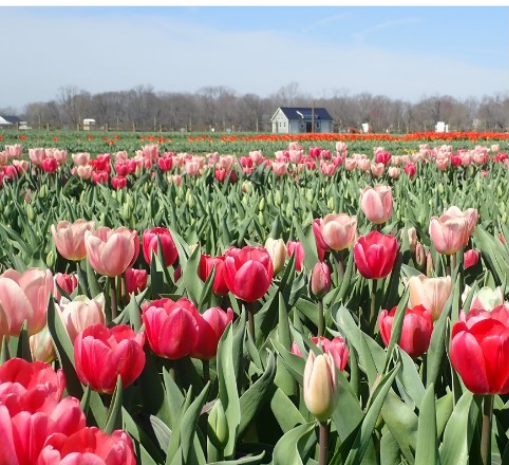
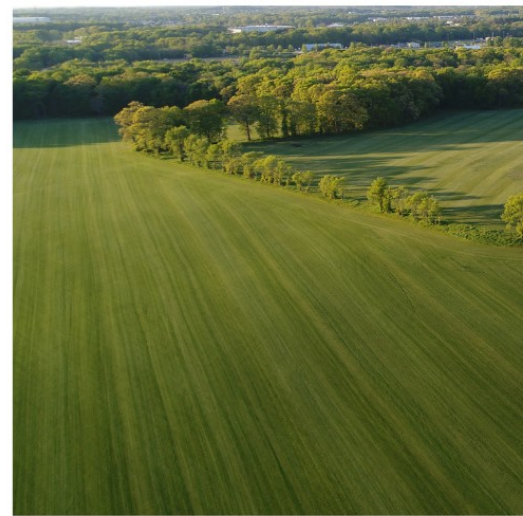


July 2022



MONMOUTH COUNTY
*Farmland
Preservation
Plan*



Prepared by the
Monmouth County
Division of Planning &
Monmouth County
Agriculture Development
Board

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INTRODUCTION

Located in Central New Jersey, Monmouth County is geographically and demographically diverse. With its 53 miles of ocean and bay shoreline and access to the Garden State Parkway, the northern and eastern portions of the county are by and large built out. Western Monmouth County, on the other hand, is still quite rural in many parts with vast expanses of farmland and parkland. However, the region's agricultural heritage will not last indefinitely. The county contains a number of rapidly growing communities, and unrestricted farmland is highly sought after by developers.

The main objective of the *2022 Monmouth County Farmland Preservation Plan* is to guide Monmouth County's efforts in preserving its remaining farmland and maintaining a viable agricultural industry. Farming is a significant component of the county's economy, and farmland is an irreplaceable natural resource. The plan sets preservation targets as well as lays out project areas that will be the focus of easement acquisition efforts.

A Comprehensive Farmland Preservation Plan was last adopted in 2008. Since that time, Monmouth County has preserved thousands more acres of farmland while development has taken thousands of agricultural acres out of production. Thus, the county recognized the importance of updating the 2008 plan. In addition, an update was needed to comply with the State Agriculture Development Committee's (SADC's) requirements for the County Planning Incentive Grant Program.

In keeping with SADC guidelines, the plan includes a number of components that address the county's agricultural land base, its agricultural industry, land use planning, an overview of the Farmland Preservation Program, the future of farmland preservation in the county, economic development, natural resource conservation and agricultural industry sustainability, retention and promotion.

As a complement to the *2016 Monmouth County Master Plan*, this report will serve an important role not only in defining the future of the county's agricultural industry, but also in shaping the physical development of the county and maintaining the high quality of life enjoyed by its residents.

I. MONMOUTH COUNTY'S AGRICULTURAL LAND BASE

To identify opportunities for farmland preservation and to associate areas where agriculture is most likely to remain viable, it helps to understand the location, size, and underlying soil characteristics of the county's agricultural land base as well as the potential to access a reliable water supply.

