensive Planning Section of the Middlesex County Planning Department issued a paper entitled *"Preserving Farmland in Middlesex County"* called for a County-based farmland preservation strategy. By the mid-1980s, Middlesex County and the impacted municipalities actively sought to acquire farmland preservation easements on the County's agricultural lands. As a result, the Middlesex County Planning Board, on May 8, 2001, adopted the first Comprehensive Farmland Preservation Plan for Middlesex County. Without the timely efforts of the 1980s and early 1990s, there almost certainly would have been greater losses of this irreplaceable land resource.

By preserving 5,500 acres (nearly eight square miles) of valuable and productive farmland since 1988, Middlesex County can proudly say that almost one-third of its current farmland assessed land base is preserved in perpetuity. However, the some might characterize the farmland acres preserved to date 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 two-thirds of unpreserved farmland assessed area. A critical component of that strategy will be implementation of an effective outreach program to encourage more of the County's farmers to permanently preserve their part of its agricultural heritage.

Currently, the farmlands remaining in Farmland Assessment represent more than 8 percent (26.1 square miles, 2019) of the approximate 309 square miles of land area in Middlesex County. Continuing to place more of this irreplaceable land into farmland preservation benefits the farmer/landowner and the community.

Some community benefits of farmland preservation include:

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

- The farmer/landowner continues to own the land and can sell it (or lease it) as farmland.
- Funds are available to reduce debt, expand the agricultural operation and use for retirement and estate planning.
- The farmer/landowner is eligible for cost-sharing grants for deer fencing, and water and soil conservation projects (not available to unpreserved farms).
- The farmer/landowner receives a certain level of statutory protection from eminent domain and receives priority water use during emergency restrictions.
- The farmer/landowner retains their 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 preserve farmland without preserving the farmer. 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 and future generations of farmers. A sustainable agricultural industry in Middlesex County enhances the quality of life of all communities by offering convenient access to locally grown ***Middlesex Fresh*** produce and horticultural products. It enhances the real estate value of the county by retaining access to fresh foods and an attractive landscape. It provides agritourism and educational opportunities to County residents and preserves the County's natural resource base through sustained management of open lands. Preserved agriculture provides more in local property tax revenue than it requires of local services. For these reasons, this plan update is subtitled: *"Strong farming. Local Foods".*

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 *agricultūra* (*ager*-, "field" and *cultūra*, "cultivation" or "growing"), 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 Duesterhaus in "Sustainability's Promise"]

"Sustainable agriculture" was addressed by Congress in the 1990 "Farm Bill" [Food, Agriculture, Conservation, and Trade Act of 1990 (FACTA), Public Law 101-624, Title XVI, Subtitle A, Section 1603 (Government Printing Office, Washington, DC, 1990) NAL Call # KF1692.A31 1990]. 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, https://www.nal.usda.gov/afsic/sustainable-agriculture-definitions-and-terms; http://www.etymonline.com/index.php?term=agriculture; and, http://en.wikipedia.org/wiki/Agriculture [viewed January, 2019]

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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 (ADBs). 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 County Commissioners 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. By the beginning of 2022, from a combination of state, county, municipal, and non-profit group funding, over **$65.2 million** has been used to purchase farmland easements in Middlesex County. The State has contributed $42.4 million; the County of Middlesex has contributed $11.4 million; the municipalities have contributed $11.0 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 of assessed valuation (a rate is still in place in 2019). 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, 5,500 acres of farmland preservation easements have been secured on 65 farms. Included in those 65 acquisitions is the preservation of ten farms totaling 580 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).

Figure ES-1: Preserved Acreage by Year for all Programs in Middlesex County: Cumulative 1988 to 2021

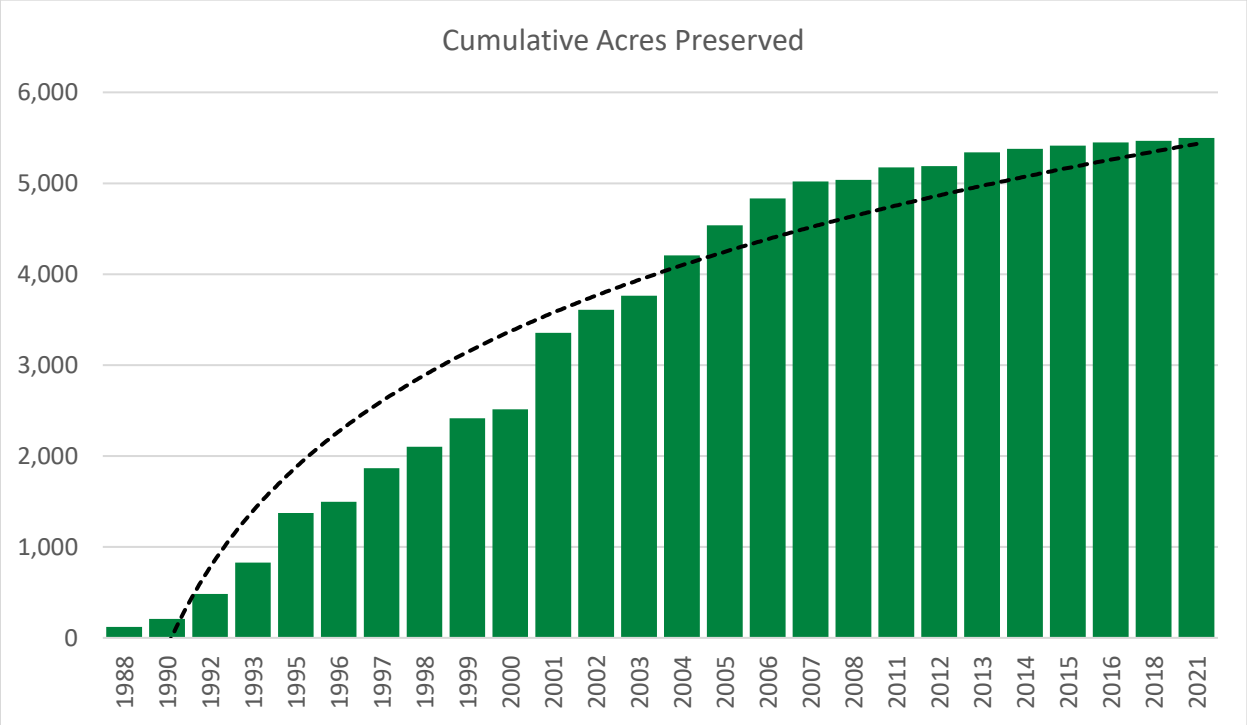


Table ES-1. Summary Data of all Farmland Preservation Programs Implemented in Middlesex County: 1988 to 2021

Program Type	Number of Farms	% of Farms	Total Acres	% Acres	Total Dollars Spent	% Total Dollars Spent
County Easement Purchase	38	58%	3,133	57%	$42,375,867	65%
Municipal Cluster Easement	10	15%	580	11%	$0	0%
County Planning Incentive Grant (PIG)	9	14%	419	8%	$8,440,508	13%
SADC Easement Purchase	4	6%	406	7%	$11,674,072	18%
SADC Fee Simple	1	2%	125	2%	$1,959,651	3%
State-owned Lands	1	2%	571	10%	$0	0%
Donation to County	1	2%	235	4%	$0	0%
Non-profit	1	2%	32	1%	$875,000	1%
Grand Total	**65**	**100%**	**5,500**	**100%**	**$65,325,097**	**100%**

Figure ES-2. Acres Preserved 1988 to 2021

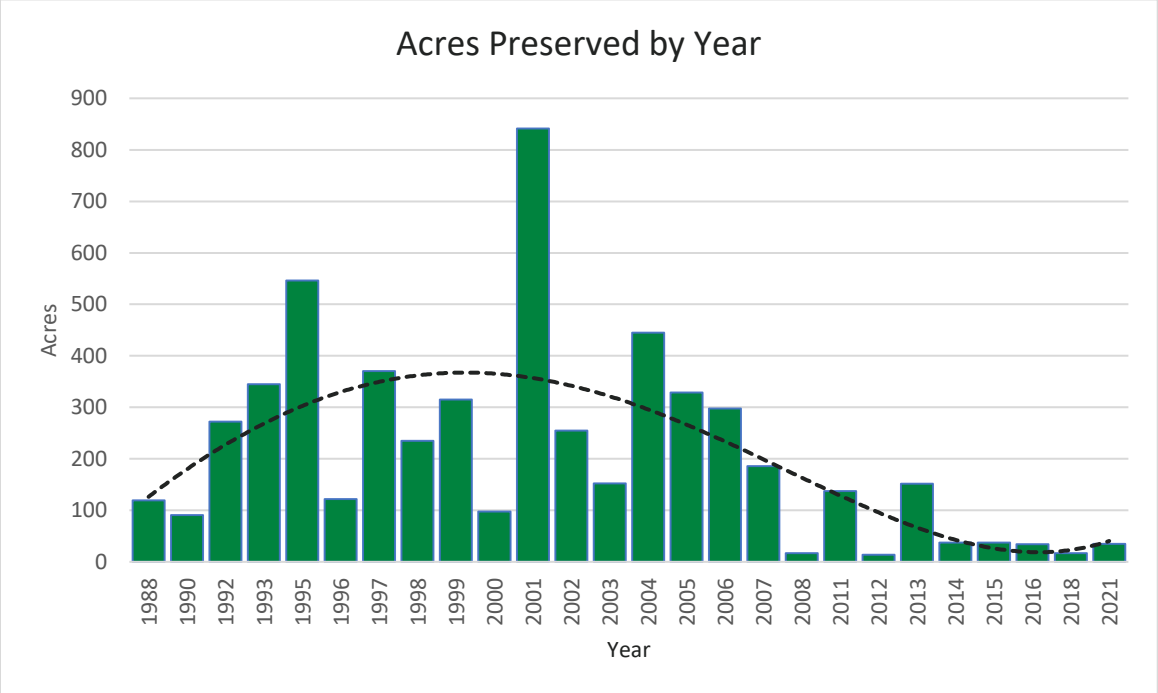


Figure ES-3: Middlesex County Project Area Cost Summary:
For all "Targeted Farms"

FY2023 PIG application data; subject to change during year-to-year PIG application updates

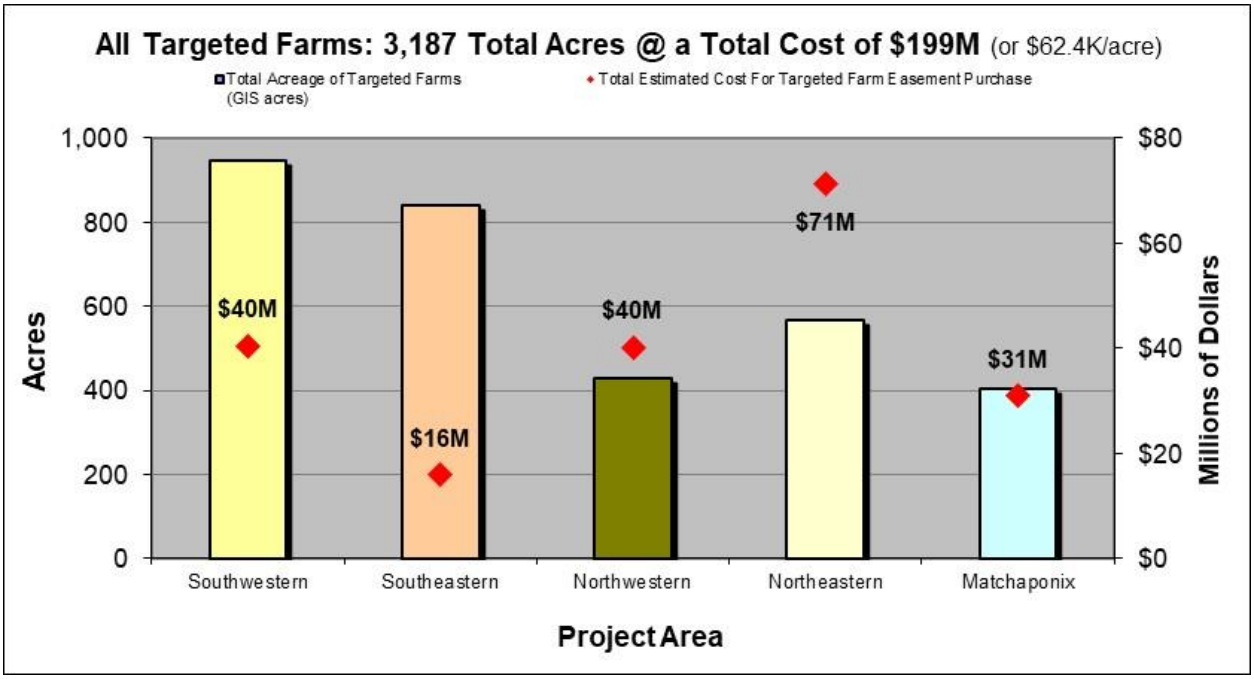
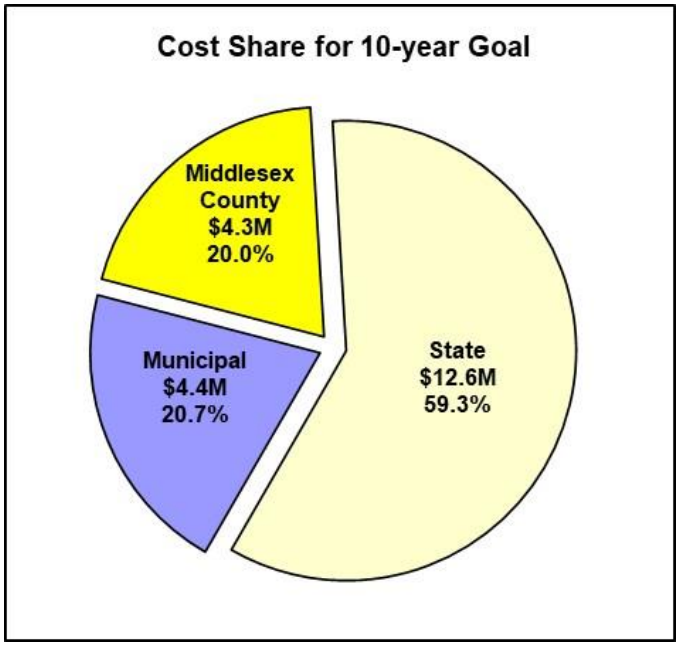


Figure ES-4: Middlesex County Cost Share Pie Chart: 10-year Goal



The Middlesex County Comprehensive Farmland Preservation Plan is also a robust outgrowth of Middlesex County's Destination 2040 (D2040) planning process to develop a new multi-faceted Comprehensive Plan for Middlesex County. Ensuring that agriculture remains a vibrant land use

and industry for generations to come arose as a dominant theme in the public outreach that was done for D2040. The D2040 Middlesex County planning process provided the guiding principles, embraced by the Middlesex County Comprehensive Farmland Preservation Plan, for the development of the agricultural industry and the strategies for ensuring that preservation dollars exist in the future. The D2040 planning process gathered extensive input from stakeholders in Middlesex County's agriculture industry, as well as the public. Through interviews, public meetings, and consultation with experts, challenges to the industry were identified, and potential solutions were discussed.

Destination 2040's Economic and Workforce Competitiveness Working Group formulated a **strategic initiative to grow agriculture as an economic driver for Middlesex County**. This plan recommends the following actions that are consistent with this strategy:

- Provide next-generation farmers with the support they need to succeed.
- Work with municipalities to implement land use and zoning changes to remove barriers to farming success.
- Increase sales of Middlesex County farm products.
- Increase acreage of preserved farmland.
- Increase the acreage of land in active agricultural production in the county.
- Improve agricultural education for K-12 schools and Middlesex College and County Vocational Schools.
- Dramatically expand deer management practices.
- Encourage innovation and expand the use of technology in agriculture.
- Promote sustainable farming practices.

Purpose and Intent

Some of the highest quality farmland in New Jersey, if not the Nation, has been preserved in Middlesex County. During the past several years, the Middlesex County Farmland Preservation Plans of 2001 and 2008 have been useful in guiding the 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 concentrations of economically viable farmland in Middlesex County. However, during the years since the 2008 plan was developed, the program

has seen a noticeable slowdown (see Fig. ES-1 above), with only 464 acres moving into preservation during the entire 14-year period. Therefore, the Middlesex County Agriculture Development Board (Middlesex CADB) recognizes that now is the time to prepare and adopt an updated strategy for the continued retention of economically viable farmland in Middlesex County.

This update to the Comprehensive Farmland Preservation Plan was prepared under the authorization of the Middlesex CADB and aligns with the farmland preservation process rules set by the State Agriculture Development Committee (SADC) in December 2006 and readopted as amended in July of 2019. In conjunction with the state-level rule changes, the SADC shifted the emphasis of its funding allocation policies from the prior County Easement Purchase (County EP) program towards their County Planning Incentive Grant (PIG) program.

Middlesex CADB had an excellent track record of effectively leveraging state cost-share dollars afforded through the SADC by participating in the former 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 a 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 all farms submitted in that particular round of applications. Continued success in leveraging state-level monies (when available) is now achieved by Middlesex County's use of the SADC's Countywide PIG program.

The Countywide PIG program differs from the previous County EP program in that the PIG provides an annual base grant allocation for each participating county rather than allocating funds based solely on the quality of applications submitted annually into the pool of applications. For the coming FY2023 Round, the anticipated annual allotted base grant Middlesex County is eligible for is $2.0 million. Also, for FY2023, the County is eligible to compete with other participating Counties to access up to an additional $4.0 million in Competitive Grant funding (subject to availability on a first-come, first-served basis), bringing the total potential funding amount to $6.0 million. 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 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 former 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 soil's 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 the 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 this plan is:

- To satisfy the detailed *"Guidelines for Developing County Comprehensive Preservation Plans"* adopted by the SADC on December 14, 2006, and amended on July 25, 2019. Compliance with the Guidelines is a prerequisite for participation in the County Planning Incentive Grant (PIG) Program.
- To satisfy the requirement for the adoption of a farmland preservation plan, according 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.
- To serve as a functional planning element that provides actionable recommendations to address the needs of the Middlesex County agriculture industry as a component of the Destination 2040 Middlesex County Strategic Plan.

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. This complete update of the Middlesex County Comprehensive Farmland Preservation Plan, adopted as an element of the Middlesex County Destination 2040 Strategic Plan, will serve to guide the retention and development of agriculture as 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.

Goal:

To grow agriculture as an economic driver for Middlesex County.

Objectives:

- Provide next-generation farmers with the support needed to succeed.
- Promote land use and zoning changes to remove barriers to farming success.
- Increase sales of Middlesex County farm products.
- Increase the acreage of preserved farmland.
- Improve agricultural education for K-12 schools as well as Middlesex County College and Vocational Schools.
- Encourage innovation and expand the use of technology in agriculture.
- Promote sustainable farming practices.

This mission, goal and objectives are consistent with Middlesex County's Destination 2040 Planning Initiative.

Chapter 1. Middlesex County's Agricultural Land Base

Size & Location of Agricultural Land Base

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 2017, the latest year summary data is available, there were 10,537 acres classified as "active agriculture", which is defined as the sum of harvested croplands, pastured croplands, and lands in permanent pasture. These lands represented roughly 4.4 percent of the total county land area. For the same year, there was a total of 20,233 acres considered to be in "agriculture use", more broadly defined as the sum of "active agriculture" lands plus ancillary woodlands, wetlands, and areas for equine activities. Lands classified as "active agriculture" represented approximately 52 percent of the county's total land area.

Table I-1, which summarizes agriculture acreage data by municipality, reveals that nearly 98 percent of all lands classified as being "active agriculture" are concentrated in the top-six-ranked municipalities—Cranbury, Monroe, South Brunswick, Plainsboro, East Brunswick, and Old Bridge. Ninety-eight percent 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 just over two percent 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 (2017 Farmland -Data Report)

	"Active Agriculture" (Cropland and Pasture)		"Total Ag. Use"		"Active Ag."
Municipalities Ranked by 2017 "Active Ag." Acres	Acres	% Total	Acres	% Total	"Active Ag." as Percent Total Ag.
1. Monroe	3,138	29.8%	5,549	27.4%	56.6%
2. Cranbury	3,098	29.4%	3,736	18.5%	82.9%
3. South Brunswick	1,983	18.8%	4,216	20.8%	47.0%
4. Old Bridge	857	8.1%	4,303	21.3%	19.9%
5. Plainsboro	843	8.0%	1,397	6.9%	60.3%
6. East Brunswick	400	3.8%	630	3.1%	63.5%
Top 6 Municipalities Subtotal	10,319	97.9%	19,831	98.0%	52.0%
7. Piscataway	112	1.1%	160	0.8%	70.0%
8. North Brunswick	34	0.3%	91	0.4%	37.4%
9. South Plainfield	29	0.3%	79	0.4%	36.7%
10. Edison	25	0.2%	31	0.2%	80.6%
11. Sayreville	18	0.2%	41	0.2%	43.9%
Total (for All Municipalities w/ "Active Ag")	10,537	100%	20,233	100%	52.1%

Notes: “Active Agriculture” = cropland harvested, cropland pastured & permanent pasture; “Agriculture Use” = active agriculture, attached and unattached woodlands & equine

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 2015, the latest year aerial photographs were flown and interpreted by the NJDEP, there were 13,505 acres classified as “Agriculture Land”, representing almost seven percent of the total land area of the county. A depiction of these areas is shown on Map 1: Agricultural Land Use/Land Cover, 2015. Table I-2 below summarizes Agriculture Land data by municipality, revealing that more than 96 percent 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 Table I-1).

Of these towns, Monroe Township, with more than 4,100 acres of agricultural land area, constituted just under one-third of the county's total agricultural land base. Cranbury was the municipality with the highest percentage of agricultural land cover, with 40.4 percent of its total land area classified as agricultural land, representing about one-quarter of the county's entire agricultural land base.

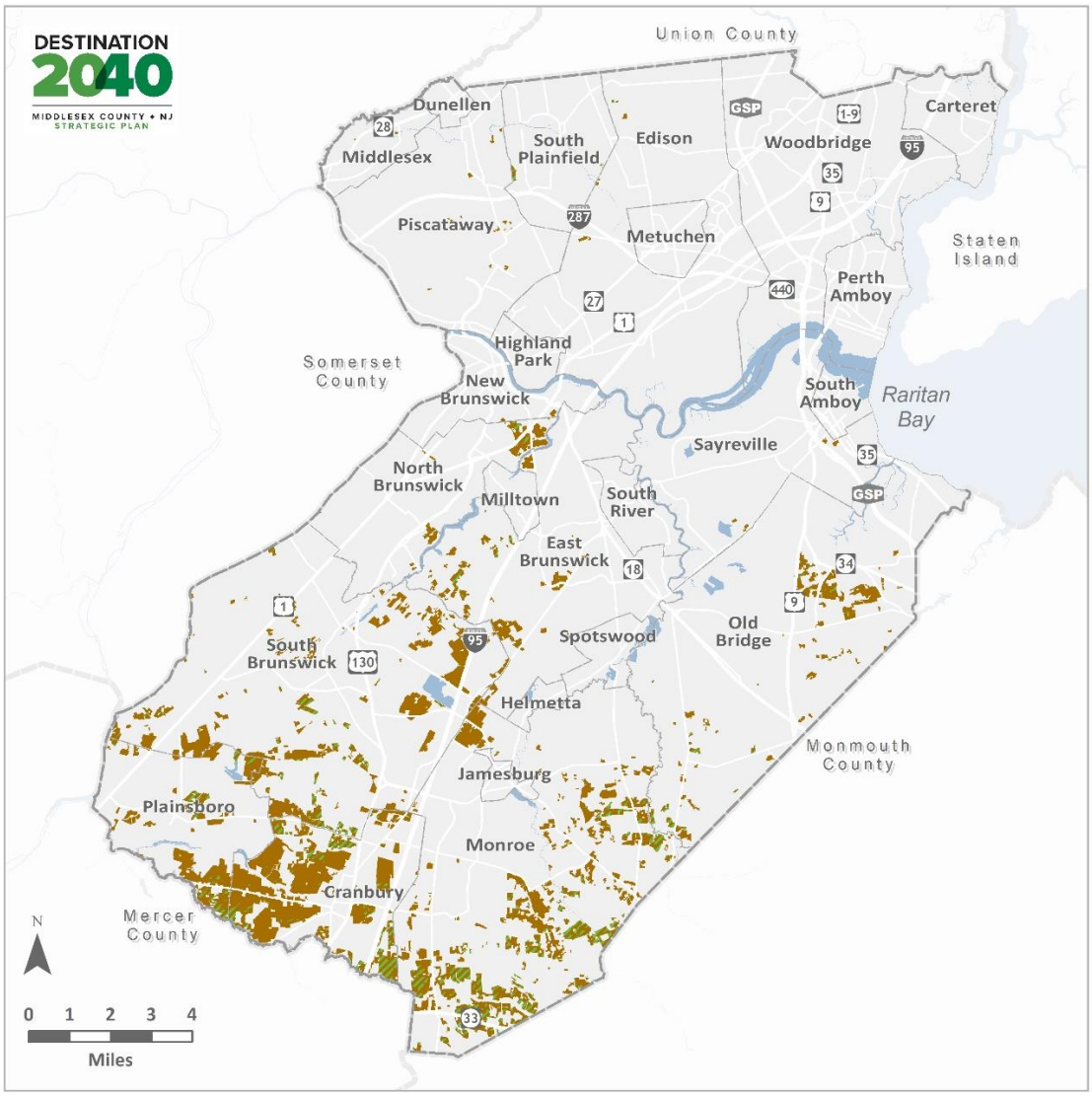
One notable difference between the land cover data and farmland assessment "active agriculture" data is that the NJDEP land cover data consists of all agricultural lands, including those that may be situated on publicly owned lands, properties not in farmland assessment. In Middlesex County, that includes such properties as the Story and Vandyke farms, and the Rutgers New Jersey Agricultural Experiment Station research fields.

Table I-2: NJDEP Agricultural Land Use/Land Cover Acres, 2015
by Middlesex County Municipality

Municipality Ranking and Name	"Agriculture" Acres	Percent Total	"Total Land"	Percent of Municipal Land
1 Monroe	4,120	30.50%	26,604	15.50%
2 Cranbury	3,413	25.30%	8,448	40.40%
3 South Brunswick	2,706	20.00%	25,755	10.50%
4 Plainsboro	1,248	9.20%	7,492	16.70%
5 Old Bridge	916	6.80%	24,217	3.80%
6 East Brunswick	606	4.50%	13,970	4.30%
Top 6 Subtotal	13,010	96.30%	106,486	12.20%
Remaining 19 Subtotal	495	3.70%	90,247	0.50%
County Total	13,505	100.00%	196, 732	6.90%

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"

Map 1: Agricultural Land Use / Land Cover 2015



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Prepared: *July 22, 2021*
By: *Middlesex County Office of Planning*

Agricultural Lands

NJDEP (2015)

- Agricultural Lands
- Agricultural Modified Wetlands

Data Sources:
Agricultural Lands and Agricultural Modified Wetlands: NJDEP Land Use/ Land Cover Dataset (2015)

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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 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

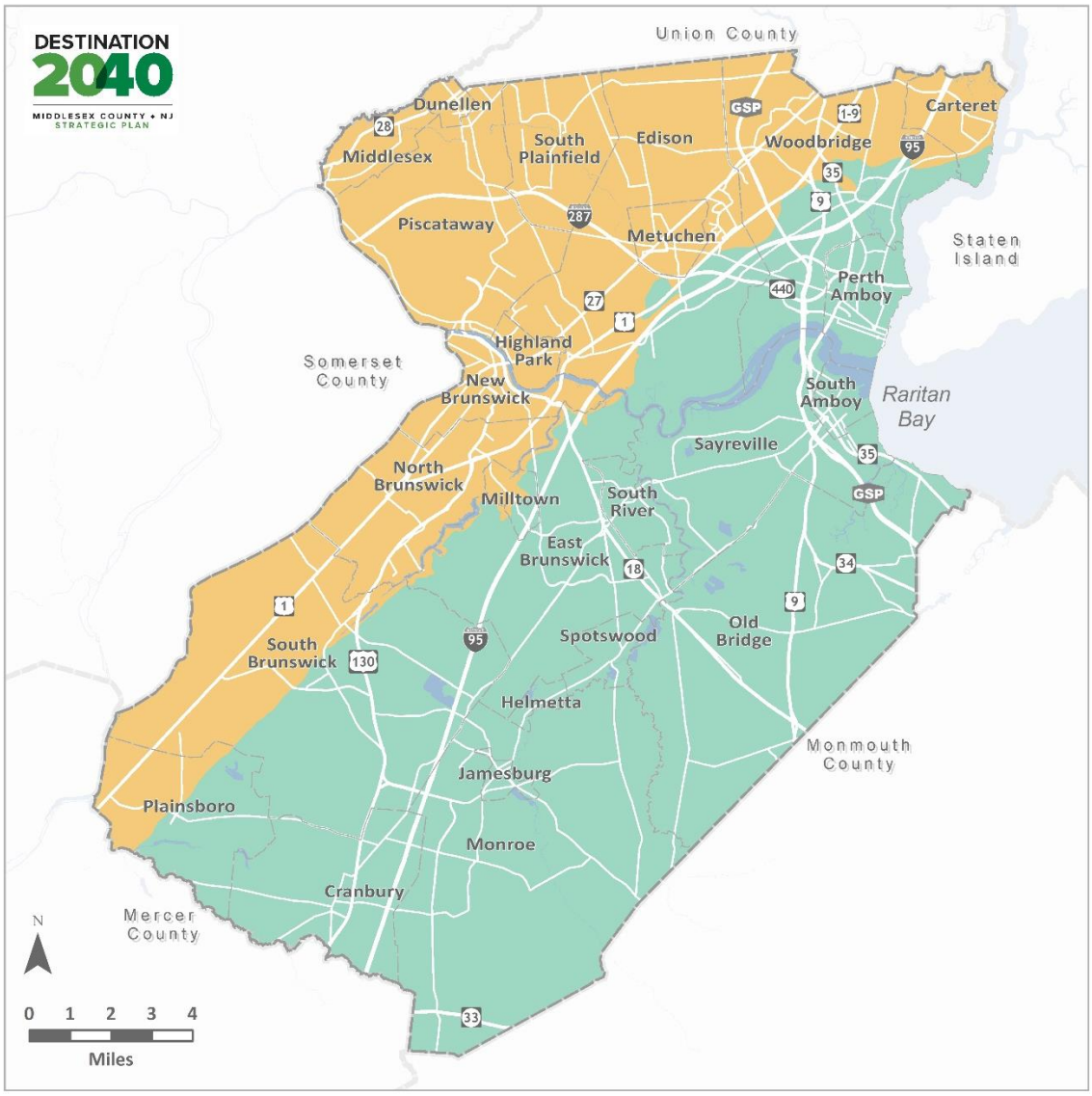
Classification System

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 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 to produce specific high-value food and fiber crops, such as citrus, tree nuts, olives, cranberries, and other 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

Map 2: Physiographic Province



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Prepared: *July 22, 2021*
By: *Middlesex County Office of Planning*

Physiographic Province

- Coastal Plain
- Piedmont

Data Sources:
Physiographic Province:
NJDEP (2002)

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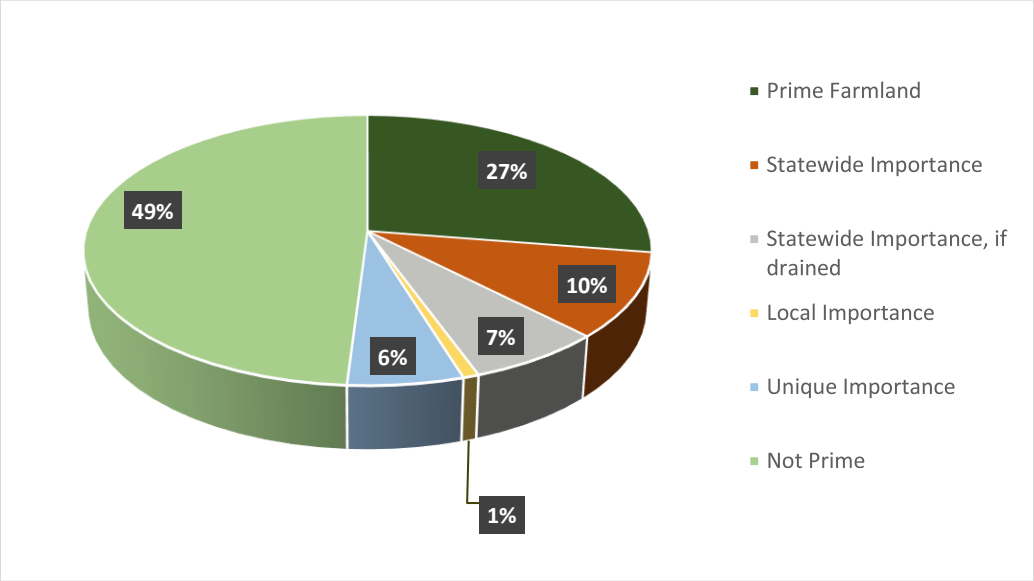
commonly identified in areas where there is a special microclimate, such as the wine country in California.

Land that does not meet the criteria for prime or unique farmland may be *"farmland of statewide importance" that produces* 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 *"farmland of local importance" that produces* food, feed, fiber, forage, and oilseed crops. This farmland may be identified by the appropriate local agencies.

According to 2019 NRCS SSURGO Data, approximately 56,600 acres of land in the county is still considered “Prime Farmland”, which accounts for more than one-fourth of the county. An additional 20,845 acres of the county is “farmland of statewide importance”. When prime and statewide importance farmland soils are combined, they comprise slightly less than half (45percent) of the county’s total soil survey area, or 91,389 out of 202,860 total acres surveyed by the USDA in Middlesex County.

Figure I-1: Farmland Classified Soils of Middlesex County



Source: SSURGO Database

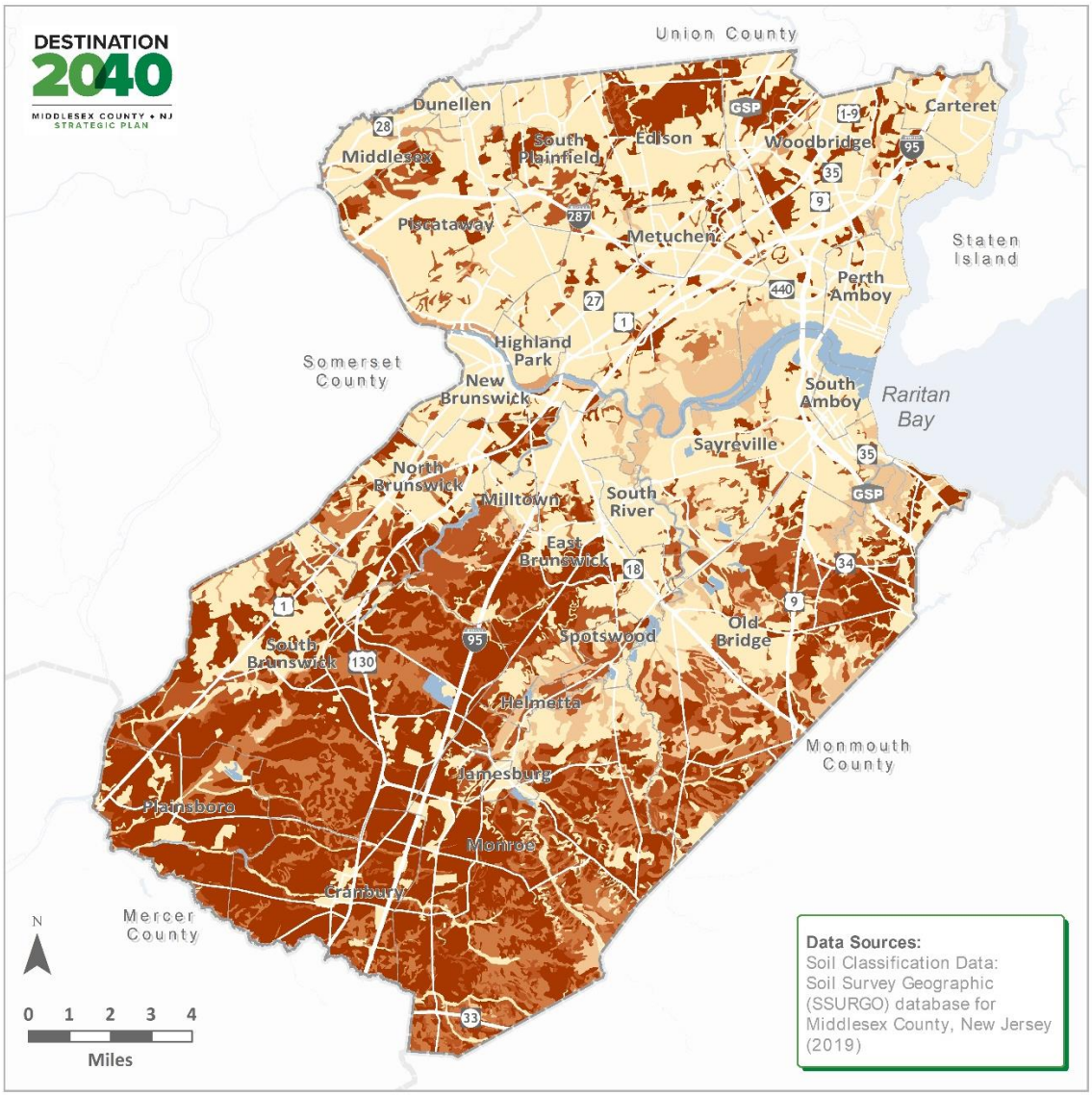
Geographic Distribution of Farmland Soils

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 percent 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 percent of Cranbury Township and 81 of Plainsboro consisting of these two soil types. Almost half of the County's acreage of these agriculturally significant soils are located in the towns of Monroe and South Brunswick, which when combined account for approximately 44 percent of the county's total acreage of prime and statewide important soils (40,731 acres out of 91,389 acres). Both Monroe and South Brunswick consist of approximately 77 percent prime and statewide important soils. The concentration of prime and statewide important soils in East Brunswick and Old Bridge are notably lower, with 47.6 percent and 48.6 percent prime and statewide soils, respectively.

Also provided in the table below are farmland soils figures for Middlesex County's "Active Agriculture" land use/land cover, as per the 2015 mapping of the NJDEP (refer back to Chapter 1, *NJDEP Land Cover Data* for further details on this mapping). In 2015, more than 95 percent of the lands identified in agriculture use were classified as prime farmland soils or farmland soils of statewide importance. Approximately 95.5 percent of the county's prime and statewide important farmland soils were identified within an agricultural land use during the 2015 aerial mapping of the NJDEP.

Map 3a: Soil Classification-All Lands



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By: *Middlesex County Office of Planning*

Soil Classification

- All areas are prime farmland
- Farmland of statewide importance
- Farmland of statewide importance, if drained
- Farmland of local importance
- Farmland of unique importance
- Not prime farmland

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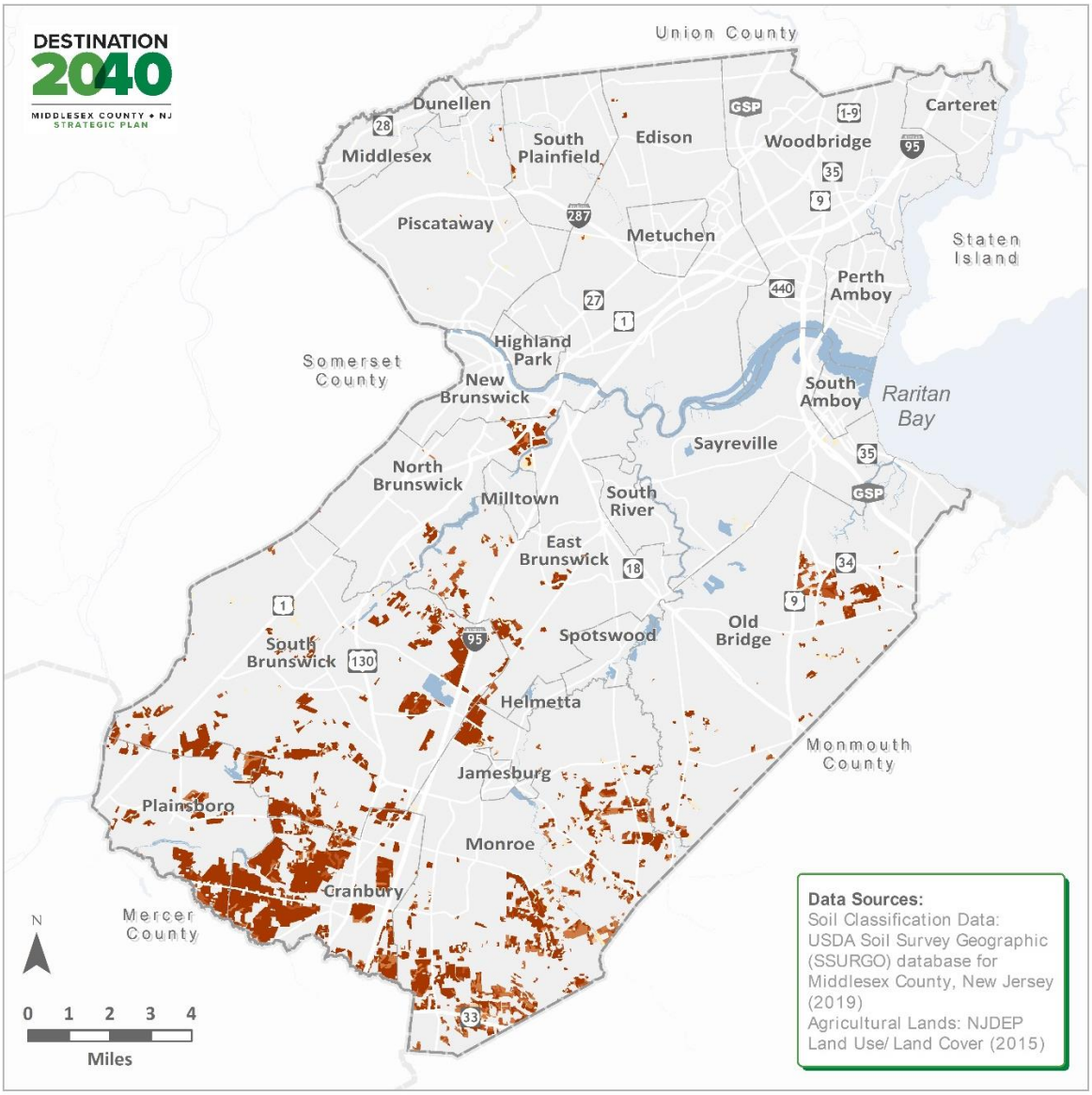
Map 3b: Soil Classification-Agricultural Lands



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Prepared: *August 2, 2021*
By: *Middlesex County Office of Planning*

Soil Classification

- All areas are prime farmland
- Farmland of statewide importance
- Farmland of statewide importance, if drained
- Farmland of local importance
- Farmland of unique importance
- Not prime farmland

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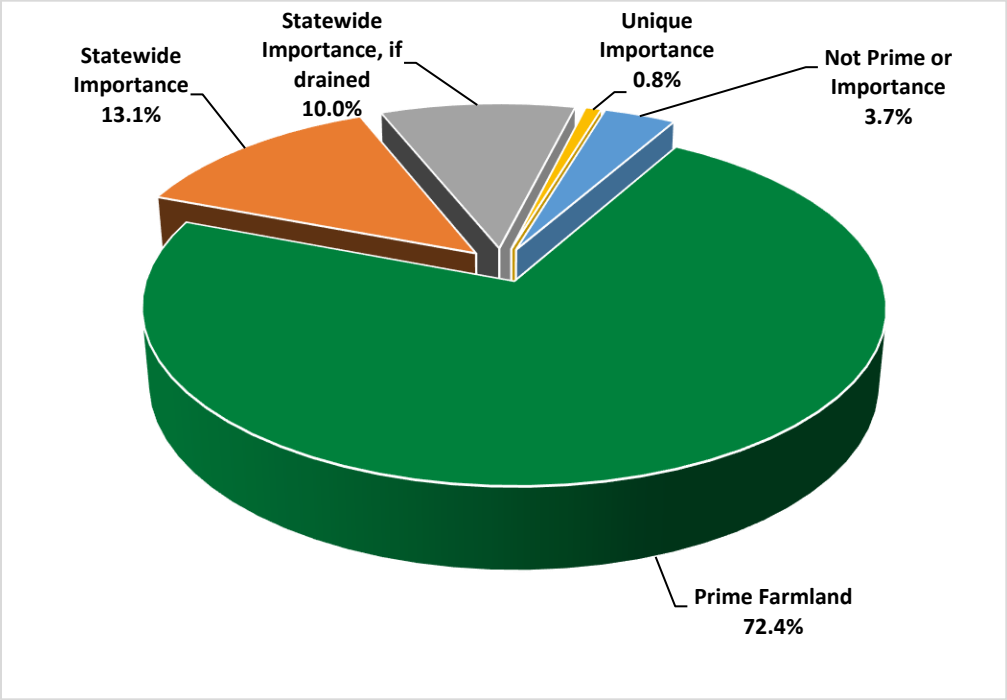
Table I-3: Prime & Statewide Important Farmland Soils, Acreage Summaries by Selected Geographic Locations of Middlesex County

Geographic Location	Prime Farmland	Statewide Importance	Statewide Importance, If Drained	Prime & Statewide Combined		Total Area In Data Set	Prime & Statewide Soils as a Percent of Geographic Location
	Acres	Acres	Acres	Acres	Total %	Acres	Total %
Monroe	11, 330	4,315	4,987	20,632	22.5%	26,989	76.4%
South Brunswick	13,810	2,330	4,014	20,154	22.0%	26,243	76.8%
Old Bridge	5,145	5,562	1,354	12,061	13.2%	24,755	48.7%
Cranbury	6,144	452	938	7,535	7.5%	8,598	87.6%
East Brunswick	3,557	2,779	488	6,823	7.3%	14,340	47.6%
Plainsboro	5,258	387	648	6,993	6.9%	7,751	81.2%
Subtotal of Top Six Towns	45,243	15,825	12,429	73,498	80.3%	108,676	67.6%
Subtotal of 19 Other Towns	11, 366	5,029	1,591	17,986	19.7%	94,184	19.1%
Country “Active Agriculture”	72.4%	13.1%	10.0%	95.5%	0.0	100.0%	95.5%
County Grand Total	56,609	20,854	14,2020	91,484	100.0	202,860	45.1%

Notes: *“Active Agriculture” as per 2015 NJDEP Land Use / Land Cover mapping

The following pie chart in Fig. I-2 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 (2015 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 (2015 NJDEP)



Number of Irrigated Acres and Available Water Sources

Irrigated Acres

The following table of irrigation trends reflects a great deal of variation from census to census in the number of acres being irrigated. In 1997, it was reported that there were 1,589 acres of irrigated cropland (only 7 percent of total cropland). In 2017 there were 2,001 reported acres of irrigated cropland, a 25.9 percent increase from the 1997 figures but a significant decrease from the three prior census figures in 2002, 2007, and 2012. The number of irrigated farms in 2017 remained relatively stable as compared to 1997, with one additional irrigated farm being reported. The percentage of irrigated cropland relative to total cropland was 18 percent in 2017, an increase from 1997 that was largely due to an overall decrease in total cropland.

Table I-4: Cropland Irrigation Trends, US Census of Agriculture
Middlesex County (1997 to 2017)

US Census of Agriculture Year	1997	2002	2007	2012	2017
Number of Irrigated Farms	76	84	70	68	77
Total Irrigated Acres	1,589	2,806	2,655	2,654	2,001
Total Cropland Acres	22,309	16,507	12,900	12,342	11,216
Irrigated Land as a % of Total Cropland	7%	17%	21%	22%	18%
US Census of Agriculture	1992-97	1997-2002	1997-2002	2007-2012	1997 – 2017
Change in Number of Irrigated Farms	2	8	(14)	(2)	1
% Change in Number of Irrigated Farms	2.7%	10.5%	-16.7%	-2.9%	1.3%
Changes in Number of Irrigated Acres	185	1,217	(151)	(1)	412
% Change in Irrigated Acres	13.2%	76.6%	-5.4%	-0.0%	25.9%

Irrigation Water Sources

Farm operations that do not actively irrigate are obviously reliant solely on natural precipitation for crop production needs. In the case of field commodity crops, Central Jersey's temperate climate and its 47 inches of typical precipitation per year may prove sufficient.7 However, relying solely on precipitation is generally not an option for fruit, vegetable, nursery, and ornamental crops, especially those grown in controlled environment settings such as greenhouses and high tunnels.

Actively irrigating provides a higher level of certainty and maximization of crop yields. Widely used drip irrigation systems also play a role in growing higher quality produce by reducing disease pressure and allowing water and chemical inputs to be delivered directly to the plant's roots. Middlesex County farmers (including horticulture, nursery, etc.) who choose to irrigate rely on different sources of water, depending on the hydrologic setting of that farm's 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.

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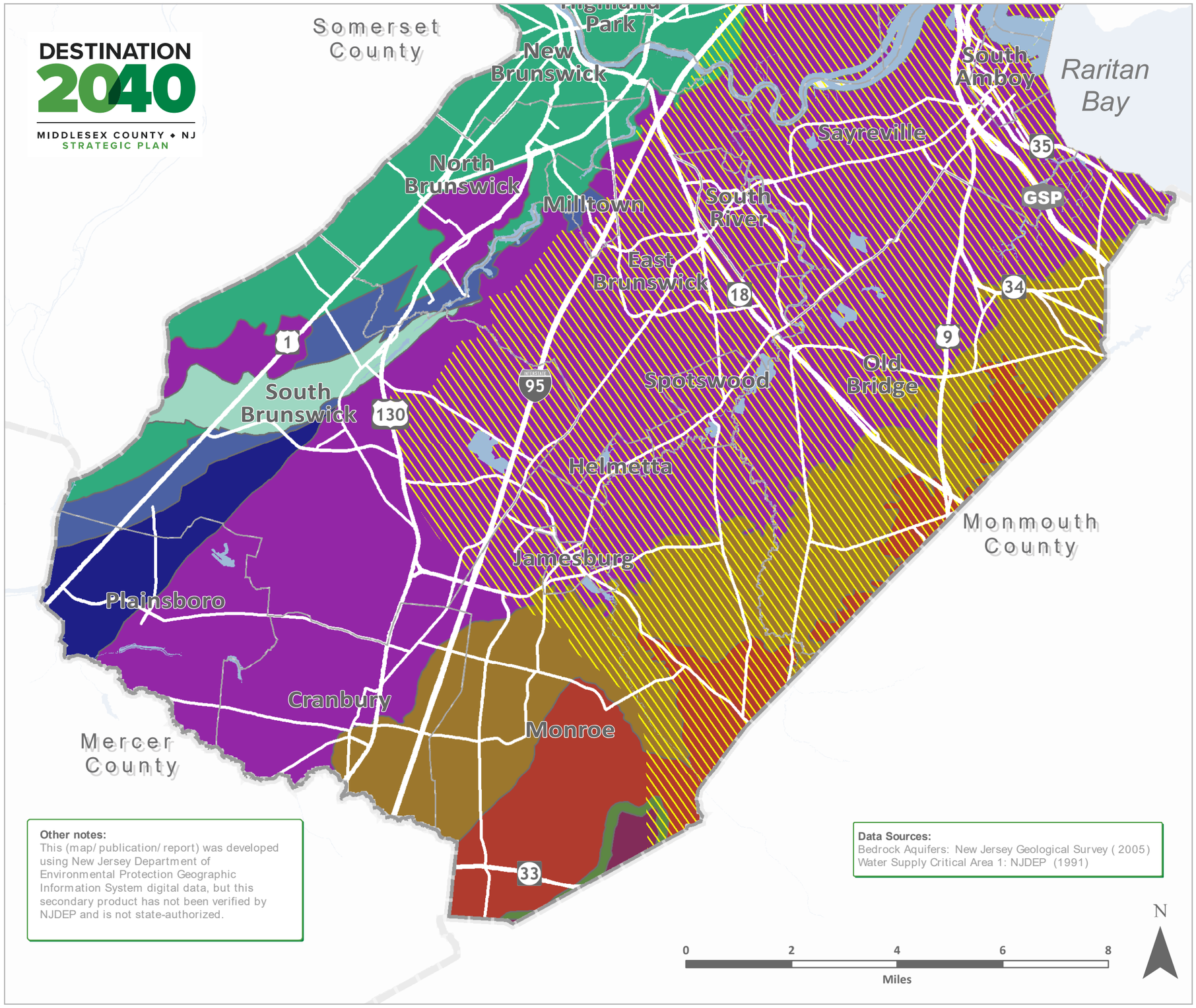
Map 4: Aquifers of Southern Middlesex County



Other notes:
This (map/ publication/ report) was developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been verified by NJDEP and is not state-authorized.