Location and Size of Agricultural Land Base

There are several data sources for determining the acreage and location of agricultural land in Monmouth County. All use different methodologies and, therefore, the numbers do not correspond perfectly. However, the varying data sources are a good overall gauge of county's agricultural land base. According to 2018 Monmouth County tax data, there are approximately 49,000 acres of farmland assessed land in the county, including farmland assessed woodlands. In comparison, the 2017 US Census of Agriculture reports the total land in farms in the county to be 39,198 acres. The New Jersey Department of Environmental Protection's (NJ DEP) 2015 land use/land cover Geographic Information System (GIS) data layer shows a total of 39,713 acres of land in agricultural use (including modified agricultural wetlands). Farmland assessment forms for 2018, which include farm houses and other non-agricultural lands, show a total acreage of 51,355. The NJ DEP considers woodland to be a separate land use category from agricultural land, accounting for some of the difference in total farmland acreage. Map 1.1, which is based on the 2015 land use/land cover GIS data layer, gives a comprehensive overview of active agricultural land in the county.

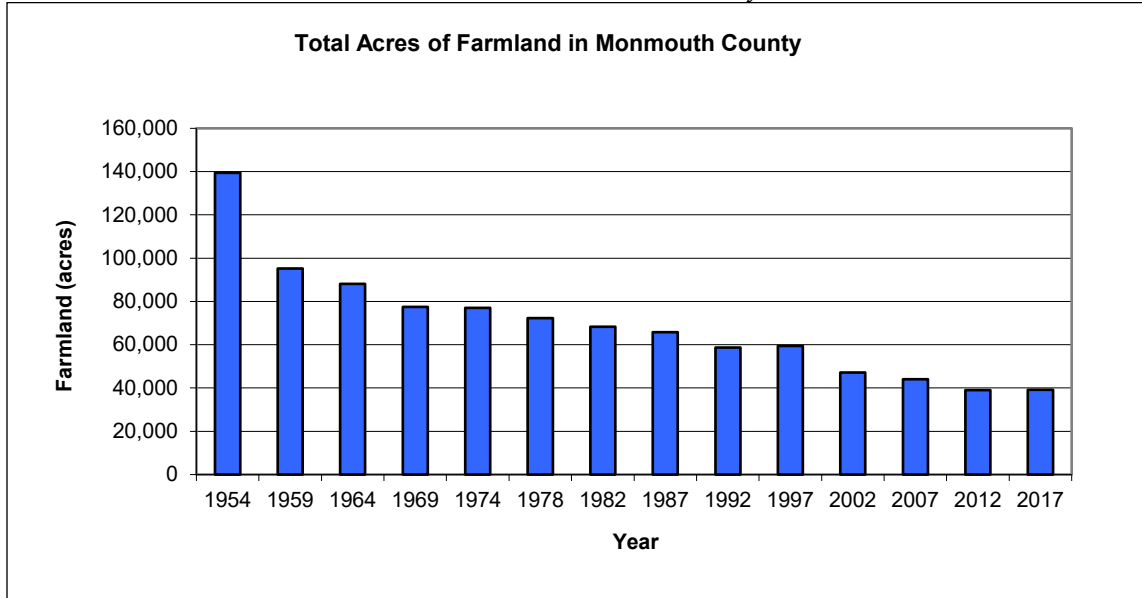
It should be noted that farmland assessed parcels are not the only ones that comprise the county's agricultural land base. A number of government agencies and nonprofit organizations lease back some of their deeded open space to farmers. For instance, the Monmouth County Park System leases 1,000 acres of its lands to area farmers, and over 1,000 acres of parkland in Manalapan Township, mostly owned by the State, are leased to agricultural operations. Similarly, Holmdel Township leases portions of four parks to farmers.

Agricultural lands account for approximately 11.5 percent of the county according to 2018/19 farmland assessment data. This number is down from 27.3 percent in 1983. Yet the drop in farmland extends beyond the last 35 years. Monmouth County's total farmland has shown a significant decline since the 1950s, around the time the Garden State Parkway was completed. In fact, there are hardly any agricultural lands left in the county to the north and east of the Parkway.

According to the 2017 US Census of Agriculture, Monmouth County has 838 farms placing the county fifth in the state for the number of farms per county. Chart 1.2 depicts the number of farms in the state's top six counties.