Data Sources:
Bedrock Aquifers: New Jersey Geological Survey (2005)
Water Supply Critical Area 1: NJDEP (1991)

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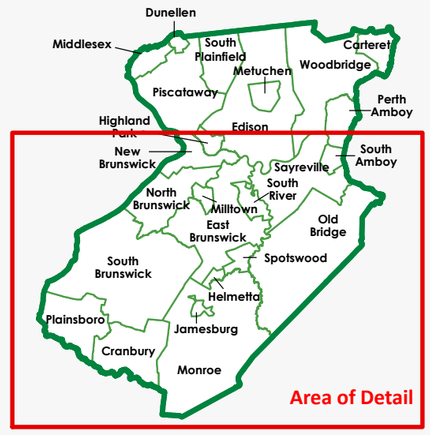


- Water Supply Critical Area 1

Bedrock Aquifers

- Brunswick aquifer
- Diabase
- Englishtown aquifer system
- Lockatong Formation
- Marshalltown-Wenonah confining unit
- Merchantville-Woodbury confining unit
- Mt. Laurel-Wenonah aquifer
- Potomac-Raritan-Magothy aquifer system
- Stockton Formation

Prepared: *July 29, 2021*
By: *Middlesex County Office of Planning*

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 an individual's water usage allocation is classified as registration or certification, the necessary application materials are processed with technical assistance from the office of Rutgers Cooperative Extension of Middlesex County. Upon finalization of the necessary paperwork, it is reviewed and filed with the NJDEP Division of Water Supply and Geoscience.

The following table summarizes current agricultural water use registrations and certifications as of March 2021, according to an NJDEP website query.

Table I-5: Number of Agricultural Water Use Certifications & Registrations in Middlesex County, by Preserved Farms & Other Farms (March 2021)

	Certifications	Registrations
Preserved Farm	13	3*
Other Farms	8	1
Total Farms	21	4

*Barton Nursery Inc. land is only partially preserved, 200 acres.

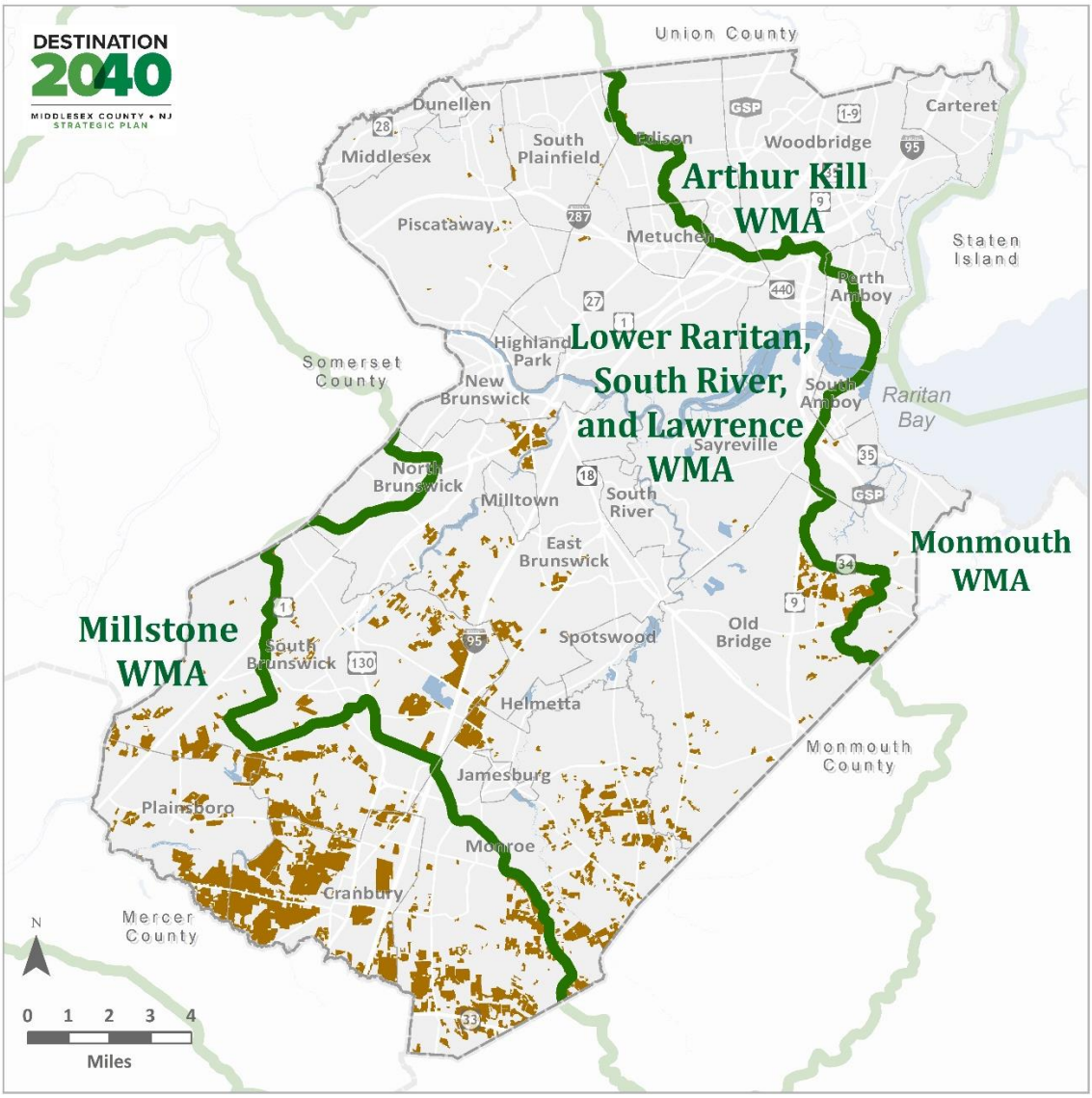
Gaining initial and renewing existing agricultural water use registrations or certifications was routine and readily obtained until the past decade or so; but, because of stricter environmental regulations and growing competition from other water users (i.e., potable water), it is increasingly difficult for farmers to receive the approval from the NJDEP. Therefore, adequate water withdrawal is essential for maintaining 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. See Map 4 above for the location of Critical Area No. 1. The New Jersey Water Supply Plan 2017-2022 acknowledges the importance of better coordination with the agricultural community to accurately assess its water use and future demand. Careful evaluation of the balance between the Department of Agriculture's policies for agricultural promotion and NJDEP's water supply protection policies is a critical issue.

Irrigation Water Volume Demands

As part of the NJ Water Supply Plan development, the Division of Water Supply within the NJDEP has compiled and assembled water usage for selected use areas, including agricultural irrigation covering the years 1990 - 2015.[8] The information divides smaller regions within an overarching Watershed Management Area (WMA) into 11-digit Hydraulic Unit Codes (HUC-11) The boundaries of the HUC-11 regions are based upon large-scale natural drainage basin features (i.e., topography) and, consequently, do not follow geopolitical boundaries such as counties. Map 5: Watershed Management Area (WMA) Boundaries depicts the locations for the HUC-11 regions that cover the agricultural development areas of Middlesex County. Most of the county's agricultural lands fall within the Lawrence Brook, Lower Raritan River (Below Lawrence), Manalapan Brook, Matchaponix Brook, and Millstone River (above Carnegie Lake) regions.

Map 5: Watershed Management Area (WMA) Boundaries



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By: *Middlesex County Office of Planning*

Watershed Management Area (WMA)

Agricultural Lands

Data Sources:
Watershed Boundary Areas: NJDEP
Agricultural Lands: NJDEP Land Use/ Land Cover Dataset (2015)

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Table I-6 below summarizes water demand (usage) data for the HUC-11 regions covering Middlesex County. Therefore, it is essential to note that the water usage data presented below includes some use from neighboring counties (i.e., Monmouth, Mercer, and Somerset). Nonetheless, to inform this plan, the data in the tables represent water demands in Middlesex County.

Agricultural irrigation is a relatively small water user when viewed in terms of percent total volume (less than 2 percent of average total volume, for example) compared to potable water (~92 percent). However, the Millstone sub watershed (WMA 10), which covers a large portion of the county's most agriculturally productive lands, sees by far the most significant agricultural water withdraws, making up 11 percent of the total volume consumed.

Table I-6: Fresh Water Use, 1990 to 2015 Annual Averages for Agricultural Irrigation and Other Selected Users

HUC 11 Region (data from 1990 to 2015)	Average Annual Withdrawals by Use (Millions of Gallons)					Percent of Total Volume			
	Ag/non-Ag Irrigation	Potable Supply	Comm/ Indust/ Mining	Pwr Gen	Total Volume	Ag/ non-Ag Irrigation	Potable Supply	Comm/ Indust/ Mining	Pwr Gen
WMA 7 - Arthur Kill Rahway River/Woodbridge	203.42	6,121.85	921.85	1,657.23	8,904.35	2.0%	69.0%	10.0%	19.0%
WMA 9 - Raritan, South, & Lawrence Raritan River - Lower (Lawrence to Millstone) *Lawrence Brook *Manalapan Brook *Matchaponix Brook *Raritan River - Lower (below Lawrence)	479.18	58,672.30	2,773.00	1.62	61,926.10	1.0%	95.0%	4.0%	n/a
WMA 10 - Millstone *Millstone River (above Carnegie Lake) Millstone River (below Carnegie Lake)	688.19	4,883.00	556.92	-	6,128.11	11.0%	80.0%	9.0%	n/a
WMA 12 - Monmouth Raritan/Sandy Hook Bay Tributaries	581.88	23,287.69	347.62	18.61	24,235.80	2.0%	96.0%	1.0%	n/a
Grand Total	1,952.67	92,964.84	4,599.39	1,677.46	101,194.36	1.93%	91.87%	4.55%	1.66%

* Indicates regions that cover the southern agricultural areas of the county.

Census of Agriculture & Farmland Assessment Statistics and Trends

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 followed by illustrative graphs and tables intended to highlight some of the main findings in the text. In addition, comparisons between Middlesex County and the state provide a degree of context–-how the county fares relative to the state changes. Appendix B includes selected US Census of Agriculture profiles for additional reference.

Number of Farms

There were 217 farms in 2017 versus 300 farms in 1997, a decrease of 83 farms over 20 years. There was a 9.5 percent increase in farms from 2012 to 2017, reflecting a slight rebound from the overall downward trend. See Table I-8 for more detailed trends data.

Total Land in Farms

There were 28,635 acres in 1997 versus 16,023 acres in 2017, amounting to a decline of almost 12,600 acres, a loss of 44 percent of the county's agricultural land base. During the same 20-year-period, New Jersey lost farmland at a much slower pace, a loss of about 14 percent of its farmland base by 2017. In Middlesex County, most of the loss occurred between 1997 and 2002 when the county decline in farmland was 6,811 acres, nearly a 24 percent loss. The reduction of land in farms has slowed considerably in the last 15 years, but the downward trend remains. See Figure I-3 and Table I-7, which compare trends between Middlesex County and New Jersey as a whole.

Size of Farm

During the 2017 Census, the vast majority of farms in Middlesex County were less than 50 acres (178 out of 217 total farms were 49 acres or less); almost half of the farms fell in the 1-to-9-acre size category. In 2017, the median farm size was 10 acres, and the average size was 74 acres, precisely on par with the state's average farm size. In 2017, the average farm size in Middlesex County was 74 acres, a 15 percent decrease since the 2012 Census, which matches the State's average farm size of 74 acres. See also Figure I-4 and Table I-7.

Land in Farms by Use

In 2017, about 70 percent of the county's total land in farms, or more than 11,200 acres, was classified as cropland. Woodlands covered about 19 percent of the county's total land in farms. During the same year, croplands used for pasture and grazing, pasturelands, and rangelands combined accounted for a minimal component of the county's land in farms, only about 3 percent of the county's farmland. See Figure I-5.

Cropland Harvested

In 2017, nearly 63 percent of the total land in farms was classified as harvested cropland. In the same year, Middlesex County maintained over 10,000 acres of harvested cropland, which accounted for 2.4 percent of the state's total cropland harvested land area — only a significant decline since the 1997 Census when Middlesex County had a 4.1 percent share of the state's total cropland harvested acreage. However, between 1997 and 2017, the county's cropland harvested acres declined slightly faster than the total land in farms, a harvested acres loss of 51 percent versus 44 percent for total land in farms. See Figure I-5 and Table I-7.

Type of Organization

The 2017 Census of Agriculture reports that an "individual or family" operated 70 percent of the farms in Middlesex County. Approximately 28 percent were either operated by partnerships or corporations. Less than 3 percent of the farms were under control by an estate, a trust, a cooperative, or other types of organizational entity. See Figure I-6.

Age of Principal Farm Operators

According to the 2017 Census, the average age of farmers has continued to increase and now stands at 57.5 years old, an increase of 1.2 years since the 2012 Census. Primary producers over the age of 65 now outnumber those under 35 by more than 6 to 1. This aging of existing farmers represents a significant challenge in ensuring that future generations of farmers are available to retain our agricultural industries and serve as stewards of the lands currently in agriculture. The comparable statistic for Middlesex County during the 2017 Census was just over 3-to-1, while the same ratio for the state was 5.5-to-1, closer to the national ratio.

Broken down by a different age grouping in the 2017 Census, there were 2.1 Middlesex County farm operators over the age of 65 for everyone under 45. New Jersey's equivalent ratio was slightly higher at 2.2-to-1. The average age of farm operators in Middlesex County between 1997 and 2017 increased from 56.1 to 57.8; during the same time, New Jersey's average age of farm operators increased 55.1 and 58.5 for 1997 and 2017, respectively. See Tables I-8 and I-9.

Figure I-3: Loss of Land in Farms, Acres
(Middlesex County vs. New Jersey: 1982 to 2017)

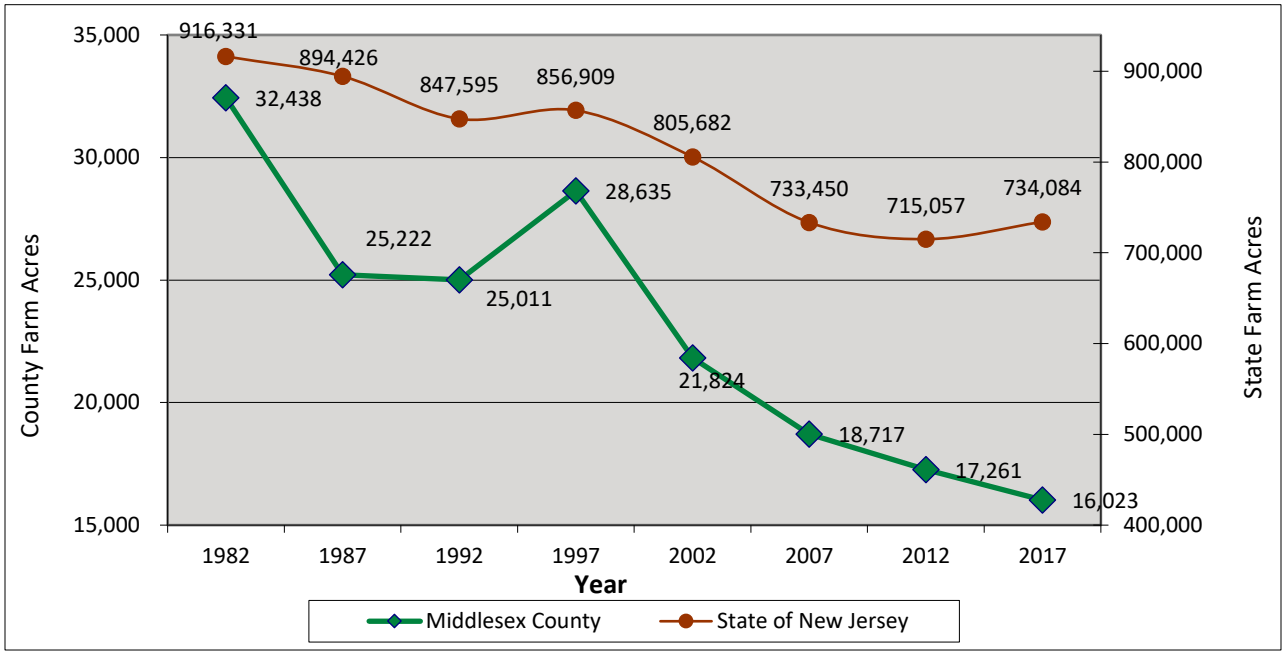


Figure I-4: Number of Farms by Size of Farm, Middlesex County (2017)

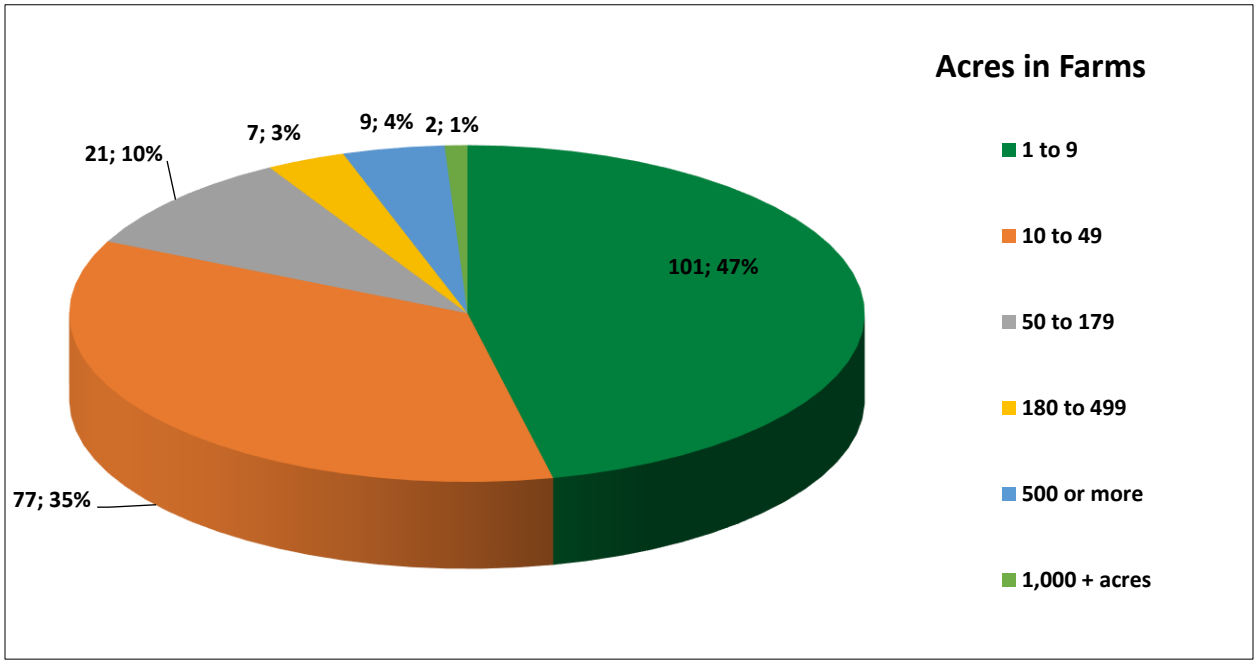


Figure I-5: Land in Farms According to Use, by Acres
Middlesex County (2017)

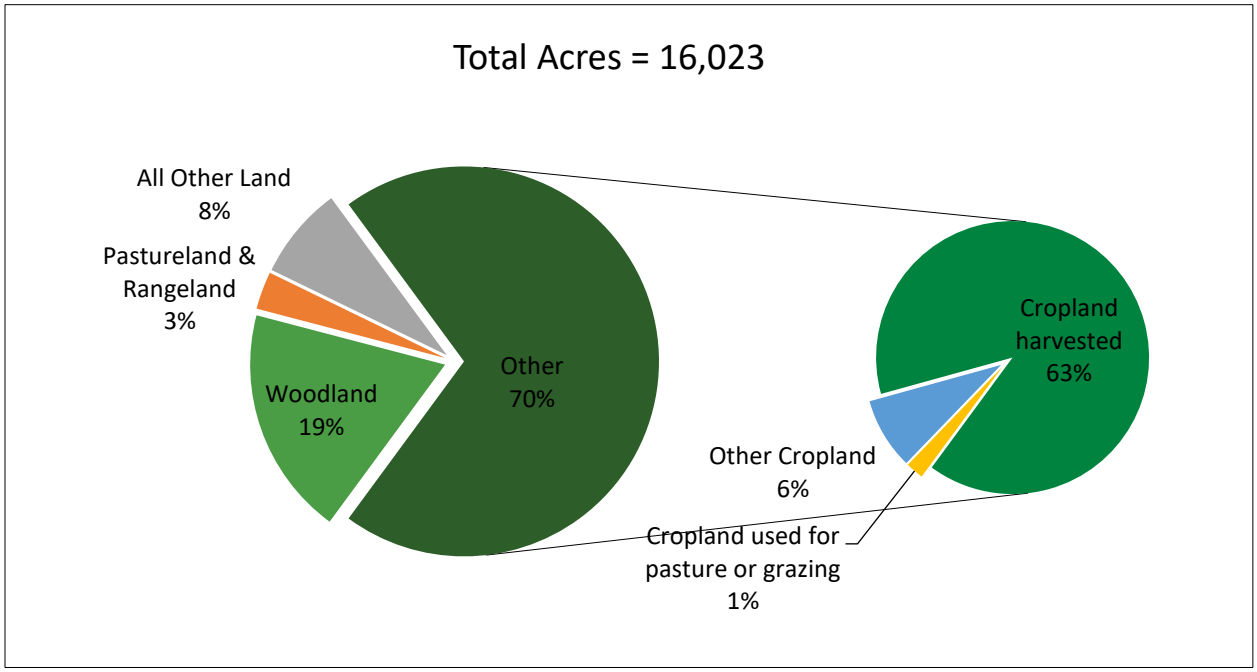


Figure I-6: Farms by Type of Organization, Middlesex County (2017)

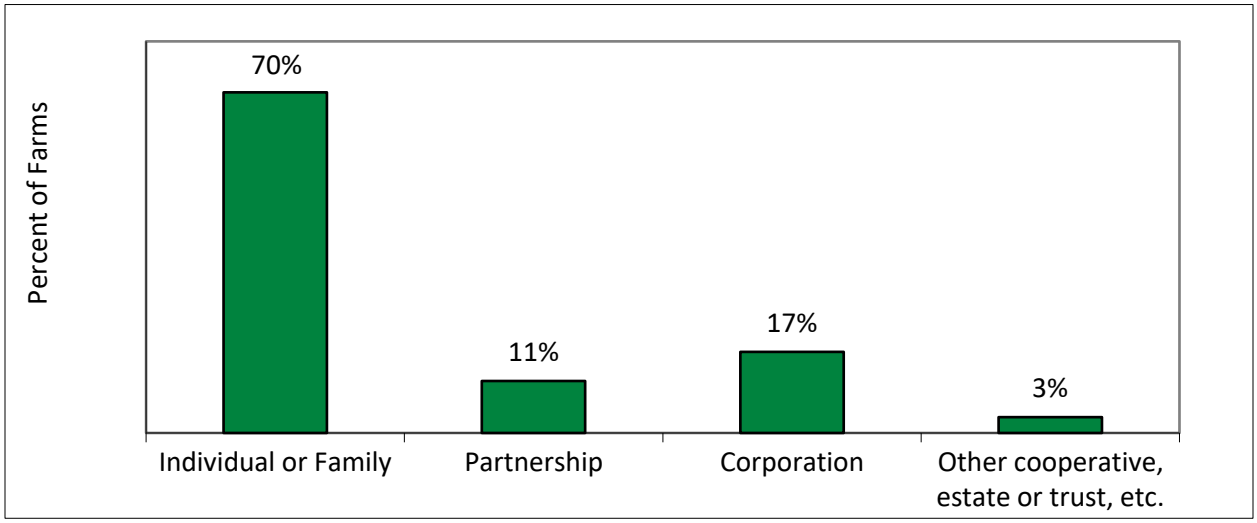


Table I-7: Number, Acreage & Size of Farms and Cropland
(Middlesex County vs. New Jersey: 1997 to 2017)

Census Year	1997	2002	2007	2012	2017
Middlesex County					
Farms (number)	300	275	236	198	217
Land in Farms (acres)	28,635	21,824	18,717	17,261	16,023
Total Cropland	22,309	16,507	12,899	12,334	11,246
Total Harvested Cropland	20,514	15,118	11,425	11,182	10,052
% of Statewide Harvested Cropland	4.1%	3.4%	2.7%	2.7%	2.4%
Average Size of Farm (acres)	95	79	79	87	74
Median Size of Farm (acres)	16	17	17	17	10
State of New Jersey					
Farms (number)	10,045	9,924	10,327	9,071	9,883
Land in Farms (acres)	856,909	805,682	733,450	715,057	734,084
Total Cropland	612,919	547,668	488,697	456,751	463,019
Total Harvested Cropland	498,912	444,670	415,542	408,993	411,785
Average Size of Farm (acres)	85	81	71	79	74
Median Size of Farm (acres)	23	22	12	20	16
Census Years Range	1997-2002	2002-2007	2007-2012	2012-2017	1997-2017
Middlesex County					
Change in Number of Farm Acres	(6,811)	(3,107)	(1,456)	(1,238)	(12,612)
% Change of Farm Acres	-23.8%	-14.2%	-7.8%	-7.2%	-44.0%
Change in Number of Harvested Acres	(5,396)	(3,693)	(243)	(1,130)	(10,462)
% Change of Harvested Acres	-26.3%	-24.4%	-2.1%	-10.1%	-51.0%
State of New Jersey					
Change in Number of Farm Acres	(51,227)	(72,232)	(18,393)	19,027	(122,825)
% Change of Farm Acres	-6.0%	-9.0%	-2.5%	2.7%	-14.3%
Change in Number of Harvested Acres	(54,242)	(29,128)	(6,549)	2,792	(87,127)
% Change of Harvested Acres	-10.9%	-6.6%	-1.6%	0.7%	-17.5%

Table I-8: Age Groups of Principal Farm Operator (2017): NJ vs. Middlesex County

Age Group	Middlesex County		New Jersey	
	Number	% Total	Number	% Total
Under 25 years	8	2.2%	221	1.3%
25 to 34 years	25	6.9%	796	3.0%
35 to 44 years	20	5.6%	1,556	18.9%
45 to 54 years	81	22.5%	3,227	29.3%
55 to 64 years	115	31.9%	5,097	13.2%
65 to 74 years	69	19.2%	3,761	11.4%
75 years and over	42	11.7%	1,898	15.4%
	360		16,556	

Table I-9: Average Age of Principal Farm Operator (1997 & 2017): NJ vs. Middlesex County

	1997	2017
Middlesex County	56.1	57.8
New Jersey	55.2	58.5

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 Table I-10 below are for the lands classified as farm-qualified (i.e., Property Class "3B"), which receive a special assessment for being used for agriculture or a related purpose.

The 2001 Farmland Preservation Plan cited 42,291 assessed farmland acres in 1976. According to the New Jersey Division of Taxation's 2019 Farmland Data Report, 15,148 farmland assessed acres devoted to agricultural or horticulture use. This represents a loss rate of nearly one and three-quarters acres per day throughout 43 years. Currently, farmland assessed acreage represents 7.6 percent of total Middlesex County acreage.

The table below provides more detailed information on trends in farmland assessment for various periods between 2002 and 2017; it is aggregated by the significant categories of land use specified on farmland assessment forms. For example, the nearly 4,900 acres loss in active agriculture acreage between 2002 and 2012 (10 years) was more than double the amount lost during the ten years between 2007 and 2017 (just shy of 2,400 acres).

Overall, for all land use categories, Middlesex County's farmland assessed land base of 2019 was just over one-third of the 1995 land base. However, for the "active agriculture" categories of cropland harvested & pastured and permanent pasture, the farmland assessed land base of

2019 represented a loss of almost two-thirds of the 1995 active agriculture lands. Between 2007 and 2019, there was a decline of about 4,000 acres of occupied agriculture lands and 4,000 acres of woodlands qualifying for farmland assessment.

Table I-10: Trends in Middlesex County's Farmland Assessment Acreages (2002 to 2017)

	2002	2007	2012	2017	2002 to 2012		2007 to 2017	
Cropland Harvested (acres)	15,539	11,325	11,312	9,469	-4,688	-30.2%	-2,170	-19.2%
Cropland Harvested (acres)	474	680	445	411	47	9.9%	-276	-40.6%
Cropland Pastured (acres)	986	885	742	850	-251	-25.5%	-2,353	-18.3%
"Active Agriculture" Subtotal (acres)	16,999	12,890	12,499	10,730	-2.47	-28.8%	-2,353	-18.3%
Percentage of County in "Active Agriculture"	8.6%	6.5%	6.3%	5.4%	-2.47	-28.8%	-1.19	-18.3%
Unattached Woodland (acres)	7,386	6,943	7,201	7,383	60	0.8%	387	5.6%
Attached Woodland (acres)	4,154	3,380	2,849	2,356				
Equine Acres	92	128	161	164				
Renewable Energy Acreage	0	0	3	15				
Total for Ag Use (acres)	28,633	23,341	22,713	20,684				
Total County Land Area (acres)	198,220	198,220	198,220	198,220	N/A	N/A	N/A	N/A

CHAPTER 2. MIDDLESEX COUNTY'S AGRICULTURAL INDUSTRY

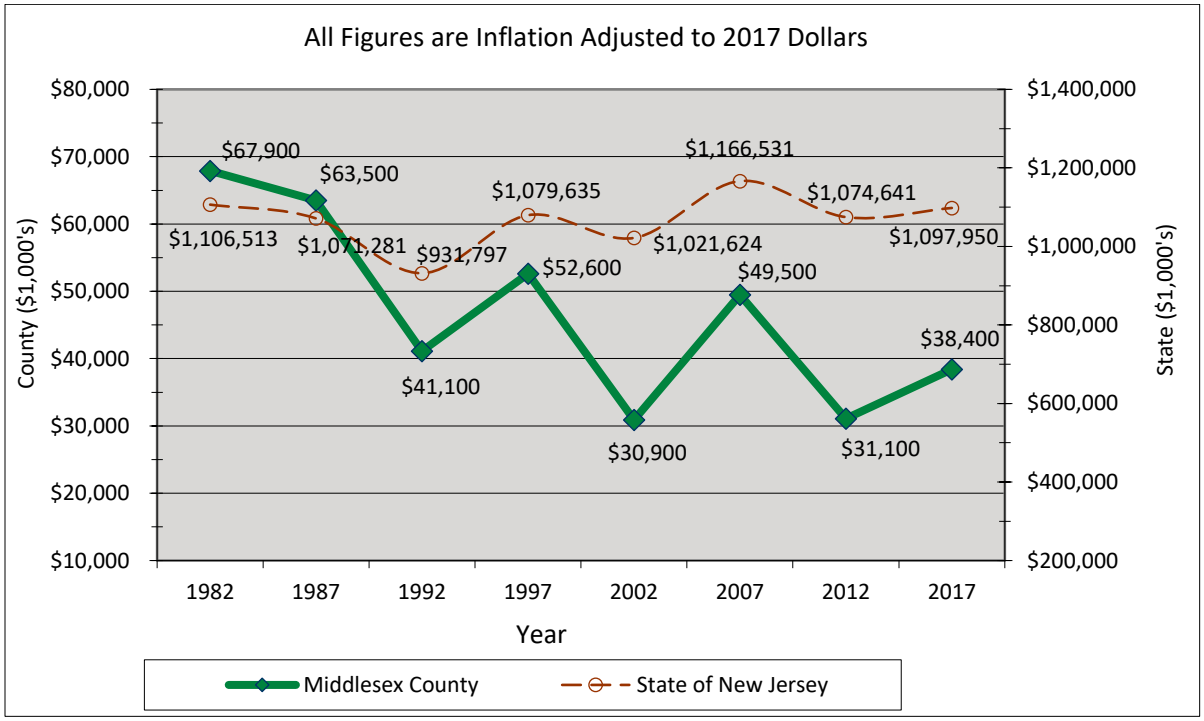
Trends in Market Value of Agricultural Products Sold

Total Annual Market Value Trends: 1997-2017

As of the 2017 Census of Agriculture, the Middlesex County agricultural industry generated $38.3 million in annual sales. Despite the significant losses in agriculture acreage outlined in the preceding Chapter One, that $38.3 million represents a moderate increase over 1997's sales of $34.4 million. However, when the Consumer Price Index is used to measure inflation, the 1997 figures amount to $52.6 million in 2017 dollars.

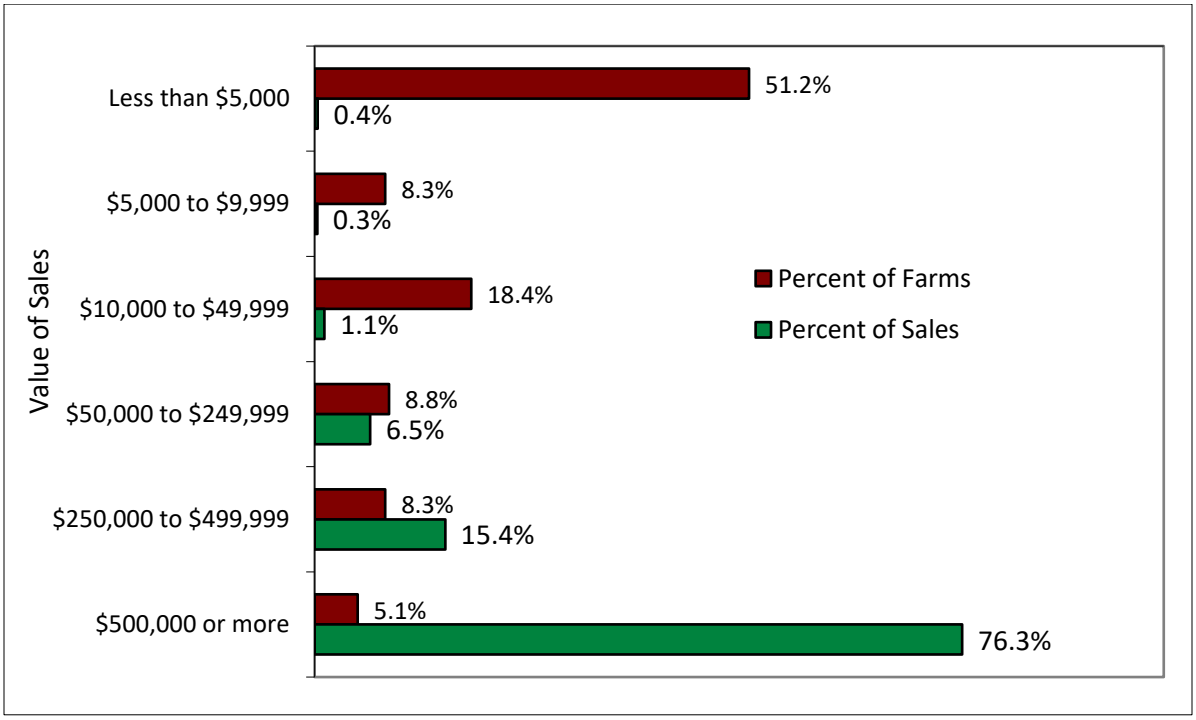
When adjusted for inflation, annual sales dropped considerably in Middlesex County, whereas statewide sales held fairly steady. The state's inflation-adjusted figures from 1997 to 2017 indicate a relatively healthy agricultural economy when considering a market value sales increase of 1.7 percent vs. a 14.3 percent loss of land in farms. On the other hand, the county experienced a market value sales decline of 27 percent versus a 44 percent loss of land in farms. See Figure II-1 for an illustration of inflation-adjusted sales trends. [9]

Figure II-1: Trends in Yearly Market Value of Agricultural Products Sold, Middlesex County vs. NJ, 1982 to 2017 (inflation-adjusted)



Farms by Market Value of Products Sold – Just 13.4 percent, 29 of the 217 farms in Middlesex County in 2017, accounted for 91.7 percent of agricultural product sales–with each of these farms having had reported annual sales of $250,000 or greater. About one-fifth of the county's farms (48 farms) accounted for 98.2 percent of the total annual sales–with this same set of farms each reporting sales of $50,000 or greater. Almost 60 percent of the farms in Middlesex County earned less than $10,000 in 2017. See Figure II-2.

Figure II-2: Percent of Farms and of Market Value of Agricultural Products Sold: Middlesex County, 2017



Value per Gross Acre of Land in Farms – A statistic not published in the census but provided in Table II-1 is market value yield per acre. Middlesex County's farms are very competitive at $2,394 per acre of land in farms in 2017, about $900 per acre greater than New Jersey as a whole ($1,496) and more than double that of neighboring Mercer County and quadruple that of Somerset County ($990 and $561, respectively). This is a testament to Middlesex County having some of the best agricultural soils in the nation, paired with hard-working, entrepreneurial farmers. Among neighboring counties, only Monmouth County comes close at $2,057 per acre, attributable to the intensive greenhouse, sod, and high-value horse-breeding (equine) industries.

Top Commodity Groups (by market value) – In Middlesex County during the 2017 Census, $27.1 million, or approximately 71 percent 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 96 percent of the total market value share of Middlesex County's agriculture economy. In addition, fruit crops accounted for $505,000 in the market value of sales in 2017. Table II-2 provides the top five commodity groups as compared to the state and neighboring counties.

Table II-1: Market Value of Agricultural Production per Gross Acre, Middlesex County vs. NJ and Surrounding Counties: 2017

Source: US Census of Agriculture	Total Market Value of Agriculture Production ($1,000)	Total Land in Farm (Acres)	Per Acres Market Value of Agriculture Production
Middlesex County	$38,359	16,023	$2,394
New Jersey	$1,097,950	734,084	$1,496
Monmouth County	$80,633	39,198	$2,057
Mercer County	$24,981	25,230	$990
Somerset County	$20,118	$35,862	$561

Table II-2: Top Five Agriculture Commodity Groups by Market Value, Middlesex County vs. NJ and Surrounding Counties: 2017

All Market Values ($1,000); Source: US Census of Agriculture					
Ranks	**Middlesex County**	**New Jersey**	**Monmouth County**	**Mercer County**	**Somerset County**
1	Nursery $27,124	Nursery $495,125	Nursery $53,267	Nursery $10,905	Nursery $7,196
2	Vegetables $6,775	Vegetables $222,465	Equine $8,604	Vegetables $4,188	Hay/Other $2,664
3	Grains $2,872	Fruits $141,323	Vegetables $5,475	Grains $3,171	Equine $2,480
4	Fruits $505	Grains $92,222	Grains $3,813	Milk $1,672	Vegetables $2,403
5	Hay/Other $183	Poultry/Eggs $31,216	Fruits $3,363	Fruits $1,238	Grains $1,794
All other commodity Groups Combined	$920	$112,599	$6,111	$3,807	$3,581
Total Market Value for All Commodities	$38,359	$1,097,950	$80,633	$24,981	$20,118

Table II-3: Market Value Statistics of Total Agricultural Products Sold (Middlesex County vs. New Jersey: 1997-2017)

Census Years	**1997**	**1997**	**2007**	**2012**	**2017**
Middlesex County					
Market value of Agriculture Products Sold ($1,000)	$34,468	$22,703	$41,854	$29,151	$38,359
Average per Farm (dollars)	$114,894	$82,555	$177,346	$147,733	$176,772
State of New Jersey					
Market Value of Agriculture Products Sold ($1,000)	$707,161	$749,872	$986,885	$1,006,939	$1,097,950
Average per Farm (dollars)	$70,399	$75,561	$95,564	$111,006	$111,095
Census Years	**1997-2002**	**2002-2007**	**2007-2012**	**2012-2017**	**1997-2017**
Middlesex County					
Change in Market Value of Agriculture Products Sold ($1,000)	($11,765)	$19,151	($12,703)	$9,208	$3,891
% Change in value	55.6%	-56.0%	22.0%	13.3%	11.3%
Change in Average per Farm (dollars)	($32,339)	$94,791	($29,613)	$29,039	$61,878
% Change in Average Per Farm Market Value Production	-28.1%	114.6%	-16.7%	19.7%	53.9%
State of New Jersey					
Change in Market Value of Agriculture Products Sold ($1,000)	$42,711	$237,013	$20,054	$91,011	$390,789

% Change in Value	33.5%	2.7%	9.2%	38.8%	55.3%
Change in Average per Farm (dollars)	$5,162	$20,003	$15,442	$89	$40,696
% Change in Average Per Value Production	28.4%	20.4%	0.1%	36.7%	57.8%
Census Year	**1997**	**2002**	**2007**	**2012**	**2017**
Middlesex County					
Market Value of Agriculture Value of Agriculture Products Sold ($1,000)	$42,711	$237,013	$20,054	$91,011	$390,789
Average Per Farm (dollars)	$114,894	$82,555	$177,346	$147,733	$176,772
State New Jersey					
Market Value of Agricultures Products Sold ($1,000)	$707,161	$749,872	$986,885	$1,006,939	$1,097,950
Average per Farm (dollars)	$70 399	$75,561	$95,564	$111,006	$111,095
Census Years	**1997-2002**	**2002-2007**	**2007-2012**	**2012-2017**	**1997-2017**
Middlesex County					
Change in Market Value of Agriculture Products Sold ($1,000)	($11,765)	$19,151	($12,703)	$9,208	$3,891
% Change in Value	-34.1%	84.4%	-30.4%	31.6%	11.3%
Change in Average per farm {dollars)	($32,339)	$94,791	($29,613)	$29,039	$61,878
% Change in Average Per Farm Market Value Production	-28.1%	114.8%	-16.7%	19.7%	53.9%
State of New Jersey					
Change in Market Value of Agriculture Products Sold ($1,000)	$42,711	$237,013	$20,054	$91,011	$390,789
% Change in Value	6.0%	31.6%	2.0%	9.0%	55.3%
Change in Average per farm (dollars)	$5,162	$20,003	$15,442	$89	$40,696
% Change in Average Per Farm Market Value Production	7.3%	26.5%	16.2%	0.1%	57.8%

General Industry Trends over the last 20 years

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, dairy products, and 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. [10]

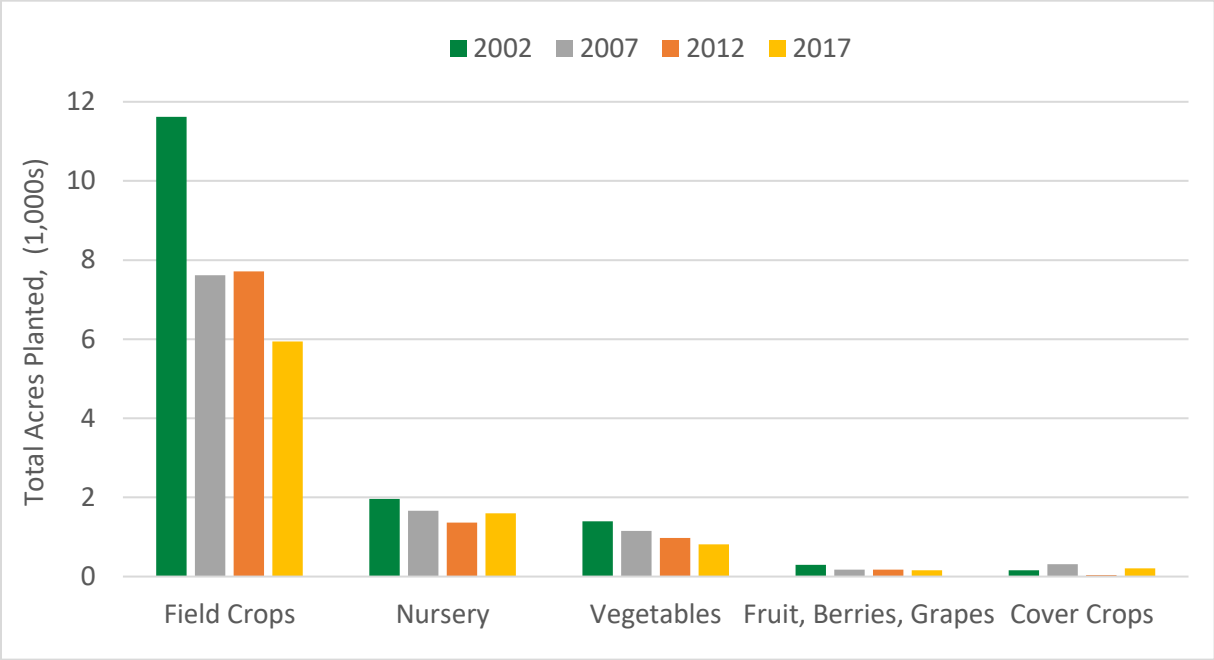
Farmlands in Middlesex County have been recognized as a significant contributor to the state's agricultural production in several commodities. For example, as cited in the 2017 Census of Agriculture, Middlesex County ranked ninth among New Jersey counties in total market value in the crop category "grains, oilseeds, dry beans, dry peas". Furthermore, the County ranked seventh among New Jersey counties in total market value for the crop category "vegetables, melons, potatoes, sweet potatoes". The top crops grown in the County, reported by acreage, were soybeans for beans at 3,254 acres, corn for grain at 2,726 acres, and all vegetables harvested at 1,206 acres. Highlights for vegetables harvested include 97 acres of field-grown tomatoes and 284 acres of sweet corn. For example, 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 percent of the state's soybean crop and 6.3 percent of the state's wheat for grain crop. In addition, Middlesex County ranked ninth in corn production—accounting for 3.7 percent 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 2017 Census, Middlesex County fell in NJ county rankings to seventh in corn for grain production at 405,589 bushels, ninth in soybeans at 137,907 bushels, and ninth in all vegetables harvested (1,206 acres). The most recent census of 2017 also reports Middlesex County as having harvested 97 acres of field-grown tomatoes and 284 acres of sweet corn.

As measured by 2017 farmland assessment crop reporting (see Figures II-3 and II-4 and Table II-4 on the following pages), Middlesex County maintained about 6,000 acres planted in field crops, 1,600 acres of nursery stock, and roughly 800 acres in vegetable production. Total acres planted in the three preceding commodity categories have declined significantly since 1983. Nursery stock has seen the most considerable growth in the proportion of total acreage planted, effectively doubling its share of acres planted, mainly at the expense of vegetable acres. [Compare Figures II-3 and II-4]

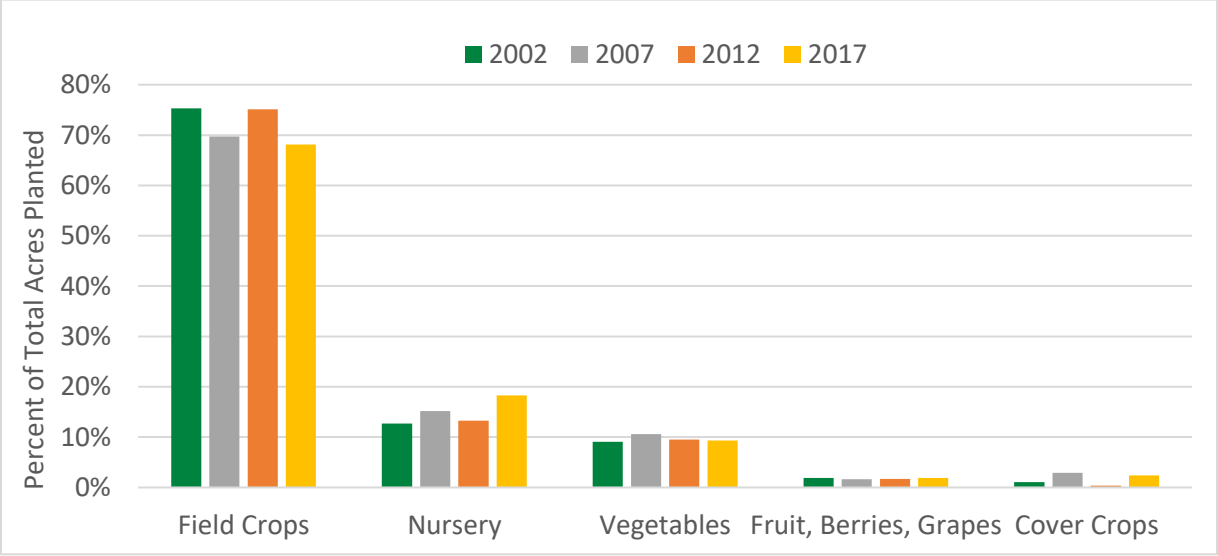
Between 1996 and 2014, the New Jersey Department of Agriculture reported a consistent number of certified nurseries in the county but a significant increase in the acreage of nursery stock in certified nurseries. The 2017 U.S. Census of Agriculture ranked Middlesex County's nursery, greenhouse, floriculture, and sod in the top five percent of all counties nationwide (#110 out of 2,601 counties, rankings by dollar value).

Figure II-3: Total Acres Planted by Major Crop Categories as reported on Middlesex County Farmland Assessment Forms (2002, 2007, 2012, and 2017)



Total acres planted includes "double-cropping"

Figure II-4: Major Crop Categories by Percent Total Acres Planted as reported on Middlesex County Farmland Assessment Forms (2002, 2007, 2012, and 2017)



Total acres planted includes "double-cropping"

Table II-4: Trends in Acres Planted: Reported by Major Crop Categories, Middlesex County Farmland Assessment Data (2002 to 2017)

Farmland Assessment Acres Reported by Major Crop Category*	2002	2007	2012	2017		2002 to 2012		2007 to 2017	
				Number	Percent Total	Number Change	Percent Change	Number Change	Percent Change
Total Field Crops	11,618	7,614	7,712	5,942	75.1%	-3,906	-33.6%	-1,672	-22.0%
Total Cover Crops	159	314	39	211	0.4%	-120	-75.5%	-103	-32.8%
Total Fruit	235	144	123	118	1.2%	-112	-47.7%	-26	-18.1%
Total Berries	53	26	39	37	0.4%	-14	-26.4%	11	42.3%
Grapes	5	8	10	7	0.1%	5	100.0%	-1	-12.5%
Total Nursery	1,963	1,660	1,364	1,596	13.3%	-599	-30.5%	-64	-3.9%
Total Vegetables	1,400	1,157	980	815	9.5%	-420	-30.0%	-342	-29.6%
Grand Total	15,433	10,923	10,267	8,726	100%	-5,166	-33.5%	-2,197	-20.1%

*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 Five Agriculture Commodity Groups in Middlesex County by Market Value: 2002 vs. 2017

Market Values in $1,000's					
2002			2017		
Rank	Commodity Group	Value	Rank	Commodity Group	Value
1	Nursery, greenhouse, floriculture, sod	$15,073	1	Nursery, greenhouse, floriculture, sod	$27,124
2	Vegetables & melons	$3,699	2	Vegetables & melons	$6,755
3	Grains, oilseed, dry beans, and dry peas	$1,787	3	Grains, oilseed, dry beans, and dry peas	$2,872
4	Fruits, nuts, berries	$311	4	Fruits, nuts, berries	$766
5	Christmas Trees	$277	5	Christmas Trees	$505
All other commodity groups combined		$1,556	All other commodity groups combined		$337
Total Market Value		$22,703	Total Market Value		$38,359

Source: 2017 US Census of Agriculture

Crop Acres, Production and Yields: 1997 to 2017

The graphs and tables on the following pages provide detailed crop production, acreage, and yield data downloaded from USDA's National Agricultural Statistical Service (NASS) website compiled into the figures and tables shown here. In addition, New Jersey statewide data and "*surrounding counties*" with an agriculture economy are included for context and comparison (*Mercer, Monmouth, and Somerset*). The years queried were from 1997 to 2017. For some crops, the full 20-years of data are not reported by NASS.

Corn for Grain

Middlesex County's total harvested acres are declining, as are those in the surrounding counties and the state. Between 1997 and 2017, Middlesex County harvested corn acres shrank by 30 percent, comparable to the 20 percent decline experienced statewide. The three surrounding counties saw more rapid attrition rates, with losses of 50 percent or greater. Figure II-5 below shows a great deal of fluctuation from Census year to Census year of grain corn production, with a high of 745,114 bushels achieved in 2007 in Middlesex County. However, in terms of yield, Figure II-6 shows that Middlesex County is on par with the state and surrounding counties, with a yield of 149 bushels per acre in 2017.

Table II-6: Grain Corn Harvested Acres for Selected Years, 1997 to 2017 (Middlesex, Surrounding Counties and NJ)

Year	1997	2002	2012	2012	2017	Change (1997-2017)	
Location						**Acres**	**Percent**
Middlesex	3,925	3,955	4,313	2,979	2,726	-1,199	-30.5%
Mercer	4,828	3,159	3,434	2,712	2,095	-2,733	-56.6%
Monmouth	6,331	2,495	1,548	2,263	1,733	-4,598	-72.6%
Somerset	3,066	1,823	2,378	2,657	1,112	-1,954	-63.7%
State Total	**93,845**	**66,128***	**81,556**	**85,006**	**74,795**	**-19,050**	**-20.3%**

* Some statewide data from this year was undisclosed

Figure II-5 Grain Corn Production, 1997 to 2017
(Middlesex, Mercer, Monmouth and Somerset)

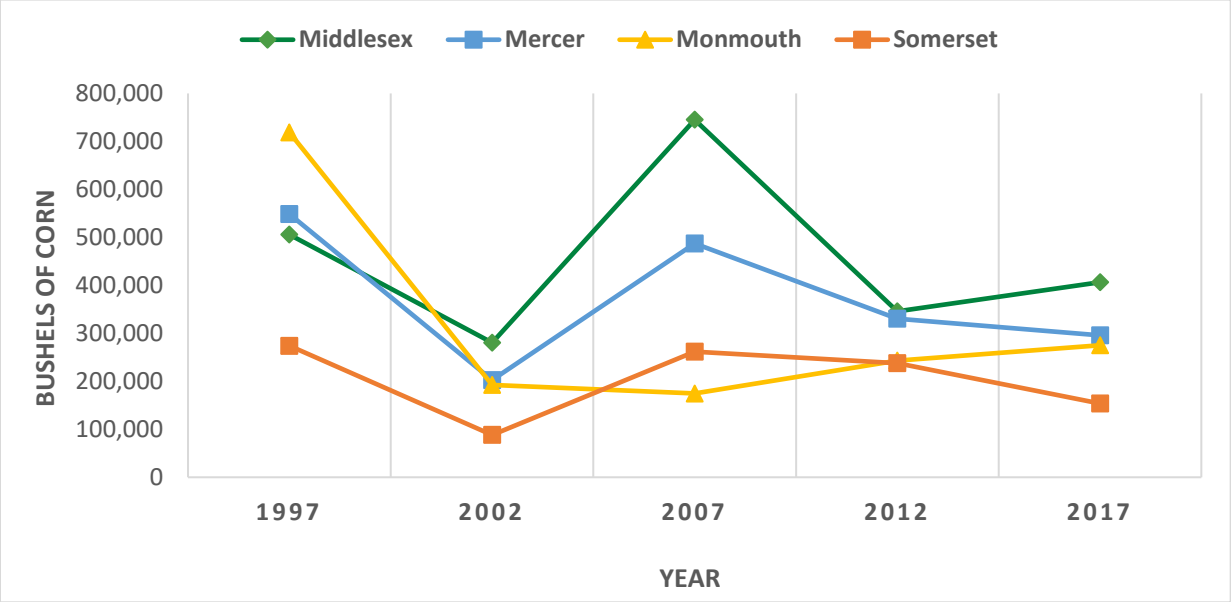
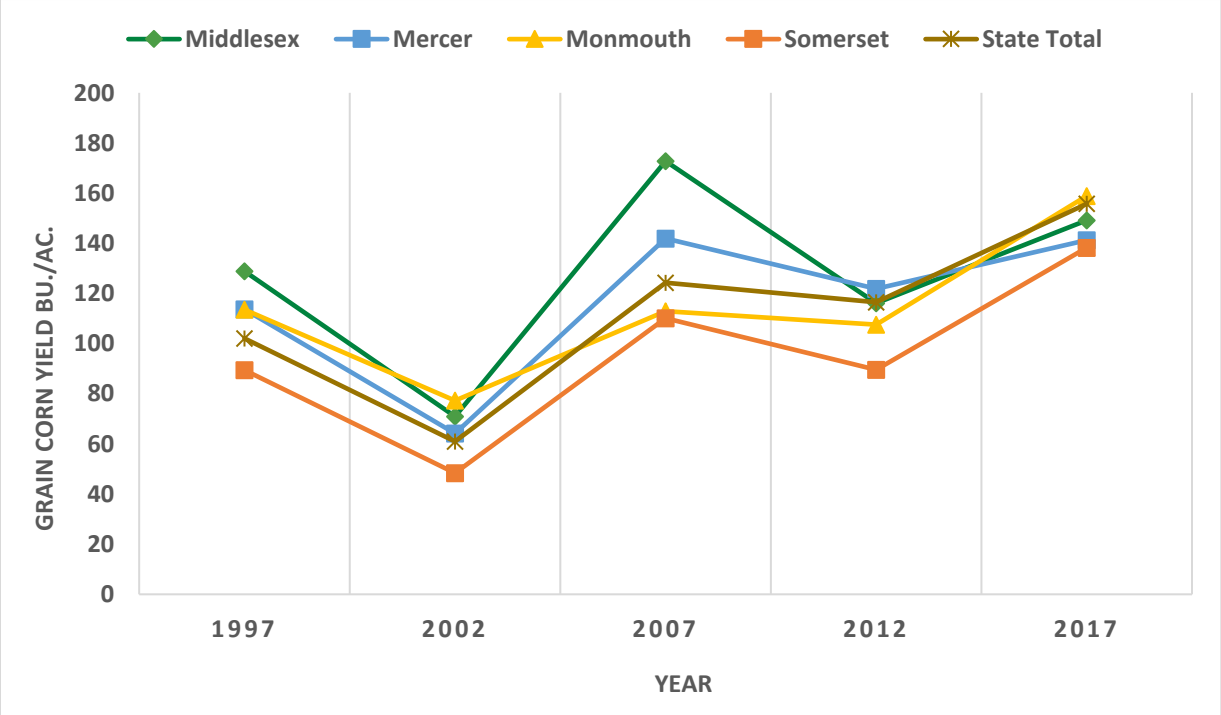


Figure II-6: Grain Corn Yields, 1997 to 2017
(Middlesex, Surrounding Counties and NJ)



Soybeans

Between 1997 and 2017, Middlesex County showed a substantial decline in soybean harvested acres. See Table II-7. While surrounding counties and the state also saw declines, the loss in Middlesex was much more significant. Middlesex County's annual soybean production ranged from a high of 346,000 bushels in 1997 to a low of 130,000 bushels in 2007. Production picked up somewhat from the 2012 Census but dropped again to near 2007 levels. Middlesex production lags behind Monmouth and Mercer, with only Somerset showing lower production as of the 2017 Census. See Figure II-7. Middlesex County yields (measured as bushels per acre) have been fairly consistent with the state and the surrounding counties, with yields of roughly 40 bushels per acre. See Figure II-8.

Table II-7: Soybean Acres Harvested for Selected Years, 1997 to 2017 (Middlesex, Surrounding Counties and NJ)

Year / Location	1997	2002	2012	2012	2017	Change (1997-2017) Acres	Change (1997-2017) Percent
Middlesex	10,016	6,370	2,983	4,573	3,254	-6,762	-67.5%
Mercer	9,259	8,244	4,040	4,324	5,501	-3,758	-40.6%
Monmouth	10,922	6,015	5,144	5,674	6,508	-4,414	-40.4%
Somerset	2,803	1,640	1,345	2,354	2,310	-493	-17.6%
State Total	**116,031**	**96,032**	**79,218**	**93,833**	**104,411**	**-11,620**	**-10.0%**

Figure II-7: Soybean Production, 1997 to 2017 (Middlesex and Surrounding Counties)

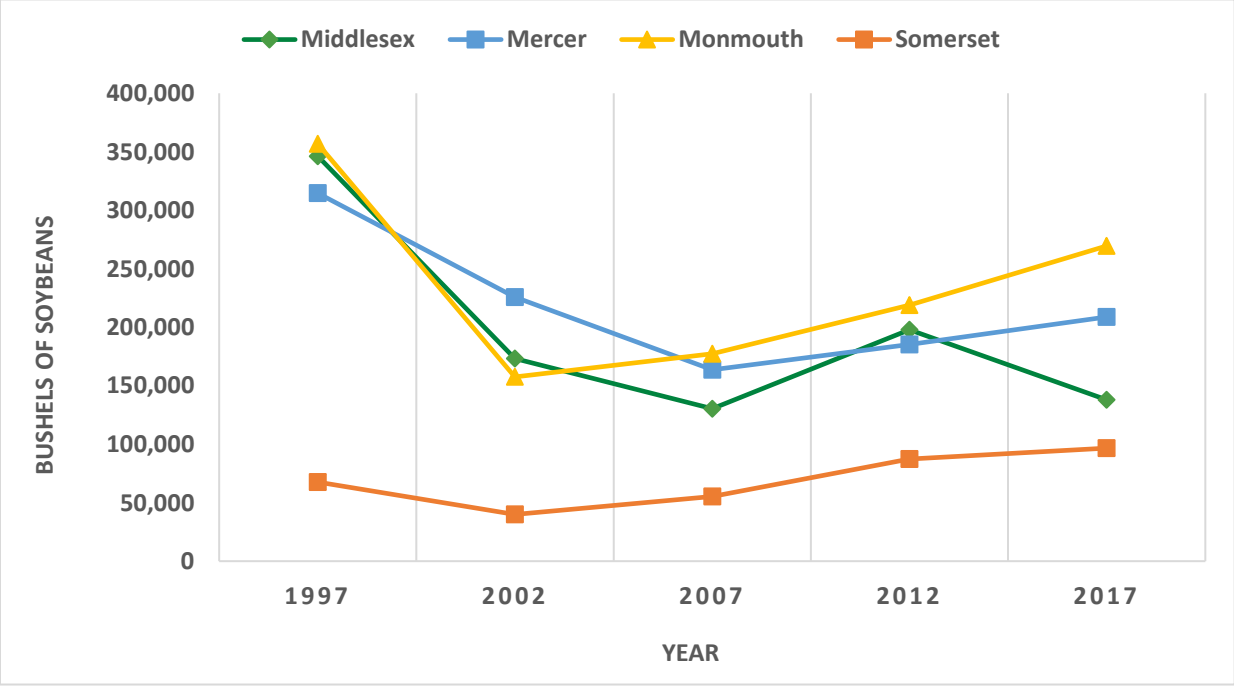
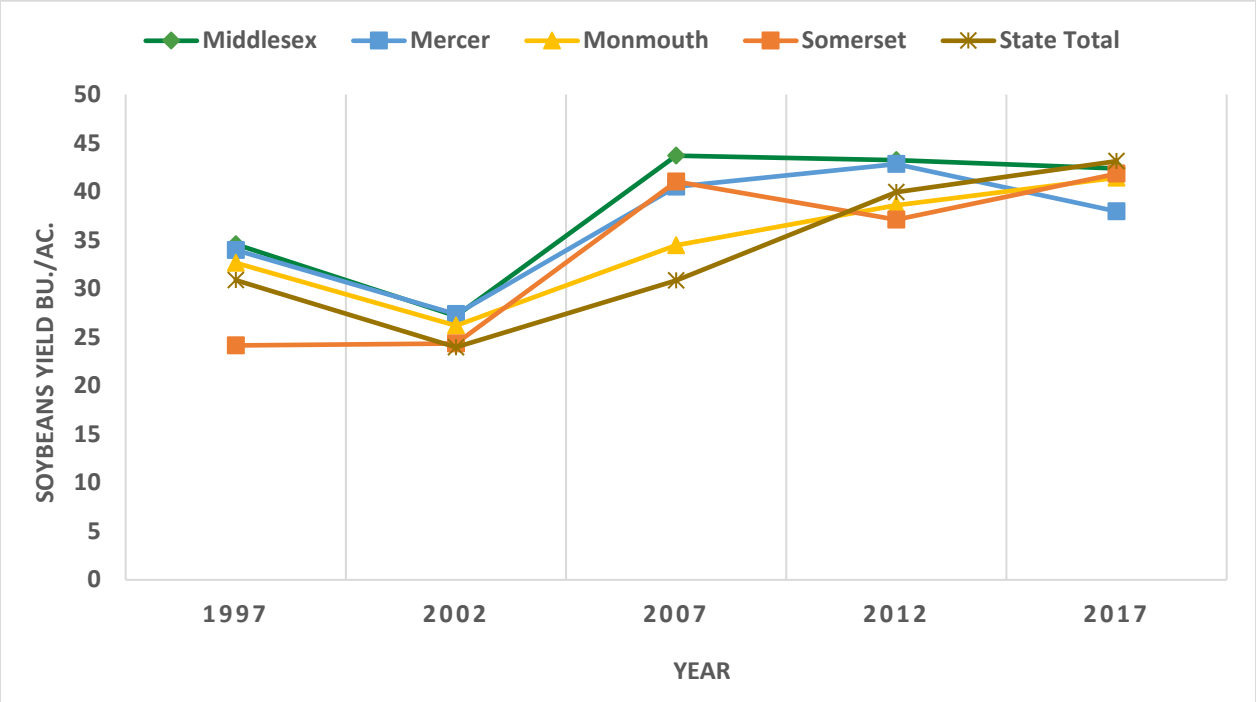


Figure II-8: Soybean Yields, 1997 to 2017
(Middlesex, Surrounding Counties and NJ)



Hay Production

From 1997 to 2017, Middlesex County lagged behind the surrounding counties in terms of acres harvested, tonnage and yields. See Table II-8. Figure II-9 shows production was consistently less than 3,000 tons per year. Furthermore, hay yields hovered between 1.0 – 2.0 dry tons per acre over the 20 – year study period. See Figure II-10.

Table II-8: Hay (all types) Harvested Acres for Selected Years,
1997 to 2017 (Middlesex, Surrounding Counties and NJ)

Year	1997	2002	2012	2012	2017	Change (1997-2017)	
Location						Acres	Percent
Middlesex	1,500	1,206	998	933	574	-926	-61.7%
Mercer	3,400	1,997	2,063	1,508	1,993	-1,407	-41.4%
Monmouth	5,100	4,632	5,474	5,187	3,346	-1,754	-34.4%
Somerset	11,900	8,208	7,957	9,758	8,393	-3,507	-29.5%
State Total	120,000	116,122	111,525	98,038	93,364	-26,636	-22.20%

Figure II-9: Hay Production (all types), 1997 to 2017
(Middlesex and Surrounding Counties)

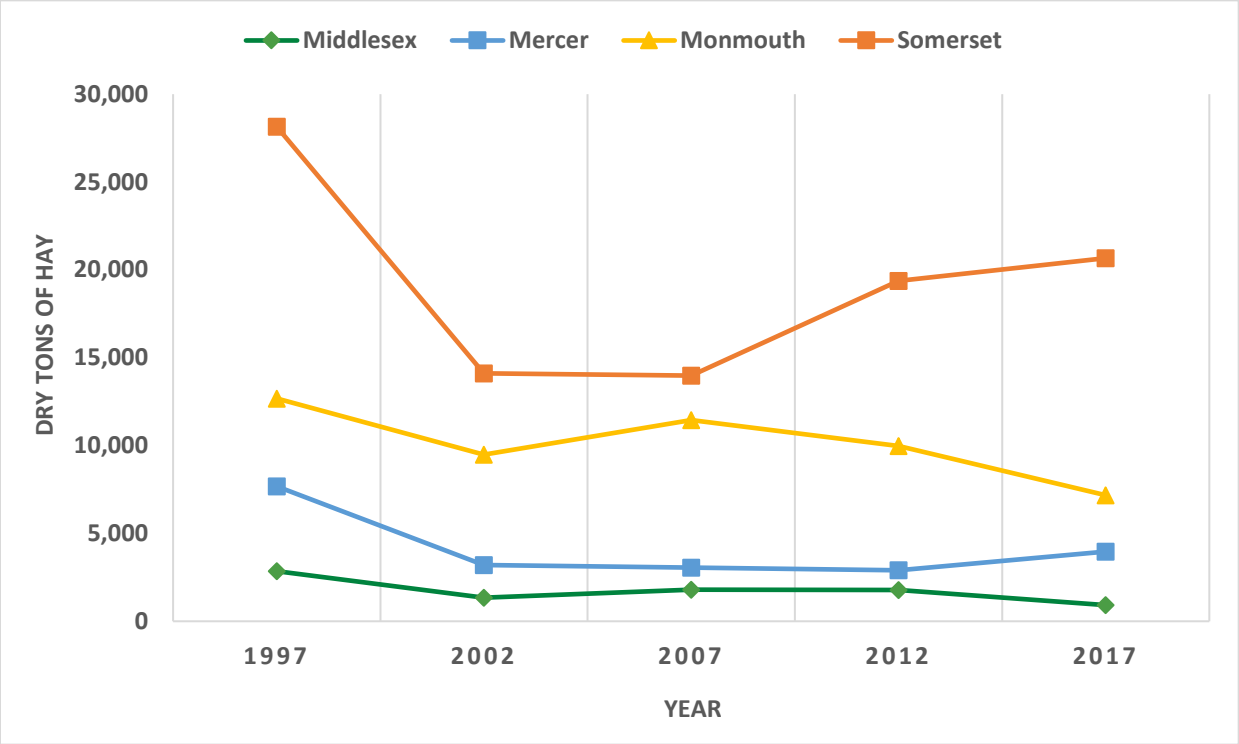
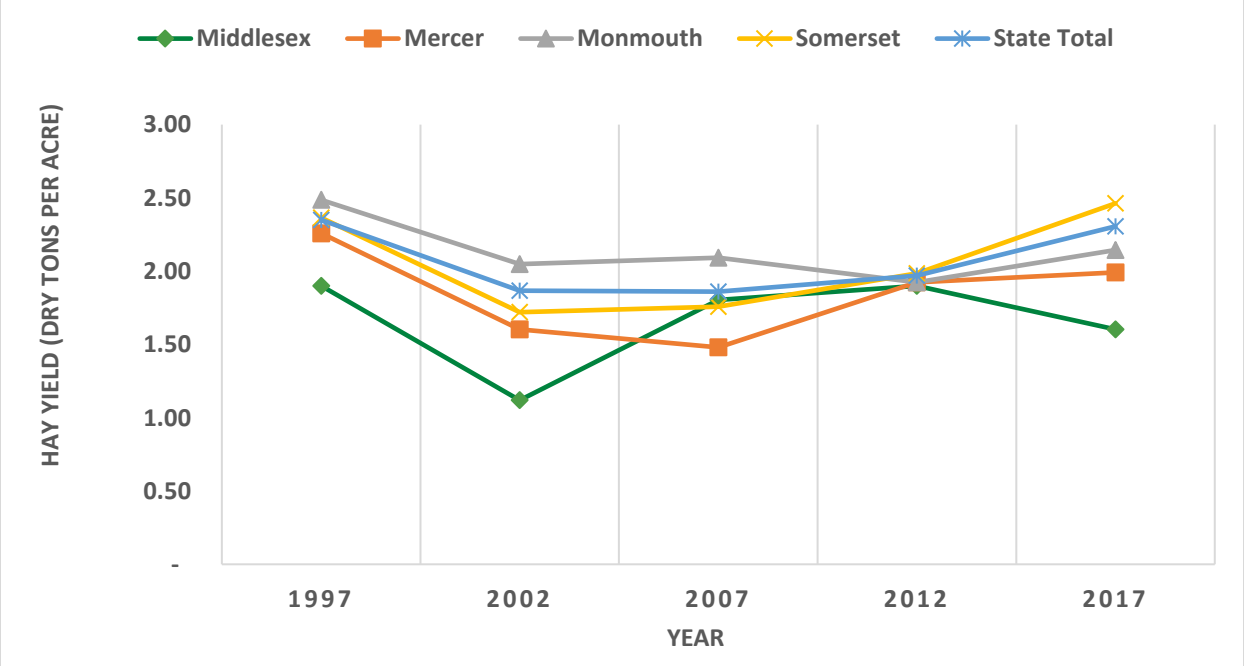


Figure II-10: Hay Yields (all types), 1997 to 2017
(Middlesex, Surrounding Counties and NJ)



Certified Nurseries

Nursery sales, including greenhouse, floriculture, and sod, represent the largest portion of Middlesex County's agriculture industry. While the number of certified nurseries has held relatively steady over the years, the proportion of county farm acres dedicated to nursery crops has increased. See Table II-9. In 2017 Middlesex County ranked 7th in the state and 110th nationwide in nursery crop production with over $27 million in sales.

Table II-9: Number of Certified Nurseries and Acres in Nursery Stock (Middlesex County vs. New Jersey, Selected Years 1996 to 2014)

	1996	1999	2002	2005	2014	Change 1996-2014	
						Number	Percent
Middlesex County							
Number of Certified Nurseries	65	65	68	70	65	0.0	0.0%
Acreage in Nursery Stock	621.5	575	724.7	716.7	808.8	187.3	30.1%
Average Size of Nursery (acres)	9.6	8.8	10.7	10.2	12.4	2.8	29.2%
% of State's Certified Nurseries	5.3%	5.1%	5.3%	5.4%	5.7%	0.4%	7.7%
% of State's Certified Nursery Acreage	4.7%	3.7%	4.2%	3.8%	4.7%	0.0%	0.3%
State of New Jersey							
Number of Certified Nurseries	1,230	1,277	1,290	1,297	1,142	(88.0)	(7.2%)
Acreage in Nursery Stock	13,314	15,406	17,261	18,877	17,272	3,958	29.7%
Average Size of Nursery (acres)	10.8	12.1	13.4	14.6	15.1	4.3	39.8%

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

Equine Industry

The horse industry is not currently a major part of Middlesex County's agricultural economy. The most recent report by the Equine Science Center (ESC) of the Rutgers New Jersey Agricultural Experiment Station (in New Brunswick) was released in 2007, according to which 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. Although limited data, the more recent 2017 Agricultural Census shows Middlesex County incurred a decrease in horses and ponies from 543 in 2012 to 460 in 2017.

Although the New Jersey equine population is decreasing over time, State figures confirm that New Jersey still has more horses per square mile than any other state. Among New Jersey counties, Middlesex County is tied at 14th place with Camden County in terms of equine operations. Ranked by equine-related acres, 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 were not limited to commercial facilities but included horses kept in back yards, along with crop commodity farms that save 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.

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 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.[11] It is an excellent venue to buy and sell products, enabling direct marketers (farm stands) to offer customers a broader product line. In addition, other community farmers' markets are also located throughout the region. These markets are typically held weekly in a pre-determined location and invite vendors and farmers to set up stalls (see Chapter VI and related appendices for more details about farm stands and community farmers' markets).

The Route 33 Corridor of Monroe, Millstone, and Manalapan is home to local agricultural tractor sales, supplies, and services, and a recently opened big box agricultural supply store. Baekeland Ave. in Middlesex Borough is home to a wholesale supplier of greenhouse containers. A family-owned supplier of recycled wooden crates can be found in Old Bridge

Township for agricultural packaging needs. However, agricultural product processing facilities and distributors are virtually non-existent in the region. Neighboring counties also host several important suppliers of plants, vehicles and equipment, and farm and greenhouse supplies.

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 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.[12]

CHAPTER 3. LAND USE PLANNING CONTEXT

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 2008 Comprehensive Farmland Preservation Plan and the 2003 Open Space and Recreation Plan, which were both updated in 2022, are the latest additions to the multiple-volume Middlesex County Master Plan. 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's Comprehensive Master Plan was last comprehensively updated in 1970. However, the county engaged in strategic planning by focusing on issues and preparing plan elements to address these on an ongoing basis. More specifically, the County published several Growth Management Plans (June 1990, July 1992, and December 1995). This Plan is consistent with and proactively supports many of the County's growth management goals. Other plans adopted by the County Planning Board as strategic Master Plan Elements include the County Transportation Plan (May 1999) and a Bicycling Guide (September 2001), Open Space and Recreation Plan (2003, updated in 2022), and the Lower Raritan-Middlesex County Water Quality Management Plan (Revised 2007).

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) refers 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.

In addition to the above, the County is in the process of preparing its **Destination 2040 Strategic Plan.** This plan may eventually replace the 1970 Comprehensive Plan. Destination 2040 is organized around a proposed planning framework that includes a series of goal areas, objectives, and proposed strategic initiatives that address a range of topics and issues. The following table presents the proposed Destination 2040 goal areas and objectives:

Table III-1: Proposed Destination 2040 Goal Areas and Objectives

Destination 2040 Chapter	Chapter Goals
Economic and Workforce Competitiveness	• Build on the County's economic strengths and assets. • Help businesses start, stay, and grow. • Foster innovation and entrepreneurship. • Create a trained, future-ready workforce. • Ensure Middlesex County remains a great place to live, work, and explore.
Transportation and Mobility	• Create a safe environment for all users of the transportation system. • Move people and goods efficiently. • Promote convenient travel options for all. • Address mobility needs and gaps, especially for marginalized groups. • Reduce greenhouse gas emissions and minimize other transportation impacts on the environment. • Develop and maintain transportation systems that support economic and community development.
Land Use, Development, and Housing	• Improve the efficiency and effectiveness of land use and infrastructure investment decisions. • Promote the development of inclusive, vibrant communities and neighborhoods. • Encourage sustainable and resilient land use and development.
Sustainability and Community Resilience	• Reduce greenhouse gas emissions. • Prepare for climate change. • Enhance community resilience. • Preserve and steward natural resources and wildlife habitats. • Reduce solid waste disposal.
Healthy, Safe, and Inclusive Communities	• Support residents in attaining their full health potential. • Address health disparities and inequities. • Improve outcomes for at-risk youth and their families. • Improve the availability, use, and integration of health care, mental health, addiction, and social services. • Promote healthy and safe social and physical environments. • Advance evidence-based public health and safety programs.

In the area of Economic and Workforce Competitiveness, D2040 proposes that the County implement a strategic initiative aimed at growing agriculture as an economic driver for Middlesex County. This initiative outlines the following potential actions:

- Provide next-generation farmers with the support they need to succeed.
- Work with municipalities to implement land use and zoning changes to remove barriers to farming success.
- Increase sales of Middlesex County farm products.
- Increase acreage of preserved farmland.
- Increase the acreage of land in active agricultural production in the County.
- Improve agricultural education for K-12 schools as well as Middlesex College and County Vocational Schools.
- Dramatically expand deer management practices.
- Encourage innovation and expand the use of technology in agriculture.
- Promote sustainable farming practices.

More details on these actions can be found in Chapter 9 of this plan.

In addition, Destination 2040 proposes a number of other Strategic Initiatives that, if implemented, would support and relate to farmland preservation and agriculture. These include:

- Strategic Initiative: Target job growth within specific industries, starting with life sciences, food innovation, and electric, connected, and autonomous technologies. One of the industries targeted as part of the County's economic development strategy is food innovation, which seeks to capitalize on the County's agricultural businesses, the use of technology in agriculture, and food and agricultural research happening at Rutgers University.

- Strategic Initiative: Develop and implement a strategic investment framework to guide investment decisions. This initiative identifies areas targeted for preservation investments consistent with this plan. The investment framework is designed to steer public and private investment to areas well-suited for growth, development, and redevelopment while discouraging infrastructure investments that result in the conversion of open land to residential, commercial, and industrial uses.

- Strategic Initiative: Create a first-in-New Jersey, County-led carbon sequestration program. This initiative envisions the County taking advantage of the growing international market for carbon credits. The program once in place would support farmland and open space preservation investments, land stewardship initiatives, and

help existing farmers with investments in regenerative agriculture, and other approaches that can minimize soil disturbance and encourage carbon sequestration in the agriculture sector.

- Strategic Initiative: Encourage access to safe, nutritious, and affordable food. This initiative seeks to expand and improve access to community farmers' markets, expand the availability of cooperative agriculture and community gardens, advance ways to mitigate food deserts, and expand and improve County programs aimed at addressing food insecurity.

The Destination 2040 planning process includes updates to several existing comprehensive plan elements and the development of several new elements that will become part of the suite of plans that comprise Destination 2040, including this updated Comprehensive Farmland Preservation Plan, which will be titled **Strong Farms. Local Foods**. Other plan elements being updated or under development include:

- **Open Spaces.,** Middlesex County's Open Space and Recreation Plan (adopted by the Middlesex County Planning Board in February 2022)**;**
- **Nature and Place.**, Middlesex County's Integrated Landscape and Ecosystem Services Plan (New);
- **Bike Easy. Walk Safely**., Middlesex County's Bicycle and Pedestrian Master Plan;
- **Vision Zero.**, Middlesex County's comprehensive strategy to eliminate fatal and serious injury crashes (New);
- **Invest Smart.**, Middlesex County's Strategic Investment Framework (New);
- **Forward Together.**, Middlesex County's Coordinated Public Transit-Human Services Transportation Plan;
- The Middlesex County **Right-of-Way Plan**; and
- Middlesex County's **Land Development Standards**.

Each of these plan elements is expected to be adopted in 2022-2023. This plan is substantially consistent with and supportive of relevant policies and recommendations contained in all the County planning documents referenced above.

Regional Planning Context

Adjacent County Farmland Preservation Efforts

The New Jersey State Development and Redevelopment Plan (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 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.

The ADA in southern Monroe Township and the Southeastern Project Area are both contiguous to several identified farmland preservation areas 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 in Monmouth County overlaps Middlesex County's Southeastern Project Area.[13] 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, for several years, been "actively working on preservation to the southeast of Hightstown."

New Jersey Planning Regions and 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 to 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 the 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 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.

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. The plan includes several goals, strategies, and policies related to agriculture:

- Goal #2: Conserve the State's Natural Resources and Systems. In the plan's discussion of this goal, farmlands are grouped with grasslands and other natural landscape types for open space and habitat preservation (page 37).

- Goal #3: Promote Beneficial Economic Growth Development and Renewal for all Residents of New Jersey. The discussion of this goal includes a subheading that addresses Agriculture (pages 59-61). The plan calls for supporting agriculture by planning for future economic growth and development in rural areas in ways that promote the continuation of agriculture and enhance the economic viability of farming. Toward this end, the plan establishes a Planning Areas framework designed to guide development toward Centers, protecting outlying agricultural areas from development pressures and suburban residents' concerns about necessary farming operations perceived as nuisances.

- *Policy Topic #15: Agriculture.* The SDRP policy statement related to agriculture (page 159 through 162) states that the plan seeks to "promote and preserve the agricultural industry and retain farmland by coordinating planning and innovative conservation techniques to protect agricultural viability." The plan describes 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 the quality of life for workers, outreach, and education to encourage agricultural industry innovation and growth. These measures are all intended to raise the understanding of agriculture as a vital industry and position productive farmland as a valued resource not to be converted to other land-use types.

In addition to the plan goals, strategies, and policies related to agriculture, 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. See Table III-2. Planning Areas are geographically delineated to reflect existing criteria of infrastructure capacities, natural resources,

topographical and environmental constraints deemed compatible with economic and land use growth which support population density and land-use economies.

Table III-2: SDRP Planning Area Designations

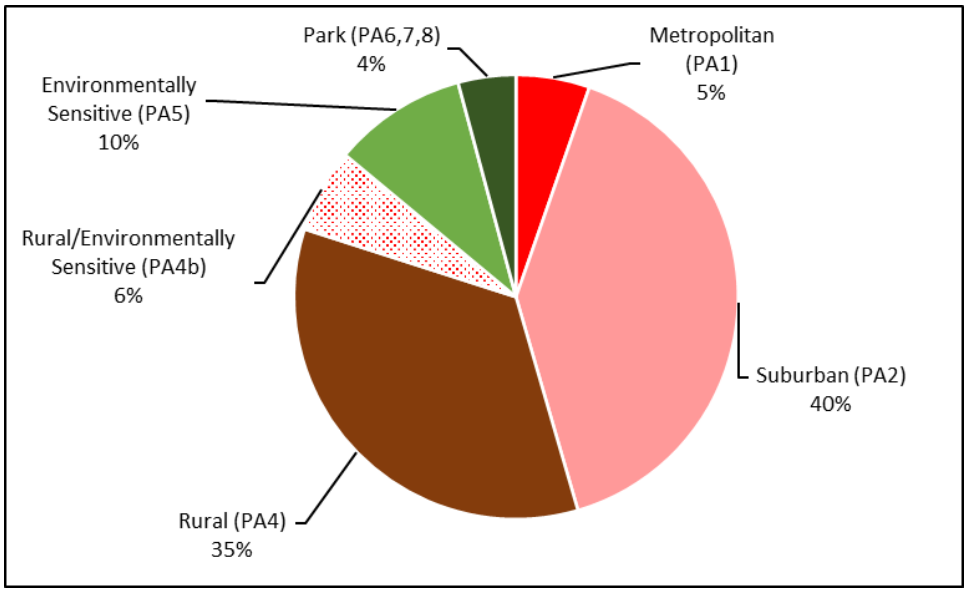
Planning Areas	Area #	Area Designation
Planning Area for Growth	PA1	Metropolitan
Planning Area for Growth	PA2	Suburban
Planning Area for Limited Growth	PA3	Fringe
Planning Area for Limited Growth	PA4	Rural
Planning Area for Conservation	PA4b	Rural/Environmentally Sensitive
Planning Area for Conservation	PA5	Environmentally Sensitive
Planning Area for Conservation	PA5b	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-3: NJDEP Agricultural Land Use/Cover Acres (2015)
Middlesex County by State Plan Planning Areas

State Plan Planning Area	**Acres**
Metropolitan (PA1)	716
Suburban (PA2)	5,363
Rural (PA4)	4,602
Rural/Environmentally Sensitive (PA4b)	814
Environmentally Sensitive (PA5)	1,304
Park (PA6,7,8)	562
Grand Total	**13,360**

Figure III-1: NJDEP Agriculture Land Cover Acres (2015)
Middlesex County by State Plan Planning Areas



According to the Policy Objectives of the SDRP, priority for farmland preservation funding should be given to Rural Planning Areas (PA4/4B) 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 provides some flexibility in that this priority may be modified by adopting 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 Map 6: NJ State Planning Areas, Designated Centers and Endorsed Plans, which includes a depiction of the current Agricultural Development Area, "ADA," boundary). Based on Figure III-1 above, 40 percent of Middlesex County farmland can be found in PA2 and 35 percent within PA4. To lesser degrees, some existing farmland and ADA lands remain situated in PA5- 10 percent, PA1-5 percent, PA4b- 6 percent, and parklands- 4 percent. 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 prepared 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 agricultural land base can be characterized as "farming on the fringe." In this area, suburban landscape and more rural countryside often blend seamlessly into one another.

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 concentrated development and support facilities for the Environs areas of municipalities and Planning Areas. Different development patterns are prescribed within different Planning Areas, 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 and Milltown Borough; and three Village Centers of Cranbury in Cranbury Township, Historic Old Bridge in East Brunswick Township, and Kingston partially in South Brunswick Township and partially in Franklin Township, Somerset County. Although the information available on the New Jersey Office of Planning Advocacy website[14] indicates that each of these center designations expired on 01/11/2022, it is anticipated that the designations will be extended.

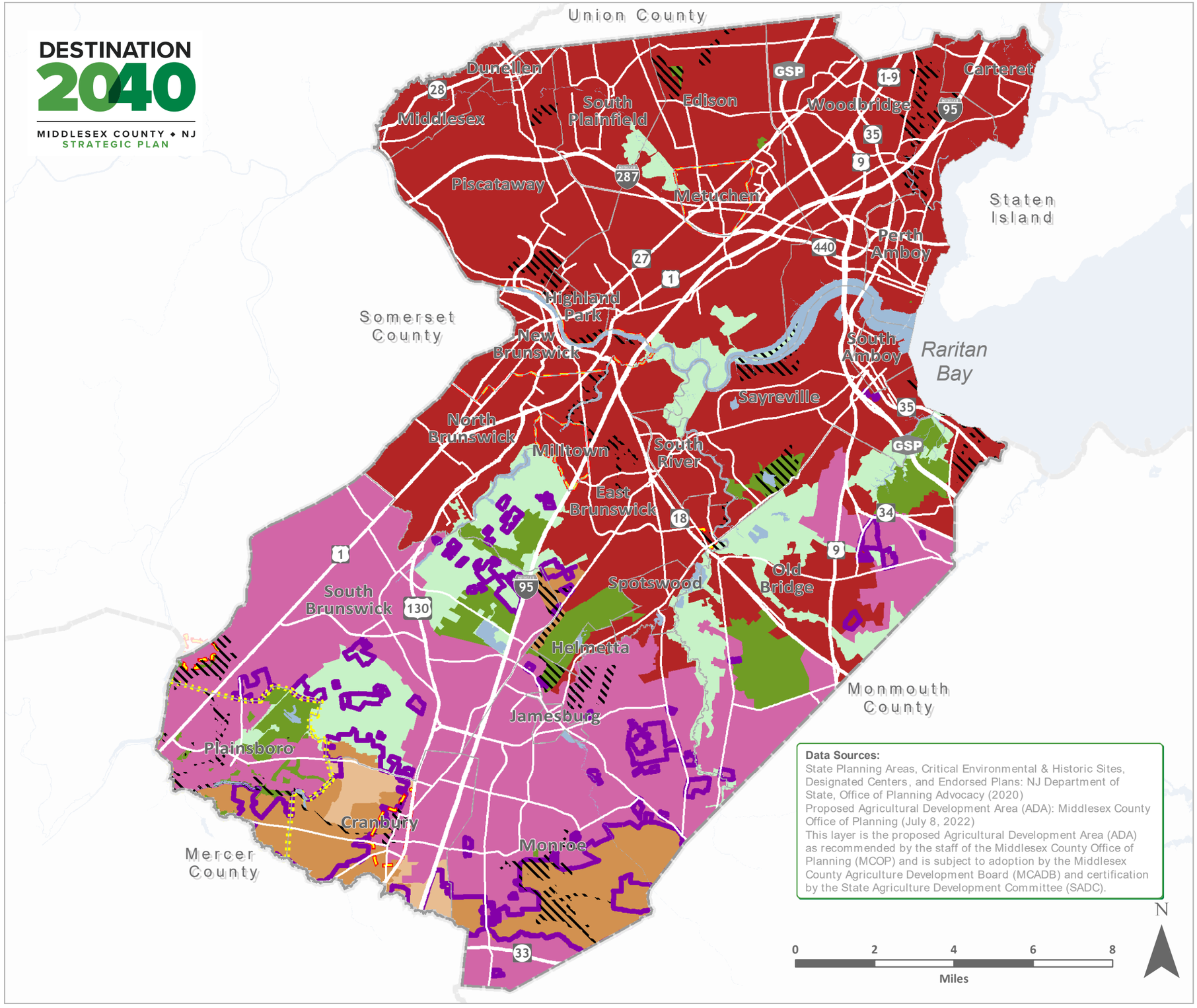
Each municipality, County, and recognized regional planning agency is encouraged to participate in a Plan Endorsement process to ensure consistency in SDRP planning and the cooperation of state agencies with funding and implementing improvements and programs. The State Planning Commission must review, 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 23 statewide policies supporting agriculture that are supposed to be incorporated into municipal planning and zoning. The Plainsboro Township plan is the only endorsed plan in Middlesex County.

DESTINATION 2040

MIDDLESEX COUNTY ◆ NJ
STRATEGIC PLAN

Map 6: NJ State Planning Areas, Designated Centers and Endorsed Plans



Data Sources:
State Planning Areas, Critical Environmental & Historic Sites, Designated Centers, and Endorsed Plans: NJ Department of State, Office of Planning Advocacy (2020)
Proposed Agricultural Development Area (ADA): Middlesex County Office of Planning (July 8, 2022)
This layer is the proposed Agricultural Development Area (ADA) as recommended by the staff of the Middlesex County Office of Planning (MCOP) and is subject to adoption by the Middlesex County Agriculture Development Board (MCADB) and certification by the State Agriculture Development Committee (SADC).

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MIDDLESEX COUNTY • NJ

STRONG FARMING. LOCAL FOODS.

Middlesex County's Comprehensive Farmland Preservation Plan

- Critical Environmental & Historic Sites (CEHS)
- Centers- Designated
- Endorsed Plans
- Proposed Agricultural Development Area (ADA)
- Metropolitan Planning Area
- Suburban Planning Area
- Fringe Planning Area
- Rural Planning Area
- Rural/Environmentally Sensitive Planning Area
- Environmentally Sensitive Planning Area
- Parks & Natural Areas

Prepared: *September 28, 2021*
By: *Middlesex County Office of Planning*

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 landmass, these municipalities represent over half of Middlesex County and contain an overwhelming majority of the county's "greenfield" area - vacant lands and farmland are 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.

Construction Trends

Past construction activity may be used as a barometer to gauge future development trends and land use patterns. For example, 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 2010 thru 2019).

Residential

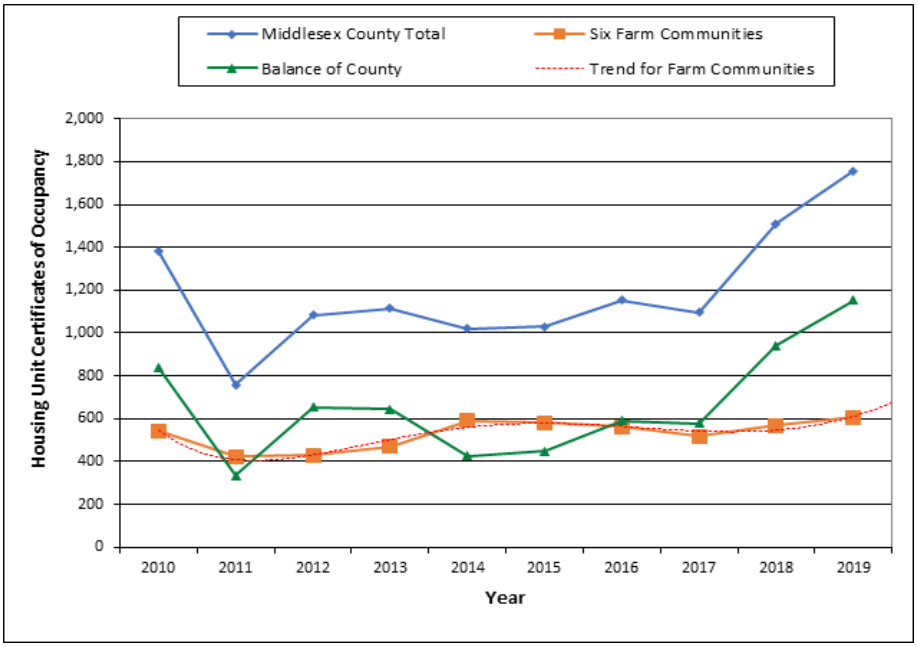
With only minor variations over the last ten years, residential development within the farm communities has generally mirrored a countywide trend of lowering rates of new housing production in Middlesex County. Of significance, however, is the fact that the number of residential dwellings units receiving certificates of occupancy in South Brunswick and Monroe combined account for more than one-third of all the residential dwelling units constructed in all six Middlesex County municipalities between 2010 and 2019 (4,141 dwelling units, or 414 per year on average). See Table III-4. Countywide, from 2017 to 2019, there was a slight uptick in new residential construction (about 1,100 vs. 1,800 dwelling units annually). Overall, however, annual activity has remained relatively consistent, particularly in the six farm communities, where annual residential certificates of occupancy have remained between 400 and 600 units for the last ten years [see trend line in Figure III-2 below].

Table III-4: Residential Certificates of Occupancy, total 2010 to 2019 (Middlesex County vs. Farm Communities)

Location	Total 2010 thru 2019		Percent "Total Land" Area
	Number	% Total	
Cranbury	120	1.0%	4.3%
East Brunswick	611	5.1%	7.0%
Old Bridge	379	3.2%	12.3%
Monroe	3,114	26.2%	13.5%
Plainsboro	43	0.4%	3.8%
South Brunswick	1,027	8.6%	13.1%
Middlesex County Total	*11,907*	*100%*	*100%*
Six Farm Communities	5,294	44.5%	54.1%
Balance of County	*6,613*	*55.5%*	*45.9%*

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

Figure III-2: Residential Certificates of Occupancy, by year 2010 to 2019 (Middlesex County vs. Farm Communities)



Nonresidential

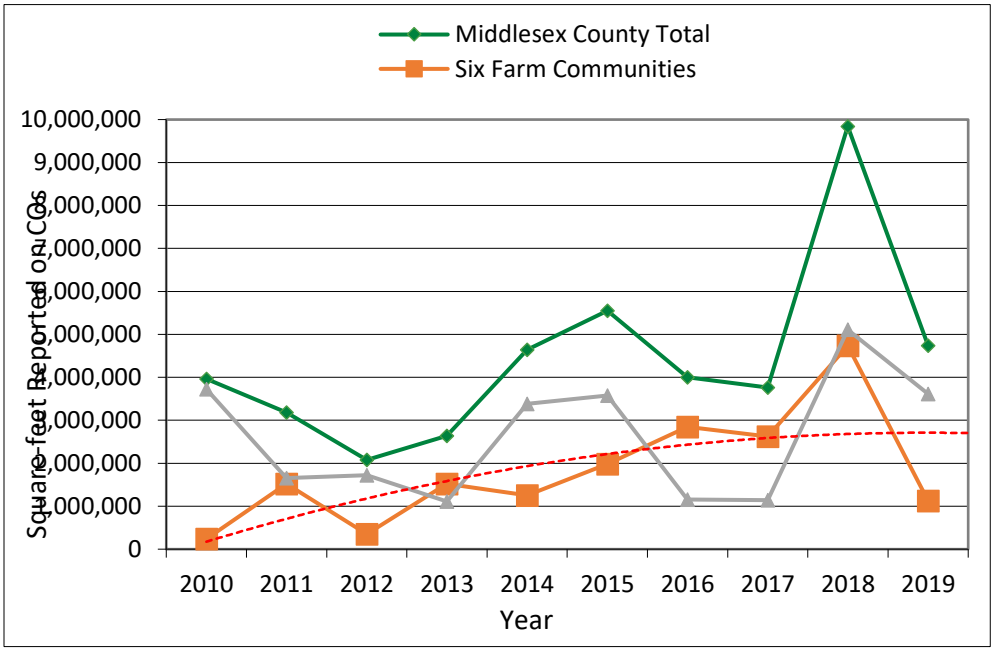
Nonresidential trends (Table III-5 and Figure III-3 below) are quite different from the residential market. Nonresidential development is on an upward trend, but with a more significant deal of fluctuation from year to year. South Brunswick and Cranbury have had the greatest amount of nonresidential construction, over 12 million square feet from 2010 through 2019 (over one-fourth 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-5: Nonresidential Square-Feet Completed, total 2010 to 2019
(Middlesex County vs. Farm Communities)

Location	Total 2010 to 2019		Percent "Total Land" Area
	Number	% Total	
Cranbury	5,629,772	12.7%	4.3%
East Brunswick	475,620	1.1%	7.0%
Old Bridge	2,639,062	5.9%	12.3%
Monroe	1,811,158	4.1%	13.5%
Plainsboro	582,727	1.3%	3.8%
South Brunswick	7,064,785	15.9%	13.1%
Middlesex County Total	44,389,922	100%	100%
Six Farm Communities	18,203,124	41.0%	54.1%
Balance of County	26,186,798	59.0%	45.9%

Source: NJDCA Construction Reporters, compiled by Planning Dept.

Figure III-3: Nonresidential Square-Feet Completed, by year 2010 to 2019
(Middlesex County vs. Farm Communities)



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 2010 to 2019. Building permits allow construction, as distinct from Certificates of Occupancy, which reflect completed construction.

Table III-6: Building Permits for New Residential Units
(Middlesex County vs. Farm Communities)

Location	Total 2010 to 2019		Percent "Total Land" Area
	Number	% Total	
Cranbury	228	1.3%	4.3%
East Brunswick	653	3.8%	7.0%
Old Bridge	871	5.0%	12.3%
Monroe	3,560	20.6%	13.5%
Plainsboro	362	2.1%	3.8%
South Brunswick	1,035	6.0%	13.1%
Middlesex County Total	17,254	100%	100%
Six Farm Communities	6,709	38.9%	54.1%
Balance of County	10,545	61.1%	45.9%

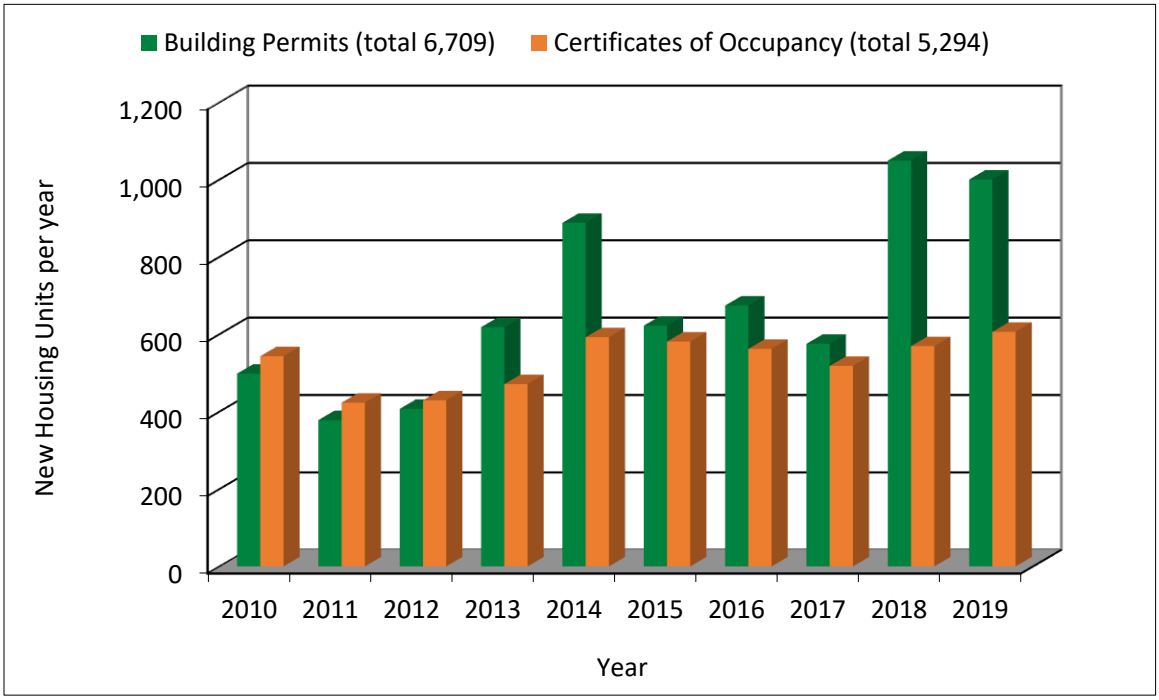
Source: NJDCA Construction Reporters, compiled by Middlesex County Office of Planning

Table III-7: Building Permits for New Nonresidential Buildings
(Middlesex County vs. Farm Communities)

Location	Total 2010 to 2019		Percent "Total Land" Area
	Square Feet	% Total	
Cranbury	8,609,553	11.9%	4.3%
East Brunswick	2,007,376	2.8%	7.0%
Old Bridge	2,498,356	3.4%	12.3%
Monroe	2,147,529	3.0%	13.5%
Plainsboro	520,342	0.7%	3.8%
South Brunswick	9,775,532	13.5%	13.1%
Middlesex County Total	72,533,013	100%	100%
Six Farm Communities	25,558,688	35.2%	54.1%
Balance of County	46,974,325	64.8%	45.9%

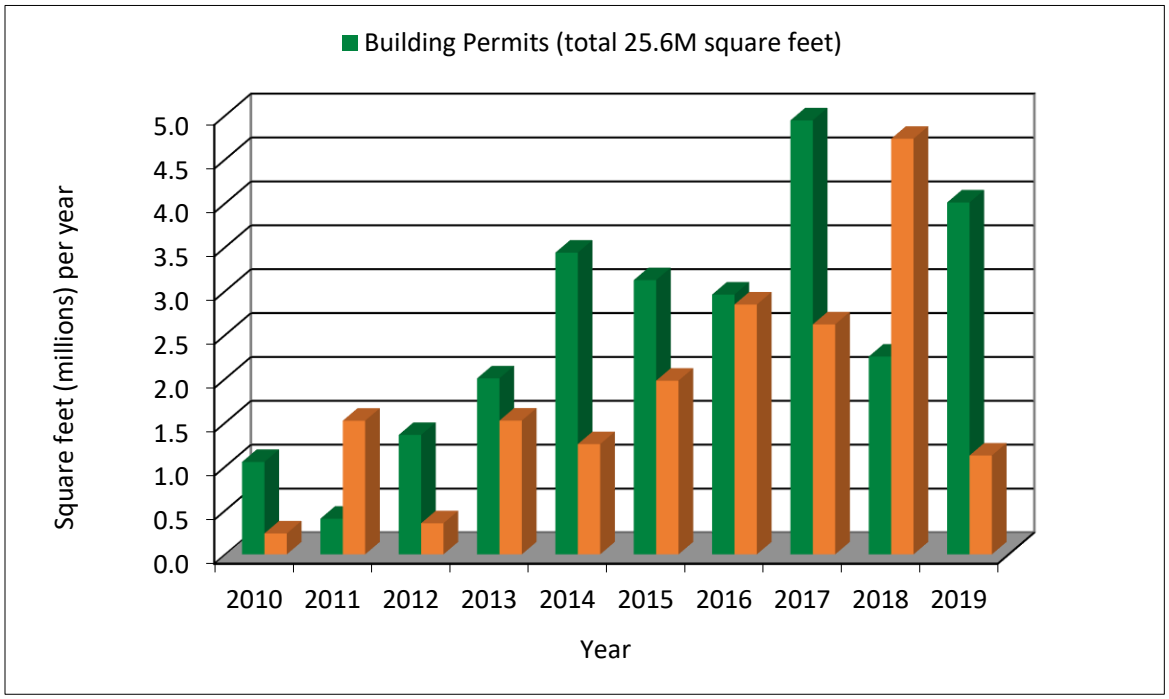
Source: NJDCA Construction Reporters, compiled Middlesex County Office of Planning

Figure III-4: New Housing Units: Building Permits vs. Certificates of Occupancy (2010 to 2019, 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 (2010 to 2019, six farm communities of Middlesex County)



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

Relationships to Recognized Strategic Growth Areas

The Route 1 Strategic Growth Corridor – Proximate to the Northwestern and Southwestern Project Areas, the most intensive area for land use conversion 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, various corporations, and extensive residential areas. Many corporate offices also are 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 vital 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. In addition, 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 combined 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 significant 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 extreme 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.

Generalized Zoning Composite Map

The Middlesex County Office of Planning maintains a Generalized Zoning Composite Map to estimate potential "build–out" and approximate projections of employees generated by projects that 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 7, which is included in this plan as a resource reflecting the consistency of municipal zoning described below and existing land use patterns described above.

Sewer Service Areas / Public Water Supply Service Areas

The dominant areas of each pre-existing 2013 (83 percent) and the revised 2022 (90 percent) 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 or septic fields). The table below summarizes sanitary service area acreages within the ADA. Map 8 depicts sewer service areas and the County's ADA.