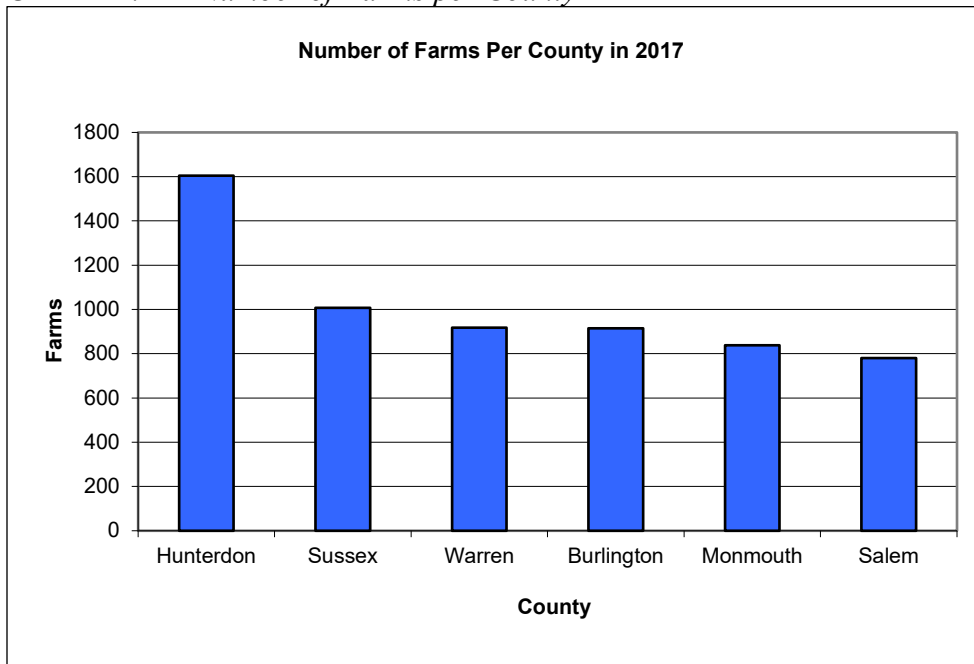
Per the 2017 US Census of Agriculture, the average size of a farm in Monmouth County is 47 acres. The median size is 12 acres. In comparison, the average size of a New Jersey farm is 74 acres whereas the median size is 16 acres. As shown in Chart 1.3, eighty-five percent of Monmouth County's farms are under 50 acres in size. An additional nine percent fall between 50 and 179 acres. Two of the largest farms in the county in the early 2000s were Princeton Nurseries, a high-end commercial nursery with most of its holdings in Upper Freehold; and Perretti Farms, a standardbred operation also based in Upper Freehold. Both operations have gone out of business but a sizeable portion of their preserved lands have been sold to other farmers. Current owners of large farm management units include Reed Sod Farm, Heritage Hill Farm, and Freiburger Farms. All are located in Upper Freehold.