Table III-8: Acres in Middlesex County's Sewer Service Areas, 2013 ADA vs. 2022 ADA

Sewer Service Area	**ADA 2013**		**ADA 2022**		**Net Change**	
Category/Facility Name	**Acres**	**% Total**	**Acres**	**% Total**	**Acres**	**% Pts.**
Non-sewer Service Areas/septic	12,569	83%	12,420	90%	-149	7%
Sewer Service Areas {Subtotal)	2,628	17%	1,411	10%	-1,217	7%
Chinmaya Mission	6	0%	6	0%	0	0%
Eagle River Day Camp LLC	8	0%	8	0%	0	0%
East Windsor MUA	3	0%	3	0%	0	0%
Gateway Cathedral	24	0%	24	0%	0	0%
Jeeyar Educational Trust USA	6	0%	6	0%	0	0%
Middlesex County Utilities Authority	2,308	15%	1,054	8%	-1,254	8%
Pine Brook STP	0	0%	0	0%	0	0%
St. Mary Coptic Church	8	0%	8	0%	0	0%
SBRSA River Road STP	213	1%	213	1%	0	0%
United Water Princeton Meadows	51	0%	51	0%	0	0
Grand Total	15,198	100%	13,831	100%	-1,367	N/A

Public water supply such as New Jersey American Water, Inc. or municipal wells serves most developed residential areas. While proprietary rulings restrict disclosure of specific potable water service areas, the purveyors of the County's southern municipalities are depicted on Map 9. Private wells provide the vast majority of farmers with their potable water and water for all related farm operation needs.

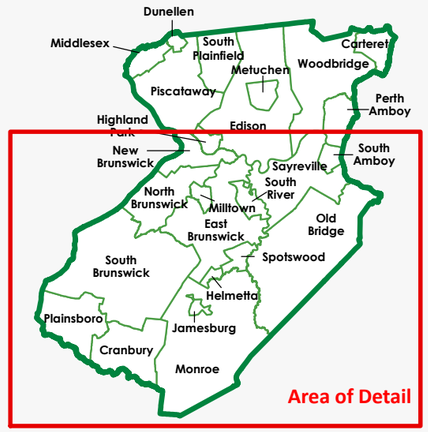
DESTINATION 2040
MIDDLESEX COUNTY • NJ
STRATEGIC PLAN

Map 7: Generalized Zoning Composite of Southern Middlesex County

MIDDLESEX COUNTY • NJ

STRONG FARMING. LOCAL FOODS.

Middlesex County's Comprehensive Farmland Preservation Plan



Somerset County
Raritan Bay
Monmouth County
Mercer County
Highland Park
New Brunswick
North Brunswick
Milltown
South River
South Amboy
Sayreville
East Brunswick
Old Bridge
Spotswood
South Brunswick
Helmetta
Jamesburg
Plainsboro
Cranbury
Monroe
GSP
35
34
18
9
1
95
130
33

Data Sources:
Generalized Zoning: Middlesex County Office of Planning
Agricultural Lands: NJDEP Land Use/ Land Cover (2015)

N

0 2 4 6 8
Miles

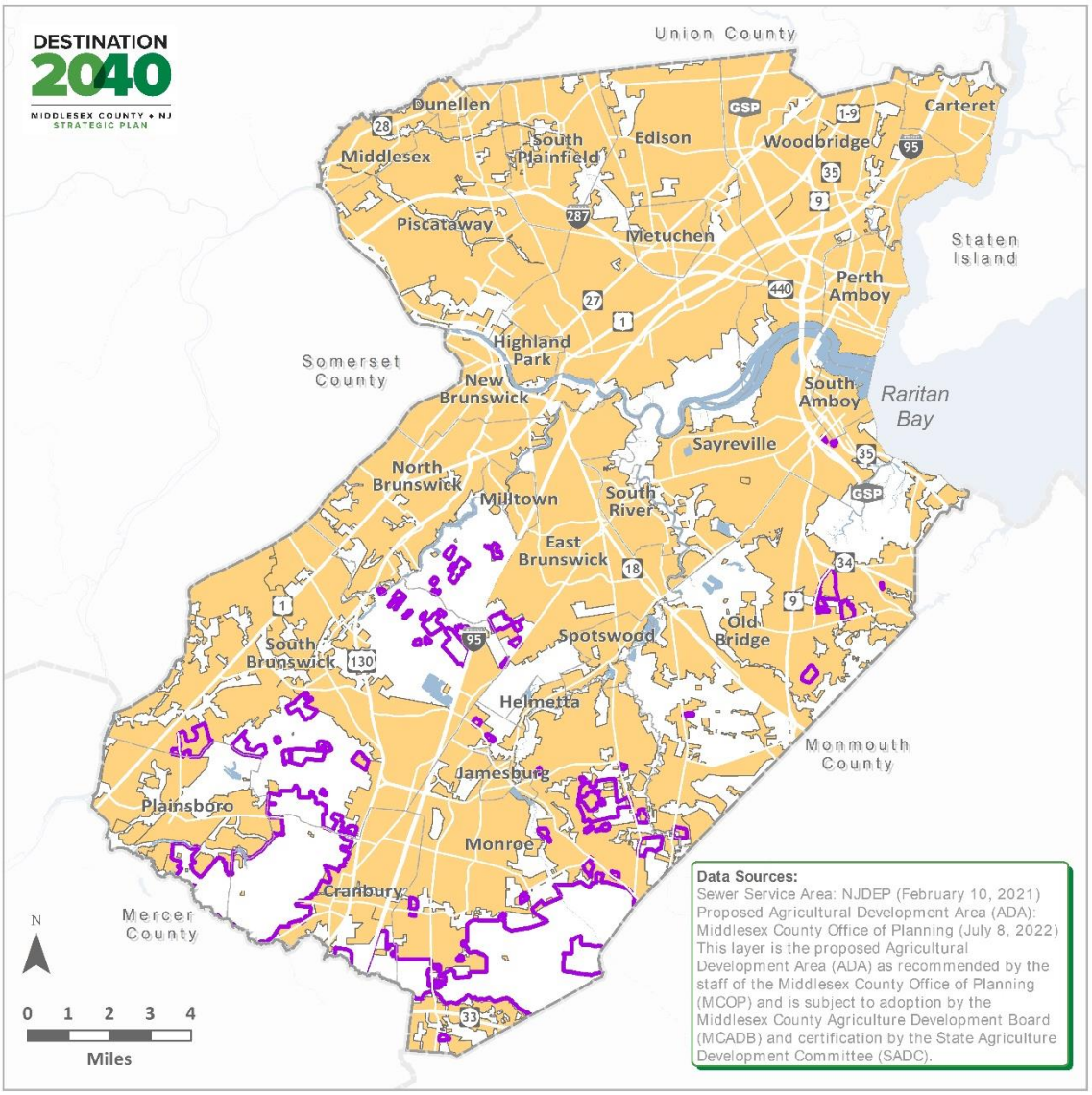
Agricultural Lands

Generalized Zoning Categories

- Parks/Conservation
- Commercial
- Industrial
- Mixed Use
- Residential 1: <2 dwelling units per acre
- Residential 2: 2-5 dweilling units per acre
- Residential 3: >5 dwelling units per acre

Prepared: *August 9, 2021*
By: *Middlesex County Office of Planning*

Map 8: Sewer Service Area



MIDDLESEX COUNTY • NJ

STRONG FARMING. LOCAL FOODS.

Middlesex County's Comprehensive Farmland Preservation Plan

Prepared: *July 22, 2021*
By: *Middlesex County Office of Planning*

- Proposed Agricultural Development Area
- Sewer Service Area
- Not in Sewer Service Area

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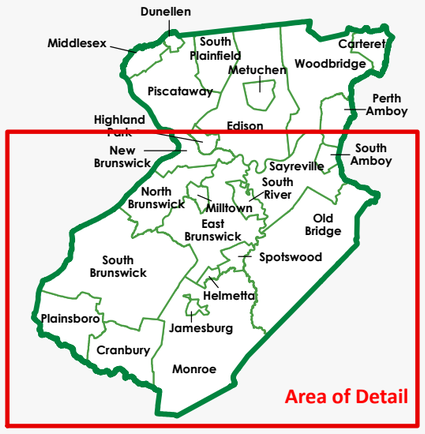
DESTINATION 2040
MIDDLESEX COUNTY • NJ
STRATEGIC PLAN

Map 9: Municipal Water Purveyors of Southern Middlesex County

MIDDLESEX COUNTY • NJ

STRONG FARMING. LOCAL FOODS.

Middlesex County's Comprehensive Farmland Preservation Plan



Somerset County
New Brunswick
North Brunswick
Milltown
East Brunswick
South River
Sayreville
South Amboy
Raritan Bay
35
GSP
34
18
9
1
95
130
South Brunswick
Spotswood
Old Bridge
Helmetta
Jamesburg
Monmouth County
Plainsboro
Cranbury
Monroe
Mercer County
33

Other notes:
This (map/ publication/ report) was developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been verified by NJDEP and is not state-authorized.

Data Sources:
Water Purveyor Service Areas: NJDEP (2018)
Proposed Agricultural Development Area (ADA): Middlesex County Office of Planning (July 8, 2022) This layer is the proposed Agricultural Development Area (ADA) as recommended by the staff of the Middlesex County Office of Planning (MCOP) and is subject to adoption by the Middlesex County Agriculture Development Board (MCADB) and certification by the State Agriculture Development Committee (SADC).

0 2 4 6 8
Miles

N

- Proposed Agricultural Development Area

Water Purveyor Service Areas

- East Brunswick Water and Sewer Utility
- Helmetta WD
- Jamesburg Manor
- Middlesex WC
- Milltown WD
- Monroe Twp UD
- NJ American
- New Brunswick WD
- North Brunswick WD
- Old Bridge MUA
- Sayreville WD
- South Brunswick WD
- South River WD
- Spotswood WD

Prepared: *October 19, 2021*
By: *Middlesex County Office of Planning*

Municipal Master Plans and Zoning

Most of Middlesex County's agricultural land base is 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-9: 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 [6-acre]	**R-100** Rural Residential [6-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.]
Millstone River 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** Single-Family Rural Preservation [6-acre]	**RP-3** Rural Preservation Residential – Low Density [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. Incorporating 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 enacting right-to-farm type ordinances, forming 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.

The Middlesex County Office of Planning and Rutgers New Brunswick's Vorhees Transportation Center staff 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-10, and more detail from each municipality is provided below:

Table III-10: 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 Average 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	No

Cranbury Township

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 safeguarding its agricultural heritage by various mechanisms, including purchasing of development rights through the New Jersey Farmland Preservation Program, encouraging lot averaged development patterns, and outright acquiring of critical properties. The township also contains a designated Village Center to guide and contain other land uses, keeping them from intruding on agricultural land.

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. As a result, much farmland has been preserved, and the Plan Map identifies other farms that should be preserved to maintain a sizeable contiguous farmland area.

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.
- Approving an open space tax.

Cranbury has effectively used the acquisition of development rights to preserve agricultural lands. By 2000, Cranbury had permanently preserved half of its total acres of farmland that had been 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 January 2015, 2,751 acres of prime farmland have been preserved through a combination of strategies. Approximately 1,606 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, 317 +/- 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 retain the desired additional farmland in Cranbury permanently. 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 to establish the local Agricultural Development Area and then preserve farmland within this area. In addition, Cranbury's Farmland Preservation Plan expresses a desire for continued participation in the traditional State and County Farmland Preservation Programs.

<u>Cranbury Zoning</u>

The township has established zone districts encouraging agricultural use for the properties west of Cranbury Village. Most 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), intended to preserve open space and agricultural uses 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 affordable housing provisions coordinated with farmland preservation and a sustained agriculture land base.

Cranbury Lot Averaging/Clustered Development

Cranbury Township utilizes clustering in its Agricultural Preservation zone (A-100). This zoning 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. In addition, 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 agriculture. In the A-100 zone, for example, the maximum permitted density increases to five-acre per dwelling unit instead of six acres per dwelling unit if the applicant chooses to lot average. The township considers this bonus a primary factor supporting the cluster plan approach. The Township Master Plan also provides a detailed cluster plan blueprint for fundamental agriculture properties. The design criteria maximize the 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. Eight 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.

Plainsboro Township

Overview

During 30 years of rapid growth that transformed it from a small farming community, Plainsboro Township preserved approximately 45 percent 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 23,071 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. 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 percent 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 7,067 acres, of which approximately 67 percent are dedicated to suburban planning, 19 percent are in the township's Rural Planning Area, and about 14 percent 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 to comply 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, including a "downtown" area with two adjacent residential areas.

The area south of Cranbury Brook and north of the Millstone River is predominantly devoted to agricultural use. This area has severe access problems [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"). In addition, 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.

Plainsboro's plans aim 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 in Plainsboro is within the rural zones of the Township.

Plainsboro Farmland Preservation Element

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

Instead, explicit 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 is integral to the Master Plan and Township staff approach to farmed lands issues.

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.*

<u>Plainsboro Zoning</u>

Plainsboro employs innovative acquisition and regulatory strategies to redirect growth and reduce the cost of land conservation. For example, 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 preserving of 75 percent of the tract. A more recent "Internal Zone Clustering Ordinance" permits density transfer between non-contiguous properties if 75 percent of the area is dedicated as open space. 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.

East Brunswick Township

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 parts. West of the New Jersey Turnpike alignment, agriculture used approximately 630 farmland-assessed acres in 2018. 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 applied to 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 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.

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 contains 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 the 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). Therefore, East Brunswick has continued to use a multifaceted approach to maximize its open space and farmland preservation efforts.

East Brunswick Zoning

East Brunswick uses 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. For either method, the township allows a density of one unit per three acres for developments where all designated open land consists of prime agricultural soils. The Middlesex CADB Northwestern Project Area includes lands within this zone.

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. This allows the preservation of harmonious open land and promotes compact neighborhoods of one-acre minimum homesteads, which can better access supporting infrastructure.

South Brunswick Township

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 percent are presently developed or designated as parklands 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 in the southern part of the township. However, pockets of farmland and vacant land are also located in the western and central sections. These areas include Agricultural Development Areas designated by 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 the development of these lands.

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 preserving of its remaining farmland. In addition, 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 extensive field crop use by a single operator. The subsequent 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.

South Brunswick Zoning

Two of the five current 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 sections of the township. It is designed to promote the preservation of farms and the area's rural character, which lacks utilities and contains significant environmental constraints. In addition, the zoning calls for low-density residential development and 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.

South Brunswick Lot Averaging/Clustering

The area from Carnegie Lake to a point 1,500 feet west of Route 1 is zoned for single-family cluster development on a minimum of 20,000 square-foot-lots, with 30 percent of the total tract devoted to open space. From that point to approximately one mile east of Route 1, the land is zoned Office-Research (OR), permitting hotels and commercial development. In adjacent Plainsboro, the adjoining land has been placed into the PMUD zone, 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 percent 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. Poor soils interspersed with ongoing farm

operations characterize all these lands. The Plainsboro land-use plan recommends that its adjoining areas be placed into R-200 and R-350 low-density residential classifications.

Monroe Township

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. At the same time the Borough of Jamesburg forms a small island within the township. Much of Monroe is semi-rural, despite growing population growth from several active adult communities and other housing developments.

The population of Monroe Township has increased from 27,999 in 2000 to 43,828 in 2018. The 2018 median age in Monroe was 56 years, which was significantly older than Middlesex County's median age of 39.3 years. In addition, the average household size decreased from 2.31 persons in 1990 to 2.15 persons in 2000 because of growth amongst adult communities.

The township's housing stock is predominantly single-family dwelling units, detached and attached (86.2 percent 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 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 Project Areas (Southeastern and Matchaponix) are primarily situated in the farming areas of Monroe where sewer service is not available and are in an ADA or have contiguous farmlands.

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 5,400 acres, including200 acres of certified voluntary ADAs. 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 to establish the local Agricultural Development Area and preserve farmland within this area.

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.

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

The 2017 amendment of the land use plan element recommends increasing the minimum lot size in the RR-FLP zone from 6 acres to 10 acres to minimize residential development in these lands. 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. In addition, Monroe Township has adopted “Right to Farm” ordinances.

Monroe Lot Averaging/Clustering

As noted above, Monroe Township zoning allows lot clustering and noncontiguous lot clustering in four rural designated zoning districts. However, 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 owner’s retention of development restricted farmland.

Old Bridge Township

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. For the Year 2018, the township reports 4,526 acres in farmland assessment or approximately 19 percent of Old Bridge. However, that figure includes much wooded area. Table I-1 indicates that as of 2019, only 43 percent of Old Bridge farmland-assessed acres is in agricultural use (2,150 of 5,000 acres are considered tillable).

The 2007 Old Bridge Master Plan Re-Examination revealed that between 2000 and 2006, the township experienced a decrease of nearly 1,500 farmland assessed acres. This resulted in 2007 total farmland assessed acreage of about 3,600 acres, an approximately 30 percent loss, with only 15.3 percent of Old Bridge Township being farmland assessed in 2007, compared with 21 percent in 2000. From 2007 to 2018, total farmland assessed acreage increased by 926 acres, about a 26 percent increase. However, because there is so much woodland, these numbers do not necessarily indicate significant gain or loss of tillable fields. Further analysis by the township in this regard would be helpful 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 straightforward implementation techniques. As a result, it did not appear to have significantly stemmed the conversion of farmland to other use in the township. The 2019 Master Plan Reexamination Report acknowledges a need to update the Farmland Preservation Plan Element and reports plans to continue farmland preservation using currently available funding sources, including county and state funds.

Old Bridge Farmland Preservation Element

The Old Bridge Township Farmland Preservation Element was created for inclusion in 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 promote agriculture as a business within the township." In addition, 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 preserved approximately 71 acres of farmland.

The 2007 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. As a result, the Planning Board proposed a farmland preservation district, to establish zones that encourage lot averaged development to preserve open space and farmland.

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 percent minimum set aside, the conditions and zone requirements for the ARC Districts are still under development.

At this point, 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).

Old Bridge Planned Unit Developments

Old Bridge has attempted to preserve land by working with developers to formulate 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.

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 municipalities' transfer of development rights. New Jersey is the first state to authorize TDR on a statewide level.

This legislation extended the availability of TDR to municipalities statewide, allowing for both intra-municipal and inter-municipal transfers. This bill also formalized the planning process required to enact TDR and mandated a list of planning documents required before adopting a TDR ordinance. To assist municipalities, the Act authorized the State TDR Bank Board to provide Planning Assistance Grants to conduct the extensive research and technical planning work required under the TDR enabling statute. To date, thirteen municipalities have received Planning Assistance Grants from the State TDR, for up to $40,000 each. A total of $240,000 has been distributed to date.

Cranbury Township attempted to employ a Transfer of Development Rights Ordinance and process to preserve farmland in 1978. However, this concept was new and not thoroughly 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 used other legal options to preserve farmland. Non-Contiguous Lot Clustering is 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 the complex process required before 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. Opportunities for developers and development credit receiving areas must be enhanced by State agency commitments to provide and help pay for infrastructure improvements and encourage TDR use. 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.

CHAPTER 4. COUNTY'S FARMLAND PRESERVATION PROGRAM

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. See Map 10: Agricultural Development Areas. This land designation 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 enumerated explicitly in the Agriculture Retention and Development Act (ARDA). In addition, per 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 percent 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 land use. The ARDA further stipulates that an ADA that the CADB has designated 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 assessing property taxes.

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 percent 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;

*8.[*The property meets] current and anticipated local land use plans and regulations.

Criteria #8 is being added concurrent with this Comprehensive Farmland Preservation Plan update. 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, 2001and will be recertified with the inclusion of criteria #8.

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 1980s, the CADB decided to consider the adoption of comprehensive ADAs in Middlesex County. Accordingly, 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 Office of Planning 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 the 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).

After 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 several ADAs that individual landowners have voluntarily requested. The last ADA revisions occurred in 2013, which consisted of two separate voluntary ADA designations related to the FY2015 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 could apply to the easement purchase program by using the Middlesex CADB. The CADB then reviewed easement purchase applications and ranked the applicant farms according to established criteria. With the transition into the State's County Planning Incentive Grant (PIG Program), a landowner is eligible only if the property is in the ADA and identified on the targeted farms listed in the annual PIG application forms.

Comprehensive Revisions to the ADA: Past and Present

Prior to commencement of the 2008 update of the County's farmland preservation plan, the County's ADA had last been amended and certified in late 2006 in conjunction with the processing and submittal of the 2008 Round of Traditional County Easement Purchase Applications. Therefore, the primary impetus for preparing the 2008 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 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.

For a farmland preservation 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. However, when the 2008 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 2008 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 were within the ADA. The proposed revisions were based on a systematic approach substantially similar to the approach used by Office of Planning staff for the original two ADA designations of 1990. In addition, staff also considered the SADC's new minimum eligibility requirements, adopted with the specific intent of qualifying only the state's most viable agricultural areas.

As such, the prior 2008 Middlesex County Comprehensive Farmland Preservation Plan's ADA revisions were largely driven by agriculturally productive soils in active agricultural use. The nature of the comprehensive ADA revisions in 2008 were largely characterized as follows: ADA additions in order for all designated Targeted Farms to be included within ADAs; ADA amendments necessary to rectify farm boundaries; ADA removals due to changes in land use where ADA lands had been developed for non-agricultural uses since the initial ADA designation; ADA removals for lands with insufficient tillable acreage that did not meet the state's minimum tillable acreage requirements; ADA removals of recreation and/or open space properties; and modifications requested by municipalities.

- The Middlesex CADB adopted the revised ADA map at their April 9, 2008, followed by SADC certification on June 26, 2008.

- Following approval of the two voluntary ADA petitions in 2013 referenced in the prior section, the Middlesex CADB adopted the revised ADA map at their April 29, 2013 meeting. The SADC certified the map on April 26, 2013.

With this current 2022 update of the Middlesex County Comprehensive Farmland Preservation Plan, the nature of the comprehensive ADA revisions reflected in the accompanying ADA map can be characterized as follows:

- Additions or removals to account for updates to the County's Targeted Farm List — Staff amended the ADA to include all currently designated Targeted Farms as of the FY2023 County PIG Application submission to account for changes (additions and removals) in Targeted Farm designation status, which is updated on an annual basis, since ADA designation is a prerequisite for the state farmland preservation program.

- Amendments to Rectify Farm Boundaries — In a limited number of cases, staff rectified mapping errors within property boundaries that required revisions for the ADA boundary to correctly coincide with either the targeted farm or accompanying parcel boundary.

- Removals to Recognize Changes in Land Use — Staff identified ADA lands warranting removal from the ADA due to land use changes no longer consistent with ADA designation.

- Removals Due to Non-Agricultural Development — Staff identified ADA lands that have been developed, or that have received recent development approvals, for non-agricultural uses that are not compatible with agriculture and warranted removal from the ADA.

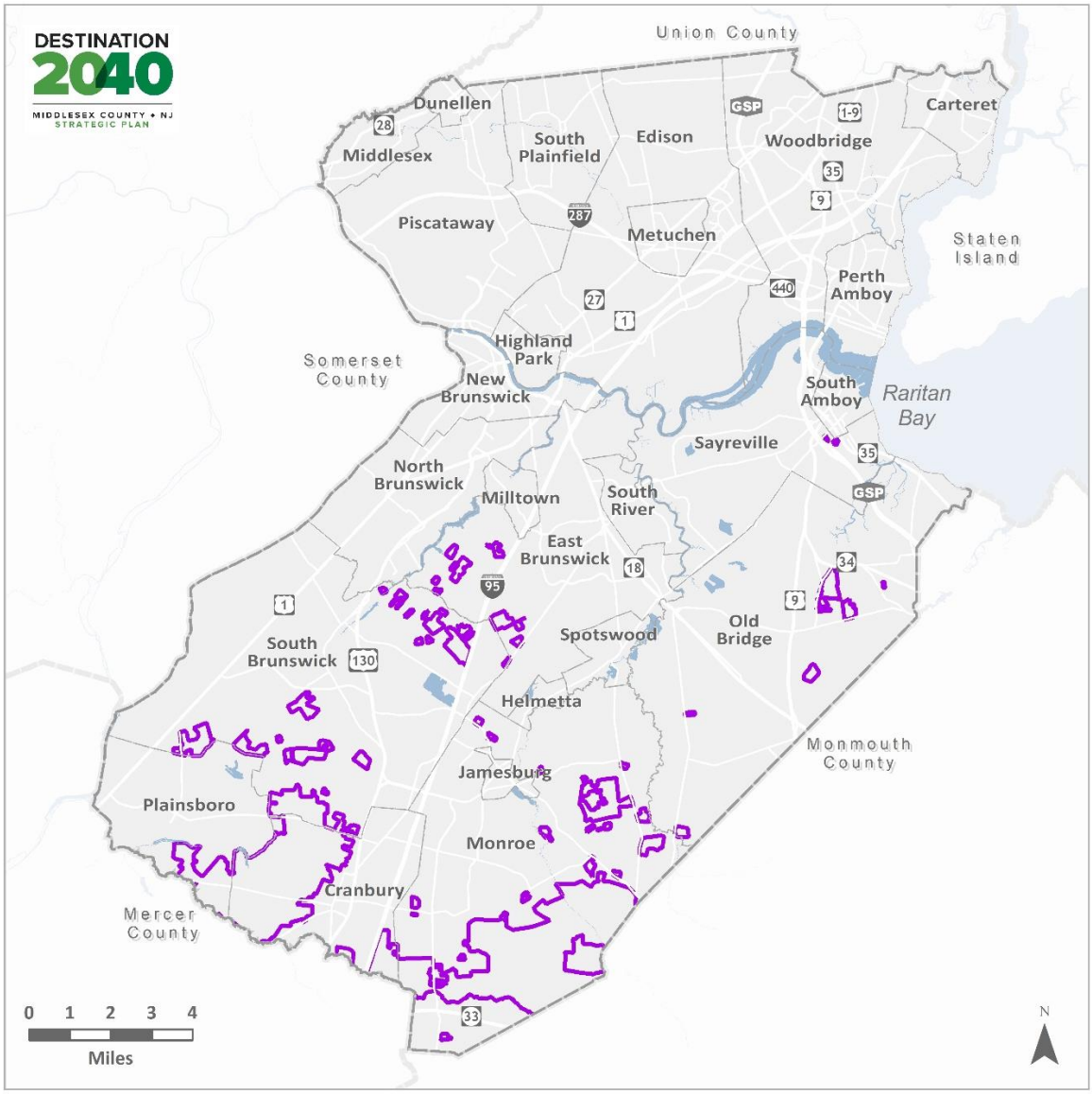
- Removals Based on Zoning Analysis — Properties were removed from the ADA where zoning districts do not currently recognize agriculture to be a permitted use.

- Removals of Recreation and/or Open Space Properties — Properties permanently preserved for recreation or open space purposes incompatible with agriculture were removed to minimize conflicts between the underlying policy of the ADA designation and any plans for a property held explicitly for public recreation or open space.

- Modifications Requested by Municipalities — Based upon conversations with the municipalities regarding the results of the initial staff analysis, some modifications requested by the municipalities were incorporated in light of their more specific knowledge and goals.

- The Middlesex CADB anticipates adopting the revised ADA map (see Map 10 below) at their September 2022 meeting, followed by SADC certification, the final step in the ADA revision process.

Map 10: Agricultural Development Area



MIDDLESEX COUNTY • NJ

STRONG FARMING. LOCAL FOODS.

Middlesex County's Comprehensive Farmland Preservation Plan

Prepared: *September 15, 2021*
By: *Middlesex County Office of Planning*

Proposed Agricultural Development Area

Data Sources:
Proposed Agricultural Development Area (ADA): Middlesex County Office of Planning (July 8, 2022) This layer is the proposed Agricultural Development Area (ADA) as recommended by the staff of the Middlesex County Office of Planning (MCOP) and is subject to adoption by the Middlesex County Agriculture Development Board (MCADB) and certification by the State Agriculture Development Committee (SADC).)

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Geographic Information System Mapping of ADA

As part of the ongoing mapping of the farmland preservation program activities, the County Office of Planning Geographic Information System laboratory maintains a current digital map file of the ADA boundaries, updated as revisions 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.

Table IV-1: Agricultural Development Area (ADA) Acreage, by Municipality (Proposed as Anticipated for Certification, September 2022)

Municipality	Total Acres	Percent Total Acres
Cranbury	3, 949	29 %
East Brunswick	332	2 %
Monroe	6, 378	46 %
Old Bridge	397	3%
Plainsboro	859	6%
Sayreville	17	<1%
South Brunswick	1,899	14%
Grand Total	13,831	100%

Farmland Preserved to Date by Program and Municipality

Refer to Map 11 below of preserved farms and Appendix A for a detailed listing of all farms preserved for all program types as of year-end 2021. The following graphs and tables illustrate and summarize farmland preservation in Middlesex County. Program types are also fully described in the pages after the series of tables and graphs.

Figure IV-1: Preserved Acreage by Year for all Programs in Middlesex County: Cumulative 1988 to 2021

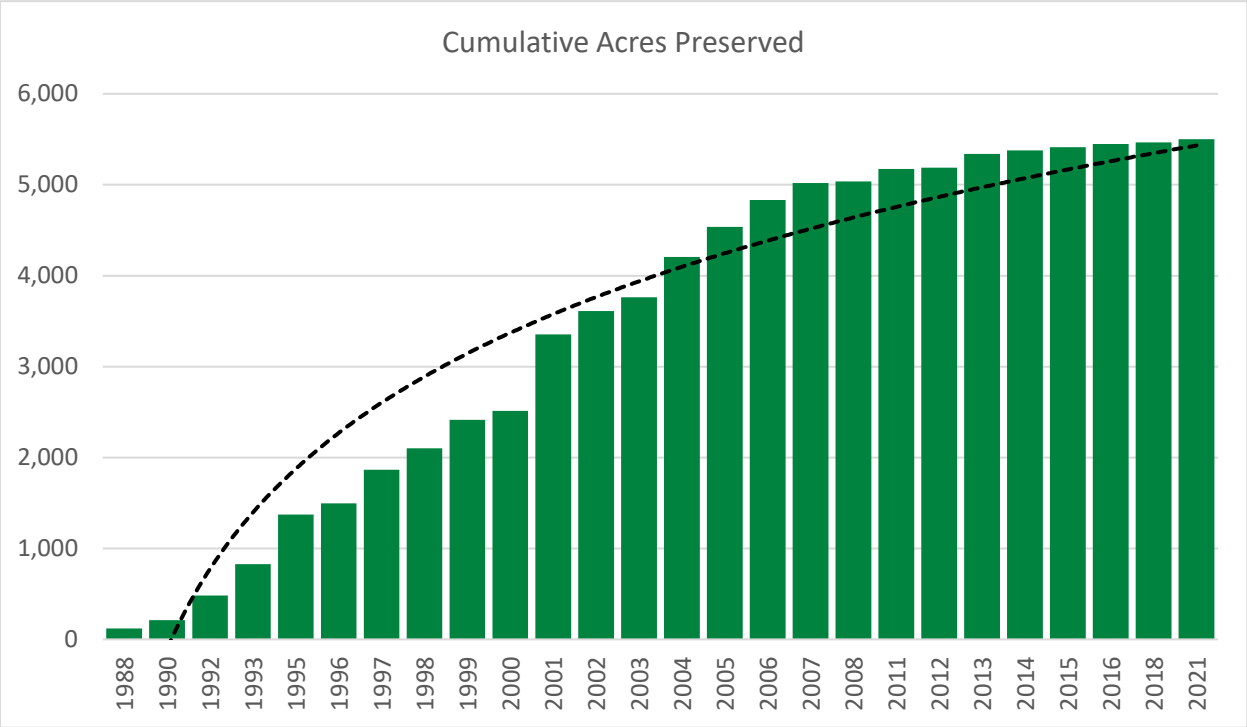
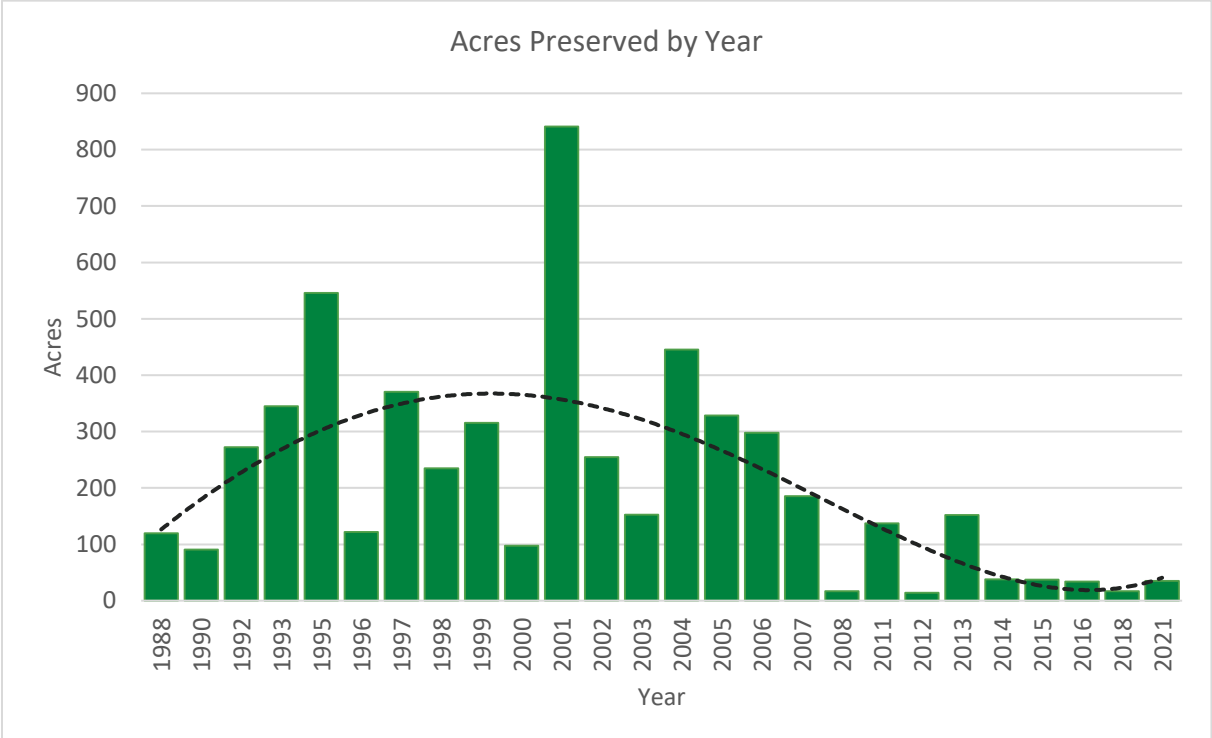


Figure IV-2: Preserved Acreage per Year for all Programs in Middlesex County



DESTINATION 2040
MIDDLESEX COUNTY • NJ
STRATEGIC PLAN

Map 11: Preserved Farms by Type of Farmland Preservation Program

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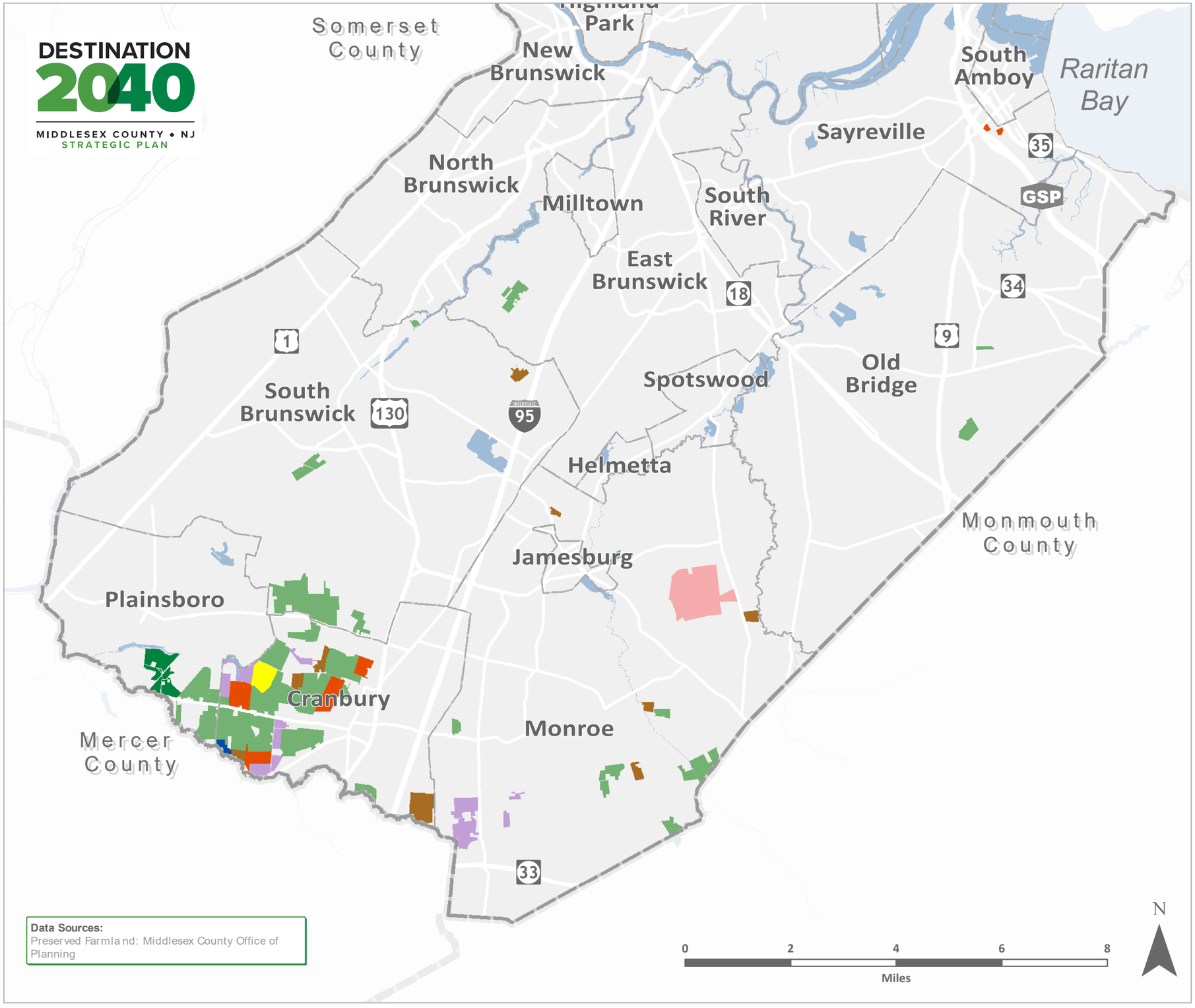
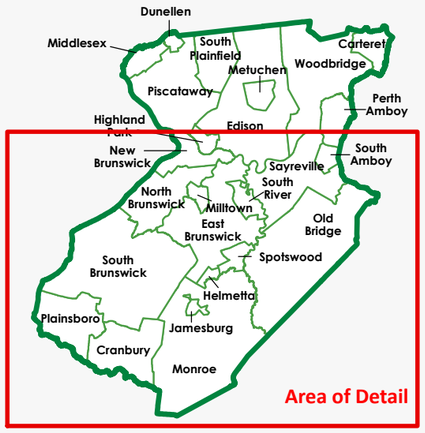
Middlesex County's Comprehensive Farmland Preservation Plan





State Agriculture Development Committee
- State Easement Purchase
- Easement Donation to State
- State Fee Simple Purchase

Middlesex County
- County Easement Purchase
- Easement Donation to County
- County Planning Incentive Grant Program (PIG)

Municipal
- Independent Purchase (Municipal Cluster Easement)

Nonprofit
- Nonprofit Fee Simple Purchase

Data Sources:
Preserved Farmland: Middlesex County Office of Planning

Prepared: *September 15, 2021*
By: *Middlesex County Office of Planning*

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

Municipality	Quantity	Total Acres	Percent Total Acres
Cranbury	30	2,751	50%
Cranbury /Plainsboro	1	91	2%
East Brunswick	2	81	1%
Monroe	13	1,127	20%
Monroe /Manalapan	2	221	4%
Old Bridge	2	71	>1%
Plainsboro	6	527	10%
Sayreville	1	17	<1%
South Brunswick	8	615	11%
Grand Total	65	5,500	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, as a result 41 of these acres are in Monmouth County even though they are part of Middlesex County farms.

Table IV-3: Acres of Preserved "Active Agriculture" Land: Percent Preserved by Middlesex County Municipality (2015 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	2,267	3,408	67%
East Brunswick	50	598	8%
Monroe	818	4,101	20%
Old Bridge	18	882	2%
Plainsboro	476	1,221	39%
South Brunswick	357	2,664	13%
All other municipalities	35	485	7%
Grand Total	4,020	13,360	30%

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

Program	Quantity	Total Acres	Percent Total Acres
County Easement Purchase	38	3,133	58.5%
County PIG	9	419	13.8%
Cluster Easement Donated to County	1	235	1.5%
Municipal Cluster Easement	10	580	15.4%
Non-profit Grant	1	32	1.5%
State Easement Purchase	4	406	6.2%
State Fee-simple Purchase	1	125	1.5%
State-owned Lands	1	571	1.5%
Grand Total	65	5,500	100%

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

Program Type	Municipality	Quantity	Total Acres	Percent Total Acres
County Easement Purchase	Cranbury Twp.	13	1,606	20.0%
	Cranbury/Plainsboro	1	91	1.5%
	East Brunswick	2	81	3.1%
	Monroe	6	190	9.2%
	Monroe /Manalapan	2	221	3.1%
	Old Bridge	2	71	3.1%
	Plainsboro.	5	292	7.7%
	South Brunswick	7	581	10.8%
County Easement Purchase Total		38	3,133	58.5%
County PIG	Cranbury	4	282	6.2%
	Monroe	4	104	6.2%
	South Brunswick	1	34	1.5%
County PIG Total		9	419	13.8%
Donation to County	Plainsboro	1	235	1.5%
Donation to County Total		1	235	1.5%
Municipal Cluster Easement	Cranbury	8	317	12.3%
	Monroe.	2	263	3.1%
Municipal Cluster Easement Total		10	580	15.4%
Non-profit	Cranbury	1	32	1.5%
Non-profit Total		1	32	1.5%
SADC Easement Purchase	Cranbury	3	389	4.6%
	Sayreville	1	17	1.5%
SADC Easement Purchase Total		4	406	6.2%
SADC Fee Simple	Cranbury	1	125	1.5%
SADC Fee Simple Total		1	125	1.5%
State-owned Lands	Monroe Twp.	1	571	1.5%
State-owned Lands Total		1	571	1.5%
Grand Total		65	5,500	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	County Easement Purchase	13	1,606	20.0%
	County PIG	4	282	6.2%
	Non-profit Grant	1	32	1.5%
	State Fee-simple	1	125	1.5%
	State Easement Purchase	3	389	4.6%
	Municipal Cluster Easement	8	317	12.3%
Total		**30**	**2,626**	**46.1%**
East Brunswick	County Easement Purchase	2	81	3.1%
Total		**2**	**81**	**3.1%**
Monroe	County Easement Purchase	6	190	9.2%
	County PIG	4	104	6.2%
	State-owned Land	1	571	1.5%
	Municipal Cluster Easement	2	263	3.1%
Total		**13**	**1,128**	**20.0%**
Monroe/Manalapan	County Easement Purchase	2	221	3.1%
Total		**2**	**221**	**3.1%**
Old Bridge	County Easement Purchase	2	71	3.1%
Total		**2**	**71**	**3.1%**
Plainsboro	County Easement Purchase	5	292	7.7%
	Donation to County	1	235	1.5%
Total		**6**	**527**	**9.2%**
Plainsboro/Cranbury	County Easement Purchase	1	91	1.5%
Total		**1**	**91**	**1.5%**
South Brunswick	County Easement Purchase	7	581	10.8%
	County PIG	1	34	1.5%
Total		**8**	**615**	**12.3%**
Sayreville	State Easement Purchase	1	17	1.5%
Total		**1**	**17**	**1.5%**
Grand Total		**65**	**5,500**	**100.0%**

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

(Former) County Easement Purchase Program

Beginning with the State's Fiscal Year 2009 Round of funding, Middlesex County moved to the County Planning Incentive Grant (PIG) Program (described in the following section of this chapter), which did not permit continued participation in the County Easement Purchase Program. The County Easement Purchase Program had been the principal means of farmland preservation in Middlesex County up until that time, accounting for more than two-thirds of all farmland acres preserved. In 1990, only five years after establishing the Middlesex CADB, the County acquired its first farmland preservation easement through the Easement Purchase Program —– the Stults Farm, an easement covering roughly 91 acres along Cranbury Neck Road, with approximately 58 acres in Plainsboro and 33 acres in Cranbury. The last easement acquired through this program was finalized in 2011. During the 21 years that the easement purchase program was in use, Middlesex County acquired a total of 3,093 acres of development easements on 39 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 was a process where landowners voluntarily sold the development rights on their farmland to their County by applying to their county agriculture development board (CADB). When landowners sold their development rights — also known as development easements — they retained ownership of their land but agreed to permanent deed restrictions allowing only agricultural use. In addition, for a county to be eligible for state cost-share dollars supporting the easement sale, the land had to be in an Agricultural Development Area (ADA) and be eligible for Farmland Assessment. The CADB reviewed applications and forwarded those applications granted preliminary approval locally to the State Agriculture Development Committee (SADC). The process described above is standard under the current program, as detailed in the following section – Planning Incentive Grants.

Under the former County Easement Purchase Program, the SADC provided counties with grants that typically funded 60-80 percent of the costs of purchasing development rights on approved farms. Contingent upon the availability of state appropriations, the SADC generally 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 prioritized 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; appropriate boundaries and buffers; the municipal commitment to agriculture (e.g., right to farm ordinances, financial commitment); the size of the farm and agricultural density of the

area; the 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 established the SADC's initial priority list for preservation for that funding round. Each farm's SADC certified development values based on independent appraisals conducted by two licensed appraisers from a SADC-approved list, retained and paid for by the county. A SADC staff appraiser gave these appraisals a desktop review.

Once the SADC certified development easement values, landowners had 30 days to submit their offers. A landowner could 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." Two points were added to the farm's quality score for every one percent landowner discount. Then, the landowner offers to establish the final priority list for preservation—the number of preserved farms each round depended on state, county, and sometimes municipal funding.

Planning Incentive Grant Program

In the current Planning Incentive Grant (PIG) Program, the State Agriculture Development Committee (SADC) provides grants to participating municipalities or counties to purchase development easements to permanently protect large blocks of reasonably contiguous farmland in project areas identified as part of a comprehensive planning process. The SADC has created a Municipal PIG Program and a County PIG Program. Under the Municipal PIG Program, 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. In addition, municipalities must have an agricultural advisory committee; for counties, county agriculture development boards serve this function. To date, there has yet to be direct municipal participation in the SADC's PIG Program by any Middlesex County municipality, though Cranbury's farmland preservation plan mentions possible participation. Middlesex County municipalities participating in the County PIG Program include Cranbury Township, East Brunswick Township, Old Bridge Township, Plainsboro Township, Monroe Township, and South Brunswick Township. For County PIG applications, applicants have 60 days to respond to the direct easement purchase offer.

Both municipal and county programs must prepare and adopt a comprehensive farmland preservation plan prepared under SADC guidelines, plus they must establish and maintain a dedicated funding source or other means of funding farmland preservation. Further State

guidelines require the County to coordinate the Farmland Preservation Program through administration of a County-wide board known as the County Agriculture Development Board (CADB). This group of farmers, public and related members serve as an agriculture advisory committee that processes farmland preservation applications and related stewardship or post-closing applications as well as hears Right-to-Farm complaints. Municipalities must establish an agricultural advisory committee and must prepare and adopt a Right-to-Farm ordinance for addressing issues that may arise as a result of farming operations. The SADC will evaluate, and rank applications based on the local commitment to agriculture, soil productivity; the size of the farms; the agricultural density of the project area; the proportion of tillable acres; and the 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 a SADC staff appraiser. The SADC establishes preliminary funding allocations for all applications receiving preliminary approval. In FY2009, the maximum initial base grant allocation under the PIG Program was $1.5 million per municipal applicant per year. In FY2009, the initial base grant for each county was $2 million. In subsequent years, the total base grant allocations from SADC varied and took into account program performance in terms of how much funding was spent down from prior base grant allocations, and also allowed for competitive funding to be requested based on the availability of funds. Subsequent base grants Middlesex County received from SADC included: $1,500,000 in FY 2011; $500,000 in FY2013; and $1,000,000 in Fiscal Year 2017 - in addition to being eligible to compete for up to $2,000,000 in competitive funding in both FY2018 and FY2020.

In 2014, a voter referendum on the New Jersey State election ballot included a general question concerning the creation of a stable source of state funding for various State preservation programs through the New Jersey Corporate Business Tax (6% of CBT), including Farmland Preservation, Open Space Preservation, and Historic Preservation. The measure, known as "New Jersey Open Space Preservation Funding Amendment, Public Question No. 2 (2014)," was approved by New Jersey voters. Although it called for a lower amount of farmland preservation funding than initial base grant allocations, for the first time since its inception, the State's Farmland Preservation Program gained a stable, dedicated source of preservation funding - in addition to funding expressly set aside for stewardship purposes of preserved farmland. Currently, municipalities and counties participating in the State's Farmland Preservation Program receive base grants from the SADC that come from the State's CBT, sometimes alternating yearly allocations between Municipal PIG Programs and County PIG programs. A county may seek additional funds on a competitive basis according 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. As of June 2021,

Middlesex County currently has a remaining SADC balance of $108,418.60 (remaining from FY2017 Base Grant). It can compete for up to $220,096.59 (FY17 Competitive Funding) and can compete for up to $2,000,000 (FY18 Competitive Funding) and up to $2,000,000 (FY20 Competitive Funding).

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 from the quality score ranking system employed in the former County Easement Program criteria, the SADC direct easement and fee-simple programs seek to preserve priority farms strategically located in each county. In recent years, priority farms are those that meet or exceed 75 percent of the county's average size and 90 percent of the average quality score. As adopted by the SADC on February 27, 2020, the minimum acreage requirement for qualifying as a priority farm in Middlesex County is 55 acres. For other counties, the minimum acreage requirement varies from as high as 94 acres in Salem County to as low as 10 acres in Bergen County. Quality scores are determined based on several factors, including soil quality, the 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 period. This provides time for two independent appraisers to evaluate the land. Based on the findings of those appraisers and the recommendations of its review appraiser, the SADC will certify fair-market value and make an

offer. The landowner and SADC will enter into a sale agreement if the offer is accepted. 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 have been accepted year-round and the Direct Easement program is still very active. Landowners interested in this program option may contact the staff of the SADC for more information.

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; appropriate 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); the 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 lands in the Farmland Preservation Program, farmland preserved by nonprofit organizations must be maintained for agricultural use.

Municipal Cluster Easements

Clustering is a zoning technique that concentrates buildings on a portion of land to preserve the remainder 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, 10 development projects preserved farmland by way of cluster zoning (eight in Cranbury; two in Monroe). An 11th 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 cluster zoning provisions (please refer to Chapter 3 Subchapter F for detailed descriptions of cluster techniques).

State-owned Lands

During Governor Whitman's administration of the late-90s, she set a statewide goal of 500,000 preserved farmland acres. She 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.) The County's list of preserved farms is known as the Jamesburg Farm but is 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 place into agriculture preservation.[15]

Consistency with SADC Strategic Targeting Project

The SADC released their Strategic Targeting Project Report in March of 2003. The Strategic Targeting Project intends 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 giving a higher priority to agricultural areas with a predominance of prime and statewide important soils outside of public sewer service areas.

This coordinated planning approach is anticipated to improve preservation efforts and 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 overhaul 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 is consistent with the goals of the SADC's Strategic Targeting Project.

Term Easements: Eight-Year/Sixteen-Year Programs

In this program, farmland owners agree to voluntarily restrict nonagricultural development for a period of either eight or sixteen years in exchange for certain benefits. There are two types of term easement 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 in an ADA, be eligible for Farmland Assessment, and meet local 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 percent 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 before expiration of the eight years only in cases of death or incapacitating owner's illness, bankruptcy, or other serious hardship. Withdrawal from the program must be approved by the county agriculture development board and the municipality for municipally approved programs. 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.

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 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, and purchases of farmland for land conservation purposes, 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.

Other types of open space conservation easements can also be explored in the context of the County's Comprehensive Farmland Preservation Program, where appropriate and feasible and bearing in mind public access limitations present in the Farmland Preservation Program. For example, a farm that was preserved in Monroe Township in 2018 through the County Planning Incentive Grant (P.I.G.) Program also included an exception area around a portion of the Manalapan Brook stream corridor that traversed the farm property. The exception area portion became a wetlands donation to the County's Open Space Program. Such coordination can leverage both County programs in a manner that supports the other in achieving preservation goals through sound planning.

Implementing such joint efforts requires careful consideration of programmatic requirements and specific site characteristics such as adequate buffers, access restrictions, and wildlife management to ensure farming interests are protected. Uncontrolled public access may cause concern because of the 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.

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 donations to the County).