CHART 1.1 Total Farmland Acres in Monmouth County



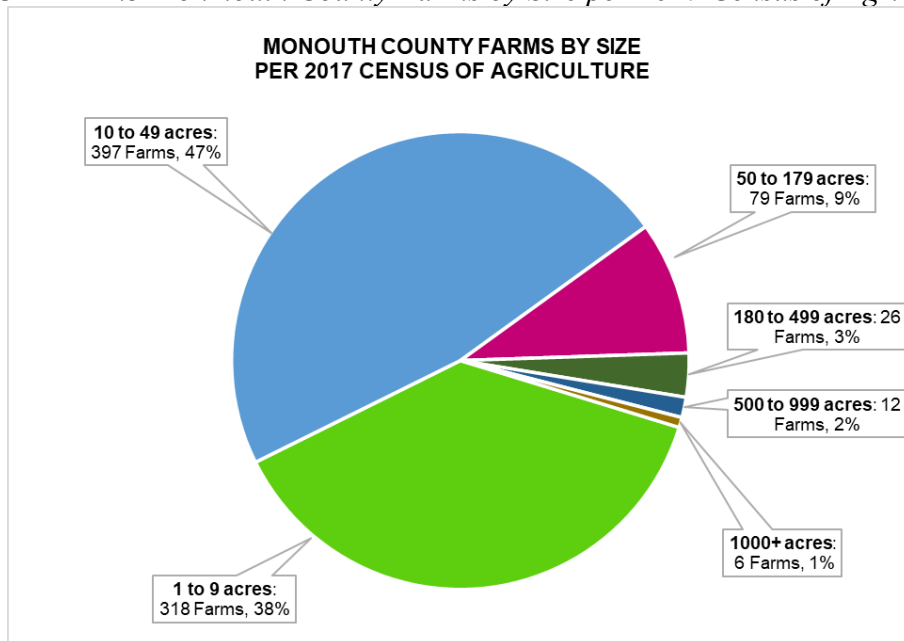
Source: 2017 US Census of Agriculture

CHART 1.2 Number of Farms per County



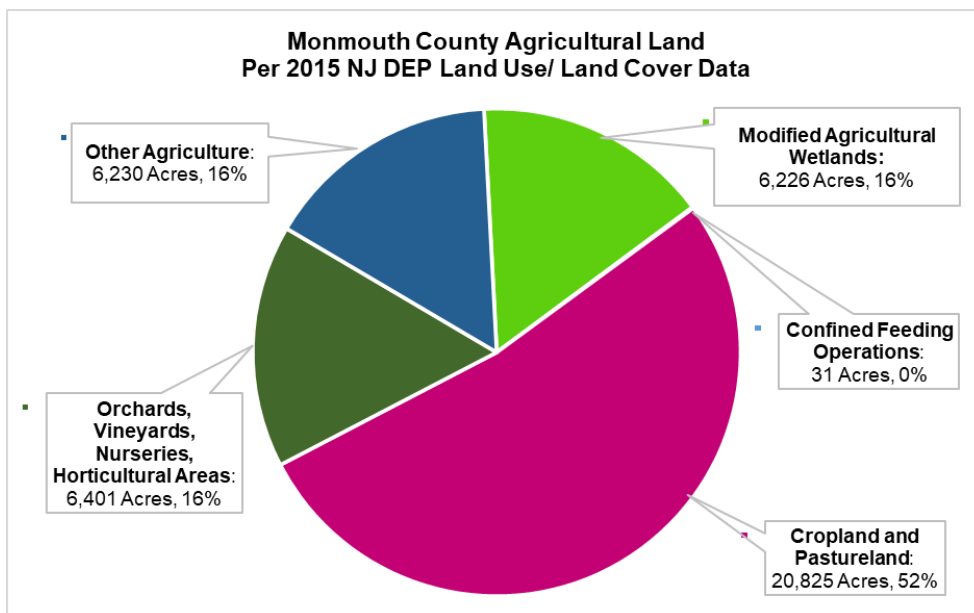
Source: 2017 US Census of Agriculture

CHART 1.3 Monmouth County Farms by Size per 2017 Census of Agriculture



*Note: Percentages are rounded to the nearest whole number

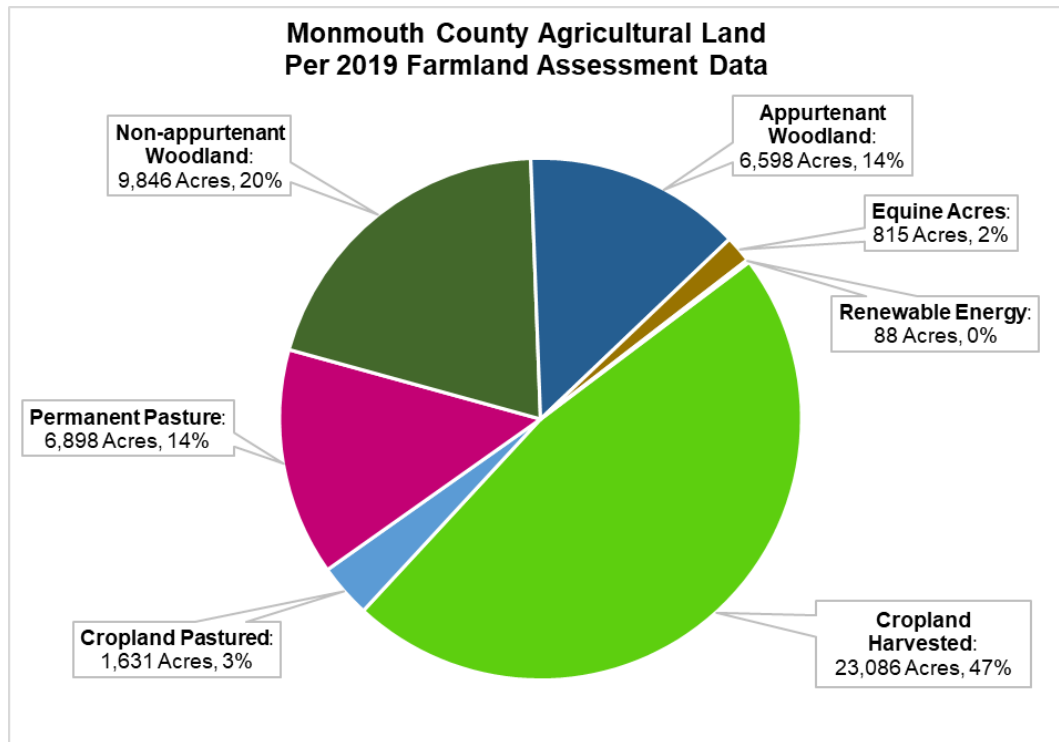
CHART 1.4 Monmouth County Agricultural Land Per 2015 NJ DEP Land Use/Land Cover Data