Figure IV-3: Total Easement Purchase Cost per Acre by Year, 1990 to 2021
(Only For Easements with Reported Program Costs in Middlesex County)

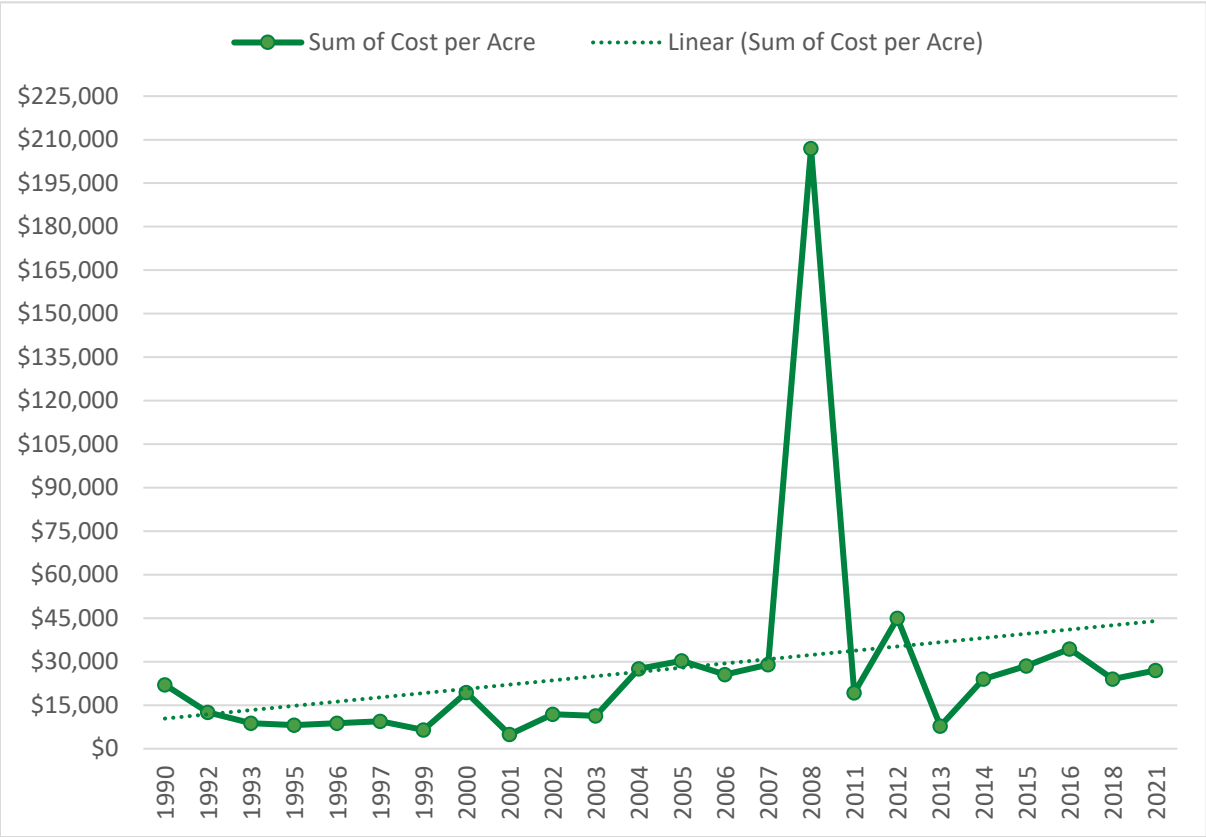


Table IV-7: Middlesex County Easement Purchase Cost Summary: By Program and Municipality

(Only for Easements with Reported Program Costs)

Program Type	Municipality	Qty	Acres	Cost per Acre	Total Cost	State Cost	County Cost	Local Cost
County Easement Purchase	Cranbury	13	1606	$9,005.47	$14,263,435.63	$8,869,792.52	$3,127,911.32	$1,764,562.49
	Cranbury /Plainsboro	1	91	$22,000.00	$1,991,492.80	$1,593,194.24	$398,298.56	$0.00
	East Brunswick.	2	81	$40,456.92	$3,272,912.35	$1,665,852.12	$581,547.08	$977,175.45
	Monroe	6	190	$20,817.96	$3,927,241.30	$2,297,572.03	$794,504.26	$769,646.81
	Monroe /Manalapan	2	221	$5,164.08	$1,138,059.75	$765,763.35	$228,347.00	$99,386.90
	Old Bridge	2	71	$53,147.61	$3,772,524.00	$2,197,822.85	$882,145.68	$320,401.51
	Plainsboro	5	292	$9,139.02	$2,643,844.55	$1,602,446.00	$529,317.00	$512,081.55
	South Brunswick	7	581	$19,703.19	$11,366,356.68	$6,624,219.97	$2,325,349.57	$1,974,447.68
Subtotal		38	3133	$13,663.18	$42,375,867.06	$25,616,663.08	$8,867,420.47	$6,417,702.39
County PIG	Cranbury	4	282	$15,890.91	$4,432,143.00	$2,678,162.55	$876,990.23	$876,990.22
	Monroe	3	69	$28,282.04	$1,938,705.60	$1,159,925.76	$389,389.92	$389,389.92
	South Brunswick	1	34	$34,350.00	$1,123,822.08	$674,293.25	$224,764.42	$224,764.41
Subtotal		8	384	$19,713.67	$7,494,670.68	$4,512,381.56	$1,491,144.57	$1,491,144.55
Donation to County	Plainsboro	1	235	$0.00	$0.00	$0.00	$0.00	$0.00
Subtotal		1	235	$0.00	$0.00	$0.00	$0.00	$0.00
Municipal Cluster Easement	Cranbury	8	317	$0.00	$0.00	$0.00	$0.00	$0.00
	Monroe	2	263	$0.00	$0.00	$0.00	$0.00	$0.00
Subtotal		10	580	$0.00	$0.00	$0.00	$0.00	$0.00

Non-profit	Cranbury	1	32	$27,461.32	$875,000.00	$500,000.00	$0.00	$0.00
Subtotal		1	32	$27,461.32	$875,000.00	$500,000.00	$0.00	$0.00
SADC Easement Purchase	Cranbury	3	389	$21,097.39	$5,814,725.12	$5,517,731.84	$0.00	$2,301,322.88
	Sayreville	1	17	$207,000.00	$3,468,285.00	$2,601,213.75	$867,071.25	$0.00
Subtotal		4	406	$28,774.92	$9,283,010.12	$8,118,945.59	$867,071.25	$2,301,322.88
SADC Fee Simple	Cranbury	1	125	$15,719.21	$1,797,097.00	$1,959,651.00	$0.00	$0.00
Subtotal		1	125	$15,719.21	$1,797,097.00	$1,959,651.00	$0.00	$0.00
State-owned Lands	Monroe	1	571	$0.00	$0.00	$0.00	$0.00	$0.00
Subtotal		1	571	$0.00	$0.00	$0.00	$0.00	$0.00
Grand Total		64	5465	$15,920.20	$61,825,644.86	$40,707,641.23	$11,225,636.29	$10,210,169.82

* 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	Qty	Acres	Total Cost	State Cost Share	County Cost Share	Local Cost Share
County Easement Purchase	Cranbury Twp.	13	1,606	$14,263,435.63	65.2%	22.4%	12.5%
	Cranbury /Plainsboro	1	91	$1,991,492.80	80.0%	20.0%	0.0%
	East Brunswick	2	81	$3,272,912.35	51.7%	17.7%	30.6%
	Monroe.	6	190	$3,927,241.30	59.9%	20.4%	19.7%
	Monroe /Manalapan	2	221	$1,138,059.75	67.0%	23.6%	9.4%
	Old Bridge	2	71	$3,772,524.00	62.5%	22.4%	15.1%
	Plainsboro	5	292	$2,643,844.55	61.0%	20.0%	18.9%
	South Brunswick	7	581	$11,366,356.68	61.6%	21.2%	17.2%
Subtotal		38	3,133	$42,375,867.06	62.8%	21.3%	16.0%
County PIG	Cranbury	4	282	$4,432,143.00	60.4%	19.8%	19.8%
	Monroe	3	69	$1,938,705.60	59.9%	20.1%	20.1%
	South Brunswick	1	34	$1,123,822.08	60.0%	20.0%	20.0%
Subtotal		8	384	$7,494,670.68	60.2%	19.9%	19.9%
Donation to County	Plainsboro	1	235	$0.00	0.0%	0.0%	0.0%
Subtotal		1	235	$0.00	0.0%	0.0%	0.0%
Municipal Cluster Easement	Cranbury	8	317	$0.00	0.0%	0.0%	0.0%
	Monroe	2	263	$0.00	0.0%	0.0%	0.0%
Subtotal		10	580	$0.00	0.0%	0.0%	0.0%
Non-profit	Cranbury	1	32	$875,000.00	57.1%	0.0%	0.0%
Subtotal		1	32	$875,000.00	57.1%	0.0%	0.0%
SADC Easement Purchase	Cranbury	3	389	$5,814,725.12	76.6%	0.0%	21.5%
	Sayreville	1	17	$3,468,285.00	75.0%	25.0%	0.0%
Subtotal		4	406	$9,283,010.12	76.2%	6.3%	16.1%
SADC Fee Simple	Cranbury	1	125	$1,797,097.00	100.0%	0.0%	0.0%
Subtotal		1	125	$1,797,097.00	100.0%	0.0%	0.0%
State-owned Lands	Monroe	1	571	$0.00	0.0%	0.0%	0.0%
Subtotal		1	571	$0.00	0.0%	0.0%	0.0%
Grand Total		64	5,465	$61,825,644.86	64.0%	19.1%	16.0%

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

Monitoring Preserved Farmland

The staff of the Middlesex CADB conducts annual monitoring of properties on which the County holds deeds of an easement to ensure landowner compliance. Monitoring reports, filed with the SADC for each property, includes tracking of property identification/contact information, residences, RDSO accounting, agricultural labor units, agricultural structures, utilities & right-of-way, impervious cover, exception areas, cropped areas, non-crop land-use, conservation, areas of concern (with a focus on soil disturbance, dumping, or placement of trash or waste material), landowner interaction, status of issues, and certification, in addition to tracking any planned changes as reported by the landowners, among other relevant areas related to the preserved farm operations and stewardship. Before conducting the onsite farmland, inspections and submitting the monitoring reports to the SADC, it has been a standard practice of the Middlesex CADB staff to supply preserved farm landowners with an annual questionnaire concerning the aforementioned areas to guide the onsite inspections as well as to provide an opportunity for landowners to inform staff of any issues, concerns or questions involving their properties. The annual monitoring also provides an opportunity for conversations between the CADB staff and the landowners regarding the industry and operational trends and natural resource program assistance and participation. (See Appendix D: Middlesex County Easement Purchase Questionnaire).

CHAPTER 5. 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 the calendar year 2023, coinciding with the most recent annual PIG application submitted to the SADC (FY2023).

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

According to tax assessment record summations for use during 2018, Middlesex County had 21,271 acres of farmland assessed property. From 1988 through the end of 2021, through all the various program types described in the preceding Chapter, a total of 5,500 acres has been permanently preserved, which is 25.9 percent of the acreage in farmland assessment as of 2021. This plan establishes the following goals for additional acres of permanently preserved farmland acres through the end of the calendar year 2032:

Table V-1: Middlesex County Farmland Preservation Goals 1, 5, and 10 year.

Plan Year	Calendar Year Ending	PIG Application Acreage Goal	Cumulative Acreage Goal
1	2022	30	5,530
5	2027	250	5,750
10	2032	500	6,000

If these goals are obtained, Middlesex County will have secured approximately 28.2 percent of the September 2018 farmland assessed acreage.

Figure V-1: Middlesex County Acres Preserved by Year 1988-2021

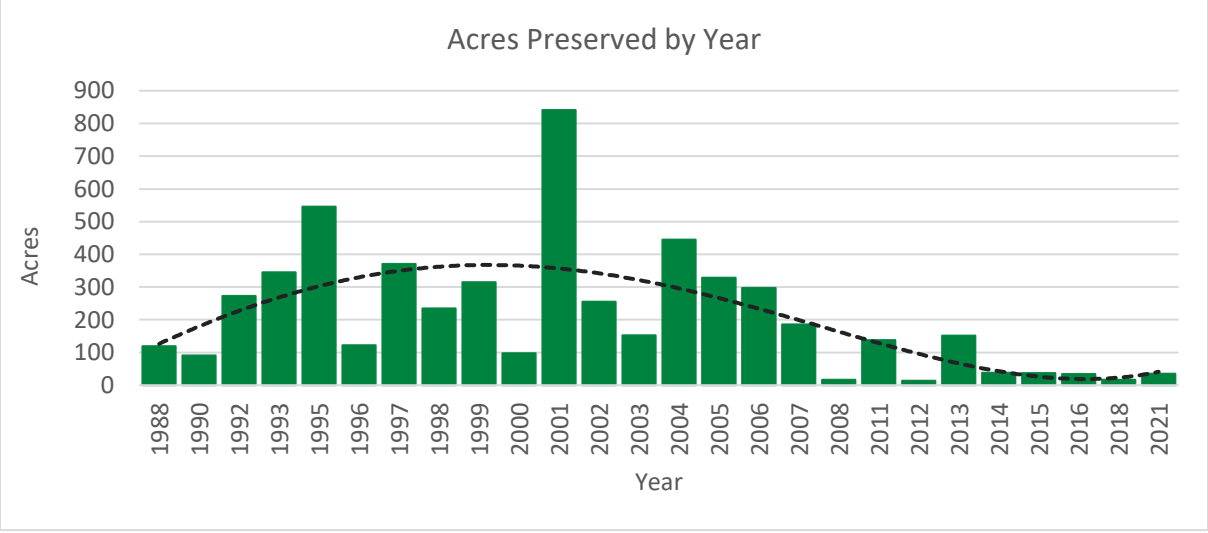
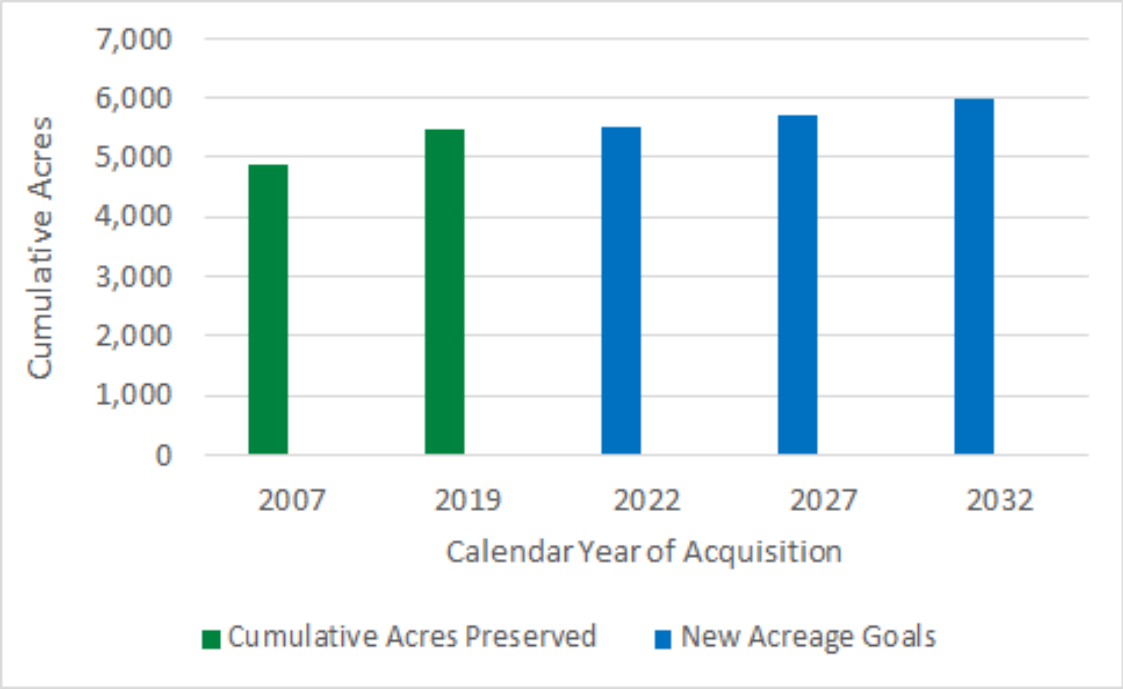


Figure V-2: Middlesex County's 1-, 5-, & 10-year Goals: Cumulative Acres to be Preserved



Pending projects include: 1) Estate of Bergfelder, East Brunswick; 2) Duchess Farms, South Brunswick.

Project Area Summaries

The most recent County Planning Incentive Grant (PIG) application has been submitted for the Fiscal Year 2023 (FY2023). 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 needs an amendment or if deemed necessary by the Middlesex CADB for any other specific reason(s). If the CADB makes such a recommendation to initiate an amendment to this plan, then that recommendation and 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 separately in the PIG Application package sent to the State Agriculture Development Committee. The PIG

Application package sets forth the implementation details for achieving the acreage goals established in this plan. For the past several years, SADC has allowed the County to submit abbreviated PIG application-letters in lieu of full PIG application submissions. As a result, tables including detailed project area summaries have not been included as part of the annual PIG application-letter submissions. The following table summarizes the most recent annual PIG application-letter (FY2023) of Middlesex County as approved by SADC:

Table V-2: Middlesex County Project Areas Summary Data (FY2023):

Project Area Name	Project Area Aggregate Size (GIS Acres)	Project Area Density (%)	Total # of Targeted Farms	Total Acreage of Targeted Farms (GIS acres)	Targeted Farm Soil Productivity (%)	Total Estimated Cost for Targeted Farm Easement Purchase
Southwestern	7,452	82.4%	25	947	98.1%	$40,417,680
Southeastern	3,894	72.3%	22	841	87.8%	$15,921,200
Northwestern	5,790	89.0%	23	429	92.1%	$40,174,460
Northeastern	2,235	40.4%	8	566	92.4%	$71,224,500
Matchaponix	3,481	83.6%	16	405	86.7%	$30,988,200
Project Area Totals	**22,852**	**80.4%**	**94**	**3,187**	**92.1%**	**$198,726,040**

The formation of the five project areas was 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").

Targeted Farms

The initial effort involved in 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 under the County PIG Program utilizing PIG grant monies awarded by the SADC.

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 active agricultural operations.

In addition, staff also considered the new minimum eligibility requirements 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, Office of Planning staff preliminarily identified properties for inclusion as targeted farms according to the following standards:

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

Based on the mapping exercise, initially conducted for the FY2009 PIG Application (and 2008 Plan), County Planning staff preliminarily identified 160 parcels for potential inclusion as targeted farms in the original 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 method (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 communications between County staff and municipal representatives of the six municipalities participating in the County PIG Program, the listing and map of targeted farms are refined annually to address each municipality's comments. Refinements also recognized "farm units" by identifying contiguous tax parcels under common ownership. Most recently, the latest result of this systematic process has resulted in a list of 94 targeted farms consisting of 3,187 acres in the County's latest FY2023 County PIG Application submission to SADC.

Brief Project Area Descriptions

The following narrative offers brief descriptions of Middlesex County's five project areas. Please refer to Map 12: Planning Incentive Grant Project Area Locations. Detailed mapping and related data are included in the FY2022 PIG Application package, prepared under separate cover.

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.

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.

Northwestern Project Area

This project area covers 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. In addition, farmlands in this project area are interspersed by a network of open space parcels, including Pigeon Swamp State Park and Ireland Brook County Park.

Northeastern Project Area

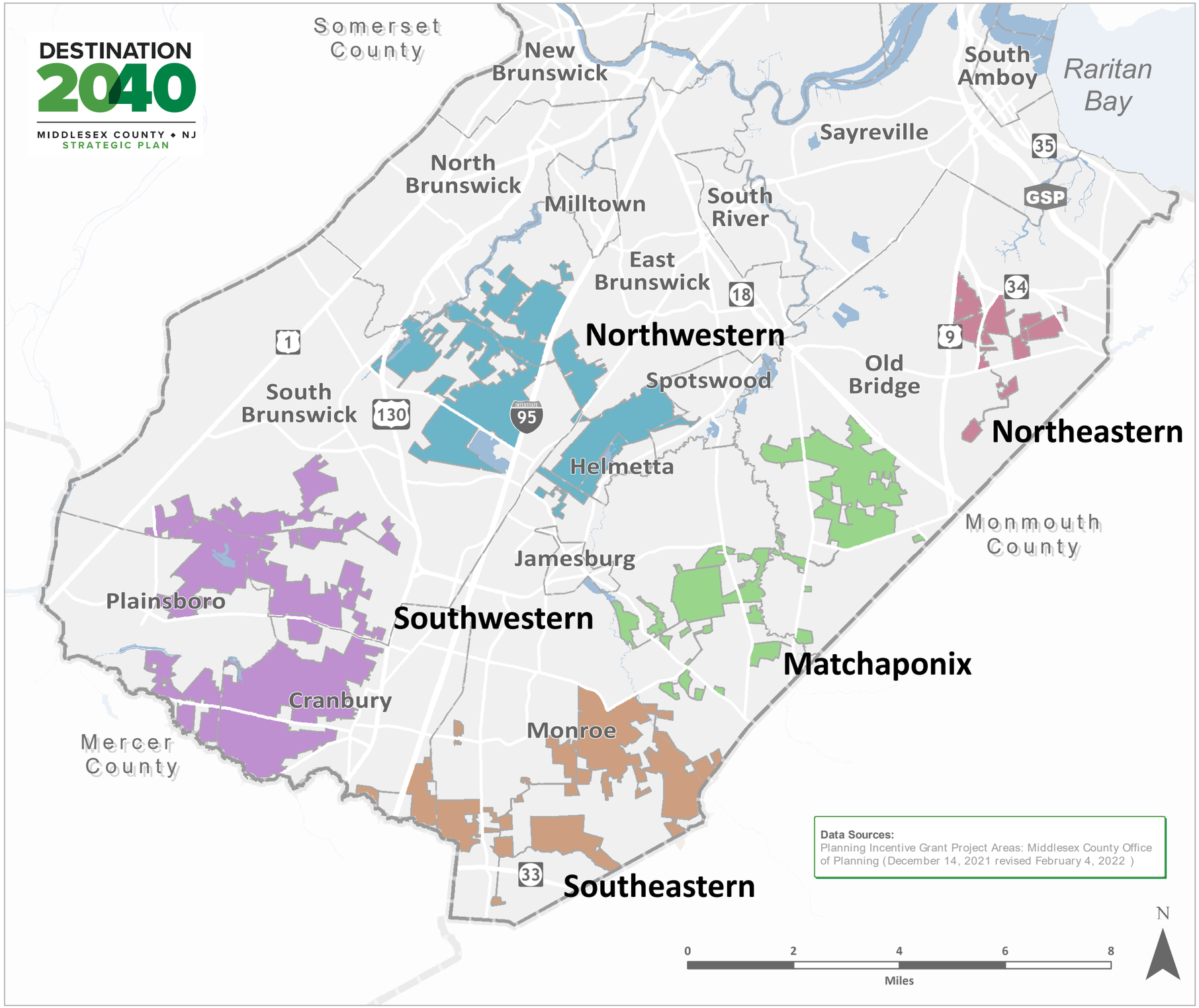
This project area is wholly situated in the Township of Old Bridge, north of County Route 516 along the Route 9 corridor. Cheesequake Farms, the Runyon Watershed, and Cheesequake State Park are examples of some of the properties found in this project area.

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.

Map 12: Planning Incentive Grant Project Area Locations

DESTINATION 2040
MIDDLESEX COUNTY • NJ
STRATEGIC PLAN

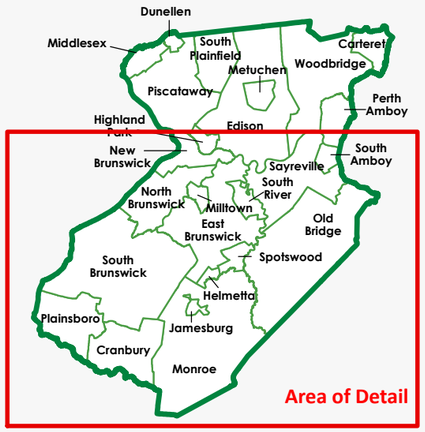


Data Sources:
Planning Incentive Grant Project Areas: Middlesex County Office of Planning (December 14, 2021 revised February 4, 2022)

MIDDLESEX COUNTY • NJ

STRONG FARMING. LOCAL FOODS.

Middlesex County's Comprehensive Farmland Preservation Plan



Project Area Name

- Matchaponix
- Northeastern
- Northwestern
- Southeastern
- Southwestern

Prepared: *September 15, 2021*
By: *Middlesex County Office of Planning*

SADC Minimum Requirements

SADC's Minimum Eligibility Criteria

Concurrent with adopting 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. These standards also serve as the county's minimum eligibility criteria for PIG application acceptance. Therefore, Middlesex CADB staff will be required to confirm compliance with these criteria before transmitting an individual farm application to the State for potential funding. The following table summarized the adopted criteria in effect when this plan was prepared. Waivers from the SADC minimum eligibility criteria are not permitted by their rules.

Table V-3: 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 (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
V. Transfer of Development Rights (TDR) Eligibility	For lands ≥ 25 acres All applications	No requirement 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.

SADC's "Minimum Score" Criteria

In addition to meeting all the minimum requirements summarized in the immediately preceding section, the SADC has also incorporated an additional requirement for targeted farms. To qualify as an "eligible farm" in the PIG Program, a targeted farm must obtain an individual rank score according 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 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, particularly 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.

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 in Table V-4 below (full criteria is included as Appendix F):

Table V-4: Middlesex County Farmland Evaluation Criteria

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%**

Policies Related to Farmland Preservation Applications and Preserved Farms

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 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]

State Agriculture Development Committee (SADC)

As stated in the 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, along with additional farmland post-preservation policies. Below is a summary of the SADC's policies for each of these issues:

Approval of Exceptions

Exceptions are areas within a farm being preserved that are not burdened by the terms of the easement deed 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 a landowner, severable and non-severable, can request:

- **Severable:** According to the SADC Appraiser Handbook 2017, 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 want 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 2017, 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, they do not want to be 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 can potentially impact the value of the property. Therefore, when an appraisal occurs, both severable and non-severable exceptions are considered in determining 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 recording the deed restriction. If there are no exception areas, the consequences for the landowner are considered during the CADB application review process.

Suppose the landowner requests the establishment of an exception area. In that case, the CADB staff can discuss the location and type of exception area taken with the applicant, which is both subject to Middlesex CADB review and approval.

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. In addition, access to the site must be included within the exception area for exception areas that may be severed and subdivided from the preserved property (i.e., severable exception areas).

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 exclusively for 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 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 approve, the SADC and CADB must consider how much the driveway will displace agricultural land or whether the driveway interferes with or acts as a barrier to the agricultural operation.

Placement of Septic Systems to Service Uses on Exception Areas

The SADC had 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 outlined 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, suppose the septic system serves a residential or agricultural use associated with onsite agricultural production. In that case, the septic system may be located outside the boundary of the exception. Therefore, an application to consider placing a septic system serving a use on an exception area outside of an exception area must be directed first to the CADB (or another 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 the CADB approves, the SADC would then consider approval or denial of the application according to the limitations and conditions of Policy P-49.

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 another holder of easement). However, 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 on 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 another 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.

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 can sustain a variety of agricultural operations that yield a reasonable economic return under normal conditions, solely from the parcel's agricultural output.

Additional Farmland Post-Preservation Rules and Policies

Some additional post-preservation policies include the Farmland Preservation Deer Fencing Cost-Share Grant Program, Solar Energy Generation Facilities on Preserved Farmland, Soil and Water Conservation Project Cost-Sharing Program, and Rural Microenterprise Activity Special Permit.

The Deer Fencing Cost-Share Grant Program makes cost-share funding available for the installation of deer fencing on permanently preserved farms. The program is conducted in accordance with State Agriculture Development Committee (SADC) Policy P-53. The SADC provides cost-sharing grants to assist farmers with installing deer fencing on permanently preserved farms to protect against crop losses. The 50 percent matching grants help eligible established farmers pay for the cost of fencing materials and installation. The maximum grant award is $200 per acre of permanently preserved farmland owned or $20,000 total. Eligible farmers may apply at any time, and applications are reviewed on a rolling basis.

Under certain conditions, preserved farmers can install solar panels for solar energy generation. Farmland Assessment Act (P.L. 2009, c. 213), which affects the ability of farmers and other landowners to install solar, wind or biomass energy generation systems on farms, was signed into law in January 2010. The law identifies allowable limits and criteria for these activities on preserved farms, and for qualifying for farmland assessment and right-to-farm protection on both preserved and non-preserved farms.

The SADC provides grants to help fund up to 50 percent of the costs of approved soil and water conservation projects on farms enrolled in permanent or term farmland preservation programs. Landowners apply to their local Soil Conservation Districts, which assists in developing a farm conservation plan and ensure projects are necessary and feasible. Applications are forwarded to the N.J. State Soil Conservation Committee, which recommends projects to the SADC for funding approval. Soil and water conservation projects include projects designed to control and prevent soil erosion and sediment damages; control pollution on farmland; impound, store, and manage water for agricultural purposes; or improve management of land and soils to achieve maximum agricultural productivity. Examples of eligible projects include terrace systems; diversions; stream

protection; water impoundment reservoirs; irrigation systems; sediment retention, erosion or water control systems; drainage systems; animal waste control facilities; Agri-chemical handling facilities; and land shaping or grading.

The New Jersey Rural Microenterprise Act (P.L. 2015, c. 275) allows a farmer who owns a qualifying preserved farm to apply for a special permit to conduct a rural microenterprise on a preserved farm within certain parameters. The Act also provides an opportunity and means to protect historically significant barns and other farm structures that contribute to the State's rural landscape and history. Rural Microenterprises that are eligible include Customary Rural Activities, such as snow plowing, bed and breakfasts, bakeries, woodworking, and craft-based businesses, along with Agricultural Support Services, such as veterinary practices, seed suppliers, tractor or equipment repair shops.

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 had 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. Beginning with the State's Fiscal Year 2009 Round of funding, Middlesex County moved to the County Planning Incentive Grant (PIG) Program, which did not permit continued participation in the original County Easement Purchase Program.

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 FY2023 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-3: Middlesex County Project Area Cost Summary:
For all "Targeted Farms"

FY2023 PIG application data; subject to change during year-to-year PIG application updates

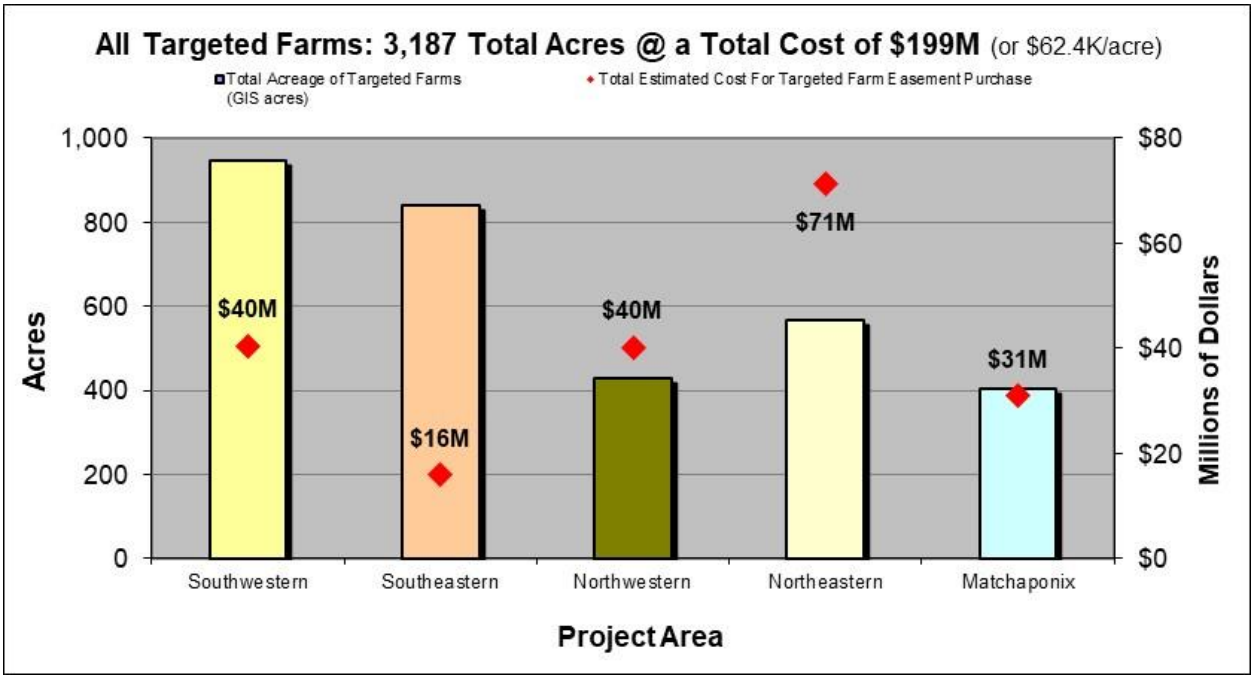
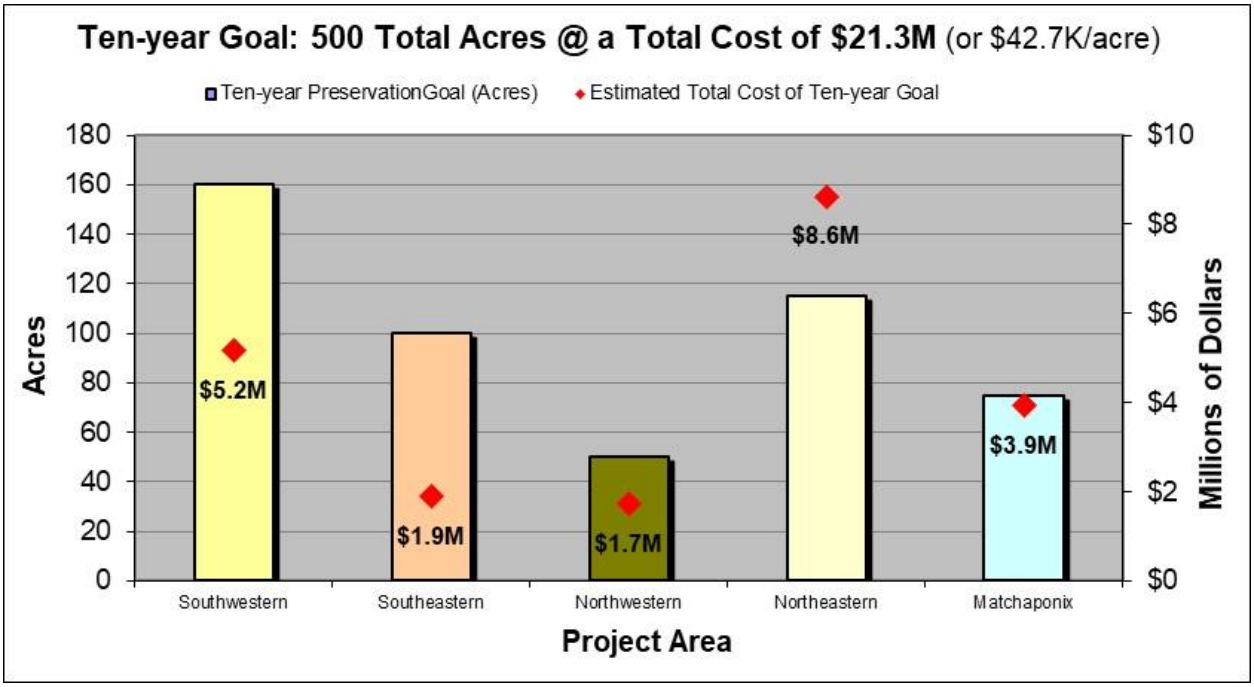


Figure V-4: Middlesex County Project Area Cost Summary:
Achieving 10-Year Goal

FY2023 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

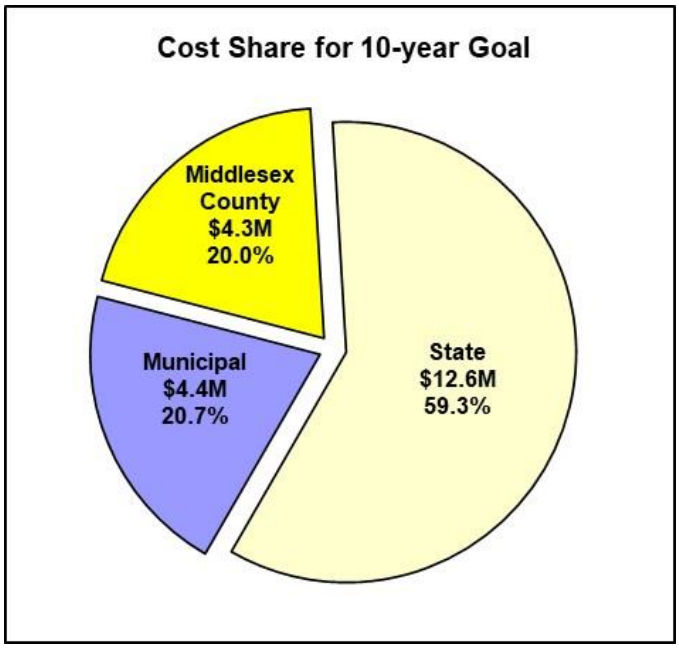
forms that are submitted annually to the SADC. The following table and graph summarize the detailed cost data found within the FY2023 PIG Application.

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

FY2023 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	30	$2,250,000	$487,575	$450,000	$1,312,425	$0	$2,250,000
Year 5 Cumulative	250	$10,813,500	$2,237,574	$2,162,700	$6,413,226	$0	$10,813,500
Year 10 Cumulative	500	$21,338,000	$4,420,617	$4,267,600	$12,649,783	$0	$21,338,000

Figure V-5: Middlesex County Cost Share Pie Chart: 10-year Goal



FY2023 PIG application data; subject to change during year-to-year PIG application updates

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 under the current County PIG Program. This 60 percent share is the typical SADC cost share value because most 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:

Table V-6: SADC Cost Share Sliding Scale

Landowner's Asking Price		**Percent SADC cost share**
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)

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 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-7: Middlesex County Cost Share Calculation Formula Summary

Jurisdiction	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 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.

Middlesex County Ancillary Costs

To date, the County's Office of Planning 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. In the past, SADC offered 50 percent (50%) reimbursement on the survey and title expenses to the County after the real estate closing was complete In 2008, the SADC ceased ancillary cost-sharing on County EP and County PIG acquisitions, but will be reassessing in the future. The County will continue to seek reimbursement from the State if such funding is available. The SADC does currently provide ancillary cost-sharing to municipal PIG and non-profit acquisitions.

Funding Sources

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 as of November 2021 the levy has generated in excess of $35 million. This is where the County's standard 20% cost-share comes from under the current Farmland Preservation Program.

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, the County's open space tax revenue is authorized for farmland preservation on an as needed basis.

Municipalities
Appendix G 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. These municipal funding sources are where the participating municipalities' standard 20 percent cost-share comes from under the current Farmland Preservation Program.

State of New Jersey
As detailed in Chapter 4, New Jersey voters approved a public question on the 2014 election ballot known as "New Jersey Open Space Preservation Funding Amendment, Public Question No. 2 (2014)". With its passage, 6 percent of the New Jersey Corporate Business Tax (CBT) was approved for use in creating a stable source of funding for the State's Farmland Preservation, Open Space Preservation, and Historic Preservation programs. The passage of this measure was a monumental achievement in creating a long-term State funding mechanism for advancing farmland preservation Statewide. Despite being capped at a lower amount of funding specifically marked for farmland preservation than in previous years through SADC base grant allocations, for the first time since its inception, the State's Farmland Preservation Program

gained a stable, dedicated source of farmland preservation funding, as well as stewardship funding for preserved farms, and eliminated the long-time uncertainty of where long-term State funding would come from for achieving the State's farmland preservation goals into the future. This State funding source is where the SADC's standard 60 percent cost-share comes from under the current Farmland Preservation Program.

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 became available. There are additional opportunities for federal funds through the NRCS Agricultural Land Easement Program, this would require a new cost share policy to take advantage of.

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, prior communication between County Planning staff and the County financial departments indicated that the County may be open to an installment purchase agreement if prompted by a landowner's request and if deemed feasible. Formal authorization by the Board of Commissioners would be required before entering into any installment purchase agreement.

Other- Middlesex County Policy

The Middlesex CADB and the Middlesex County Board of Commissioners both adopted policy resolutions in 2016 - 2017 for the creation of an escrow account for a newly established $3,000

conditionally refundable fee for repeat applications applying to the County's Farmland Preservation Program. The creation of this new County policy was in response to past situations where farmland preservation applicants rejected the County's certified value offer based on the value determined by the appraisal reports that the County has paid for, and then reapplied later, requiring the County to again finance all appraisal work at a cost to the County of over $3,000 per farmland preservation application. Middlesex County procures and finances the cost of two independent appraisal reports and a third review appraisal report in order to arrive at the certified value offered to the applicants at the appraisal stage of the process, and prior to this 2016 policy, the MCADB only charged a flat fifty-dollar fee to all applicants applying to the farmland preservation program at the start of the application process.

The MCADB voted on December 21, 2016 to institute this new policy that establishes, in addition to the fifty-dollar non-refundable application fee, a conditionally-refundable $3,000 application fee for repeat applicants applying to the County Farmland Preservation Program in this type of situation which will be returned to repeat applicants at closing if the move through the process of closing. The Middlesex County Board of Commissioners voted on October 27, 2017 to authorize the creation of an escrow account for newly established $3,000 conditionally refundable CADB application fee for repeat applications applying to Farmland Preservation Program.

Farmland Preservation Program / CADB Administration

Administering the Middlesex County Farmland Program is one of the responsibilities of the Middlesex County Office of Planning, carried out by its Division of Sustainability and Resiliency, 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 Office with due diligence management by the County Office of Parks and Recreation.
- Hiring professional surveyors certified by SADC for farmland preservation easements is done through the County Purchasing Office with due diligence management by the County Office of Parks and Recreation.
- All legal work is performed by the CADB Attorney, retained through the office of County Counsel.

Factors Limiting Farmland Preservation Implementation

Based on the 2020 report, "Farms Under Threat: The State of the States", millions of farmland acres across the Nation, an average of 2,000-acres *each day*, were developed or converted to non-farming uses between 2000 – 2016.[20] Farmland loss due to development and land-use changes continue to be a major threat throughout New Jersey. Some of the most expensive farmland in America is in New Jersey, which is a major limiting factor for perspective farmers to acquire, and ultimately preserve, State farmland. Furthermore, New Jersey farmers face a variety of new and ever-changing challenges, such as fluctuating market demands and weather issues associated with climate change. The future success of farming and farmland preservation will require additional actions, including regenerative "best practices" to counter the adverse impacts of climate change. Ultimately, this environmental uncertainty also plays a pivotal role in limiting farmland preservation efforts.

Overall, these factors are having an adverse impact on farming and farmland preservation. . Real estate market values also play a key role in a landowner's decision considering preservation. In addition, farmland owned by developers or development corporations is more likely to be sold for development purposes than for land preservation. Further, during years when land values are low, farmland appraisers are typically still examining sales over the last few years as comparables and appraisal land values may take a while to catch up. If development prices are strong, it is expected that farmers would be less likely to participate in preservation, but if appraisal values are static, it may be easier for the appraisal values to justify farmers selling easements for farmland preservation. Many of the farmers who preserved their land early on in the program tended to own larger tracts of land, which may also contribute to the decreased acreage entering farmland preservation in more recent years.

Another contributing limiting factor may be the programmatic requirements farmland preservation applicants must meet to be considered eligible to preserve their farm using State cost-sharing through the PIG Program. Many farmland preservation applications in Middlesex County have not been successful due to falling short in satisfying certain requirements of the SADC's minimum eligibility criteria for required thresholds of tillable acreage or capable soils, in addition to other current and future program requirements.

A lack of next generation farmers ready to take over management of Middlesex County farms once the current farmer is no longer able to continue farming it may also play a role in implementing farmland preservation. With an aging population of farmers approaching 60 years old on average, it is easy for a farm to change hands and be sold for a purpose other than agriculture. Convincing estate holders that inherited farms to continue farming activities and

preserve their farmland is and will always be a major challenge, especially when market values are high, farming challenges exist, and land is being sought for new development.

These factors will be further examined in order to develop and implement a realistic strategic outreach approach to improve program activity that will meet or exceed the 1-, 5-, and 10-year acreage goals.

CHAPTER 6. ECONOMIC DEVELOPMENT

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 2008 document, entitled New Jersey Department of Agriculture 2008 Economic Development Strategies, lists 100 strategies organized around the following sectors: produce, ornamental horticulture, field and forage crops, dairy, livestock and poultry, organic, seafood, equine, wine, Agri-tourism and general.[21] 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.

Agricultural Industry Retention, Expansion & Recruitment Strategies

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.

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 (https://www.nj.gov/agriculture/sadc/farmlink/), the Farm Link Program is "a resource and referral center for farmers and landowners. Beginning and established farmers who are seeking access to land and farming opportunities, and landowners who have farmland and business opportunities available, can use the linking service to connect with one another." The Farm Link Program's listing service can be found at http://www.njlandlink.org/. This 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 of Middlesex County is currently offering a training program for New and Beginner Farmers called RU Ready to Farm: Getting Rooted in the Garden State. This program provides aspiring farmers with step-by-step guidance and hands-on training from a network of specialists, farmers, and mentors for building and maintaining their businesses.

There is a wealth of online resources available to aspiring farmers, including the USDA Beginner Farmer and Rancher Development Program Clearinghouse site – *Farm Answers* (farmanswers.org) and the *New Entry Sustainable Farming Project* (beginningfarmers.org). Along with offering courses, Rutgers Cooperative Extension also 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 to buy equipment and land and erect barns, buildings, and housing. Farm Credit East 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.

Traditionally, owner-farmers take advantage of relatively inexpensive home equity loans for business-related needs.

Marketing and Public Relation Support

From Middlesex County Government
On several occasions, Rutgers Cooperative Extension of Middlesex County and the Middlesex County Board of Agriculture have undertaken initiatives to market local farm products. In some instances, they worked with local governments and citizen groups. Together they develop a full-color brochure listing active direct marketers throughout the County and their location on an accompanying map. Additionally, there has been an ongoing collaboration with the New Jersey Farm Bureau and the New Jersey Farmers Direct Marketing Association to maintain a website listing farm businesses from around the State (https://visitnjfarms.com/). The guide includes the contact information for and directions to each farm, and the main products and services each offers. The farms are then categorized by farm products, availability calendar, farm services, and municipality.

The Middlesex CADB offers a similar service, the "Grown in Middlesex" interactive map, developed in 2020 with the input of Rutgers Cooperative Extension. This web tool provides local grower and agricultural producer listings, which contain the farmers' business addresses, contact information, and website hyperlinks. The listings are currently sorted by farmer's markets, tailgate markets, pick-your-own farms, and Christmas tree farms, and the county intends to expand the website according to farmer needs. Such a program creates a single point of information that residents can access to learn about the many significant agricultural operations in their area while removing some of the burden of marketing from local producers.

State Government
The New Jersey Department of Agriculture instituted the Jersey Fresh promotional campaign almost 40 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, and Jersey Grown (for nursery and ornamental crops). The New Jersey Department of Agriculture also maintains a website, https://findjerseyfresh.com/, a great place to locate roadside stands, community farmers' markets, and pick-your-own facilities.

Agricultural Education and Market Research Coordination
Rutgers University and its affiliated programs (graduate and post-graduate level) are the backbones 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 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 with commercial agriculture, horticulture, and aquaculture operations and with homeowners, school groups, and government agencies. Personnel who staff the EARTH Center are paid employees of Middlesex County.

The School of Environmental and Biological Sciences, Rutgers University, operates research and teaching programs in livestock management, fruits and vegetables, horticultural and equine sciences, and management at its Cook Campus. Rutgers research farms throughout New Jersey conduct and disseminate research related to the production of a wide variety of commercial 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 conduct research about growing media, irrigation, and fertility management practices.

Middlesex County's agricultural agents are involved in their research projects, and they 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.

The Rutgers University Equine Science Center promotes the 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 Rutgers-based New Jersey Institute for Food, Nutrition, and Health applies academic knowledge to pressing issues and challenges facing the food system. The work of the institute underscores the commitment of Rutgers University to new transformational initiatives across the many disciplines impacting food, nutrition, and health. 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 agricultural science, food systems, animal science, and plant

science. The NJAES Office of Continuing Professional Education offers several courses related to the equine, horticulture, and turf-grass industries.

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.

Five Middlesex County municipalities currently host seasonal Farmers' Markets regularly. Highland Park has been hosting a successful Farmers' Market for many years. Edison, Metuchen, and Woodbridge also host seasonal farmers' markets in their downtowns. There are also three market sites in New Brunswick; two are part of the Rutgers organized New Brunswick Community Farmers Market, and Cook's Market is located at Rutgers Gardens on Ryder's Lane. Local farmers also venture outside the county to weekly suburban and urban markets. For reference, a listing of nearby Farmers' Markets is included as Appendix H and shown on Map 13.

Roadside Farm Stands, Farm Markets, Specialty Markets
The Middlesex County Planning Board and Middlesex CADB support roadside stands and farm markets. There are many farmstands along with the farmers' markets in the county (see above), and several large specialty markets and stands devoted exclusively to horticulture products. The "Grown in Middlesex" interactive map tool (described above) currently lists 43 direct market farm businesses in Middlesex County. A list of Roadside Markets in Middlesex County is provided in Appendix I and shown on Map 13.

Direct market sales have been on the rise in recent years and offer additional growth opportunities for area farmers. These farmers often employ a combination of products and services to draw customers to their farm stands, including "U-Pick Farms" (which there are currently nine listed), Agri-tourism/Agri-tainment events, and school outreach strategies. These marketing techniques increase seasonal product visibility and popularity with the local and regional public.

The Middlesex CADB must be informed of farm stand and related development considerations to assist farmers entering farmland preservation with properly designing accessory use locations to avoid unforeseen restrictions and potential violations of the conditions of the Deed of Easement.

DESTINATION 2040
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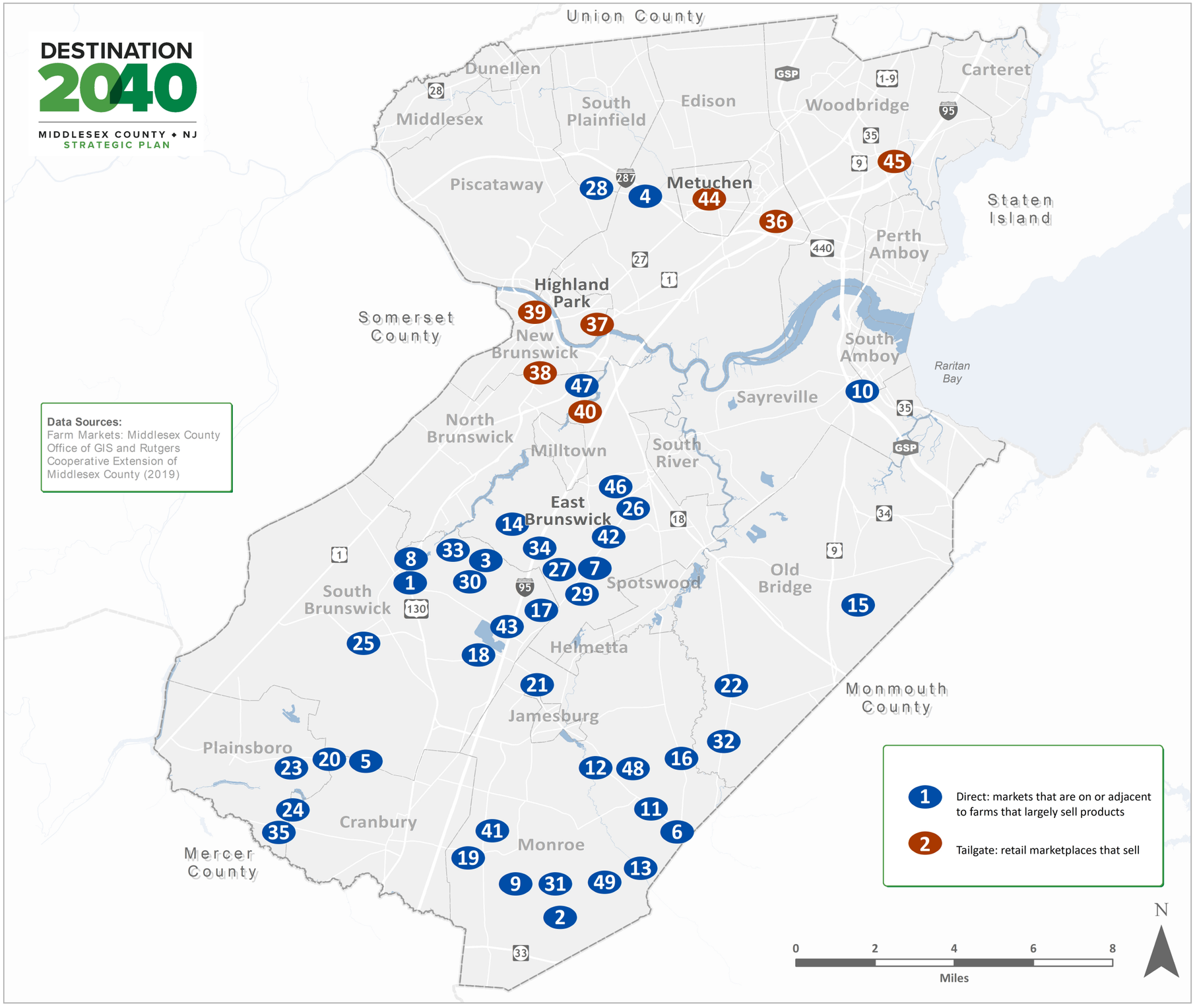
STRATEGIC PLAN

Map 13: Markets that Support Local Agriculture



MIDDLESEX COUNTY • NJ

STRONG FARMING. LOCAL FOODS.

Middlesex County's Comprehensive Farmland Preservation Plan

1. Amato's Garden Center
2. ANT Nursery, Inc.
3. Ann's Market
4. Barton Nursery
5. Barclays Tree Farm
6. CountryView Farms & Nursery
7. Conover Nursery
8. Crossroads Nursery
9. Cranbury Brook Farm
10. Dieker's Farm Market
11. Etsch Farm
12. Farmer Al's Market & Greenhouses
13. Gasko's Family Farm & Greenhouses
14. Giamarese Farm & Orchards
15. Hauser Hill Farms
16. Indyk's Farm
17. Krygier's Nursery
18. Pleasant Hill Farm
19. Pop's Farm Market and Garden Center
20. Protinick Farms
21. R & K Farm
22. Schmidt's Farm
23. Simonson Farms & Brown Dog Produce
24. Stults Farm
25. Von Thun's Country Farm Market
26. Zielinski's Farm Market
27. Clark Farms
28. Coppola's Garden Center
29. Ferris Farms
30. Fresh Ponds Farm
31. Federal Farm Market
32. Suburban Acres Farm
33. Duchess Farms
34. Dunham's Corner Farm Market
35. Lee Orchard Garden
36. Edison Farmers' Market
37. Highland Park Farmers' Market
38. New Brunswick Community Farmers Market
39. New Brunswick Community Farmers Market Location 2
40. Cook's Market at Rutgers Garden
41. Pop's II Farm Market & Garden Center
42. Kelemen Farmers Market
43. Habiak Farms
44. Metuchen Farmers' Market
45. Woodbridge Farmers' Market
46. Lonicera Farm LLC
47. Rutgers Student Farm
48. Tidbury Creek Farms and Nursery
49. Twin Ponds Nursery Inc

Prepared: *December 1, 2021*
By: *Middlesex County Office of Planning*

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 harvested crop. Organizing a CSA enables the farmer to predetermine their customer base, reduce risks, pre-survey acceptance of new types of vegetables, and avoid going into debt at the beginning of the season. Several Middlesex County Farms offer CSA programs to their customers featuring conventional and organic fruits and vegetables, value-added products, and even cut flowers.

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 and provides a hands-on educational experience for direct contact with agriculture as part of their lifestyle. CSA managers like to point out the rewards of dealing directly with their customers plus the importance of consumers understanding where food comes from and how it is grown.

Cooperative Markets

A cooperative market allows farmers to combine resources and collectively sell to larger customers. The Tri-County Cooperative Market in Hightstown, New Jersey, provides this service for Middlesex, Mercer, and Monmouth County farmers. The Tri-County market provides on-site cold storage, a sales dock, and marketing outreach for their farmer members. From private individuals to restaurant owners, grocery store supply managers, and even other farmers, customers can order ahead on the co-op's website, or buy in-person during market days. Farmers can sell wholesale quantities of produce through this outlet, often selling a crop they may have too much of while buying crops from other farmers to round out their own farm stand's selection.

Agri-tourism and Agri-tainment

Agri-tourism and Agri-tainment are catchphrases for attracting the recreation-minded public to working farms for direct sales during leisure hours. Examples include pick-your-own operations, farm tours, 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. At many Christmas tree farm operations, consumers select their trees and then cut and bundle them. These methods increase sales and eliminate costs of delivering products to remote markets and 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.

There are currently over 50 wineries in New Jersey. In 2014, the SADC enacted the Winery Special Occasion Events Law initiating a pilot program in which New Jersey wineries were allowed to conduct "special occasion events" (SOEs) on preserved farmland, provided that less than 50 percent of their annual gross income consisted of SOE-generated profits and that these activities did not interfere with the existing agricultural production of their land. The program was extended to May 2020, after which the SADC analyzed the results of the legislation and formed proposed amendments found in the "Pilot Program for Winery Special Occasion Events - Final Report of the SADC." In this document, the SADC describes SOEs as "weddings, lifetime milestone events, or other cultural or social events as defined by the appropriate county agriculture development board" and events that are already eligible to receive Right to Farm (RTF) protection or are permitted recreational uses under the Farmland Preservation Program (FPP) deed of easement. Visit the Garden State Wine Growers Association's website, www.newjerseywines.com, or call the Wine Line at (609) 588-0085 for more information. As of 2018, only one acre produces table grapes rather than wine varieties in Middlesex County.

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

Rural Microenterprises

On May 14, 2018, the SADC enacted amendments to the Rural Microenterprise Law to allow farmers who own qualifying preserved farmland to apply for special permits to conduct rural microenterprises on preserved farms within certain parameters. A rural microenterprise (RME) is a small-scale business or activity that is fully compatible with agricultural use and production on the preserved premises, does not detract from, diminish, or interfere with the agricultural use of the premises, and is incidental to the agricultural use of the premises. RME special permits last up to twenty years.

The current legislation permits both traditional rural activities and agricultural support services. The former includes snow plowing, bed and breakfasts, bakeries, woodworking, and craft-based businesses. The latter pertains to businesses that positively impact the agricultural industry, such as veterinary practices, seed suppliers, and tractor equipment repair shops.

Farms preserved before January 12, 2006, are eligible for RME status, and they must qualify as commercial farms under the criteria outlined in the Right to Farm Act. Finally, the applicant must be an owner-operator who realizes at least $2,500 in gross sales each year exclusive of rental income, and all RME projects must be reviewed and approved by the SADC.

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, several local farms have begun to sell produce directly to restaurants in major dining and entertainment venues such as New Brunswick and Princeton. The Middlesex County Agriculture Development Board and Middlesex County Board of Agriculture should continue promoting this approach and expanding 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 appear to be expanded opportunities for direct sales to restaurants.

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.

Nurseries almost certainly will continue to be a significant 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.

Field crop farming (corn, soy, hay) in the County has declined steadily for the last decade. Though the quantity produced per acre has continued to increase with more efficient production methods, the number of acres under cultivation has dropped sharply. With high land values driving development pressure and higher input costs reducing profit margins, agronomic crops are not as competitive as they once were in this part of the State.

Most Middlesex County farms are small to mid-sized family farms. Direct market sales - selling directly to consumer or retail outlets - are increasingly crucial as family-owned small farms can garner better prices by selling to the retail market. It is common to see diversified fruit and vegetable production combined with varying degrees of agritourism among these farms. Rutgers Cooperative Extension of Middlesex County personnel expects to continue these

trends, with land increasingly devoted to high-value specialty crops. There is also a current popular movement towards even smaller “market garden” style farms that focus on high-intensity production of high-value direct market crops on relatively small parcels, typically fewer than 5 acres. With current land and housing prices at sustained high levels, it would not be surprising to see more of these “market garden” operations starting in the near future.

Ethnic vegetables and niche crops also are growing sectors of the economy. Middlesex County has some substantial South Asian and East Asian populations that may provide a lucrative market for the return of vegetable farms if the most popular vegetables, herbs, and spice plants can be locally grown. In addition, with the County’s large and increasing Hispanic population, tomatillos, cilantro, etc., are in demand and represent a potentially untapped market.

The equine industry in New Jersey and around the country has declined for several years. The 2017 Census of Agriculture showed sharp declines in horse populations in the state, and nothing has occurred to counteract this trend. Therefore, horses will likely continue to decrease as a component of local agriculture.

Agricultural Support Needs

Support for the agricultural industry is essential 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 Office staff are available and willing to provide information and feedback to anyone interested in such ventures.

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 right-to-farm ordinances adequately protect the county’s agricultural operations.

CHAPTER 7. NATURAL RESOURCE CONSERVATION

Natural Resource Protection Coordination & Programs

Permanently preserving economically viable farmlands can contribute 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 that conserves prime food-producing soils, sustains watersheds and aquifers, manages wildlife, and protects riparian areas and stream corridors. In addition, improved stewardship and management of our agricultural land base will significantly minimize 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.

A cooperative effort of individual farm operators, government agencies, allied industry organizations, and private groups across the land can retain a viable agricultural industry and preserve the essential natural resources of our society. A cooperative network of federal, state, and county natural resource protection agencies has been tasked explicitly 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. However, 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 provided by the various levels of government which is made available to the Middlesex County agricultural community. Also included is a summary table of selected natural resource programs cooperatively administered by the various agencies that are ultimately implemented voluntarily by our farmers.

Rutgers Cooperative Extension Service of Middlesex County

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 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 located downtown New Brunswick. The newly re-located office provides an improved level of service by its closer proximity to the agricultural 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 together with the NJ Agriculture Experiment Station (NJAES), 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. In addition, 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.

Integrated Pest Management (IPM) is a current example of natural resource conservation protection actively promoted by Middlesex County staff. IPM is a custom-tailored pest management system intended to reduce crop and environmental damages by incorporating several specific treatments for the specific pests found in particular 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.

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 agricultural 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 and additional programs providing financial assistance for natural resource conservation.

The current mission statement of the NRCS is "We deliver conservation solutions so agricultural producers can protect natural resources and feed a growing world." 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. In addition, eligible New Jersey landowners and agricultural producers receive funding assistance for USDA's voluntary conservation programs, offered through the 2018 Farm Bill.

In New Jersey, 21 counties and 15 Soil Conservation Districts (SCDs) share 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 that are 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]

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 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 a 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 interested in protecting threatened and endangered species. Both State programs complement the USDA menu of programs. In addition, 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

Grazing Lands Conservation Initiative (GLCI) **Natural Resource Conservation Service (NRCS)**

Description: A nationwide collaborative process of individuals and organizations working to maintain and improve the management, productivity, and health of the Nation's privately owned grazing land.

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 will provide owners and managers of private grazing land information to make management decisions that will conserve and enhance private grazing land resources and provide related benefits to all citizens of the United States.

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 from 2012 to 2017 is eligible for CRP.

Program Assistance: Annual rental payments are made on land based on the relative productivity of the soils within each county and the average cash rent.

CRP Enhancement Program (CREP) **NRCS**

Description: CREP is a public-private partnership program, allowing states, Tribal governments, non-profit and private entities to partner with FSA to implement CRP practices that address high priority conservation and environmental objectives

Eligibility: Eligible land must have cropping history for four out of the past six years

Program Assistance: Annual rental payments are made on land based on the agricultural rental value. Reimbursement for practice implementation can be up to 100 percent. 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.

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 or 16-year preservation program. Permanently preserved farms receive first priority for grant funding, followed by preserved farms in 16-year programs.

Program Assistance: Provides grants to landowners for up to 50 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.

Water Resources

Water resource conservation is two-fold—water supply and water quality. Therefore, conservation plans for farming operations should include best agricultural management practices for conserving water supply sources and 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, providing water for livestock, fish, wildlife, and recreational activities, and providing 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 many treatments respective of particular pests found on specific areas of a field, which prevents a broad over-treatment of pests and ultimately results in a reduced volume and quantity of chemicals. As a result, IPM minimizes negative impacts on water quality by reducing chemical pesticides 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 reaching 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** – In addition, 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.

Waste Management Planning

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

- **Manure Storage Structures** - These structures protect water bodies from manure runoff by storing manure until appropriate conditions for field application. This practice protects water quality by preventing runoff from feedlots, reducing fertilizer costs and nutrient losses, and allowing field application when conditions are right.
- **Agricultural Plastics Recycling** - State programs are in place for recycling aging plastic film from greenhouses and temporary hoop houses 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.

- **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 keep these operations and equine operations up to date and informed of opportunities for funding support for mechanical methods to achieve compliance with regulations. Additionally, animal waste management plans are filed with local the County Cooperative Extension Office.

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.

Wind Energy

Power harnessed from the wind has long been tied to agriculture. First, 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 considering wind-generated electricity where windmills can take advantage of persistent winds.

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. However, as solar energy generation has expanded in recent years, concerns over the use of high-quality farmland for solar installations have increased. Recently adopted bills attempt to balance energy generation needs and productive agricultural use. One bill sets constraints on large-scale solar installations to protect prime and statewide important soil. The other seeks to explore so-called "dual-use" solar projects, where cropland with solar installations remains in

agricultural production. Rutgers University is currently in the early stages of research into dual-use solar. It is working to establish best management practices that would allow for solar generation and crops to coexist profitably in the field.

Outreach and Incentives

As evidenced in historic reported level of plans and applications submitted to NRCS by Middlesex County farmers in previous years, 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 significant incentive for the planning and implementation of conservation plans of the NRCS.

However, outreach alone can go only so far in encouraging conservation plans to be put into practice. Direct monetary assistance is typically 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, was renewed December 20, 2018. 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 to contribute to agricultural land conservation practices. 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.*"[22]

CHAPTER 8. 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.

Existing Agricultural Industry Support Strategies

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 essential for continuing 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. In addition, 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.

A landholder must own at least five acres and generate at least $1000 of agricultural income annually to be eligible for farmland assessment. 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 31 square miles are farmland-assessed in Middlesex County. Landowners with farmland-assessed property can save thousands of dollars a year.

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." Further Right-to-Farm protections include the Right-to-Farm Act Amendment P.L.2020, c.154 – housing of equine-related farm employees in facilities with horses under certain conditions as a "Right-to-Farm" permissible activity, dated February 3, 2020. This new legislation extends Right-to-Farm protection eligibility to the housing of "full-time, year-round equine-related farm employees in the same building or facility as horses." The law explicitly excludes eligibility for the housing of migrant or seasonal employees/workers.

The 1998 amendments to the Right-to-Farm Act revised the definition of a "commercial farm." They 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 and 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 Office of Planning provides knowledgeable staff to handle Right-to-Farm Act issues as they are brought to the attention of the Middlesex CADB. Preliminary staff and counsel review and mediation are always encouraged in initial inquiries. A handful of complaints have been submitted in recent years that have come before the MCADB. The expansive fields constituting the bulk of Middlesex County's present farmland base (though also becoming surrounded by industrial, commercial and residential uses) are believed to be 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, new neighbors are resistant to agricultural activity, despite otherwise enjoying having a farm and not another housing development next door. They may be unsympathetic to the farming practices, marketing, and related services that create traffic, odors, and noises 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 seek advice from the Middlesex CADB because they have difficulty interpreting local codes to apply to a farm.

There are two main types of right-to-farm matters, Site-Specific Agricultural Management Practice (SSAMP), and Conflict Resolution cases. The review process is similar, although the burden of proof, role of the SADC, and time limitations differ. A landowner or farmer files an SSAMP request with the Middlesex CADB. If 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 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 filing a complaint form with the Middlesex CADB by a neighbor or a municipality.

As noted above, not every Right to Farm inquiry or application results in a hearing. Sometimes requests do not get to the hearing stage because of eligibility issues or differences 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.

Many Middlesex County municipalities support the farmer's rights 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.

Agriculture Support, Education & Promotion

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.

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, socially, and politically acceptable. As a bonus for Middlesex County, the Station is 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

Pest Management

Pest Management Office

Plant Pest Advisory

N.J. Weed Gallery

Nursery IPM Program

Pesticide Applicator Training Fact Sheets & Bulletins

Plant Agriculture

Garden State Crop Insurance Education Initiative

Gardening & Landscaping Publications

Fruit Integrated Pest Management Program

Plant Agriculture Publications

Plant Diagnostic Laboratory & Nematode Detection Service

Plant Pest and Disease Management Information

Rutgers Master Gardener Program

Rutgers Soil Testing Laboratory

Soil Profile Newsletter

Farm Management and Safety

Farm Management, Marketing, & Safety Publications

Summary List of NJAES Services

Pesticide Safety Fact Sheets & Bulletins

School IPM Program

Vegetable IPM Program

For Consumers

Jersey Fresh Information Exchange

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

Visit NJ Farms

Farm Safety Training

Food Safety Modernization Act Training

Misc.

Agricultural Weather Advisory, Drought Web

N.J. Agricultural Leadership Development

Rutgers New and Beginner Farmer Training Program

In addition, the Rutgers NJAES plays an integral role in Middlesex County's food innovation initiative to develop, test, and bring to market breakthrough agricultural products and sustainable techniques. NJAES used its novel cultivation methods to create the Rutgers Scarlet strawberry, Crimson Queen cranberry, Rutgers Scarlet dogwood, among other unique products. This initiative's other critical elements are the Food Innovation Center (FIC) and the Food Business Incubation Network (FoodBIN). The FIC is a food product manufacturing and shared-use food facility where entrepreneurs and researchers work together to develop and launch high-concept food products that provide a vast array of training, mentoring, and product manufacturing to food and beverage companies in the U.S and abroad. The FoodBIN maintains an extensive network of scientists, chefs, and entrepreneurs who work together to identify programs, services, funding sources, and partnerships for emerging food businesses with the International Business Innovation Association.

Department of Agricultural, Food and Resource Economics

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

> *"DAFRE supports society's need for economic analysis and business management in the areas of agriculture, food, resources, and the environment. Our world class teaching, research, and outreach improve businesses, communities, and the lives of people in New Jersey and beyond."* [23]

Our mission reflects and supports the missions of the Land-Grant university system, Rutgers, The State University of New Jersey, School of Environmental and Biological Science (SEBS), and the New Jersey Agricultural Experiment Station (NJAES).

Middlesex County 4-H and County Fair

Middlesex County regularly brings together the various non-profit, public service, and outreach organizations, mainly 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 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 urban and suburban residents have with farm experience.

Other Strategies

Addressing an Aging Farmer Demographic

In the course of research for this report, the demographic profile of operating farmers in New Jersey particularly in Middlesex, revealed that Middlesex County should consider strategies to address the average age of farm operators in Middlesex County is approaching 60 years old. This issue will impact several 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 encouraging 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 to determine what incentives and other measures are required.

The question is, “Who will be the Next Generation of Farmers?” As previously mentioned in the Plan, the RU Ready to Farm - Beginner Farmer Training Program is currently being offered by Rutgers Cooperative Extension of Middlesex County as of early 2021. By providing new and beginner farmers with mentorship and training from agriculture experts, this USDA grant-funded program will prepare the next generation of New Jersey farmers for success in the agriculture industry. Maximizing public access to such programs will be crucial to combatting the aging farmer demographic.

The Middlesex CADB should review the potential for activities with this group, the New Jersey Chapter of Future Farmers of America, and the New Jersey Agricultural Society’s Agricultural Leadership Development Program, a two-year professional development program specifically designed for individuals in farming and agribusiness.

Sustaining Agricultural Viability on Publicly owned Farmland Properties

Table VIII-1: Active Agricultural Land Use (NJDEP 2015) on Public Parks & Selected Public Properties (2020)

Public Property Category Subtotal	***2, 093***
State Parks & Open Space	521
County Parks & Open Space	754
Municipal Parks & Open Space	790
Nonprofit & Private Open Space	28
Selected Public Lands Subtotal	***941***
Rutgers University	305
Jamesburg Boys Home	309
Other	327
Grand Total	**3,035**
Percent of Total Active Ag. in Middlesex County	**23%**

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 retain a "rural" versus "wilderness" character. For instance, many plans do not consider long-term farmland and other management activities to acquire publicly owned open space and greenways.

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. However, preserved farmland alone does not guarantee sustained agricultural operations.

Outright purchase of open space and farmland is sometimes used mainly 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 simply 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, adverse 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 four 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 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 to initiate a coordinated strategy for sustained permanent agriculture on these properties. Additionally, Middlesex County must continue to encourage and strengthen positive public perception of the tangible and aesthetic values of agriculture for Middlesex County's future through sustainable agricultural activities within appropriate public lands.

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 2,600 K-12 students across New Jersey are enrolled in 44 School-based Agricultural Education programs. The programs consist of class/lab instruction, supervised agricultural experience, 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. [24]

Nutrition, Environmental Science, and Home Economics programs have partnered with community service associations to create neighborhood and schoolyard gardens offering other opportunities to provide more outreach and education to appreciate agriculture and fresh food in schools. The curricula of classroom programs can introduce gardening skills and appreciation of fresh and nutritious foods for children and adults alike. Grants, local non-profit groups, and school boards could provide funding for teachers and facilitators. Middlesex County's schools

should be encouraged to investigate these programs in tandem with the farming community. Some federal funds may be available for such programs.

Through the New Jersey Department of Agriculture's Farm to School Program, schools throughout New Jersey can partner with NJ farmers to source more than 100 types of Jersey Fresh produce grown here in the Garden State. Opportunities exist for New Jersey farmers to provide agricultural products to school food service departments throughout the growing season. The object of serving healthy meals in school cafeterias is to improve student nutrition, provide healthy options and nutrition education opportunities that will last a lifetime, and support local farmers. Additionally, the Farm to School Program includes schools garden activities, which help teach students where food comes from by growing it themselves. Students benefit by learning the science behind farming and the nutritional values of fresh products and gaining a greater understanding and appreciation of the environment. Educators can use school garden programs to teach any subject - math, science, language arts, health and nutrition, art, or social studies. Finally, farm to School programs promotes and create a sense of community for all involved.

The Middlesex County Fair
History and Background
84 Years – 1938 to 2022

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 the Dunhams Corner Road properties and entered 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)

CHAPTER 9. RECOMMENDED ACTIONS

Destination 2040

As discussed in Chapter 3, Destination 2040 will guide the future of Middlesex County. For this Farmland Preservation Planning element, the Destination 2040 planning process gathered extensive input from stakeholders in Middlesex County's agriculture industry, as well as the public. Through interviews, public meetings, and consultation with experts, challenges to the industry were targeted, and potential solutions were identified.

Destination 2040's Economic and Workforce Competitiveness Working Group formulated a **strategic initiative to grow agriculture as an economic driver for Middlesex County**. This initiative outlines the following actions:

- Provide next-generation farmers with the support they need to succeed.
- Work with municipalities to implement land use and zoning changes to remove barriers to farming success.
- Increase sales of Middlesex County farm products.
- Increase acreage of preserved farmland.
- Increase the acreage of land in active agricultural production in the county.
- Improve agricultural education for K-12 schools and Middlesex College and County Vocational Schools.
- Dramatically expand deer management practices.
- Encourage innovation and expand the use of technology in agriculture.
- Promote sustainable farming practices.

The list below elaborates on the proposed actions and their justification. The outlined actions have been further developed as detailed action plans for consideration and inclusion into the overall Destination 2040 Strategic Plan.

Provide the next generation of farmers with the support needed to succeed.

One of the most significant challenges currently facing agriculture nationwide is the lack of the next generation of farmers, and Middlesex County is no exception. Prospective young farmers must contend with high land costs and uncertain income while developing the wide range of skills and expertise required to become farm business owners. Comprehensive new farmer training and support systems that bring together partners from Rutgers NJAES Cooperative

Extension, educational institutions, and all levels of government are essential to the continuation of farming as a viable career in the County.

Promote land use and zoning changes to remove barriers to farming success
The nature and scale of farming have changed over the years, and it is important to make sure that land use and zoning ordinances are keeping up. Once a strictly large-scale rural endeavor, modern agricultural systems are increasingly able to produce larger quantities of food in smaller, less conventional locations. Developing zoning definitions and land uses that allow for commercial agriculture in a wider variety of areas will help to create a more flexible and resilient food system. The County should also consider supporting local land use regulations geared toward supporting new and beginning farmers, including small-scale agriculture in residential zones.

Increase sales of Middlesex County farm products.
Changes in taste and market preferences over the years create the opportunity to develop new and exciting farm products. By doing the work of researching and promoting these products, Middlesex County and its partners can help farmers respond to current market trends while making sure that customers know what is available and when it is in season. This will result in better sales for County farmers and more fresh, local, seasonal produce for County residents.

Increase the acreage of preserved farmland.
The number of preserved farmland acres in Middlesex County per year has declined in the past decade for various reasons. Prime farmland is a precious natural resource that cannot be quickly restored once it has been developed and is critical to protect for sustaining the agricultural land base of Middlesex County. Innovative solutions and partnerships are required to ensure that additional farmland acres in the County remain protected against development and remain in agricultural production.

Improve agricultural education for K-12 schools as well as Middlesex County College and Vocational Schools
Building the next generation of farmers starts in the classroom. Improved exposure to agriculture and plant science as part of a robust STEM curriculum can make young people aware of the many exciting and rewarding career options in farming, agricultural support, and agricultural sciences. Carrying this education forward with prospects at the college and vocational school levels will help develop an educated skill base for agriculture professionals.

The County should enhance employment opportunities by engaging youth and beginner farmers with innovative agriculture techniques while enhancing food security for residents of

Middlesex County. Growing the next generation of farmers will be accomplished through the cooperative efforts of Middlesex Vocational-Technical Schools, Workforce Development, and Rutgers New Jersey Agricultural Experiment Station Cooperative Extension.

Dramatically expand deer management practices.
Through the proliferation of ideal habitats and a lack of natural predation, deer populations in Middlesex County have exploded in recent years, reaching nearly 120 deer per square mile in some areas. As a result, deer are a significant cause of economic loss on farms, where they can consume crops down to the soil and cause additional damage to farm infrastructure, such as irrigation lines. Addressing this problem at the county level can help keep Middlesex County agriculture viable since the stewardship of agricultural land directly ties to the economic health of the farm output.

Encourage innovation and expand the use of technology in agriculture.
New advances in technology are having profound impacts on agriculture nationwide. For Middlesex County farmers to remain on the cutting edge of innovation, they need a partner to research, trial and demonstrate these new systems and devices. Rutgers Cooperative (RCE)of Middlesex County can be the center of new agricultural technology. By testing and demonstrating innovative production systems, drone technology, alternative energy generation, and electric tractors, the RCE of Middlesex County can speed up industry adoption of these systems, giving our farmers a competitive advantage over the rest of the state. Additionally, giving our farmers access to modern tools and equipment at a shared agricultural "Marketspace" will allow them to experiment and modify their equipment and develop new solutions to the problems they face every day.

Promote sustainable farming practices.
Sustainable farming practices encourage good stewardship of the natural systems and resources farms rely on. These sustainable practices help build and maintain healthy soil, manage water wisely, minimize pollution and promote biodiversity – protecting the environment while also improving profitability and economic vitality of the farms. There are appropriate methods of sustainable agriculture for farms of all sizes, producing a diverse range of foods and products. Some sustainable methods include rotating crops, planting cover crops, reducing or eliminating tillage, integrated pest management, adopting agroforestry practices, and integrating livestock and crops. Examples of sustainable farming equipment and infrastructure include solar energy generation infrastructure; deer fencing; smart/autonomous agricultural equipment; digital sensors for crop/soil monitoring; drones; reduced soil tillage machinery; precision spraying/reduced pesticide application equipment; soil & water

conservation projects (i.e., improved irrigation systems, erosion/water control systems, land shaping/grading tools).

The County can promote these practices by providing farmers with information, technical assistance, training, financial incentives to support sustainable farming, and encouraging the development of sustainable farming management plans.

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] Kümmel, 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 47 inches per year according to https://climate.rutgers.edu/stateclim_v1/nclimdiv/index.php?stn=NJ023&elem=pcpn (12/2019)
[8] The State of New Jersey, Department of Environmental Protection - NEW JERSEY WATER SUPPLY PLAN: 2017-2022. https://www.state.nj.us/dep/watersupply/pdf/wsp-appendix-a.pdf.
[9] Source for market value adjustment to 2017 Dollars: " Consumer Price Index (CPI) Conversion Factors for Dollars of 1774 to estimated 2028 to Convert to Dollars of 2017", by Robert C. Sahr; Oregon State University, Political Science Department; downloaded from https://liberalarts.oregonstate.edu/sites/liberalarts.oregonstate.edu/files/polisci/faculty-research/sahr/inflation-conversion/pdf/cv2017.pdf
[10] Powley, Van R. (1987). Soil Survey of Middlesex County New Jersey: United States Department of Agriculture—Soil Conservation Service, page 2.
[11] Tri-County Coop information pursuant to http://www.hightstownauction.com/main.htm (08/29/2007)
[12] Salem County Green Pages: http://salem.rutgers.edu/greenpages/service.pdf (Spring 2008)
[13] Monmouth County Planning Board & Agriculture Development Board: Monmouth County Farmland Preservation Plan: September 2007 Preliminary Draft, Map 5.1, p. 63
[14] https://nj.gov/state/planning/state-plan.shtml
[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] Freedgood, J.,M. Hunter, J. Dempsey, A. Sorensen. 2020. Farms Under Threat: The State of the States. Washington, DC: American Farmland Trust. https://s30428.pcdn.co/wp-content/uploads/sites/2/2020/09/AFT_FUT_StateoftheStates_rev.pdf
[21] New Jersey Department of Agriculture 2008 Economic Development Strategies - https://www.nj.gov/agriculture/conventions/2008/08EcoStrategies.pdf
[22] "*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]
[23] http://www.dafre.rutgers.edu
[24] http://www.njagsociety.org/aitc/aitc.htm

MIDDLESEX COUNTY FARMLAND PRESERVATION PROGRAM
SUMMARY OF STATE, COUNTY AND MUNICIPALLY PRESERVED FARMLAND – As of 5/5/22

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 Ochsner/M. Toth Cranbury	Bl. 24, Lot 2.011 (Vimalakar & Sarala Bathena)*	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 (53.6752 ac) (Plainsboro) Bl. 22, Lot 1, Bl. 23, Lot 103 (36.8472 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 (Danser & Bloom)*	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 152 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	$933,950.05
Edward & Joyce Barclay Dey Rd. South Brunswick	Bl. 1, Lot 1.062 (Countryview Farm Nursery, LLC)*	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 (HRD, LLC.)*	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 – Pemmansani Farm)* Bl. 22, Lot 4 (El Shakray – 55.5)*	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 & Dorothy Dey Dey Rd. South Brunswick	Bl. 1, Lots 8, 9.01 (Dey Farm, LLC)*	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 6.01(Joseph Bartonek)* Bl. 22, Lot 3 (Kevin White)* Bl. 23, Lot 100 (Kevin White)*	1997	1	370.236	365.082	$9,500	$9,449	$1,866,024.40 - State $203,771.49 – FF 2,069,795.89 - Total (60%)	$693,655.81	$550,360.46 – Cranb. $135,847.66 – FF $686,208.12 - Total	$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	Municipal Cluster (Easement Donated to County)	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 (Donald & Lynda Patterson)*	1999	0	182.8000	179.700	$6,500	$6,475	$640,278.20 – State $103,230.55 -- Ff $743,508.75 (63.90%)	$233,610.00	$128,119.15 – Cranb. $ 58,319.60 -- FF $186,438.75 - Total	$1,163,557.50
Cranbury Heights Estates 1 Cranbury	Bl. 21, Lots 6.12 (Peter & Gizelle Sockler)*	1999	0	10.0000	Municipal Cluster Easement	Municipal Cluster Easement	Municipal Cluster Easement	Municipal Cluster Easement	---	---	---
Cranbury Heights Estates 2	Bl. 21, Lots 6.13 (Robert M. Swanson)	1999	0	26.5900	Municipal Cluster Easement	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 & 71 Bl. 25.01, Lot 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 172 Brickyard Rd. Cranbury	Bl. 16, Lot 4 (WMMV, LLC)*	2000	0	64.1000	62.6000	$6,000	$3,960	$185,922.00 (75%)	$61,974.00	$0.00	$247,896.00
Jamesburg Training School Monroe Township	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
MGD Development Group, LLC/South Farm	Bl. 23, Lot 104.01 (Venkata & Vara Bandaru)*	2001	0	47.58	Municipal Cluster Easement	Municipal Cluster Easement	Municipal Cluster Easement	Municipal Cluster Easement	---	---	---
MGD Development Group, LLC/North Farm	Block 23, Lot 1.01 (Nicholas Boyko)*	2001	1	78.95	Municipal Cluster Easement	Municipal Cluster Easement	Municipal Cluster Easement	Municipal Cluster Easement	---	---	---
Scott Applegate/Cranbury Meadows Cranbury	Bl. 21, Lot 1.03	2001	0	26.02	Municipal Cluster Easement	Municipal Cluster Easement	Municipal Cluster Easement	Municipal Cluster Easement	---	---	---
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)
Lantier Tree Farm*** 165 Dey Grove Rd. Monroe/Manalapan	Bl. 11, Lot 5.14 – Monroe Bl. 69, Lot 4 – Manalapan (Williem Gasko)*	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

*Current ownership
** 125.152 acres for in-county payment calculation
***54.4 acres used for in-county payment calculation

Mid. = Middlesex County
Mon. = Monmouth County
Monr. = Monroe Township
Man. = Manalapan

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
Township of East Brunswick (Giamarese) Fresh Ponds Rd.	Bl. 310, 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
Dennis White Nostrand Rd. Plainsboro	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 (Kim Lum)*	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 (William Bunting)*	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) 28 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 (Richard Somma)	2004	0	11.9210	11.9210	$22,500	$20,833.33	$149,012.50	$52,929.24	$46,412.39	$248,354.13
Seven Kay Associates (AJ Kainer & KM Kainer) 155 – 159 Dey Rd. South Brunswick	Bl. 1, Lot 16.01 (Mannam Ramana)*	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. 505 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 – Twin Pond)*	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 29A 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	---	---	---	---
Kiesler 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. Barclay Family & Trust/Cranbury Ancil Davison Rd., Cranbury	Bl. 22, Lot 7 (JB Nursery, LLC)*	2004/2006	0	77.3420	77.3420	CRANBURY TWP. TRANSACTION	$20,360 (SADC only)	$1,187,973.12 – SADC $ 296,993.28 – FF $1,484,966.40 – Total (94.30%)	$0.00	---	$1,484,966.40
Simonson Family Associates- Cranbury 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

*Current Ownership 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
Cranbury/Barclay Farms 147 Plainsboro Rd., Cranbury 123 North Main St., Cranbury	Bl. 23, Lot 12.01 Bl. 25, Lot 19.01 (West Orange Baby, LLC)*	2004	0	182.7140	182.7140	CRANBURY/STATE TRANSACTION	$14,400 (SADC only)	$2,104,865.28 (80%)	N/A	$526,216.32	$2,631,081.60
Joseph 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
William J. Warren III 129 Fresh Ponds Rd. East Brunswick	Bl. 310, Lots 64.1, 65, 70, 72	2005	0	47.4560	47.4157	$36,750	$35,000	$966,727.08 – SADC $29,002.62 -- FF $995,729.70 -- Total (60%)	$348,505.40	$295,979.32 – E. Br $19,335.08 -- FF $315,314.40-- Total	$1,659,549.50
Barrie & Geraldine Barclay 25-45 Orchardside Dr. So. Brunswick	Bl. 1, Lot 6.052 (Geraldine Barclay)*	2006	0	22.7920	22.7920	$36,300	$36,300	$496,409.76 (60%)	$165,469.92	$165,469.92	$827,349.60
Evelyn Gasko 113 Federal Rd. Monroe Township	Bl. 22, Lot 2.04 (John Gasko & Sons)*	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 (Orchardside LLC)*	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 (David Byrne)*	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 Superior Horse Farm 113 Old Forge Rd. Monroe Township	Bl. 107, Lot 2.07 (Affan Iftikhar)*	2007	0	9.3920	9.056	$50,000	$45,000	$244,512.00 (60%)	$90,560.00	$72,448.00	$407,520.00
Borough of Sayreville Margaret Dieker 801 Bordentown Ave. Sayreville	Bl. 416, Lot 1.01 Bl. 431, Lot 1	2008	0	16.755	16.755	$207,000	$207,000	$2,601,213.75 (75%)	$867,071.25 (25%)	$0.00	$3,468,285.00
Sallie Jean Toscano 156-160 Plainsboro Rd. Cranbury	Bl. 25, Lots 42.01 & 42.02	2011	0	43.8231	43.8231	$30,000	$30,000	$788,815.80 (60%)	$262,938.60	$262,938.60	$1,314,693.00
Kin F. and Shao Ling Lum 119 John White Rd. Cranbury	Bl. 22, Lot 10	2011	0	48.5295	47.2635	$19,000	$19,000	$538,803.90	$179,601.30	$179,601.30	$898,006.50
Ilija & Christine Miladinov 158 Federal Rd. Monroe Township	Bl. 20, Lot 21.8	2011	0	45.0875	45.0875	$9,000	$9,000	$243,472.50	$81,157.50	$81,157.50	$405,787.50
Robert & Karen Balz 215 Rhode Hall Rd. Monroe Township	Bl. 83, Lot 6.09	2012	0	13.9819	13.9776	$45,000	$45,000	$377,395.20	$125,798.40	$125,798.40	$628,992.00
Ronald & Patricia Kurek 3 Wycoff Mills Rd. Cranbury Township	Bl. 14, Lot 4.02 Bl. 14, Lot 3 (Andrew Zaleski)*	2013	0	152.019	151.014	$7,750	$7,750	$721,091.85	$224,633.33	$224,633.32	$1,170,358.50

*Current Ownership 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
Benjamin & Catherine Konopacki (Indyk) 595 Spotswood Englishtown Rd. (Cty. Route 613) Monroe Township	Bl. 54, Lot 7.01	2014	0	37.6896	37.6896	$24,000	$24,000	$539,432.64 (59.6%)	$182,558.88 (20.2%)	$182,558.88 (20.2%)	$904,550.40
Roy K. Reinhardt 171 Plainsboro Rd. Cranbury	Bl. 23, Lot 8	2014	0	37.171	36.81	$28,500	$28,500	$629,451.00 (60%)	$209,817.00 (20%)	$209,817.00 (20%)	$1,049.085.00
Jesse K. Voight 255 Davidson's Mill Rd. South Brunswick	Bl. 22, Lot 17.011	2015	0	34.0378	32.7168	$34,350	$34,350	$674,293.25 (60%)	$224,764.42 (20%)	$224,764.41	$1,123,822.08
Melissa Beck-Callanan (J.B. Heatherwood) 61 Gravel Hill-Spotswood Rd. Monroe Township	Bl. 30, Lot 8.07	2018	0	16.8818	16.8818	$24,000	$24,000	$243,097.92 (60%)	$81,032.64 (20%)	$81,032.64 (20%)	$405,163.20
The Estate of Anthony Zimbicki Sr. (J. Zimbicki & K. Cook) 146 Federal Rd. Monroe Township	Bl. 20, Lot 12.3 Bl. 20, Lot 14.3	2021	0	35.040	35.031	$27,000	$27,000	$567,502.20 (60%)	$189,167.40 (20%)	$189,167.40 (20%)	$945,837.00
GRAND TOTAL				5,459.376 – Mid. 40.877 – Mon. 5,500.253 - Total	4,038.076 – Mid. 40.828 – Mon. 4,078.904 - Total			$41,275,143.43 – SADC $ 1,179,612.61 -- FF $42,454,756.04 – Total	$11,414,803.69 – Mid. $ 39,660.62 – Mon. $11,454,464.31 –Total	$10,404,239.10 - Mun $ 375,000.00 - NP $ 546,899.29 – FF $11,326,138.39 Total	$65,235,358.74

*Current Ownership **NP** = Non-Profit Organization **Mon.** = Monmouth County **FF** = Federal Funds **Mid.** = Middlesex County RED = Easements NOT held by the County

lak
p/environmental sustainability/farmland preservation/forms/easement purchase program revised 08.15.22

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	Bl. 2, Lot 1	21.25	September 9, 2004	November 17, 2012

2017 CENSUS OF AGRICULTURE

United States

Summary and State Data

Volume 1 • Geographic Area Series • Part 51

AC-17-A-51

Issued April 2019

United States Department of Agriculture
Sonny Perdue, Secretary
National Agricultural Statistics Service
Hubert Hamer, Administrator

Introduction

HISTORY

The 2017 Census of Agriculture is the 29th Federal census of agriculture and the fifth conducted by the U.S. Department of Agriculture (USDA), National Agricultural Statistics Service (NASS). The U.S. Department of Commerce, Bureau of the Census conducted the census of agriculture for 156 years (1840-1996). The 1997 Appropriations Act contained a provision that transferred the responsibility for the census of agriculture to NASS.

The history of collecting data on U.S. agriculture dates back as far as President George Washington, who kept meticulous statistical records describing his own and other farms. In 1791, President Washington wrote to farmers requesting information on land values, crop acreages, crop yields, livestock prices, and taxes. Washington compiled the results on an area extending roughly 250 miles from north to south and 100 miles from east to west which today lies in Maryland, Pennsylvania, Virginia, West Virginia, and the District of Columbia, where most of the young country's population lived. In effect, Washington's inquiry was an attempt to fulfill the need for sound agricultural data for a nation that was heavily reliant on the success of agriculture. Such informal inquiries worked while the Nation was young, but were insufficient as the country expanded.

In 1839, Congress appropriated $1,000 for "carrying out agricultural investigations, and procuring agricultural statistics." The first agriculture census was taken in 1840 as part of the sixth decennial census of population. As the country expanded and agriculture evolved, the decade between censuses became too long an interval to capture the changes in agricultural production. After the 1920 census, the census interval was changed to every five years resulting in a separate, mid-decade census of agriculture that was conducted in 1925, 1935, and 1945. The agriculture census continued as part of the decennial census through 1950. From 1954 to 1974, the census was taken for the years ending in 4 and 9. In 1976, Congress authorized the census of agriculture for 1978 and 1982 to adjust the data reference year so it coincided with other economic censuses. This adjustment in timing established the census of agriculture on a 5-year cycle collecting data for years ending in 2 and 7.

USES OF CENSUS DATA

The census of agriculture provides a detailed picture of U.S. farms and ranches every five years. It is the leading source of uniform, comprehensive agricultural data for every State and county or county equivalent. Census of agriculture data are routinely used by agriculture organizations, businesses, State departments of agriculture, elected representatives and legislative bodies at all levels of government, public and private sector analysts, the news media, and colleges and universities. Census of agriculture data are frequently used to:

- Show the importance and value of agriculture at the county, State, and national levels;
- Provide agricultural news media and agricultural associations benchmark statistics for stories and articles on U.S. agriculture and the foods we produce;
- Compare the income and costs of production;
- Provide important data about the demographics and financial well-being of producers;
- Evaluate historical agricultural trends to formulate farm and rural policies and develop programs that help agricultural producers;
- Allocate local and national funds for farm programs, e.g. extension service projects, agricultural research, soil conservation programs, and land-grant colleges and universities;
- Identify the assets needed to support agricultural production such as land, buildings, machinery, and other equipment;
- Create an extensive database of information on uncommon crops and livestock and the value of those commodities for assessing the need to develop policies and programs to support those commodities;
- Provide geographic data on production so agribusinesses will locate near major production areas for efficiencies for both producers and agribusinesses;

- Measure the usage of modern technologies such as conservation practices, organic production, renewable energy systems, internet access, and specialized marketing strategies;
- Develop new and improved methods to increase agricultural production and profitability;
- Plan for operations during drought and emergency outbreaks of diseases or infestations of pests;
- Analyze and report the current state of food, fuel, and fiber production in the United States; and
- Make energy projections and forecast needs for agricultural producers and their communities.

LEGAL AUTHORITY

The 2017 Census of Agriculture is required by law under the "Census of Agriculture Act of 1997," Public Law 105-113 (Title 7, United States Code, Section 2204g). The law directs the Secretary of Agriculture to conduct a census of agriculture every fifth year. The census of agriculture includes each State, Puerto Rico, Guam, the U.S. Virgin Islands, the Commonwealth of Northern Mariana Islands, and American Samoa.

FARM DEFINITION

The census definition of a farm is any place from which $1,000 or more of agricultural products were produced and sold, or normally would have been sold, during the census year. The definition has changed nine times since it was established in 1850. The current definition was first used for the 1974 Census of Agriculture and was used in each subsequent census of agriculture. This definition is consistent with the definition used for current USDA surveys. The farm definition used for each U.S. territory varies. The report for each territory includes a discussion of its farm definition.

DATA COMPARABILITY

Most commodity data are comparable between the 2017 and 2012 censuses. Changes were made to the 2017 census that affect the comparability for some data items. Demographic data, for the 2017 Census of Agriculture, are not fully comparable to 2012 and earlier census data due to terminology and definition changes. Dollar figures are expressed in current dollars and have not been adjusted for inflation or deflation. In general, data for censuses since 1974 are not fully comparable with data for 1969 and earlier censuses due to changes in the farm definition. See Appendix B, General Explanation and Census of Agriculture Report Form, Data Changes for a detailed discussion of these changes.

REFERENCE PERIOD

Reference periods for the 2017 Census of Agriculture were similar to those used in the 2012 Census of Agriculture. Reference periods used were:

- Crop production is measured for the calendar year, except for a few crops such as avocados, citrus, and olives for which the production year overlaps the calendar year. See Appendix B, General Explanation and Census of Agriculture Report Form for details.
- Livestock, poultry, and machinery and equipment inventories, and market value of land and buildings are measured as of December 31 of the census year.
- Crop and livestock sales, other farm-related income, direct sales income, income from federal farm programs, Commodity Credit Corporation loans, Conservation Reserve, Farmable Wetlands, Conservation Reserve Enhancement, and Wetlands Reserve Program participation, farm expenses, chemical and fertilizer use, irrigated acreage, and hired farm labor data are measured for the calendar year.

TABLES AND APPENDICES

Chapter 1. Table 1 shows U.S.-level historical data through the 1987 census and tables 2 through 52 show detailed U.S.-level data usually accompanied by historical data from the 2012 census. Tables 53 through 70 show detailed producer and farm operation data for the 2017 census only. Tables 71 through 77 show detailed U.S.-level data cross-tabulated by several categories for the 2017 census only.

Chapter 2. State-level data are presented in 57 tables in 2 different table formats - State and State summary. Most tables include 2012 historical data. State tables include general data for all States within the U.S. The State names are listed in alphabetical order in the column headings. State summary tables provide comprehensive data for all States reporting a data item.

Appendix A. Provides information about data collection and data processing activities and discusses the statistical methodology used in conducting and evaluating the census. Table A summarizes coverage, nonresponse, and misclassification adjustment for selected items for the U.S. Table B provides reliability estimates of U.S. totals for selected items. Table C summarizes coverage, nonresponse, and misclassification adjustment for selected items at the State level. Table D provides total number of

American Indian or Alaska Native farm producers both on and off reservations by State.

Appendix B. Includes definitions of specific terms and phrases used in this publication, including items in the publication tables that carry the note "see text." It also provides facsimiles of the report form and instruction sheet used to collect data.

RESPONDENT CONFIDENTIALITY

In keeping with the provisions of Title 7 of the United States Code, no data are published that would disclose information about the operations of an individual farm or ranch. All tabulated data are subjected to an extensive disclosure review prior to publication. Any tabulated item that identifies data reported by a respondent or allows a respondent's data to be accurately estimated or derived, was suppressed and coded with a 'D'. However, the number of farms reporting an item is not considered confidential information and is provided even though other information is withheld.

SPECIAL EFFORTS DIRECTED AT MINORITIES

NASS implemented several activities to improve coverage of minority farm producers. These activities included, but were not limited to:

- Obtaining mail lists from organizations likely to contain names and addresses of minority farm producers;
- Conducting pre-census promotion activities that targeted women, American Indian and Alaska Native, Asian, Black and African American, and Hispanic, Latino, or Spanish origin farm producers.

SPECIAL STUDIES AND CUSTOM TABULATIONS

Special studies such as the 2018 Irrigation and Water Management Survey and the 2018 Census of Aquaculture are part of the census program and provide supplemental information to the 2017 Census of Agriculture in the respective subject area. Results are published on the internet.

Custom-designed tabulations may be developed when data are not published elsewhere. These tabulations are developed to individual user specifications on a cost-reimbursable basis and shared with the public. Quick Stats, NASS's online database that allows data users to build customized queries, should be investigated before requesting a custom tabulation.

All special studies and custom tabulations are subject to a thorough disclosure review prior to release to prevent the disclosure of any individual respondent data. Requests for custom tabulations can be submitted via the internet from the NASS home page, by mail, or by e-mail to:

Data Lab
National Agricultural Statistics Service
Room 5305A, Stop 2054
1400 Independence Avenue, S.W.
Washington, D.C. 20250 – 2054
or
Datalab@nass.usda.gov

ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used throughout the tables:

-	Represents zero.
(D)	Withheld to avoid disclosing data for individual farms.
(H)	Coefficient of variation is greater than or equal to 99.95 percent or the standard error is greater than or equal to 99.95 percent of mean.
(IC)	Independent city.
(L)	Coefficient of variation is less than 0.05 percent or the standard error is less than 0.05 percent of the mean.
(NA)	Not available.
(X)	Not applicable.
(Z)	Less than half of the unit shown.
cwt	Hundredweight.
sq ft	Square feet.

Table 1. **County Summary Highlights: 2017**

[For meaning of abbreviations and symbols, see introductory text.]

Item	New Jersey	Atlantic	Bergen	Burlington	Camden
Farms ..... number	9,883	450	74	915	197
Land in farms ..... acres	734,084	29,016	1,051	96,256	9,298
Average size of farm ..... acres	74	64	14	105	47
Median size of farm ..... acres	16	20	7	17	15
Estimated market value of land and buildings:					
Average per farm ..... dollars	1,000,464	823,031	1,412,811	1,057,462	774,929
Average per acre ..... dollars	13,469	12,764	99,475	10,052	16,419
Estimated market value of all machinery and equipment $1,000	855,196	60,927	3,592	84,792	16,076
Average per farm ..... dollars	86,532	135,393	48,545	92,669	81,602
Farms by size:					
1 to 9 acres	2,965	112	45	303	57
10 to 49 acres	4,467	227	28	359	103
50 to 179 acres	1,604	79	-	154	26
180 to 499 acres	545	24	1	62	5
500 to 999 acres	189	4	-	19	6
1,000 acres or more	113	4	-	18	-
Total cropland ..... farms	7,537	346	45	670	144
acres	463,019	17,756	323	49,736	5,017
Harvested cropland ..... farms	6,917	313	43	627	143
acres	411,785	16,058	300	46,095	4,609
Irrigated land ..... farms	1,980	186	31	215	61
acres	86,819	11,583	110	12,434	2,308
Market value of agricultural products sold (see text) $1,000	1,097,950	120,673	(D)	98,580	22,893
Average per farm ..... dollars	111,095	268,163	(D)	107,738	116,210
Crops, including nursery and greenhouse crops $1,000	984,530	119,103	4,972	91,098	22,809
Livestock, poultry, and their products $1,000	113,421	1,570	(D)	7,482	84
Farms by value of sales:					
Less than $2,500	4,472	160	27	364	120
$2,500 to $4,999	1,111	37	11	99	8
$5,000 to $9,999	1,000	49	6	102	13
$10,000 to $24,999	1,014	52	5	88	9
$25,000 to $49,999	629	31	3	66	18
$50,000 to $99,999	537	33	10	67	5
$100,000 or more	1,120	88	12	129	24
Government payments (see text) ..... farms	745	35	1	68	3
$1,000	7,503	198	(D)	828	(D)
Total income from farm-related sources ..... farms	3,962	130	39	362	50
$1,000	84,551	2,754	(D)	12,673	3,682
Total farm production expenses $1,000	1,017,386	90,696	5,878	92,083	20,703
Average per farm ..... dollars	102,943	201,547	79,426	100,637	105,093
Net cash farm income of the operations ..... farms	9,883	450	74	915	197
$1,000	172,619	32,929	-186	19,998	5,926
Average per farm ..... dollars	17,466	73,176	-2,513	21,856	30,082
Livestock and poultry:					
Cattle and calves inventory ..... farms	1,246	13	2	61	21
number	27,789	65	(D)	1,236	90
Beef cows ..... farms	941	8	2	44	13
number	9,370	31	(D)	(D)	57
Milk cows ..... farms	109	-	-	2	-
number	6,354	-	-	(D)	-
Cattle and calves sold ..... farms	954	11	1	58	8
number	11,351	33	(D)	671	19
Hogs and pigs inventory ..... farms	347	9	-	25	2
number	9,017	(D)	-	2,025	(D)
Hogs and pigs sold ..... farms	315	11	-	16	2
number	16,288	335	-	1,738	(D)
Sheep and lambs inventory ..... farms	1,047	16	8	86	12
number	17,791	113	73	1,415	109
Layers inventory (see text) ..... farms	1,986	60	17	168	34
number	1,631,775	2,398	814	8,228	788
Broilers and other meat-type chickens sold ..... farms	104	7	1	11	1
number	217,559	459	(D)	1,536	(D)
Selected crops harvested:					
Corn for grain ..... farms	766	32	6	60	16
acres	74,795	677	36	5,522	355
bushels	11,649,761	89,435	(D)	785,223	29,973
Corn for silage or greenchop ..... farms	144	2	-	14	-
acres	6,664	(D)	-	221	-
tons	138,964	(D)	-	3,126	-
Wheat for grain, all ..... farms	242	2	-	18	2
acres	17,534	(D)	-	1,216	(D)
bushels	1,100,077	(D)	-	73,077	(D)
Winter wheat for grain ..... farms	242	2	-	18	2
acres	17,534	(D)	-	1,216	(D)
bushels	1,100,077	(D)	-	73,077	(D)
Oats for grain ..... farms	36	-	-	-	-
acres	1,081	-	-	-	-
bushels	61,637	-	-	-	-
Barley for grain ..... farms	21	-	-	2	-
acres	1,010	-	-	(D)	-
bushels	61,575	-	-	(D)	-
Sorghum for grain ..... farms	12	-	-	5	-
acres	575	-	-	441	-
bushels	40,242	-	-	30,040	-
Sorghum for silage or greenchop ..... farms	9	-	-	-	-
acres	161	-	-	-	-
tons	1,426	-	-	-	-

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Table 1. **County Summary Highlights: 2017** (continued)

[For meaning of abbreviations and symbols, see introductory text.]