*Note: Percentages are rounded to the nearest whole number

Type of Agricultural Land	2015 Acres	2015 Percent
Modified Agricultural Wetlands	6,226	15.7%
Confined Feeding Operations	31	0.1%
Cropland and Pastureland	20,825	52.4%
Orchards, Vineyards, Nurseries, Horticultural Areas	6,401	16.1%
Other Agriculture	6,230	15.7%
Total	39,713	100.0%

CHART 1.5 Monmouth County Agricultural Land Per 2019 NJ Farmland Assessment Data



*Note: Percentages are rounded to the nearest whole number

Type of Agricultural Land	Acres	Percent
Cropland Harvested	23,086	47.2%
Cropland Pastured	1,631	3.3%
Permanent Pasture	6,898	14.1%
Non-appurtenant Woodland	9,846	20.1%
Appurtenant Woodland	6,598	13.5%
Equine Acres	815	1.7%
Renewable Energy	88	0.2%
Total	48,962	100.0%

Monmouth County’s remaining agricultural land base is centered on its inland rather than its coastal communities. Monmouth County contains 53 municipalities but only 12 have any significant remaining farmland. In terms of total farmland assessed acreage, the top agricultural municipalities in the county are, in descending order: Upper Freehold, Millstone, Howell, Colts Neck, Manalapan, Freehold Township, Marlboro, Wall, Middletown, and Holmdel (based on 2019 NJ farmland assessment data). Roosevelt Borough and Tinton Falls are two additional municipalities with notable farmland acreage. See Chart 5.1 in Chapter V.

In 2017, Upper Freehold was the number four municipality in the entire state for total farmland assessed acres. As of October 2021, it ranked number two in New Jersey in total preserved acres. In 2017, Millstone Township was also in the top 50 municipalities for number of farmland-assessed acres for the state. It was number 44.

As shown in Charts 1.4 and 1.5, cropland and pastureland accounted for over half the farmland in the county in 2015, 2017 and 2018/19. Such land is spread through the 12 municipalities mentioned above. In 2015, orchards, vineyards, nurseries and horticultural areas accounted for approximately 16.1 percent of the agricultural land cover in the county. The most notable concentrations of nursery and horticultural areas are in Western Monmouth due, in part, to the presence of Halka and Lustgarten nurseries. Although 2019 NJ farmland assessment data reports 815 equine acres in the county, this underestimates the county's horse farm acreage which also overlaps with pasture and hay production areas. Just within Monmouth County's Farmland Preservation Program, there are 72 farms with a primary focus on equine production, grazing, training, and boarding totaling 5,000 acres.

Landscape and Soil

The county's landscape and underlying soil characteristics have long driven the placement and success of its farms. Monmouth County, New Jersey is located in the Atlantic Coastal Plain physiographic province between New York City and Philadelphia. The county's topography can be characterized as lowlands with a range of hills extending from the southwest near the Freehold Township-Manalapan boundary to the northeast at the Borough of Highlands along the Sandy Hook Bay. This hilly band is known as a cuesta. The coastal plain is underlain by unconsolidated sediments of marine and continental origin and are composed mainly of sands, silts, clays and greensands and glauconitic sands with interspersed gravel beds (MCPB, 1975). Consistent with coastal plain conditions, slopes in Monmouth County are gentle. Approximately 90 percent of the county's land has less than a 10 percent slope, and 75 percent of the land has less than a 5 percent slope. Slope of the land is a critical factor in agricultural productivity. Steep slopes are prone to erosion while little to no slope has poor drainage. Generally, farm equipment can operate on slopes up to five percent, while higher slopes can accommodate pasture land, nurseries, or field crops that are cultivated by hand.