Item	Cape May	Cumberland	Essex	Gloucester	Hudson
Farms ..... number	164	560	22	580	4
Land in farms ..... acres	8,135	66,256	191	49,381	26
Average size of farm ..... acres	50	118	9	85	7
Median size of farm ..... acres	19	26	6	17	7
Estimated market value of land and buildings:					
Average per farm ..... dollars	722,281	1,159,637	733,010	1,079,229	327,000
Average per acre ..... dollars	14,561	9,801	84,431	12,676	50,308
Estimated market value of all machinery and equipment $1,000	9,690	84,123	2,397	62,227	142
Average per farm ..... dollars	59,087	150,219	108,943	107,289	35,385
Farms by size:					
1 to 9 acres	44	133	16	176	2
10 to 49 acres	77	223	6	245	2
50 to 179 acres	38	113	-	82	-
180 to 499 acres	3	58	-	61	-
500 to 999 acres	2	22	-	9	-
1,000 acres or more	-	11	-	7	-
Total cropland ..... farms	140	482	11	454	2
acres	3,847	49,614	60	35,602	(D)
Harvested cropland ..... farms	123	445	11	436	2
acres	3,086	44,256	48	33,112	(D)
Irrigated land ..... farms	49	199	8	158	-
acres	1,433	20,017	12	8,732	-
Market value of agricultural products sold (see text) $1,000	9,838	212,649	(D)	102,454	(D)
Average per farm ..... dollars	59,988	379,730	(D)	176,644	(D)
Crops, including nursery and greenhouse crops $1,000	8,771	207,439	(D)	94,853	(D)
Livestock, poultry, and their products $1,000	1,067	5,210	71	7,601	(D)
Farms by value of sales:					
Less than $2,500	49	190	8	246	4
$2,500 to $4,999	18	48	2	63	-
$5,000 to $9,999	20	69	1	63	-
$10,000 to $24,999	24	65	9	43	-
$25,000 to $49,999	20	30	-	31	-
$50,000 to $99,999	18	21	-	38	-
$100,000 or more	15	137	2	96	-
Government payments (see text) ..... farms	2	54	-	73	-
$1,000	(D)	665	-	1,196	-
Total income from farm-related sources ..... farms	50	229	12	211	-
$1,000	726	3,574	220	2,919	-
Total farm production expenses $1,000	6,674	172,187	4,728	89,858	31
Average per farm ..... dollars	40,692	307,478	214,918	154,927	7,727
Net cash farm income of the operations ..... farms	164	560	22	580	4
$1,000	3,912	44,700	(D)	16,710	(D)
Average per farm ..... dollars	23,855	79,822	(D)	28,811	(D)
Livestock and poultry:					
Cattle and calves inventory ..... farms	4	47	3	72	2
number	37	1,167	27	2,923	(D)
Beef cows ..... farms	4	34	3	62	-
number	18	305	18	454	-
Milk cows ..... farms	-	10	-	7	-
number	-	311	-	1,190	-
Cattle and calves sold ..... farms	6	30	3	52	-
number	21	593	6	853	-
Hogs and pigs inventory ..... farms	7	8	3	21	-
number	665	113	3	939	-
Hogs and pigs sold ..... farms	10	8	-	15	-
number	3,320	23	-	1,272	-
Sheep and lambs inventory ..... farms	17	26	3	35	-
number	207	415	(D)	1,168	-
Layers inventory (see text) ..... farms	26	67	7	79	2
number	615	(D)	170	1,809	(D)
Broilers and other meat-type chickens sold ..... farms	1	-	-	2	-
number	(D)	-	-	(D)	-
Selected crops harvested:					
Corn for grain ..... farms	19	72	-	63	-
acres	193	6,403	-	5,657	-
bushels	19,579	951,541	-	844,381	-
Corn for silage or greenchop ..... farms	-	5	-	11	-
acres	-	578	-	674	-
tons	-	13,973	-	13,570	-
Wheat for grain, all ..... farms	2	36	-	26	-
acres	(D)	3,149	-	2,641	-
bushels	(D)	197,596	-	146,656	-
Winter wheat for grain ..... farms	2	36	-	26	-
acres	(D)	3,149	-	2,641	-
bushels	(D)	197,596	-	146,656	-
Oats for grain ..... farms	-	1	-	-	-
acres	-	(D)	-	-	-
bushels	-	(D)	-	-	-
Barley for grain ..... farms	-	3	-	5	-
acres	-	119	-	380	-
bushels	-	7,586	-	22,690	-
Sorghum for grain ..... farms	-	2	-	-	-
acres	-	(D)	-	-	-
bushels	-	(D)	-	-	-
Sorghum for silage or greenchop ..... farms	1	-	-	-	-
acres	(D)	-	-	-	-
tons	(D)	-	-	-	-

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Table 1. **County Summary Highlights: 2017** (continued)

[For meaning of abbreviations and symbols, see introductory text.]

Item	Hunterdon	Mercer	Middlesex	Monmouth	Morris	Ocean
Farms ..... number	1,604	323	217	838	418	260
Land in farms ..... acres	101,290	25,230	16,023	39,198	14,514	8,510
Average size of farm ..... acres	63	78	74	47	35	33
Median size of farm ..... acres	17	18	10	12	12	12
Estimated market value of land and buildings:						
Average per farm ..... dollars	986,211	1,414,874	1,607,661	981,430	743,975	622,892
Average per acre ..... dollars	15,617	18,114	21,773	20,982	21,426	19,031
Estimated market value of all machinery and equipment $1,000	106,511	26,950	24,444	66,334	28,625	15,776
Average per farm ..... dollars	66,403	83,438	112,644	79,157	68,480	60,677
Farms by size:						
1 to 9 acres	392	91	101	318	171	103
10 to 49 acres	816	142	77	397	170	124
50 to 179 acres	300	51	21	79	65	23
180 to 499 acres	71	26	7	26	8	7
500 to 999 acres	14	11	9	12	4	3
1,000 acres or more	11	2	2	6	-	-
Total cropland ..... farms	1,216	259	183	592	316	167
acres	65,601	15,790	11,246	23,801	6,659	4,395
Harvested cropland ..... farms	1,112	234	170	527	295	140
acres	57,106	12,724	10,052	20,836	5,904	(D)
Irrigated land ..... farms	156	82	77	199	121	43
acres	1,835	1,008	2,001	3,550	1,005	809
Market value of agricultural products sold (see text) $1,000	92,246	24,981	38,359	80,633	24,824	24,640
Average per farm ..... dollars	57,510	77,341	176,772	96,221	59,389	94,769
Crops, including nursery and greenhouse crops $1,000	78,867	20,015	37,593	67,389	23,117	19,976
Livestock, poultry, and their products $1,000	13,379	4,967	766	13,244	1,707	4,664
Farms by value of sales:						
Less than $2,500	799	149	93	361	202	134
$2,500 to $4,999	197	20	18	94	55	25
$5,000 to $9,999	167	35	18	78	31	26
$10,000 to $24,999	207	27	29	84	45	23
$25,000 to $49,999	82	31	11	64	24	9
$50,000 to $99,999	54	21	8	69	24	17
$100,000 or more	98	40	40	88	37	26
Government payments (see text) ..... farms	94	26	17	28	13	8
$1,000	524	149	92	366	60	59
Total income from farm-related sources ..... farms	647	123	86	352	191	103
$1,000	11,252	2,888	2,513	10,846	8,116	2,846
Total farm production expenses $1,000	105,833	26,389	36,754	82,099	32,658	22,125
Average per farm ..... dollars	65,981	81,699	169,373	97,971	78,130	85,095
Net cash farm income of the operations ..... farms	1,604	323	217	838	418	260
$1,000	-1,812	1,630	4,210	9,746	342	5,421
Average per farm ..... dollars	-1,129	5,045	19,402	11,630	817	20,848
Livestock and poultry:						
Cattle and calves inventory ..... farms	251	34	3	68	45	17
number	4,007	811	(D)	482	602	831
Beef cows ..... farms	187	28	2	49	39	15
number	1,655	212	(D)	320	439	302
Milk cows ..... farms	15	3	-	5	5	4
number	369	410	-	17	29	171
Cattle and calves sold ..... farms	178	29	3	49	40	15
number	1,657	427	(D)	234	222	352
Hogs and pigs inventory ..... farms	57	5	5	13	17	4
number	761	(D)	(D)	51	165	314
Hogs and pigs sold ..... farms	59	9	3	6	15	8
number	824	(D)	(D)	39	123	292
Sheep and lambs inventory ..... farms	247	41	15	94	71	24
number	3,177	1,581	294	1,280	1,578	357
Layers inventory (see text) ..... farms	359	66	37	182	89	60
number	11,202	1,850	1,634	71,258	4,027	1,465
Broilers and other meat-type chickens sold ..... farms	19	4	2	4	4	1
number	2,366	174	(D)	47	(D)	(D)
Selected crops harvested:						
Corn for grain ..... farms	89	24	16	28	15	15
acres	9,042	2,095	2,726	1,733	669	78
bushels	1,454,805	295,906	406,589	275,348	81,051	(D)
Corn for silage or greenchop ..... farms	18	2	1	1	4	7
acres	1,150	(D)	(D)	(D)	6	216
tons	29,296	(D)	(D)	(D)	106	2,381
Wheat for grain, all ..... farms	39	5	4	6	1	4
acres	2,203	171	90	433	(D)	150
bushels	134,204	(D)	(D)	22,957	(D)	(D)
Winter wheat for grain ..... farms	39	5	4	6	1	4
acres	2,203	171	90	433	(D)	150
bushels	134,204	(D)	(D)	22,957	(D)	(D)
Oats for grain ..... farms	13	1	-	-	2	-
acres	613	(D)	-	-	(D)	-
bushels	37,356	(D)	-	-	(D)	-
Barley for grain ..... farms	2	-	1	1	-	-
acres	(D)	-	(D)	(D)	-	-
bushels	(D)	-	(D)	(D)	-	-
Sorghum for grain ..... farms	1	-	-	-	1	-
acres	(D)	-	-	-	(D)	-
bushels	(D)	-	-	-	(D)	-
Sorghum for silage or greenchop ..... farms	3	-	-	1	-	2
acres	83	-	-	(D)	-	(D)
tons	1,104	-	-	(D)	-	(D)

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Table 1. **County Summary Highlights: 2017** (continued)

[For meaning of abbreviations and symbols, see introductory text.]

Item	Passaic	Salem	Somerset	Sussex	Union	Warren
Farms ..... number	89	781	452	1,008	9	918
Land in farms ..... acres	1,893	98,239	35,862	59,766	75	73,874
Average size of farm ..... acres	21	126	79	59	8	80
Median size of farm ..... acres	12	25	20	18	7	18
Estimated market value of land and buildings:						
Average per farm ..... dollars	679,638	1,059,096	1,569,021	683,936	1,303,684	980,498
Average per acre ..... dollars	31,953	8,420	19,776	11,535	156,442	12,184
Estimated market value of all machinery and equipment $1,000	4,252	108,971	29,505	48,311	1,070	70,482
Average per farm ..... dollars	47,779	139,528	65,277	47,928	118,929	76,777
Farms by size:						
1 to 9 acres	44	177	122	287	6	265
10 to 49 acres	35	349	225	475	3	384
50 to 179 acres	9	131	69	181	-	183
180 to 499 acres	1	64	21	42	-	58
500 to 999 acres	-	36	6	16	-	16
1,000 acres or more	-	24	9	7	-	12
Total cropland ..... farms	51	659	363	763	5	669
acres	308	80,905	19,869	25,671	(D)	46,772
Harvested cropland ..... farms	50	611	321	696	5	613
acres	270	74,941	(D)	20,441	(D)	42,758
Irrigated land ..... farms	18	133	88	66	3	87
acres	101	17,142	876	407	9	1,447
Market value of agricultural products sold (see text) $1,000	2,863	102,342	20,118	18,226	(D)	93,217
Average per farm ..... dollars	32,168	131,040	44,508	18,081	(D)	101,543
Crops, including nursery and greenhouse crops $1,000	2,720	90,351	14,382	10,831	(D)	67,078
Livestock, poultry, and their products $1,000	143	11,991	5,736	7,395	(D)	26,138
Farms by value of sales:						
Less than $2,500	51	327	203	524	3	458
$2,500 to $4,999	9	89	57	164	-	97
$5,000 to $9,999	12	63	43	120	3	81
$10,000 to $24,999	5	68	47	82	1	101
$25,000 to $49,999	6	68	32	53	-	50
$50,000 to $99,999	2	48	26	30	1	45
$100,000 or more	4	118	44	35	1	86
Government payments (see text) ..... farms	3	151	33	39	-	97
$1,000	8	1,869	148	310	-	952
Total income from farm-related sources ..... farms	49	323	185	415	1	404
$1,000	(D)	3,095	6,002	5,006	(D)	4,609
Total farm production expenses $1,000	3,792	89,835	31,597	24,534	1,380	77,551
Average per farm ..... dollars	42,610	115,026	69,905	24,339	153,327	84,478
Net cash farm income of the operations ..... farms	89	781	452	1,008	9	918
$1,000	-712	17,471	-5,329	-992	(D)	21,227
Average per farm ..... dollars	-8,001	22,371	-11,790	-984	(D)	23,123
Livestock and poultry:						
Cattle and calves inventory ..... farms	1	142	63	212	3	182
number	(D)	5,801	1,620	3,952	(D)	4,012
Beef cows ..... farms	1	105	43	161	2	139
number	(D)	1,560	(D)	1,255	(D)	1,450
Milk cows ..... farms	-	14	4	18	-	22
number	-	1,597	(D)	1,128	-	896
Cattle and calves sold ..... farms	2	124	44	157	3	141
number	(D)	2,308	761	1,402	18	1,620
Hogs and pigs inventory ..... farms	7	45	22	51	-	46
number	42	428	919	535	-	502
Hogs and pigs sold ..... farms	1	32	17	66	-	37
number	(D)	300	1,673	1,068	-	815
Sheep and lambs inventory ..... farms	12	52	67	89	1	131
number	107	1,308	1,263	1,636	(D)	1,691
Layers inventory (see text) ..... farms	37	113	95	271	-	217
number	2,953	(D)	10,296	10,863	-	(D)
Broilers and other meat-type chickens sold ..... farms	1	5	9	22	-	10
number	(D)	(D)	(D)	10,088	-	842
Selected crops harvested:						
Corn for grain ..... farms	-	143	19	39	-	110
acres	-	18,099	1,112	2,697	-	17,701
bushels	-	3,123,332	153,720	369,091	-	2,757,604
Corn for silage or greenchop ..... farms	-	19	8	22	-	30
acres	-	946	155	1,193	-	730
tons	-	18,969	2,585	22,099	-	15,785
Wheat for grain, all ..... farms	-	59	12	5	-	21
acres	-	4,986	1,154	75	-	661
bushels	-	346,903	75,812	3,760	-	41,082
Winter wheat for grain ..... farms	-	59	12	5	-	21
acres	-	4,986	1,154	75	-	661
bushels	-	346,903	75,812	3,760	-	41,082
Oats for grain ..... farms	-	-	3	3	-	13
acres	-	-	30	99	-	274
bushels	-	-	2,000	5,514	-	13,377
Barley for grain ..... farms	-	5	-	1	-	1
acres	-	427	-	(D)	-	(D)
bushels	-	26,261	-	(D)	-	(D)
Sorghum for grain ..... farms	-	-	-	-	-	3
acres	-	-	-	-	-	89
bushels	-	-	-	-	-	(D)
Sorghum for silage or greenchop ..... farms	-	1	-	-	-	1
acres	-	(D)	-	-	-	(D)
tons	-	(D)	-	-	-	(D)

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Table 1. **County Summary Highlights: 2017** (continued)

[For meaning of abbreviations and symbols, see introductory text.]

Item	New Jersey	Atlantic	Bergen	Burlington	Camden
Selected crops harvested: - Con.					
Soybeans for beans ....farms	762	8	6	124	2
acres	104,411	256	36	18,822	(D)
bushels	4,503,325	13,179	1,800	732,562	(D)
Dry edible beans, excluding chickpeas and limas (see text) ....farms	1	-	-	-	-
acres	(D)	-	-	-	-
cwt	(D)	-	-	-	-
Forage - land used for all hay and haylage, grass silage, and greenchop (see text) ....farms	3,415	70	4	206	48
acres	104,414	1,324	(D)	4,910	740
tons, dry equivalent	263,069	4,210	45	11,398	1,667
Sunflower seed, all ....farms	9	1	-	1	-
acres	56	(D)	-	(D)	-
pounds	66,516	(D)	-	(D)	-
Vegetables harvested for sale (see text) ....farms	1,377	95	14	119	35
acres	47,798	5,242	44	3,845	1,564
Potatoes ....farms	173	6	1	9	3
acres	1,977	(D)	(D)	(D)	1
Sweet potatoes ....farms	103	17	2	5	4
acres	1,101	504	(D)	25	336
Land in orchards (see text) ....farms	752	38	4	31	16
acres	8,825	214	(D)	213	227

Item	Cape May	Cumberland	Essex	Gloucester	Hudson
Selected crops harvested: - Con.					
Soybeans for beans ....farms	8	90	-	69	-
acres	290	10,808	-	9,861	-
bushels	14,618	484,301	-	414,321	-
Dry edible beans, excluding chickpeas and limas (see text) ....farms	-	-	-	-	-
acres	-	-	-	-	-
cwt	-	-	-	-	-
Forage - land used for all hay and haylage, grass silage, and greenchop (see text) ....farms	44	173	3	175	2
acres	884	3,475	36	4,442	(D)
tons, dry equivalent	2,260	8,433	48	9,930	(D)
Sunflower seed, all ....farms	-	-	-	1	-
acres	-	-	-	(D)	-
pounds	-	-	-	(D)	-
Vegetables harvested for sale (see text) ....farms	31	89	1	105	-
acres	238	8,928	(D)	6,450	-
Potatoes ....farms	1	6	1	7	-
acres	(D)	(D)	(D)	4	-
Sweet potatoes ....farms	1	2	1	12	-
acres	(D)	(D)	(D)	42	-
Land in orchards (see text) ....farms	23	31	1	60	-
acres	147	2,184	(D)	1,562	-

Item	Hunterdon	Mercer	Middlesex	Monmouth	Morris	Ocean
Selected crops harvested: - Con.						
Soybeans for beans ....farms	69	26	26	28	4	4
acres	7,987	5,501	3,254	6,508	239	(D)
bushels	356,376	208,841	137,907	269,615	10,414	(D)
Dry edible beans, excluding chickpeas and limas (see text) ....farms	-	-	-	1	-	-
acres	-	-	-	(D)	-	-
cwt	-	-	-	(D)	-	-
Forage - land used for all hay and haylage, grass silage, and greenchop (see text) ....farms	796	79	33	181	142	47
acres	32,162	2,253	694	3,640	3,001	718
tons, dry equivalent	79,276	5,023	1,144	8,404	6,865	1,931
Sunflower seed, all ....farms	1	-	1	-	-	-
acres	(D)	-	(D)	-	-	-
pounds	(D)	-	(D)	-	-	-
Vegetables harvested for sale (see text) ....farms	128	55	68	125	88	23
acres	950	798	1,206	1,426	1,082	893
Potatoes ....farms	25	9	9	15	16	3
acres	29	8	8	9	21	8
Sweet potatoes ....farms	8	6	6	10	2	5
acres	5	5	3	16	(D)	1
Land in orchards (see text) ....farms	121	31	24	60	44	16
acres	532	536	79	536	241	73

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Table 1. **County Summary Highlights: 2017** (continued)

[For meaning of abbreviations and symbols, see introductory text.]

Item		Passaic	Salem	Somerset	Sussex	Union	Warren
Selected crops harvested: - Con.							
Soybeans for beans	farms	-	205	20	10	-	63
	acres	-	28,844	2,310	666	-	8,285
	bushels	-	1,311,395	96,639	24,742	-	396,763
Dry edible beans, excluding chickpeas and limas (see text)	farms	-	-	-	-	-	-
	acres	-	-	-	-	-	-
	cwt	-	-	-	-	-	-
Forage - land used for all hay and haylage, grass silage, and greenchop (see text)	farms	2	356	175	507	-	372
	acres	(D)	10,818	9,775	13,944	-	11,501
	tons, dry equivalent	(D)	33,199	23,586	37,140	-	28,380
Sunflower seed, all	farms	-	-	1	2	-	1
	acres	-	-	(D)	(D)	-	(D)
	pounds	-	-	(D)	(D)	-	(D)
Vegetables harvested for sale (see text)	farms	20	114	70	101	2	94
	acres	100	12,379	404	564	(D)	1,671
Potatoes	farms	4	9	5	24	-	20
	acres	1	1,277	4	11	-	15
Sweet potatoes	farms	2	5	4	5	-	6
	acres	(D)	153	2	2	-	2
Land in orchards (see text)	farms	9	23	48	99	-	73
	acres	14	1,281	73	395	-	468

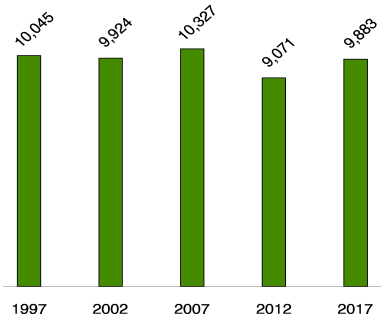
2017 CENSUS OF AGRICULTURE *State Profile*

New Jersey

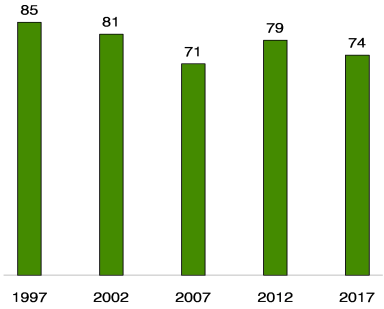
Total and Per Farm Overview, 2017 and change since 2012

	2017	% change since 2012
Number of farms	9,883	+9
Land in farms (acres)	734,084	+3
Average size of farm (acres)	74	-6
Total	($)	
Market value of products sold	1,097,950,000	+9
Government payments	7,503,000	-1
Farm-related income	84,551,000	+11
Total farm production expenses	1,017,386,000	+11
Net cash farm income	172,619,000	-3
Per farm average	($)	
Market value of products sold	111,095	(Z)
Government payments (average per farm receiving)	10,071	+37
Farm-related income	21,341	-1
Total farm production expenses	102,943	+2
Net cash farm income	17,466	-11

Number of Farms, 1997-2017



Average Farm Size, 1997-2017 (acres)



Farms by Value of Sales

	Number	Percent of Total [a]
Less than $2,500	4,472	45
$2,500 to $4,999	1,111	11
$5,000 to $9,999	1,000	10
$10,000 to $24,999	1,014	10
$25,000 to $49,999	629	6
$50,000 to $99,999	537	5
$100,000 or more	1,120	11

Farms by Size

	Number	Percent of Total [a]
1 to 9 acres	2,965	30
10 to 49 acres	4,467	45
50 to 179 acres	1,604	16
180 to 499 acres	545	6
500 to 999 acres	189	2
1,000 + acres	113	1

USDA AGRICULTURE COUNTS

United States Department of Agriculture
National Agricultural Statistics Service

www.nass.usda.gov/AgCensus

2017 CENSUS OF AGRICULTURE *State Profile*

Market Value of Agricultural Products Sold

	Sales ($1,000)	Rank in U.S. [b]	States Producing Item
Total	**1,097,950**	**40**	**50**
Crops	**984,530**	**35**	**50**
Grains, oilseeds, dry beans, dry peas	92,222	39	50
Tobacco	-	-	18
Cotton and cottonseed	-	-	17
Vegetables, melons, potatoes, sweet potatoes	222,465	16	50
Fruits, tree nuts, berries	141,323	14	50
Nursery, greenhouse, floriculture, sod	498,125	8	50
Cultivated Christmas trees, short rotation woody crops	2,797	18	50
Other crops and hay	27,598	43	50
Livestock, poultry, and products	**113,421**	**46**	**50**
Poultry and eggs	31,216	37	50
Cattle and calves	10,603	46	50
Milk from cows	23,962	42	50
Hogs and pigs	2,154	39	50
Sheep, goats, wool, mohair, milk	2,178	43	50
Horses, ponies, mules, burros, donkeys	27,906	12	50
Aquaculture	8,876	28	50
Other animals and animal products	6,525	36	50

(Z) Percent of U.S. agriculture sales

Share of Sales by Type (%)

Crops	90
Livestock, poultry, and products	10

Land in Farms by Use (acres)

Cropland	463,019
Pastureland	63,995
Woodland	145,302
Other	61,768

Top Counties: Land in Farms (acres)

Hunterdon	101,290
Salem	98,239
Burlington	96,256
Warren	73,874
Cumberland	66,256

Total Producers [c] 16,556

Sex	
Male	9,852
Female	6,704
Age	
<35	1,017
35 – 64	9,880
65 and older	5,659
Race	
American Indian/Alaska Native	22
Asian	248
Black or African American	76
Native Hawaiian/Pacific Islander	4
White	16,113
More than one race	93
Other characteristics	
Hispanic, Latino, Spanish origin	465
With military service	1,411
New and beginning farmers	4,002

Percent of farms that:

Have internet access	81
Farm organically	1
Sell directly to consumers	18
Hire farm labor	26
Are family farms	96

Top Crops in Acres [d]

Forage (hay/haylage), all	104,414
Soybeans for beans	104,411
Corn for grain	74,795
Vegetables harvested, all	47,798
Nursery stock crops	20,422

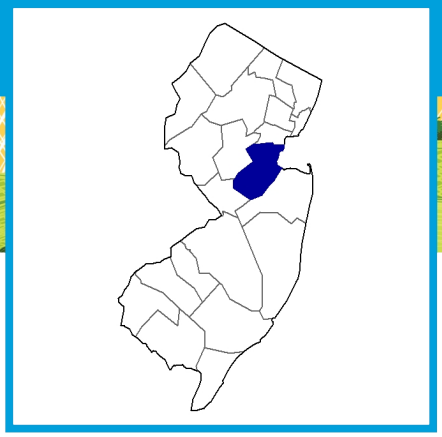
Livestock Inventory (Dec 31, 2017)

Broilers and other meat-type chickens	25,331
Cattle and calves	27,789
Goats	10,843
Hogs and pigs	9,017
Horses and ponies	23,374
Layers	1,631,775
Pullets	(D)
Sheep and lambs	17,791
Turkeys	15,985

See 2017 Census of Agriculture, U.S. Summary and State Data, for complete footnotes, explanations, definitions, commodity descriptions, and methodology.

[a] May not add to 100% due to rounding. [b] Among states whose rank can be displayed. [c] Data collected for a maximum of four producers per farm. [d] Crop commodity names may be shortened; see full names at www.nass.usda.gov/go/cropnames.pdf. [e] Position below the line does not indicate rank. (D) Withheld to avoid disclosing data for individual operations. (NA) Not available. (Z) Less than half of the unit shown. (-) Represents zero.

2017 CENSUS OF AGRICULTURE *County Profile*



Middlesex County
New Jersey

Total and Per Farm Overview, 2017 and change since 2012

	2017	% change since 2012
Number of farms	217	+10
Land in farms (acres)	16,023	-7
Average size of farm (acres)	74	-15
Total	($)	
Market value of products sold	38,359,000	+31
Government payments	92,000	-29
Farm-related income	2,513,000	+11
Total farm production expenses	36,754,000	+33
Net cash farm income	4,210,000	+7
Per farm average	($)	
Market value of products sold	176,772	+20
Government payments (average per farm receiving)	5,418	+25
Farm-related income	29,216	-6
Total farm production expenses	169,373	+21
Net cash farm income	19,402	-3

3 Percent of state agriculture sales

Share of Sales by Type (%)

Crops	98
Livestock, poultry, and products	2

Land in Farms by Use (%) [a]

Cropland	70
Pastureland	3
Woodland	19
Other	8

Acres irrigated: 2,001
12% of land in farms

Land Use Practices (% of farms)

No till	14
Reduced till	11
Intensive till	27
Cover crop	12

Farms by Value of Sales

	Number	Percent of Total [a]
Less than $2,500	93	43
$2,500 to $4,999	18	8
$5,000 to $9,999	18	8
$10,000 to $24,999	29	13
$25,000 to $49,999	11	5
$50,000 to $99,999	8	4
$100,000 or more	40	18

Farms by Size

	Number	Percent of Total [a]
1 to 9 acres	101	47
10 to 49 acres	77	35
50 to 179 acres	21	10
180 to 499 acres	7	3
500 to 999 acres	9	4
1,000 + acres	2	1

USDA AGRICULTURE COUNTS
United States Department of Agriculture
National Agricultural Statistics Service
www.nass.usda.gov/AgCensus

2017 CENSUS OF AGRICULTURE *County Profile*

Market Value of Agricultural Products Sold

	Sales ($1,000)	Rank in State [b]	Counties Producing Item	Rank in U.S. [b]	Counties Producing Item
Total	**38,359**	**9**	**21**	**1,987**	**3,077**
Crops	**37,593**	**9**	**21**	**1,286**	**3,073**
Grains, oilseeds, dry beans, dry peas	2,872	9	17	1,822	2,916
Tobacco	-	-	-	-	323
Cotton and cottonseed	-	-	-	-	647
Vegetables, melons, potatoes, sweet potatoes	6,755	7	20	272	2,821
Fruits, tree nuts, berries	505	15	20	652	2,748
Nursery, greenhouse, floriculture, sod	27,124	7	20	110	2,601
Cultivated Christmas trees, short rotation woody crops	153	6	18	203	1,384
Other crops and hay	183	16	19	2,612	3,040
Livestock, poultry, and products	**766**	**15**	**21**	**2,866**	**3,073**
Poultry and eggs	34	15	20	1,388	3,007
Cattle and calves	(D)	13	20	(D)	3,055
Milk from cows	-	-	11	-	1,892
Hogs and pigs	(D)	4	17	(D)	2,856
Sheep, goats, wool, mohair, milk	69	11	19	1,527	2,984
Horses, ponies, mules, burros, donkeys	(D)	18	19	(D)	2,970
Aquaculture	(D)	7	16	(D)	1,251
Other animals and animal products	152	10	19	613	2,878

Total Producers [c] 360

Sex
Male 248
Female 112

Age
<35 33
35 – 64 216
65 and older 111

Race
American Indian/Alaska Native -
Asian 12
Black or African American 3
Native Hawaiian/Pacific Islander -
White 342
More than one race 3

Other characteristics
Hispanic, Latino, Spanish origin 19
With military service 26
New and beginning farmers 101

Percent of farms that:

Have internet access **78**

Farm organically **1**

Sell directly to consumers **24**

Hire farm labor **32**

Are family farms **92**

Top Crops in Acres [d]

Soybeans for beans	3,254
Corn for grain	2,726
Vegetables harvested, all	1,206
Nursery stock crops	910
Forage (hay/haylage), all	694

Livestock Inventory (Dec 31, 2017)

Broilers and other meat-type chickens	86
Cattle and calves	(D)
Goats	368
Hogs and pigs	(D)
Horses and ponies	543
Layers	1,634
Pullets	364
Sheep and lambs	294
Turkeys	406

See 2017 Census of Agriculture, U.S. Summary and State Data, for complete footnotes, explanations, definitions, commodity descriptions, and methodology.
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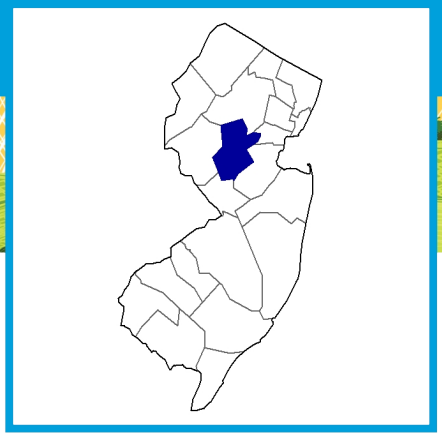
2017 CENSUS OF AGRICULTURE *County Profile*



Somerset County
New Jersey

Total and Per Farm Overview, 2017 and change since 2012

	2017	% change since 2012
Number of farms	452	+13
Land in farms (acres)	35,862	+3
Average size of farm (acres)	79	-9
Total	($)	
Market value of products sold	20,118,000	-13
Government payments	148,000	+15
Farm-related income	6,002,000	+95
Total farm production expenses	31,597,000	+11
Net cash farm income	-5,329,000	-171
Per farm average	($)	
Market value of products sold	44,508	-23
Government payments (average per farm receiving)	4,488	-2
Farm-related income	32,442	+64
Total farm production expenses	69,905	-1
Net cash farm income	-11,790	-140

2 Percent of state agriculture sales

Share of Sales by Type (%)

Crops	71
Livestock, poultry, and products	29

Land in Farms by Use (%) [a]

Cropland	55
Pastureland	17
Woodland	20
Other	8

Acres irrigated: 876
2% of land in farms

Land Use Practices (% of farms)

No till	12
Reduced till	5
Intensive till	13
Cover crop	11

Farms by Value of Sales

	Number	Percent of Total [a]
Less than $2,500	203	45
$2,500 to $4,999	57	13
$5,000 to $9,999	43	10
$10,000 to $24,999	47	10
$25,000 to $49,999	32	7
$50,000 to $99,999	26	6
$100,000 or more	44	10

Farms by Size

	Number	Percent of Total [a]
1 to 9 acres	122	27
10 to 49 acres	225	50
50 to 179 acres	69	15
180 to 499 acres	21	5
500 to 999 acres	6	1
1,000 + acres	9	2

USDA AGRICULTURE COUNTS
United States Department of Agriculture
National Agricultural Statistics Service
www.nass.usda.gov/AgCensus

2017 CENSUS OF AGRICULTURE *County Profile*

Market Value of Agricultural Products Sold

	Sales ($1,000)	Rank in State [b]	Counties Producing Item	Rank in U.S. [b]	Counties Producing Item
Total	**20,118**	**14**	**21**	**2,370**	**3,077**
Crops	**14,382**	**14**	**21**	**1,852**	**3,073**
Grains, oilseeds, dry beans, dry peas	1,794	11	17	1,963	2,916
Tobacco	-	-	-	-	323
Cotton and cottonseed	-	-	-	-	647
Vegetables, melons, potatoes, sweet potatoes	2,403	14	20	515	2,821
Fruits, tree nuts, berries	211	17	20	993	2,748
Nursery, greenhouse, floriculture, sod	7,196	14	20	310	2,601
Cultivated Christmas trees, short rotation woody crops	114	11	18	247	1,384
Other crops and hay	2,664	4	19	946	3,040
Livestock, poultry, and products	**5,736**	**8**	**21**	**2,382**	**3,073**
Poultry and eggs	1,251	4	20	724	3,007
Cattle and calves	987	5	20	2,393	3,055
Milk from cows	(D)	10	11	(D)	1,892
Hogs and pigs	274	3	17	701	2,856
Sheep, goats, wool, mohair, milk	(D)	9	19	(D)	2,984
Horses, ponies, mules, burros, donkeys	2,480	4	19	59	2,970
Aquaculture	(Z)	16	16	365	1,251
Other animals and animal products	375	7	19	359	2,878

Total Producers [c] 747

Sex

Male	432
Female	315

Age

<35	37
35 – 64	458
65 and older	252

Race

American Indian/Alaska Native	1
Asian	21
Black or African American	1
Native Hawaiian/Pacific Islander	-
White	722
More than one race	2

Other characteristics

Hispanic, Latino, Spanish origin	33
With military service	67
New and beginning farmers	205

Percent of farms that:

Have internet access **81**

Farm organically **2**

Sell directly to consumers **21**

Hire farm labor **37**

Are family farms **96**

Top Crops in Acres [d]

Forage (hay/haylage), all	9,775
Soybeans for beans	2,310
Wheat for grain, all	1,154
Corn for grain	1,112
Sod harvested	450

Livestock Inventory (Dec 31, 2017)

Broilers and other meat-type chickens	(D)
Cattle and calves	1,620
Goats	226
Hogs and pigs	919
Horses and ponies	1,055
Layers	10,296
Pullets	543
Sheep and lambs	1,263
Turkeys	473

See 2017 Census of Agriculture, U.S. Summary and State Data, for complete footnotes, explanations, definitions, commodity descriptions, and methodology.

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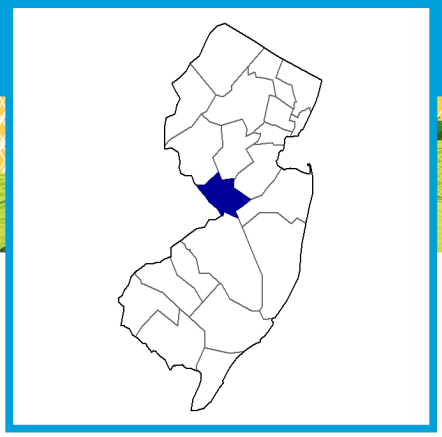
2017 CENSUS OF AGRICULTURE *County Profile*



Mercer County
New Jersey

Total and Per Farm Overview, 2017 and change since 2012

	2017	% change since 2012
Number of farms	323	+19
Land in farms (acres)	25,230	+28
Average size of farm (acres)	78	+8
Total	($)	
Market value of products sold	24,981,000	+27
Government payments	149,000	-52
Farm-related income	2,888,000	+41
Total farm production expenses	26,389,000	+44
Net cash farm income	1,630,000	-56
Per farm average	($)	
Market value of products sold	77,341	+7
Government payments (average per farm receiving)	5,725	-28
Farm-related income	23,482	+17
Total farm production expenses	81,699	+21
Net cash farm income	5,045	-63

2 Percent of state agriculture sales

Share of Sales by Type (%)

Crops	80
Livestock, poultry, and products	20

Land in Farms by Use (%) [a]

Cropland	63
Pastureland	10
Woodland	20
Other	7

Acres irrigated: 1,008
4% of land in farms

Land Use Practices (% of farms)

No till	12
Reduced till	8
Intensive till	17
Cover crop	13

Farms by Value of Sales

	Number	Percent of Total [a]
Less than $2,500	149	46
$2,500 to $4,999	20	6
$5,000 to $9,999	35	11
$10,000 to $24,999	27	8
$25,000 to $49,999	31	10
$50,000 to $99,999	21	7
$100,000 or more	40	12

Farms by Size

	Number	Percent of Total [a]
1 to 9 acres	91	28
10 to 49 acres	142	44
50 to 179 acres	51	16
180 to 499 acres	26	8
500 to 999 acres	11	3
1,000 + acres	2	1

USDA AGRICULTURE COUNTS
United States Department of Agriculture
National Agricultural Statistics Service
www.nass.usda.gov/AgCensus

2017 CENSUS OF AGRICULTURE *County Profile*

Market Value of Agricultural Products Sold

	Sales ($1,000)	Rank in State [b]	Counties Producing Item	Rank in U.S. [b]	Counties Producing Item
Total	**24,981**	**10**	**21**	**2,253**	**3,077**
Crops	**20,015**	**12**	**21**	**1,646**	**3,073**
Grains, oilseeds, dry beans, dry peas	3,171	8	17	1,792	2,916
Tobacco	-	-	-	-	323
Cotton and cottonseed	-	-	-	-	647
Vegetables, melons, potatoes, sweet potatoes	4,188	12	20	381	2,821
Fruits, tree nuts, berries	1,238	12	20	422	2,748
Nursery, greenhouse, floriculture, sod	10,905	12	20	231	2,601
Cultivated Christmas trees, short rotation woody crops	61	14	18	350	1,384
Other crops and hay	452	12	19	2,368	3,040
Livestock, poultry, and products	**4,967**	**10**	**21**	**2,442**	**3,073**
Poultry and eggs	(D)	5	20	(D)	3,007
Cattle and calves	321	10	20	2,597	3,055
Milk from cows	1,672	5	11	849	1,892
Hogs and pigs	(D)	1	17	652	2,856
Sheep, goats, wool, mohair, milk	156	6	19	961	2,984
Horses, ponies, mules, burros, donkeys	322	10	19	671	2,970
Aquaculture	(D)	14	16	(D)	1,251
Other animals and animal products	(D)	2	19	(D)	2,878

Total Producers [c] 538

Sex
Male	335
Female	203

Age
<35	15
35 – 64	335
65 and older	188

Race
American Indian/Alaska Native	-
Asian	16
Black or African American	6
Native Hawaiian/Pacific Islander	-
White	515
More than one race	1

Other characteristics
Hispanic, Latino, Spanish origin	25
With military service	9
New and beginning farmers	125

Percent of farms that:

Have internet access **73**

Farm organically **4**

Sell directly to consumers **17**

Hire farm labor **31**

Are family farms **94**

Top Crops in Acres [d]

Soybeans for beans	5,501
Forage (hay/haylage), all	2,253
Corn for grain	2,095
Vegetables harvested, all	798
Nursery stock crops	590

Livestock Inventory (Dec 31, 2017)

Broilers and other meat-type chickens	(D)
Cattle and calves	811
Goats	245
Hogs and pigs	(D)
Horses and ponies	621
Layers	1,850
Pullets	455
Sheep and lambs	1,581
Turkeys	(D)

See 2017 Census of Agriculture, U.S. Summary and State Data, for complete footnotes, explanations, definitions, commodity descriptions, and methodology.
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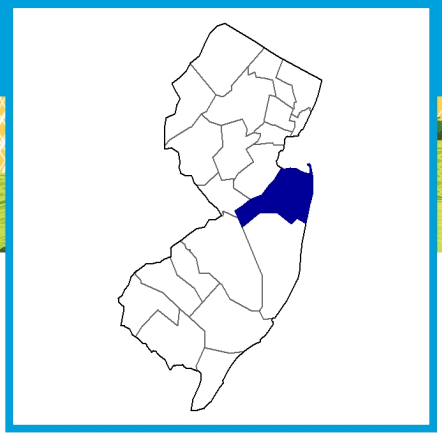
2017 CENSUS OF AGRICULTURE *County Profile*



Monmouth County
New Jersey

Total and Per Farm Overview, 2017 and change since 2012

	2017	% change since 2012
Number of farms	838	+2
Land in farms (acres)	39,198	+1
Average size of farm (acres)	47	-1
Total	($)	
Market value of products sold	80,633,000	-4
Government payments	366,000	+116
Farm-related income	10,846,000	-31
Total farm production expenses	82,099,000	-10
Net cash farm income	9,746,000	+7
Per farm average	($)	
Market value of products sold	96,221	-6
Government payments (average per farm receiving)	13,055	+294
Farm-related income	30,814	-36
Total farm production expenses	97,971	-12
Net cash farm income	11,630	+5

7 Percent of state agriculture sales

Share of Sales by Type (%)

Crops	84
Livestock, poultry, and products	16

Land in Farms by Use (%) [a]

Cropland	61
Pastureland	14
Woodland	17
Other	8

Acres irrigated: 3,550
9% of land in farms

Land Use Practices (% of farms)

No till	9
Reduced till	3
Intensive till	13
Cover crop	13

Farms by Value of Sales

	Number	Percent of Total [a]
Less than $2,500	361	43
$2,500 to $4,999	94	11
$5,000 to $9,999	78	9
$10,000 to $24,999	84	10
$25,000 to $49,999	64	8
$50,000 to $99,999	69	8
$100,000 or more	88	11

Farms by Size

	Number	Percent of Total [a]
1 to 9 acres	318	38
10 to 49 acres	397	47
50 to 179 acres	79	9
180 to 499 acres	26	3
500 to 999 acres	12	1
1,000 + acres	6	1

USDA AGRICULTURE COUNTS
United States Department of Agriculture
National Agricultural Statistics Service
www.nass.usda.gov/AgCensus

2017 CENSUS OF AGRICULTURE *County Profile*

Market Value of Agricultural Products Sold

	Sales ($1,000)	Rank in State [b]	Counties Producing Item	Rank in U.S. [b]	Counties Producing Item
Total	**80,633**	**8**	**21**	**1,353**	**3,077**
Crops	**67,389**	**7**	**21**	**876**	**3,073**
Grains, oilseeds, dry beans, dry peas	3,813	7	17	1,733	2,916
Tobacco	-	-	-	-	323
Cotton and cottonseed	-	-	-	-	647
Vegetables, melons, potatoes, sweet potatoes	5,475	10	20	318	2,821
Fruits, tree nuts, berries	3,363	8	20	249	2,748
Nursery, greenhouse, floriculture, sod	53,267	2	20	52	2,601
Cultivated Christmas trees, short rotation woody crops	230	5	18	164	1,384
Other crops and hay	1,241	7	19	1,675	3,040
Livestock, poultry, and products	**13,244**	**3**	**21**	**1,942**	**3,073**
Poultry and eggs	(D)	3	20	(D)	3,007
Cattle and calves	167	12	20	2,654	3,055
Milk from cows	-	-	11	-	1,892
Hogs and pigs	5	14	17	1,690	2,856
Sheep, goats, wool, mohair, milk	149	7	19	996	2,984
Horses, ponies, mules, burros, donkeys	8,604	1	19	13	2,970
Aquaculture	(D)	8	16	(D)	1,251
Other animals and animal products	1,319	1	19	138	2,878

Total Producers [c] 1,428

Sex	
Male	851
Female	577
Age	
<35	58
35 – 64	803
65 and older	567
Race	
American Indian/Alaska Native	1
Asian	29
Black or African American	4
Native Hawaiian/Pacific Islander	-
White	1,392
More than one race	2
Other characteristics	
Hispanic, Latino, Spanish origin	39
With military service	123
New and beginning farmers	351

Percent of farms that:

Have internet access	**81**
Farm organically	**(Z)**
Sell directly to consumers	**15**
Hire farm labor	**32**
Are family farms	**95**

Top Crops in Acres [d]

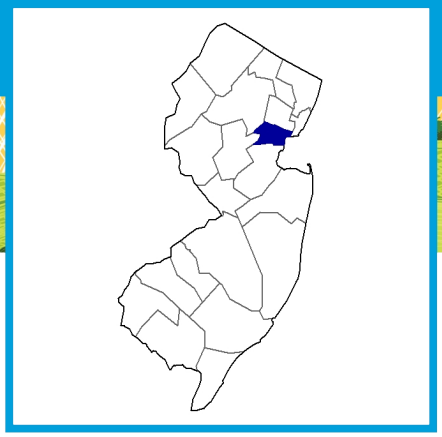
Soybeans for beans	6,508
Forage (hay/haylage), all	3,640
Nursery stock crops	2,824
Sod harvested	1,934
Corn for grain	1,733

Livestock Inventory (Dec 31, 2017)

Broilers and other meat-type chickens	111
Cattle and calves	482
Goats	1,421
Hogs and pigs	51
Horses and ponies	3,818
Layers	71,258
Pullets	(D)
Sheep and lambs	1,280
Turkeys	72

See 2017 Census of Agriculture, U.S. Summary and State Data, for complete footnotes, explanations, definitions, commodity descriptions, and methodology.
[a] May not add to 100% due to rounding. [b] Among counties whose rank can be displayed. [c] Data collected for a maximum of four producers per farm.
[d] Crop commodity names may be shortened; see full names at www.nass.usda.gov/go/cropnames.pdf. [e] Position below the line does not indicate rank.
(D) Withheld to avoid disclosing data for individual operations. (NA) Not available. (Z) Less than half of the unit shown. (-) Represents zero.

2017 CENSUS OF AGRICULTURE *County Profile*



Union County
New Jersey

Total and Per Farm Overview, 2017 and change since 2012

	2017	% change since 2012
Number of farms	9	+13
Land in farms (acres)	75	-22
Average size of farm (acres)	8	-31
Total	($)	
Market value of products sold	(D)	(D)
Government payments	-	(NA)
Farm-related income	(D)	(D)
Total farm production expenses	1,380,000	-30
Net cash farm income	(D)	(D)
Per farm average	($)	
Market value of products sold	(D)	(D)
Government payments (average per farm receiving)	-	(NA)
Farm-related income	(D)	(D)
Total farm production expenses	153,327	-38
Net cash farm income	(D)	(D)

(D) Percent of state agriculture sales

Share of Sales by Type (%)

Crops	(D)
Livestock, poultry, and products	(D)

Land in Farms by Use (%) [a]

Cropland	(D)
Pastureland	(D)
Woodland	(D)
Other	(D)

Acres irrigated: 9

12% of land in farms

Land Use Practices (% of farms)

No till	-
Reduced till	-
Intensive till	33
Cover crop	11

Farms by Value of Sales

	Number	Percent of Total [a]
Less than $2,500	3	33
$2,500 to $4,999	-	-
$5,000 to $9,999	3	33
$10,000 to $24,999	1	11
$25,000 to $49,999	-	-
$50,000 to $99,999	1	11
$100,000 or more	1	11

Farms by Size

	Number	Percent of Total [a]
1 to 9 acres	6	67
10 to 49 acres	3	33
50 to 179 acres	-	-
180 to 499 acres	-	-
500 to 999 acres	-	-
1,000 + acres	-	-

USDA AGRICULTURE COUNTS
United States Department of Agriculture
National Agricultural Statistics Service
www.nass.usda.gov/AgCensus

2017 CENSUS OF AGRICULTURE *County Profile*

Market Value of Agricultural Products Sold

	Sales ($1,000)	Rank in State [b]	Counties Producing Item	Rank in U.S. [b]	Counties Producing Item
Total	**(D)**	**20**	**21**	**(D)**	**3,077**
Crops	**(D)**	**20**	**21**	**(D)**	**3,073**
Grains, oilseeds, dry beans, dry peas	-	-	17	-	2,916
Tobacco	-	-	-	-	323
Cotton and cottonseed	-	-	-	-	647
Vegetables, melons, potatoes, sweet potatoes	(D)	19	20	(D)	2,821
Fruits, tree nuts, berries	(D)	19	20	(D)	2,748
Nursery, greenhouse, floriculture, sod	(D)	20	20	(D)	2,601
Cultivated Christmas trees, short rotation woody crops	-	-	18	-	1,384
Other crops and hay	-	-	19	-	3,040
Livestock, poultry, and products	**(D)**	**20**	**21**	**(D)**	**3,073**
Poultry and eggs	-	-	20	-	3,007
Cattle and calves	(D)	14	20	2,728	3,055
Milk from cows	-	-	11	-	1,892
Hogs and pigs	-	-	17	-	2,856
Sheep, goats, wool, mohair, milk	(D)	17	19	(D)	2,984
Horses, ponies, mules, burros, donkeys	-	-	19	-	2,970
Aquaculture	-	-	16	-	1,251
Other animals and animal products	-	-	19	-	2,878

Total Producers [c] 13

Sex
Male 9
Female 4

Age
<35 -
35 – 64 7
65 and older 6

Race
American Indian/Alaska Native -
Asian -
Black or African American -
Native Hawaiian/Pacific Islander -
White 13
More than one race -

Other characteristics
Hispanic, Latino, Spanish origin 2
With military service 4
New and beginning farmers 2

Percent of farms that:

Have internet access **100**

Farm organically **-**

Sell directly to consumers **22**

Hire farm labor **44**

Are family farms **89**

Top Crops in Acres [d]

Vegetables harvested, all (D)
Cultivated Christmas trees (D)
Lettuce, all (D)
Squash, all (D)
Tomatoes in the open (D)

Livestock Inventory (Dec 31, 2017)

Broilers and other meat-type chickens -
Cattle and calves (D)
Goats -
Hogs and pigs -
Horses and ponies (D)
Layers -
Pullets -
Sheep and lambs (D)
Turkeys -

See 2017 Census of Agriculture, U.S. Summary and State Data, for complete footnotes, explanations, definitions, commodity descriptions, and methodology.
[a] May not add to 100% due to rounding. [b] Among counties whose rank can be displayed. [c] Data collected for a maximum of four producers per farm.
[d] Crop commodity names may be shortened; see full names at www.nass.usda.gov/go/cropnames.pdf. [e] Position below the line does not indicate rank.
(D) Withheld to avoid disclosing data for individual operations. (NA) Not available. (Z) Less than half of the unit shown. (-) Represents zero.

Middlesex County
Voluntary ADAs

Year Certified	Landowner/Municipality	Block, Lot/Acres	Preservation Status	Year Preserved
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	Preserved	2005
1990	Estate of Clayton/Monroe	Block 14, Lot 10.2 Block 25, Lot 19.2 72.90 acres	Partially preserved (Byrne-Schauer)	2007
1990	Owens/Monroe	Block 15, Lots 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	Partially preserved	2005
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

Year Certified	Landowner/Municipality	Block, Lot/Acres	Preservation Status	Year Preserved
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, Lots 4.07, 4.07Q8 74 acres	Preserved Open Space	2004
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	N/A
2004	Clark/East Brunswick	Block 320, Lot 19.01 20.4 acres	Not preserved	N/A

Year Certified	Landowner/Municipality	Block, Lot/Acres	Preservation Status	Year Preserved
2004	Dieker/Sayreville	Block 416, Lots 1, 2 7.86 acres Block 431, Lot 1 8.13 acres	Preserved	2008
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
2009	Sisters Schoolhouse, LLC/Monroe	Block 52, Lots 4.16 & 4.22 11.6 acres	Not preserved	N/A
2013	E.J.G. Properties at Independence Acres, LLC	Block 2, Lot 4.01 18 acres	Not preserved	N/A
2013	Fiorentino/South Brunswick	Block 6, Lots 21.071 & 21.072 7.69 Acres	Not preserved	N/A

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Revised 1/6/21

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MIDDLESEX COUNTY AGRICULTURE DEVELOPMENT BOARD

EASEMENT PURCHASE QUESTIONNAIRE – 2022

Use additional paper where necessary. **Previous questionnaire was conducted in 2021.**

SADC Identification Number: «SADC_ID_»

Farm Name or Original Owner(s): «Farm_Name_or_Original_Owner»

Current Owner(s) and contact information: (Names) «Name»
Telephone Number: «Phone_Number»
Email Address: «EMail_Address»
Please verify the **physical address** of your preserved farm: «Physical_Property_Address»

Block and Lot Numbers: «Block_Lot»

Acres: «Acres»

Farm, corporate or business name (if any): «Company»

Please complete the following checklist to confirm if there have been any changes to any categories in the questionnaire since the 2021 monitoring phase. Please remember to sign and date the last page before returning.

Change in Ownership:	☐ **No Change**	☐ **Yes – Change Occurred**
Residential Structures:	☐ **No Change**	☐ **Yes – Change Occurred**
Agricultural Labor Housing:	☐ **No Change**	☐ **Yes – Change Occurred**
Agricultural Buildings and Structures:	☐ **No Change**	☐ **Yes – Change Occurred**
Non-Agricultural Uses or Activities:	☐ **No Change**	☐ **Yes – Change Occurred**
Renewable Resource Utilities:	☐ **No Change**	☐ **Yes – Change Occurred**
Land Use:	☐ **No Change**	☐ **Yes – Change Occurred**
Cropped Areas:	☐ **No Change**	☐ **Yes – Change Occurred**
Non-Crop Land Use:	☐ **No Change**	☐ **Yes – Change Occurred**
Conservation:	☐ **No Change**	☐ **Yes – Change Occurred**
Areas of Concern:	☐ **No Change**	☐ **Yes – Change Occurred**

- **If you answered "No Change" to all categories, there is no need to complete the remainder of the questionnaire. Please sign/date the last section and return.**
- **If you answered "Yes – Change Occurred" to any category, please provide additional details below in the corresponding questionnaire categories. Please sign/date the last section and return.**

Change in Ownership:

Has ownership of the Premises changed since the last questionnaire? Yes _____ No _____

If yes, please explain & note whether new owner has been provided with Deed of Easement:_____

_____

Are there any plans to sell the Premises during the next year? Yes _____ No _____

If yes, please explain: _____

Do the above Block and Lots comprise the entirety of the originally preserved premises or result of an approved subdivision?
(If result of subdivision, please provide date of SADC approval) Original Property _____ Subdivision & date_____

Residential Structures:

Number (#) of residential structures **within Exception Area(s)**: #_____

Categorize type of residence (*i.e. single-family home; multi-family home; apartment)*: _____
_____

Identify associated facilities with residences *(i.e. swimming pool, pool house, tennis/basketball court):* _____
_____

Number (#) of residential structures on **Preserved Farm Area**: #_____

Categorize type of residence (*i.e. single-family home; multi-family home; apartment)*: _____
_____

Identify associated facilities with residences *(i.e. swimming pool, pool house, tennis/basketball court):*_____
_____

Have any residential units been expanded, built or are under construction since the last questionnaire (including construction within an **Exception Area** and/or on **Preserved Farm Area**)? Yes _____ No ____
If yes, please identify type, size (sq./ft.), location on premises and provide date of construction: _____
_____
_____

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: _____

Were any of these residential structures built utilizing a Residual Dwelling Site Opportunity (RDSO) or other easement holder approval? Yes _____ No ____
If yes, please provide SADC approval date and note any restrictions on structure: _____
_____

Are any of the above residences under a **lease or rental agreement**? Yes _____ No ____
If yes, please note type of agreement (written or verbal) and to whom it is leased: _____
_____

Agricultural Labor Housing:

Are there any agricultural labor housing located on the premises? Yes _____ Number of units_____ No _____

If yes, please identify type of residence (Single Family Residence, Multi-Family Residence, Apartment within or outside of Barn, Dormitory, Mobile); location; date of construction; date razed; footprint in square feet): _____
_____
If yes, was it built since the last questionnaire? Yes _____ No _____

Are there any plans to build any new agricultural labor housing during the next year? Yes _____ No _____
If yes, please explain: _____

Agricultural Buildings and Structures:

Please provide the **number of** agricultural buildings and agricultural structures located within **Exception Area(s):**

(#____) Barn (#____) Equipment Storage (#____) Livestock/Stable (#____) Product Storage – Silo/Corn Crib
(#____) Hoophouse (#____) Greenhouse (#____) Retail Marketing (#____) Grading/Packaging/Processing
(#____)Other /describe:_____

Are any of the above agricultural buildings/structures under a **lease or rental agreement**? Yes ____No ____
If yes, please note type of agreement (written or verbal) and to whom it is leased: _____
_____

Please provide the **number of** agricultural buildings and agricultural structures located on **Preserved Farm Area:**

(#____) Barn (#____) Equipment Storage (#____) Livestock/Stable (#____) Product Storage – Silo/Corn Crib
(#____) Hoophouse (#____) Greenhouse (#____) Retail Marketing (#____) Grading/Packaging/Processing
(#____)Other /describe:_____

Are any of the above agricultural buildings/structures under a lease or rental agreement? Yes ____No ____
If yes, please note type of agreement (written or verbal) and to whom it is leased: _____
_____

Have any new agricultural structures been built or razed since the last questionnaire (including construction within an **Exception Area**)? Yes _____ No____

If yes, please identify type, size (sq./ft.) and location on premises and provide date of construction/deconstruction:
_____

Are there any plans to build any new agricultural buildings during the next year? Yes _____No _____

If yes, please identify: _____

Non-Agricultural Uses or Activities:

Describe the type(s), extent and frequency of use of **pre-existing** non-agricultural uses or activities on the Premises (e.g. excavation, veterinary practice, landscaping, trucking and/or other activities that do not involve the production of agricultural or horticultural products).____

_____

Since the last questionnaire, identify abandonment of use, change in use, new/expansion in use and structures used for any listed non-agricultural uses or activities. _____

_____

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. _____

_____

Renewable Resource Utilities:

Please note if your farm contains utilities or easements for any of the following renewable energy sources:

( ) Solar Power ( ) Wind Power ( ) Biomass ( ) Other:_____

Are any of the above utilities located on another structure? Yes _____ No ____
If yes, identify type of structure/location:

_____
_____

Land Use: **Total Acres: «Acres»**

What are the current agricultural activities on the Premises?_____
_____

Is any area or building on the Premises being leased (for agricultural or other purpose)? Yes _____ No _____
If yes, please explain and note whether **written or verbal lease**: _____
_____

Cropped Areas:

Cropped Areas Land Use Acreage – **please circle the appropriate crops within each category that apply, and provide the approximate acreage being cropped this way (OR the cropping plan for upcoming season).**

***Feel free to provide additional clarification as needed, or to specify some other combination of the categories below.**

Soy, Grains, Oilseeds, Dry Beans, Dry Peas: _____
Fruit, Tree Nuts, and Berries: _____
Greenhouse: _____
Orchard: _____
Sod:_____
Cut Christmas Trees and Other Short Rotations: _____
Milk and Other Dairy Products from Cow:_____
Poultry and Eggs: _____
Aquaculture:_____
Other (specify):

Vegetables, Melons, Potatoes, Sweet Potatoes: _____
Field Nursery and Floriculture: _____
Hoophouse Nursery and Floriculture: _____
Other Crops, Hay, CRP and Pasture: _____
Hogs and Pigs: _____
Cattle and Calves: _____
Equine/Horses, Ponies and Mules: _____
Sheep, Goats, and Their Products:
Other Animals and Other Animal Products: _____

_____
_____
_____
_____

Who is currently farming this property? ( ) Landowner ( ) Tenant Farmer ( ) Farm Manager ( ) Other /explain:
_____
_____

If farm contains livestock, please provide approximate head (#) of livestock: _____

Non-Crop Land Use:

Non-Crop Land Use—**please provide approximate acreage for easement area that are:**

Woodlands: _____ Wetlands: _____ Water Body: _____ Other Use (describe) : _____

Since the last questionnaire, have any woodland areas on the premises been cleared?

Yes _____ No _____ If yes, please indicate number of acres and explain purpose: _____

_____

Conservation:

Has a Farm Conservation Plan been developed for property? Yes _____ No _____
Is the Farm Conservation Plan being implemented? Yes _____ No _____
If No, what obstacles prevent landowner form implementing the plan? _____
_____
Are any portions of the property enrolled in USDA programs for conservation? Yes _____ No _____
If yes, what programs? _____
Has a forest management plan been developed for the property? Yes _____ No _____
Do any historic buildings or sites exist on the property? Yes _____ No _____
Are there any observed resource concerns on the property? Yes _____ No _____
If Yes, please categorize concern: _____

_____

Areas of Concern:

Are there any areas of **soil disturbance** on the property? Yes _____ No _____

If Yes: Please categorize the reason for disturbance:

_____
_____
What is the location of disturbed area on the property?_____
What is the extent of the disturbed area (approx. sq./ft.)_____ Date of disturbance:_____

Have any of the following activities occurred on the Premises:

Trash accumulation, dumping of waste or non-agricultural materials Yes _____ No _____

Removal of sand, gravel, loam, rock, peat, etc. Yes _____ No _____

Construction of roads, parking lots, swimming pools, tennis courts, utility lines, conduits, etc. Yes _____ No _____

If yes to ANY of the above, please identify purpose, location on property and extent (approx. sq/ft): _____
_____
_____

Are there any problems associated with the Premises? (e.g. encroachment, trespassing, municipal regulations, state regulations, SADC requirements or approvals, dispute with neighbor, deed of easement violation, etc.) Yes _____No _____

If yes, please explain: _____
_____

Landowner's Printed Name: _____ **Phone Number:** _____

E-mail Address: _____

Landowner Signature: _____ **Date:** _____

Received by
County Staff: _____ **Date:** _____

Please return the questionnaire to: **Middlesex County Agriculture Development Board**
c/o Middlesex County Office of Planning
Middlesex County Administration Building
75 Bayard Street – Fifth Floor
New Brunswick, NJ 08901

OR, return this questionnaire by e-mail to planning@co.middlesex.nj.us

APPENDIX E

MIDDLESEX COUNTY OFFICE OF PLANNING'S METHODOLOGY FOR IDENTIFYING POTENTIAL TARGETED FARMS

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Middlesex County Office of Planning'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 Office of Planning, 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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Policy P-14-E
Effective: 9/25/97

STATE AGRICULTURE DEVELOPMENT COMMITTEE

POLICY

PRIORITIZATION OF PROJECT AREAS AND INDIVIDUAL APPLICATIONS

I. Purpose

To establish a priority ranking of individual applications to direct the expenditure of farmland preservation bond funds dedicated for the purchase of development easements.

II. Authority

N.J.A.C. 2:76-6
N.J.S.A. 4:1C-31

III. Supersedes

Policy:	P-14-A dated 12/15/88
Policy:	P-14-A dated 9/21/89
Policy:	P-14-A dated 1/18/90
Policy:	P-14-B dated 3/25/93
Policy:	P-14-C dated 9/28/95
Policy:	P-14-D dated 12/19/96

IV. Definition

As used in this Policy, the following words and terms shall have the following meanings.

"Agricultural Development Area, hereafter referred to as ADA, means an area identified by a board pursuant to the provisions of N.J.S.A. 4:1C-18 and certified by the State Agriculture Development Committee.

"Exceptions", means portions of the applicant's land holdings which are not to be encumbered by the deed restriction contained in N.J.A.C. 2:76-6.15.

"Project area" means an area identified by a board or the Committee which is located within an ADA and is comprised of one or more development easement purchase applications approved by the board and received by the Committee, lands where development easements have already been purchased, other permanently deed restricted farmlands, farmland preservation programs and municipally approved farmland preservation programs.

"The degree to which the purchase would encourage the survivability of the municipally approved program in productive agriculture" means the degree to which the purchase of a development easement on the farm would encourage the survivability of the project area in productive agriculture.

V. Summary Policy for Ranking Individual applications and Project Areas

Utilizing the criteria in N.J.A.C. 2:76-6.16 individual applications will be ranked in order of highest to lowest statewide by the State Agriculture Development Committee. This ranking will be based on a numeric score, hereafter referred to as the "**quality score**" which evaluates the degree to which the purchase would encourage the survivability of the municipally approved program in productive agriculture and the degree of imminence of change of the land from productive agriculture to a nonagricultural use. The Relative Best Buy criterion will also be used as a factor to determine which applications will receive a higher funding priority. Although this policy contains the procedure for ranking project areas, the Committee will only utilize the criteria that pertains to ranking "individual" applications to determine the applicant's quality score.

The factors used to determine the degree to which the purchase would encourage the "survivability of the municipally approved program, in productive agriculture" and "degree of imminence of change of the land from productive agriculture to a nonagricultural use," will be evaluated at least 30 days prior to the Committee's certification of a development easement value.

The "relative best buy formula" to determine the applicant's formula index will be calculated at the time of the Committee's final review. The formula index will be factored with the applicant's quality score to establish the applicant's final score. The application will be ranked by the Committee from the highest to lowest to determine a funding priority subject to available funds.

The general philosophy will be to acquire development easements on "key" farms which result in a stabilization of agriculture in that project area or act as a catalyst to encourage future program participation in the project area.

The Prioritization Policy is organized in accordance with statutory requirements identified in the Agricultural Retention and Development Act N.J.S.A. 41C-11 et seq. and criteria described in N.J.A.C. 2:76-6.16. Listed below is a summary of the major criteria with their relative weights.

A. FACTORS WHICH DETERMINE THE DEGREE TO WHICH THE PURCHASE WOULD ENCOURAGE THE SURVIVABILITY OF THE MUNICIPALLY APPROVED PROGRAM IN PRODUCTIVE AGRICULTURE (N.J.S.A. 4:1C-31b. (2))

1.0	SOILS	Weight 15
1.1	TILLABLE ACRES	Weight 15
2.0	BOUNDARIES AND BUFFERS	Weight 20
3.0	LOCAL COMMITMENT	Weight 20
4.0	SIZE AND DENSITY	Weight 20
5.0	CADB PRIORITIZATION (HIGHEST RANKED APPLICATION)	Weight 10

B. DEGREE OF IMMINENCE OF CHANGE OF THE LAND FROM PRODUCTIVE AGRICULTURE TO NONAGRICULTURAL USE (N.J.S.A. 4:1C-31b. (3) Weight 10

C. RELATIVE BEST BUY (N.J.S.A. 4:1c-31b. (1))

VI. Specific Methodology for Ranking Project Areas and Individual Applications.

A. FACTORS WHICH DETERMINE THE DEGREE TO WHICH THE PURCHASE WOULD ENCOURAGE THE SURVIVABILITY OF THE MUNICIPALLY APPROVED PROGRAM IN PRODUCTIVE AGRICULTURE.

1.0 SOILS Weight 15

The New Jersey Important Farmlands Inventory prepared in 1990, by the U.S.D.A., Natural Resource Conservation Service is used as the reference to identify soil quality -Prime, Statewide, Unique or Locally Important. A percentage figure for each of these four soil categories is calculated for both the individual application and the project area.

The acreage of each Important Farmland Classification shall be to the rounded to the nearest whole number.

Formula:

% Prime soils x 15= _____
% Statewide soils x 10= _____
% Unique soils x (0 or 12.5*) = _____
% Local soils x 5 = _____

Total weight = the sum of the categories.

***** If a designated "unique" soil is not being used for its unique purpose, no points will be assigned. If points are to be awarded for unique soils, the county must provide justification.

1.1 <u>TILLABLE ACRES Weight 15</u>

The Committee shall evaluate tillable acres which emphasize the importance of land use and productivity. Priority will be given to the proportion of land deemed tillable. Factor to consider will be lands devoted to cropland, harvested, cropland pasture and permanent pasture. The following weights have been allocated in the land use classifications below.

Formula:

% Cropland Harvested x 15 = _____
% Cropland Pastured x 15 = _____
% Permanent Pasture x 2 = _____

The following definitions shall be used for evaluating tillable acres.

"Cropland harvested" means land from which a crop was harvested in the current year. Cropland harvested shall include the land under structures utilized for agricultural or horticultural production.

"Cropland pastured" means land which can be and often is used to produce crops, buts its maximum income may not be realized in a particular year. This includes land that is fallow or in cover crops as part of a rotational program.

"Permanent pasture" means land that is not cultivated because its maximum

economic potential is realized from grazing or as part of erosion control programs. Animals may or may not be part of the farm operation.

2.0 BOUNDARIES AND BUFFERS: Weight 20

The weights reflect differences in both permanence and the buffers' effectiveness in reducing the negative impacts of nonagricultural development.

The following weights have been assigned:

Deed restricted farmland (permanent)	20
Deed restricted wildlife areas, municipal county or state owned parcels	18
Eight year programs and EP applications	13
Farmland (unrestricted)	6
Streams (perennial) and wetlands	18
Parks (limited public access)	14
Parks (high use)	5
Cemeteries	16
Golf course (public)	14
Military installations	14
Highways (limited access), Railroads	10
Residential Development	0
Other: (landfills, private golf courses)	*

* Value to be determined on a case by case basis at the time of review.

Formula:

Weight of buffer x % perimeter of project area affected by buffer = Total Weight per buffer

Total of all the individual buffer scores = Total boundary and buffers score.

2.1 Negative Consideration:

EXCEPTIONS Weight (Up to -10)

The Committee shall evaluate all exceptions. Factors for determining if there is an adverse effect to the applicant's agricultural operation are as follows:

* Severability potential from the Premises
* Number requested
* Size
* Percent of Premises
* Right to Farm language
* Location and use (negative impact)

NOTE: Each county is responsible for future monitoring of each exception for ensuring compliance with restrictions placed upon the exception.

No negative points are assessed if one or both of the following pertain to the application.

1. The exception is for county and/or municipal farmland preservation and/or open space purposes.

2. The exception cannot be severed from the restricted premises unless associated with an agriculturally viable parcel pursuant to the terms of the Deed of Easement.

If one (1) or two (2) above do not apply, proceed with the following:

A. Number Requested:

For each exception requested: **(-2 points)**

B. Size:

The size of the individual exception exceeds local zoning requirements to construct one single family residential dwelling.

For each building lot, or portion thereof, in excess of the local zoning requirements: **(-1 point)**

Note: If the exception exceeds the local zoning requirement but the landowner agrees to restrict the exception to permit only one residential dwelling, then no negative points shall be assigned.

C. Percent of Premises:

The total acreage of the exception(s) exceeds 10% of the total acreage. **(-1 point)**

D. Right to Farm Provisions:

Approved Right to Farm language will be incorporated in the deed of the exception. **(1 point)**

E. Location and Use:

The location and/or use of the exception has a significant negative impact on the premises. **(Max. - 10 points)**

NOTE: Each county is responsible for ensuring compliance with restrictions placed upon exceptions.

3.0 LOCAL COMMITMENT: Weight 20 Max.

Priority will be given where municipal, county, regional, and state policies support the long term viability of the agricultural industry. Factors indicating support:

3.1 Zoning requiring an average minimum lot of at least three acres with clustering and/or mandatory buffering to provide separation between development and existing agricultural operations and/or use of other measures such as transfer of development credits, sliding scale, very low density zoning and/or any other equivalent measures which discourage conflicting nonagricultural development.

5 points

3.2 There is sewer or other growth leading infrastructure serving the premises or within hook-up distance.

Yes ____ 0 points
No ____ 3 points

3.3 The purchase of a development easement is consistent with municipal, county, and state plans.

Yes ___ 2 points
No ___ 0 points

3.4 Municipal commitment to actively participate in the Agriculture Retention and Development Program;

A. Active Municipal Liaison with CADB
B. Planning board actions regarding nonagricultural development support farmland preservation. (Ex. Planning board requests CADB review of applications for subdivision approval within ADAs.)
C. Municipal governing body actions regarding nonagricultural development support farmland preservation.
D. Municipality has previously approved eight year programs.
E. Development easements have already been purchased in the community.

1 point each

3.5 Right to Farm ordinances

A. A township that has a "Right to Farm" ordinance.

4 points

B. The Right to Farm ordinance requires a developer and/or landowner who plans to build or sell a dwelling in an agricultural area to inform through their agent, prospective purchasers of the existence of the Right to Farm ordinance and the protection it grants to agricultural operations. This notification is included in the deed and recorded.

1 point

3.6 Community financial support for the project area/individual application.

Financial support is construed as strong local commitment. Generally, if municipal/private dollars are invested in a project, there is greater care taken by the community to protect the area from the negative effects resulting from the nonagricultural development. The method to compare the many diverse municipalities with respect to their direct financial support for farmland preservation is to measure their total dollar contribution per thousand dollars of current equalized (100%) assessed value for the municipality.

The local contributions include the total of all passed municipal bond referenda and/or allocations from the budget, private or corporate contributions, and funding from any other sources since January 1, 1980 with the exception of landowner donations, county, state, and federal contributions. Landowner donations will be considered under the Relative

Best Buy criterion.

The current Equalized Assessed Value for the municipality will be the one in effect on January 1 of the current year expressed in thousands of dollars.

The assessment of points will be based on an index derived from the following ratio:

Formula:

$$\frac{\text{Total locally committed dollars since Jan. 1980}}{\text{(State Equalized valuation/\$1,000)*}} = \text{Index}$$

* for the specific municipality

This Equalized valuation figure is listed in the most recent Annual Report of the Division of Local Government Services, prepared by the Department of Community Affairs or may be obtained by contacting the local tax office.

Example 1.

Benefit Township has committed $1.8 million toward Farmland within the past five years. The State equalized valuation figure divided by 1,000 is 80,120.

The index is calculated as follows:

$$\frac{\$1,800,00}{\$\ 80,120} = 22.47$$

Based on the scale, listed below an index of 22.4 is awarded 5 points.

Example 2.

In Harrow Township $150,000 has been set aside for Farmland Preservation. The state equalized valuation figure divided by 1,000 is $1,290,839.

The index is calculated as follows:

$$\frac{\$150,000}{\$1,290,939} = .12$$

Based on the scale listed below, an index of .12 is awarded 1 point.

Points will be allocated based on the following scale:

Index of greater than 10	5 points
Index between 7 and 10	4 points
Index between 5 and 7	3 points
Index between 2 and 5	2 points
Index greater than 0 but less than 2	1 point

Discretion may be used in the assignment of points, based on whether or not actual funds have been expended for farmland preservation.

4.0 SIZE AND DENSITY **Weight 20 Max.**

4.1 Individual Applications:

Individual applications will be scored on both size and density with a maximum of 10 points awarded for density for a maximum total combined score of 20.

4.1(2) Size (Max. 10 points)

Points are based on the size of each individual application relative to average farm size in the respective county according to the latest U.S. Census of Agriculture. Points will be awarded for size up to a maximum of 10 as follows:

$$\text{Points Awarded} = 10 \times \frac{\text{Size of Individual application}}{(2 \times \text{county average farm size})}$$

The factor 2 encourages counties to enroll farms above average in size.

4.1 (3) Density (Max. 10 points)

The density score will be awarded based on the following:
An application which is not reasonably contiguous (within one-half mile linear distance) with another development easement purchase application approved by the board and received by the Committee, lands where development easements have already been purchased, other permanently deed restricted farmlands, farmland preservation programs and municipally approved farmland preservation programs in the project area will receive (0) points. One (1) point will be allocated for each reasonably contiguous (within one-half mile linear distance) farmland preservation program or municipally approved farmland preservation program. Two (2) points will be allocated for each of the other above noted lands in the project area which are determined to be reasonably contiguous (within one-half mile linear distance)

with the subject application and each other not to exceed a maximum score of (10 points).

Example 1:	Receives (0) points
Example 2:	Receives (5) points
Example 3:	Receives (10) points

SP = Subject Property
8YR = 8-Year Program
Blank Space = Easement Purchase Application or Previously Deed Restricted

5.0 CADB PRIORITIZATION

Consideration will be given to the board's highest ranked application to recognize local factors which encourage the survivability of the municipally approved program in productive agriculture and degree of imminence of change of the land from productive agriculture to a nonagricultural use. The CADB's highest ranked application will receive 10 points.

B. DEGREE OF IMMINENCE OF CHANGE OF THE LAND FROM PRODUCTIVE AGRICULTURE TO NONAGRICULTURAL USE

Weight (Max of 10)

An application can receive up to (10) points where the Committee determines that the imminent conversion of the farm (application) from an agricultural use to a nonagricultural use would negatively impact the survivability of the project area in productive agriculture.

There are two aspects which shall be considered when evaluating the imminence of change: 1) factors which measure the degree of imminence of change of farmland to a nonagricultural use and 2) factors that evaluate the impact of the farmland conversion.

I. Factors considered for evaluating the Degree of Imminence of Farmland Conversion

County Comparisons (relative indices):

1. Avg. certified county easement value for previous round: (1 point max.)
2. County Single Family Unit Permits (3 years): (1 pt. max)
3. County Farmland Assessed cropland acre loss for 10 years: (1 point max.)
4. County Farmland Assessed cropland percent loss for 10 years: (1 point max.)

Township Comparisons (relative indices):

1. Township Single Family Unit Permits for 3 years: (1 pt. max.)
2. Township Farmland Assessed cropland acre loss for 10 years: (1 pt. max.)
3. Township Farmland Assessed cropland percent loss for 10 years: (1 pt. max.)

Farm-specific indicators:

1. Subdivision approval (final): 2 pts.
2. Estate situation: 2 pts.
3. Bankruptcy/Foreclosure: 2 pts.

II. Factors considered for evaluation the impact of the farmland Conversion

State Comparisons (relative indice):

1. Combined SADC Quality Scores for size, boundaries, and buffers and density: (0.5 pt. max.)

County Comparisons (relative indice):

1. Combined SADC Quality Scores for size, boundaries and buffers and density: (0.5 pt. max.)

MAXIMUM FOR CATEGORY: (10 POINTS)

The above indices will be updated annually and provided to CADB Staff.

C. **RELATIVE BEST BUY (STATUTORY FORMULA)**

This criterion will only be evaluated at the time of final Committee review.

$$\frac{\text{Nonagricultural development value} - \text{agricultural value}}{\text{nonagricultural development value} - \text{agricultural value}} = \text{landowner asking price index}$$

"Landowner Asking Price" means the applicant's per acre confidential offer for the sale of a development easement.

D. FUNDING PRIORITY

1. The Committee's funding priority will be given to those applications which have a higher numeric values obtained by the application of the following formula:

   applicant's
   quality score + (formula index x 200) = final score

S:\POLICIES\P14e

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 2021	Total expended	Allocated/Budgeted for future acquisition	Can funds be used for farmland preservation?
Cranbury	Yes	1999	3¢	Decreased 2007	2¢	$	$382,943.53	$	$0.00	Yes
East Brunswick	Yes	2001	2¢	No	2¢	$	$382,350.89	$	$0.00	Yes
Monroe	Yes	2002	1.5¢	Decreased 20XX	1.5¢	$	$1,216,000.00	$	Not reported	Yes
Old Bridge	Yes	2000	2¢	Decreased 20XX	0¢	$	$0.00	$	Balance	Yes
Plainsboro	Yes	1999	1¢	No	1¢	$	$453,547.45	$	Not reported	Yes
South Brunswick	Yes	1996 '97 tax year	2¢	Decreased 20XX	3.9¢	$	$1,633,630.00	$	$	Yes
					Totals	**$**	**$4,068,471.87**	**$**	**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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Trade Name	Selling County	Farmstand or Permanent Market Address	Market City	Zip	Days of week and Hrs. Open	Additional Info.
Asprocolas Acres	Middlesex					Edison Farmers Market Wed. 11-4
Chickadee Creek Farm LLC	Middlesex					Rutgers Garden Ryders Lane New Brunswick Fri. 12 - 5 Metuchen Market (Senior Center Parking Lot) Metuchen, Sat. 9 - 2
Farmer Al's Mkt. & Greenhouse	Middlesex	387 Buckelew Ave. (Rt. 522)	Monroe Twp.	08831	June - Nov. Everyday 9 - 5	Metuchen Farmers' Mkt. New & Center St. Metuchen, NJ (parking lot of Metuchen Senior Center) June 11 - Nov. 5 Sat. 9 - 2
Fruitwood Farm						Rutgers Garden 112 Logcabin Rd. Sat. 11 - 3
Giamarese Farms	Middlesex	155 Fresh Pond Rd.	E. Brunswick	08816	May 1 - Dec. 24 Tue. - Sat 10-6 Sun. 10 - 3	

Trade Name	Selling County	Farmstand or Permanent Market Address	Market City	Zip	Days of week and Hrs. Open	Additional Info.
Hauser Hill Farms	Middlesex	261 Ticetown Rd.	Old Bridge	08857	May - Nov. Tue. - Thu. 9 - 5 Fri. - Sun - 9 - 5 closed Mon.	Freehold Courthouse July - Oct.Fri. 11 - 4 Highlands Farmers' Mkt. 111 1st Ave., Atlantic Highland, NJ June - Oct. (Sat. 9 - 1)
Krackerjack Farm Mkt.	Middlesex	Hwy. 33 West	Monroe Twp.	08831	May 15 - Oct. 30 everyday 9 - 6	
Kelemen Farm Mkt.	Middlesex	600 Rues Lane	E. Brunswick	08816	July - Oct. 31 Mon. - Fri. 10 - 6 Sat. - Sun. 10 - 6	
New Brunswick Farmers' Market	Middlesex	108 Albany Street	New Brunswick	08901	June 23 - Oct. 27 Wed. 11 - 3	
Pleasant Hill Farm	Middlesex	192 Ridge Rd.	Jamesburg	08831	May 1 - Oct. 31 Mon. - Sat. 10 - 5 Sun. Closed	

Trade Name	Selling County	Farmstand or Permanent Market Address	Market City	Zip	Days of week and Hrs. Open	Additional Info.
Pops Farm Market	Middlesex	238 Cranbury Station Rd.	Monroe Twp.	08831	April 4 - Dec. 15 Mon. - Sat. 9 - 6 Sun. 10 - 4	
Pops Farm Market	Middlesex	Apple garth Road	Monroe Twp.	08831	April 4 - Oct. 31 Mon. - Sat. 10 - 6 Sun. 10 - 4	
R & K Farm	Middlesex	215 Rhode Hall Rd.	Monroe Twp.	08831	May - Nov. Fri. - Sun. 9 - 5	
Snapping turtle Farm	Middlesex					New Brunswick County Farmers' Mkt. 108 Albany St. Wed. 11-4
Stanley Stults & Son Farm, LLC	Middlesex	62 John White Road	Cranbury	08512	May 1 - Oc.t 31 Mon - Fri. 10 - 6 Sat. - Sun. 10 - 6	
Stillwell Farms	Middlesex					New Brunswick County Farmers' Mkt. 178 Jones Ave. New Brunswick, NJ June 23 - Oct. 31 Tue. 10 - 2 & Sat. 9 - 1

Trade Name	Selling County	Farmstand or Permanent Market Address	Market City	Zip	Days of week and Hrs. Open	Additional Info.
The Country Stand	Middlesex					Metchen Farmers' Mkt. June 14 - Nov. 21 Sat. 9 - 2
Von Thun's County Farm Mkt. LLC.	Middlesex	519 Ridge Rd.	Monmouth Junction	08852	May 1 - Oct. 31 Mon.- Fri. 10 - 6 Sat. - Sun. 9 - 6	Metuchen Farmers' Mkt. Pearl St. Sat. 9 - 2 Highland Park Farmers' Mkt. Park Ave. Fri. 10 - 6

Listing of Roadside Markets in Middlesex County

A.N.T. Nursery, Inc. Address: 1439 Perrineville Rd, Monroe, 08831 Hours: Monday-Friday 7:00 am to 5:30 pm, Saturday 7:00 am to 4:00 pm, Sunday 9:00 am to 3:00 pm Phone: (609) 448-1425 Website: antnursery.com Products: Perennials, Shrubs, Trees, Large Specimens Available	**Amato's Garden Center** Address: 47 Deans Rhode Hall Road, Monmouth Junction, NJ 08852 Hours: Monday-Saturday 8:00 am to 6:00 pm, Sunday 9:00 am to 6:00 pm Phone: (732) 297-6790 Website: amatosgc.com Products: Nursery Stock, Landscape Materials
Ann's Market Address: 173 Davidson's Mill Rd, South Brunswick, NJ 08902 Hours: Open Daily 9:00 am to 7:00 pm Phone: (732) 821-9290 Products: Tomatoes, Sweet Corn, Peppers, Squash, String Beans, Lima Beans, Cabbage, Broccoli, Cauliflower, Eggplant, Collard Greens, Mustard Greens, Deer Corn	**Barclay's Christmas Tree Farm** Address: 35 Orchardside Dr, Cranbury, NJ 08512 Hours: Monday-Friday: Closed, Saturday-Sunday 9:00 am to 4:30 pm Phone: (609) 799-1855 Website: barclaystreefarm.com Products: Choose & Cut Christmas Trees
Barton Nursery Address: 949 New Durham Rd, Edison, NJ 08817 Hours: Monday-Saturday 7:00 am to 5:30 pm, Sunday: Closed (All Hours Subject to Change Due to Weather and Covid-19) Phone: (732) 287-5222 Email: info@bartonnurseries.com Website: bartonnurseries.com Products: Trees, Shrubs Annuals, Perennials	**Clark Farms** Address: 416 Dunhams Corner Rd, East Brunswick, NJ 08816 Hours: Monday-Friday 10:00 am to 6:00 pm, Saturday-Sunday 8:00 am to 6:00 pm Phone: (732) 947-9529 Products: Tomatoes, Melons, Sweet Corn, Peppers, Flowers
Conover Nurseries Inc Address: 44 Fern Rd, East Brunswick, NJ 08816 Hours: Monday-Friday 8:00 am to 4:00 pm Phone: (732) 254-9348 Email: george@conovernurseries.com Website: conovernurseries.com Products: Plant Material, Certified Tree Expert, Landscaping, Mulch, Topsoil	**Coppola's Garden Center** Address: 1600 New Durham Rd, South Plainfield, NJ 07080 Hours: Monday-Friday 9:00 am to 5:00 pm, Saturday-Sunday 9:00 am to 4:00 pm Phone: (732) 985-2166 Information: Please call for availability of specific items. Dates are an estimation based on weather conditions and grower availability. Website: coppolasgardencenter.com Products: Trees, Shrubs, Perennials, Annuals, Vegetables, Fruit, and more
CountryView Farms & Nursery Address: 599 Buckelew Ave, Monroe, NJ 08831 Hours: Monday-Friday 7:30 am to 4:30 pm, Saturday 7:30 am to 3:30 pm Phone: (732) 675-3865 Website: countryviewfarmnursery.com Products: Assorted Trees & Shrubs	**Cranbury Brook Farm** Address: 308 Federal Rd, Monroe, NJ 08831 Hours: By appointment only Phone: (609) 918-0351 Information: Cranbury Brook Farm is a Private Farm, Not Open to the Public Email: NewJerseyFarmer@aol.com Website: cranburybrookfarm.com

Listing of Roadside Markets in Middlesex County

	Products: Raspberries, Blackberries, Tomatoes, Eggs, Meat Goats, Dairy Goats, Miniature Pet Goats
Crossroads Nursery Address: 981 Georges Rd, Monmouth Junction, NJ 08852 Hours: Open Daily 7:30 am to 6:00 pm Phone: (732) 297-8110 Website: crossroadsnursery.com Products: Annuals, Perennials, Shrubs, Trees, Herbs, Christmas Trees, Grave Blankets, Wreaths, Landscaping	**Dieker's Farm Market** Address: 810 Bordentown Ave, South Amboy, NJ 08879 Hours: Monday-Friday 9:00 am to 6:00 pm, Saturday-Sunday 9:00 am to 4:00 pm Phone: (732) 721-0295 Products: Sweet Corn, Peaches, Nectarines, Plums, Pickles, Potatoes, Jersey Tomatoes, Okra, Celery, Carrots, Beets, Honeydew Melons, Local Honey, Cotton Candy, Grapes, Pluots
Duchess Farms Address: 81 Davidson's Mill Rd, North Brunswick, NJ 08902 Hours: CSA Phone: (908) 420-4694 Information: Specialize in Organically Grown Cut Flowers Sold Through a CSA Program. Local Honey is Also Available to All CSA Members. Email: duchessfarmssb@gmail.com Website: duchess-farms.com Products: Flowers and Honey	**Dunham's Corner Farm Market** Address: 349 Dunhams Corner Rd, East Brunswick, NJ 08816 Hours: Monday-Saturday 10:00 am to 7:00 pm, Sunday 11:00 am to 5:00 pm Phone: (908) 420-4694 Email: dunhamscornerfarmmarket@aim.com Website: Dunham's Corner Farm Market Facebook Products: Sweet Corn, Tomatoes, Cut Flowers
Dutch Hill Farms Address: 117 Dutch Rd, East Brunswick, NJ 08816 Hours: By appointment only Phone: (732) 821-0220 Email: Dutchhillfeed@gmail.com Products: Poultry, Sheep, Feed	**Etsch Farms** Address: 556 Buckelew Ave (Rt. 522), Monroe, NJ 08831 Hours: Monday-Friday 8:30 am to 5:00 pm, Saturday 8:30 am to 12:00 pm Phone: (732) 521-4843 or (732) 794-6785 Information: Classroom Farm Lessons Available Email: etschfarms@comcast.net Website: etschfarms.com Products: Eggs, Honey, Corn Maze, Hay Rides, Pony Rides, Barn Shop, Hay Bales, Pumpkins, Cornstalks
Farmer Al's Market & Greenhouses Address: 387 Buckelew Ave, Monroe, NJ 08831 Hours: Open Daily 9:00 am to 6:00 pm Phone: (732) 521-1888 Information: WIC & EBT Accepted Email: pat@farmerals.com or farmeral@farmerals.com Website: farmerals.com Products: Peppers, Eggplant, String Beans, Broccoli, Collard & Mustard Greens, Turnips, Kale, Sweet Corn, Tomatoes, Bedding Plants & more	**Federal Farm Market** Address: 224 Federal Rd, Monroe, NJ 08831 Hours: July-October 10:00 am to 6:00 pm Phone: (732) 446-0446 or (732) 357-6200 Information: For Tailgate Market Info, please email. Email: vtodoric@aol.com Website: federalfarmmarket.com Products: Hungarian Hot and Sweet Peppers (Segede, Bogoslov & more), Tomatoes, Peaches, Italian Plums, Red & Yellow Watermelon,

Listing of Roadside Markets in Middlesex County

	Cabbage, Potatoes, Hungarian Squash, Apples, Eggplant, Corn
Fresh Ponds Farm Address: 8 Selma Dr, Monroe, NJ 08831 Hours: Thursday 5:00 to 7:00 pm, CSA Pick-Up Day & Time Phone: (732) 274-1748 Email: freshpondsfarm@gmail.com Website: freshpondsfarm.com Products: CSA	**Gasko's Family Farm & Greenhouses** Address: 112 Federal Rd, Monroe, NJ 08831 Hours: Monday-Saturday 9:00 am to 5:00 pm, Sunday 9:00 am to 3:00 pm Phone: (732) 446-9205 Information: Cash and Checks Only. No Credit or Debit Cards. ATM on Premise. No Pets Allowed. Website: gaskosfamilyfarm.com Products: Trees & Shrubs
Giamarese Farm and Orchards Address: 155 Fresh Ponds Rd, East Brunswick, NJ 08816 Hours: Wednesday-Saturday 10:00 am to 6:00 pm, Sunday 10:00 am to 3:00 pm Phone: (732) 821-9494 Information: No pets allowed. Please arrive at least an hour before closing for Pick-Your-Own. Email: giamarese@comcast.net Website: giamaresefarm.com Products: PYO Strawberries, Peas, Lettuce, Raspberries, Peaches, Apples, Beans, Tomatoes, Peppers, Melon, Plums, Cherries, Grapes, Honey, Okra, Pumpkins, Indian Corn, Jams/Jellies, Christmas Trees	**Habiak Farms** Address: 317 Deans Rhode Hall Rd, South Brunswick, NJ 08831 Hours: October: Weekends 10:00 am to 5:00 pm, December: Weekends 10:00 am to 5:00 pm Phone: (908) 917-6388 Products: Cut Your Own: Pumpkins, Mums, Straw Bales, Corn Stalks & Choose & Cut: Christmas Trees, Wreaths, Grave Blankets
Hauser Hill Farms Address: 261 Ticetown Rd, Old Bridge, NJ 08857 Hours: Tuesday-Sunday 10:00 am to 5:00 pm, Monday: Closed Phone: (732) 591-1966 Email: hauserhillfarms@gmail.com Website: hauserhillfarms.net Products: Fruits, Vegetables, Apples, Broccoli, Potatoes, Peaches, Cauliflower, Zucchini, Plums, Cabbage, Cucumbers, Nectarines, Peppers, Eggplant, Tomatoes, Onions, Raspberries, Yams, Strawberries & more	**Indyk's Farm** Address: 595 Spotswood Englishtown Rd, Monroe, NJ 08831 Hours: Monday-Friday 9:00 am to 7:00 pm, Saturday-Sunday 9:00 am to 5:00 pm Phone: (732) 763-0919 Products: PYO - Strawberries, Watermelon, Pumpkins, Cabbage, Cauliflower, Tomatoes, Collards, Turnips, Mustard, Kale, Rye Straw
Kelemen Farmers Market Address: 533 Cranbury Rd, East Brunswick, NJ 08816 Hours: Open Daily 10:00 am to 6:00 pm Phone: (732) 254-0636	**Krygier's Nursery** Address: 741 Cranbury South River Rd, Jamesburg, NJ 08831 Hours: Open Daily 8:00 am to 5:00 pm May 1 - October 31 Phone: (732) 257-5727 Products: Trees & Shrubs
Lee Orchard Garden Address: 12 Nostrand Rd, Cranbury, NJ 08512	**Lonicera Farm LLC** Address: 44 Farms Rd, East Brunswick, NJ 08816

Listing of Roadside Markets in Middlesex County

Hours: Call for details Phone: (609) 799-4820 Website: leeorchardgarden.com Products: Table Grapes, Grape Trees, Pears, Pear Trees, Pre-Packaged & U-Pick	Phone: (732) 492-6454 Information: Compost and USDA organic approved amendments when necessary. No synthetic pesticides or fertilizers are ever used or needed on our farm. Website: Lonicera Farm Facebook Products: Fresh vegetables grown on healthy living soil with minimal inputs.
Orchardside Farm Address: 51 Orchardside Dr, Cranbury, NJ 08512 Hours: Last weekend of September - October 10:00 am to 5:00 pm, Christmas Season: Black Friday & Weekends - Christmas 10:00 am to 5:00 pm Phone: (609) 664-0270 Website: orchardsidefarm.com Email: orchardsidefarm@gmail.com Products: Pumpkins, Fall Decor, Baked Goods, Pre-Cut and U-Cut Christmas Trees, and Mixed Vegetables	**Pleasant Hill Farm** Address: 192 Ridge Rd, Dayton, NJ 08810 Hours: Monday-Saturday 10:00 am to 5:00 pm, Sunday 10:00 am to 3:00 pm Phone: (732) 329-0776 Information: Senior FMNP Coupons Accepted Email: ajaccoma@comcast.net Products: Flowers, Peaches, Nectarines, Plums, Corn, Tomatoes, Watermelon, Vegetables, Apples, Pumpkins, Winter Squash, Mums, Honey, Jams
Pop's Farm Market & Garden Center Address: 238 Cranbury Station Rd, Monroe, NJ 08831 Hours: Monday-Saturday 9:00 am to 6:00 pm, Sunday 10:00 am to 4:00 pm Phone: (609) 655-4175 Information: WIC and FMNP Coupons Accepted Website: popsfarmmarketandgardencenter.com Products: Jersey Fresh Fruits & Vegetables, Cut Flowers, Honey & more	**Protinick Farms** Address: 330 Dey Rd, Cranbury, NJ 08512 Hours: Open Daily 9:00 am to 7:00 pm Phone: (609) 799-5285 Website: protinickfarms.com Products: Seasonal Fruits & Vegetables
R & K Farm Address: 215 Rhode Hall Rd, Monroe, NJ 08831 Hours: Saturday-Sunday 9:00 am to 4:00 pm Phone: (732) 521-0314 Email: randkfarmmonroe@gmail.com Website: randkfarms.com Products: Asparagus, Broccoli, Cabbage, Cantaloupe, Cauliflower, Corn, Cucumbers, Eggplant, Peppers, Pumpkins, Radish, Squash, Tomatoes, Watermelon, Potatoes, Beans, Onions, Chestnuts	**Rutgers Student Farm** Address: 130 Log Cabin Rd, New Brunswick, NJ 08901 Information: CSA Email: alex.s@rutgers.edu Products: Boxed shares will be pre-packed by student farm interns and may be picked up.
Schmidt's Farm Address: 1734 Old Bridge Englishtown Rd, Old Bridge, NJ 08857 Hours: Thursday-Friday 11:00 am to 6:00 pm, Saturday-Sunday 8:00 am to 6:00 pm Phone: (732) 735-0095 Information: WIC and FMNP Checks Accepted	**Simonson Farms, Farm Stand & Pre-Cut Christmas Tree Lot** Address: 118 Dey Rd, Cranbury, NJ 08512 Hours: Weekdays (Subject to Weather) 12:00 to 7:00 pm, Weekends 9:00 am to 6:00 pm (Rain, Snow, or Shine), Christmas Trees: Black Friday-December 23

Listing of Roadside Markets in Middlesex County

Email: schmidtsfarm@gmail.com Products: Tomatoes, Peppers (Hot & Sweet), Melons, Zucchini, Cucumbers, Corn, Honey & Brown Eggs	Phone: (609) 799-0140 Email: rjany@simonsonfarms.com Website: simonsonfarms.com Products: Eggs, Popcorn, Local Honey, U-Cut Christmas Trees, CSA
Stults Farm Address: 146 Cranbury Neck Rd, Plainsboro, NJ 08536 Hours: Monday-Friday 11:00 am to 6:00 pm, Saturday-Sunday 10:00 am to 5:00 pm (Temporary Hours/Seasonal) Phone: (609) 799-2523 Information: WIC and FMNP Checks Accepted, Hayrides Email: info@stultsfarm.com Website: stultsfarm.com Products: Strawberries, Peas, Raspberry, Peaches, Watermelon, Cantaloupe, Sweet Corn, Tomatoes, Cucumbers, Beans, Eggplant, Peppers, Zucchini, Summer Squash, Specialty Vegetables, Pumpkins, Gourds & more	**Suburban Acres Farm** Address: Rt. 527 & John Wall Rd, Old Bridge, NJ 08857 Hours: July - October 10:00 am to 6:00 pm Phone: (732) 766-3314 or (732) 642-6742 Website: suburbanacresfarm.com Products: Goats, Dairy, Eggs, Wool
Tidbury Creek Farms & Nursery Address: 313 Spotswood Gravel Hill Rd, Monroe, NJ 08831 Hours: Monday-Friday 7:30 am to 4:30 pm, Saturday 7:30 am to 3:30 pm, Sunday: Closed Phone: (732) 521-5691 Email: sales@tcfnursery.com Website: tcfnursery.com Products: Trees, Perennials, and Shrubs	**Twin Ponds Nursery Inc.** Address: 194 Federal Rd, Monroe, NJ 08831 Phone: (732) 446-8700 or (732) 620-2698 Email: twinponds194@aol.com Website: twinpondsnursery.com Products: Trees, Flowers, Topsoil, and Firewood
Von Thun's Country Farm Market Address: 519 Ridge Rd, Monmouth Junction, NJ 08852 Hours: Monday-Friday 10:00 am to 6:30 pm, Saturday-Sunday 9:00 am to 6:00 pm Phone: (732) 329-8656 Information: WIC, CSA Website: vonthunfarms.com/sb/ Products: U-Pick Berries, Beef Vegetable Plants; Perennials, Flowers, Sweet Corn, Tomatoes, Peppers, Melons, Annuals, Hanging Baskets, String Beans, Holiday Plants, Holiday Plants, PYO Strawberries, Pumpkins	**Zielinski's Farm Market** Address: 450 Cranbury South River Rd, East Brunswick, NJ 08816 Hours: End of July - October 9:00 am to 6:00 pm, End of November - December 24 Phone: (732) 257-3335 Products: Fruits & Vegetables, Christmas Trees Wreaths, Grave Blankets

Data source: https://storymaps.arcgis.com/stories/f9fe74b8ac0d4a998983cfd5d56f2f0f

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

President	**Robert D. Balz** (rbalz@plantfoodco.com)	(732) 521-0314
Treasurer	**Rudolph B. Wellnitz**	(609) 799-0734
	65 Scotts Corner Rd., Cranbury, NJ 08512	
Secretary	**Carolyn Hauser**	(732) 591-0470
	336 Ticetown Rd., Old Bridge, NJ 08857	

Rutgers Cooperative Extension of Middlesex County
Rutgers New Jersey Agricultural Experiment Station
42 Riva Ave.
North Brunswick, NJ 08902-4734
(732) 398-5260
FAX (732) 398-5276

County Extension Dept. Head/Agent I	**William T. Hlubik** (hlubik@njaes.rutgers.edu)
Ag. & Nat. Resources Co. Agent II	**Michele Bakacs** (bakacs@njaes.rutgers.edu)
4-H Agent II	**Laura Bovitz** (bovitz@aesop.rutgers.edu)
Administrative Assistant	**Joanne Connolly**
4-H Program Assistant	**Dave Donegan** (dave.donegan@co.middlesex.nj.us)
4-H Secretary	**Jeanine Kalita** (Jeanine.kalita@co.middlesex.nj.us)
Ag. & Resource Mgmt. Unit Admin/Specialist	**Patricia Mcguire** (pem97@rutgers.edu)
Master Gardener Program Coordinator	**Angela M.** (angela.monaghan@co.middlesex.nj.us)
Ag. & Natural Resources Sr. Prog. Coordinator	**Brendon Pearsall** (bp415@njaes.rutgers.edu)
Ag. & Natural Resources Secretary	**Carol Richiusa** (carol.richiusa@co.middlesex.nj.us)
Public Information Assistant	**David Smela** (david.smela@co.middlesex.nj.us)
Agricultural Program Associate	**Richard Weidman** (weidman@njaes.rutgers.edu)

County Board of Agriculture and Allied County Organizations

Middlesex County

Middlesex County Agriculture Development Board
County Admin Building, 5th Floor
75 Bayard Street
New Brunswick, NJ 08901
732-745-3812
FAX: 732-745-8443

Voting Members	**James Giamarese**, Chairman **Robert Von Thun**, Vice Chairman **Thomas Mancuso**, Secretary **Rodger Jany** **Samuel Landy** **Peter Etsch** **Barbara Rogers**
Non-Voting Members	**Ines Zimmerman**, Soil Conservation District Representative **William Hlubik**, County Extension Agent
Advisory Member	**Commissioner Charles Kenny**
Staff Members	**Laurie Sobel**, Supervising Planner, PP, AICP, CADB Administrator **Douglas Greenfeld**, AICP, PP, Planning Director **Daria Anne Venezia**, Esq. **Brady Smith**, Senior Planner

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Freehold Soil Conservation District
4000 Kozloski Road
P.O. Box 5033
Freehold, NJ 07728-5033
732-683-8500
Fax: 732-683-9140
email: info@freeholdscd.org
URL: www.freeholdscd.org

District Manager	Ines Zimmerman (izimmerman@freeholdscd.org)
Assistant District Manager	Tim Thomas (tthomas@freeholdscd.org)

County Board of Agriculture and Allied County Organizations

Middlesex County

Resource Conservationist	Paul Califano (pcalifano@freeholdscd.org)
Resource Conservationist	Michael Infanti (minfanti@freeholdscd.org)
Resource Conservationist II	Ben Shotland (bshotland@freeholdscd.org)
Resource Conservationist II	Stephen Grosch (sgrosch@freeholdscd.org)
Resource Conservationist II	Courtney Davidson (cdavidson@freeholdscd.org)
Resource Conservationist II	Brian Governale (bgovernale@freeholdscd.org)
Senior Site Inspector	Joeseph Serio (jserio@freeholdscd.org)
Senior Site Inspector	Paul Noone (pnoone@freeholdscd.org)
Site Inspector	Nicolas Lund (nlund@freeholdscd.org)
Public Education Specialist	Holly Reynolds (hreynolds@freeholdscd.org)
Administrative Services Manager	Christina LaBianca (clabianca@freeholdscd.org)
Administrative Specialist	Andrea Farparan (afarparan@freeholdscd.org)
Receptionist/Secretary	Sharon Robertson (srobertson@freeholdscd.org)
Secretary/Clerk	Jill DeBlasio (jdeblasio@freeholdscd.org)

Farm Service Agency (Monmouth-Middlesex-Mercer)

Monmouth County Farm Service Agency
4000 Kozloski Rd., Suite D
Freehold, NJ 07728
(732) 462-0075
FAX: (855) 305-6498

State Executive Director	Bob Andrzejczak (Bob.andrzejczak@usda.gov)
County Executive Director	Gabor Grunstein (Gabor.Grunstein@nj.usda.gov)
Farm Loan Chief	Shannon Barton (Shannon.Barton@usda.gov)

Directory of NRCS Offices in New Jersey

USDA-NRCS State Office
220 Davidson Ave 4th Floor
Somerset, New Jersey 08873
(732) 537-6040
Fax: (855) 305-7157

State Conservationist **Julie Hawkins**

Hackettstown (Serving Bergen, Hudson, Essex, Morris, Passaic, Sussex and Warren Counties)
Hackettstown Commerce Park, Building #1
101 Bilby Rd.
Hackettstown, NJ 07840
(908) 852-2576, ext. 3
FAX: (855) 305-7207

Frenchtown (Serving Hunterdon, Somerset and Union Counties)
687 Pittstown Rd., Suite 2
Frenchtown, NJ 08825
(908) 782-4614, ext. 3
FAX: (855) 305-7436

Freehold (Serving Mercer, Middlesex and Monmouth Counties)
4000 Kozloski Rd., PO Box 5033
Freehold, NJ 07728-5033
(732) 462-0075 ext. 3
FAX: (855) 305-7205

Columbus (Serving Burlington, Camden and Ocean Counties)
1971 Jacksonville-Jobstown Road
Columbus, NJ 08022
(609) 267-1639, ext. 3
FAX: 855-305-7200

Woodstown (Serving Gloucester and Salem Counties)
51 Cheney Road, Suite 2
Woodstown, NJ 08098
(856) 769-1126 ext. 3
FAX: (855) 305-7335

Vineland (Serving Atlantic, Cape May, and Cumberland Counties)
1318 South Main Rd.
Building 5, Suite A
Vineland, NJ 08360
(856) 285-7678
FAX: (855) 305-7259