In addition to slope, farmers must pay attention to soil productivity. The most productive soil in the county is designated as prime, of statewide importance, or unique. Prime agricultural soils are of greatest interest to farmers, and the Farmland Preservation Program. They are soils with the ideal physical and chemical properties for producing food, feed, forage, fiber and row crops. Such soils have good moisture-holding capacity, permeability, natural fertility, level land and chemical composition. They possess few rocks and a suitable growing season, moisture supply, and pH.

As shown by the Important Farmland with Proposed Agricultural Development Areas (ADAs) map (Map 1.2), prime farmland soils are found throughout Monmouth County, but mostly in a broad band through western and central Monmouth. They account for over 76,400, or 25 percent, of the county's 310,800 acres (land acreage total per County Boundary GIS layer, water accounts for another 196 square miles). There is also a cluster of prime soils in Wall Township. Most of the productive farmland in the county is on land having less than five percent slope. This includes loams; sandy loams of 0 to 5 percent slopes with series names such as Adelphia, Collington, Downer, Hammonton, Holmdel, Keyport, Marlton, Sassafra, Woodstown; and Freehold loamy sand. According to the United States Department of Agriculture - Natural Resources Conservation Service (USDA-NRCS), the three highest rated soil types in the county are Collington loam, Freehold loam, and Sassafra loam. Chart 1.6 gives an overview of the various soil series that are present in Monmouth County.

Soils of statewide importance are also of interest to the agriculture community and the Farmland Preservation Program. The USDA-NRCS classifies land capability from Roman numerals I to VIII. As numbers rise the land has progressively greater limitations and narrower choices for practical use. The USDA-NRCS defines farmlands of statewide importance as “those soils in land capability Class II and III that do not meet the criteria as Prime Farmland.” Although they don’t receive the premium rating, soils of statewide importance may produce a high yield of crops if treated and managed according to acceptable farming methods. In fact, yields may be as high as those of prime agricultural soils if conditions are right. Soils of Statewide importance include soils of 5 to 10 percent slopes and 0 to 5 percent loamy sands with same series names as above; plus other loams and loamy sands such as Elkton, Evesboro, Fallsington, Fort Mott, Klej, Kresson, Pemberton, Evesboro, and Tinton. In Monmouth County soils of statewide importance are interspersed with prime agricultural soils.

Soils of unique importance are often used for specialty crops such as blueberries. Soil types within this category include Atsion sand, Berryland sand, and Manahawkin muck and are found in southern Freehold Township, Howell Township, Naval Weapons Station Earle in Colts Neck, and Tinton Falls. These sandy soils overlap with the Pine Barrens ecosystem which extends into Howell and Freehold and has pockets elsewhere in the county.

With their predominance of prime soils, farms in municipalities such as Upper Freehold typically score very well in the county’s Land Evaluation system (a soil rating system with a scale of 0 - 100) and ranked favorably in the old County Easement Purchase Program. Until the State established the Municipal Planning Incentive Grant Program, farms in Southern Howell – with their sandy soils – were at a competitive disadvantage.

As evidenced in Chart 1.6, the county has significant concentrations of marl, or glauconitic soil. Marlboro Township, in fact, got its name due to the presence of marl soils on some of its farmland. Marl is composed of the remains of prehistoric marine life from the period when New Jersey was covered by the ocean. Farmers used marl as fertilizer. The demand for marl extended beyond the local area. Thus, the export of marl was one of Marlboro’s first industries.

CHART 1.6: Overview of Soil Series in Monmouth County

Soil Series	Overview
Adelphia	Moderately well-drained and somewhat poorly drained soils on uplands. Derived from Coastal Plain sediments that have more than 10-40% glauconite. Suited for commercial woodland production.
Atsion	Poorly drained soils on upland flats. Suited for blueberries.
Colemantown	Poorly drained soils on upland flats. Formed in acid, clayey Coastal Plain sediments that are more than 40% glauconite.
Collington	Well-drained soils on uplands. Glauconitic. Most types well suited for cropland and pasture.
Colts Neck	Well-drained soils on uplands. Gently sloping and moderately sloped areas suitable for farming.
Downer	Well-drained soils on uplands and terraces. Most areas suitable for farming.
Elkton	Poorly drained soils on upland flats. Most corresponding land wooded.
Evesboro	Excessively drained soils on uplands. Poorly suited for cropland and pasture.
Fallsington	Poorly drained soils in depressions, along drainageways and on broad flats. Has seasonal high water table. May be used for field crops, hay and vegetables.
Freehold	Well-drained soils on uplands. Several Freehold soil types are highly productive. Areas with steep slopes used for pasture or woodland.
Hammonton	Moderately well-drained or somewhat poorly drained soils on uplands. Most areas farmed.
Holmdel	Moderately well-drained or somewhat poorly drained soils on uplands. Prime agricultural soil.
Hooksan	Excessively drained soils on coastal dunes. Found at beaches.
Hooksan Variant	Poorly drained soils on low-lying dunes. Found at beaches.
Humaquepts	Somewhat poorly drained to very poorly drained soils on flood plains. Subject to flooding several times each year.
Keyport	Moderately well-drained soils on uplands. Some types have pyritic clay that, if exposed, does not support vegetation.
Klej	Well-drained or somewhat poorly drained soils on uplands.
Kresson	Somewhat poorly drained soils on uplands. Glauconitic. Has seasonally high water table but supports common field crops, hay and vegetables.
Lakehurst	Moderately well-drained and somewhat poorly drained soils on uplands. Most areas wooded.
Lakewood	Excessively drained soils on uplands. Formed in acid, sandy Coastal Plain sediments. Poor farmland.
Manahawkin	Very poorly drained soils on lowlands and back swamps. Formed in acid, organic material from woody plants. Suited for blueberries or cranberries.
Marlton	Well-drained and moderately well-drained soils on uplands. Formed in acid, clayey, Coastal Plain sediments that have more than 40% glauconite. Suited for farming.
Pemberton	Moderately well-drained and somewhat poorly drained soils on uplands. Formed in acid, loamy, Coastal Plain sediments up to 30% glauconite. Seasonal high water table but may be farmed.
Phalanx	Well-drained soils on uplands. Formed in acid, loamy Coastal Plain sediments. Almost all areas wooded.
Sassafras	Well-drained soils on uplands. Formed in acid, loamy Coastal Plain sediments. Gently sloped and moderately sloped areas farmed.
Shrewsbury	Poorly drained soils on upland flats. Seasonal high water table but may be farmed.
Tinton	Well-drained soils on uplands and terraces.
Woodstown	Moderately well-drained soils on uplands and terraces. Prime agricultural soil.

Available Water Sources and Irrigated Acres

Access to water is key to farm productivity and future viability especially given the dominance in the county of the water-dependent nursery, horticulture and sod industries. In fact, The NJ Farm Bureau addressed water supply issues for agricultural lands at its 102nd Convention. As the NJ DEP and federal government tighten regulations regarding water, and more Monmouth County streams receive Category I designation, the agricultural community faces increasing difficulty in accessing plentiful water supplies.

Most Monmouth County farmers rely to some extent on precipitation to nourish crops during the growing season. According to NOAA, the average precipitation rate in New Jersey is 48 inches a year and, despite some minor variation, all parts of the county are near this range. Aside from precipitation, Monmouth County farmers depend on both surface and groundwater for their water supply needs. Monmouth County contains the headwaters for numerous tributaries and riparian systems. Surface water in the county drains to three different estuaries: the NY-NJ Harbor Estuary, the Delaware Estuary, and the Barnegat Bay Estuary. As a further indicator of the breadth of Monmouth County's tributary systems, it should be noted that the county lies in 6 different NJ DEP watershed management areas: the Lower Raritan; Millstone; Assunpink; Monmouth Coastal; Barnegat Bay; and Crosswicks, Doctors and Assiscunk watersheds. Major reservoirs in the county include the Manasquan Reservoir, Swimming River Reservoir and Glendola Reservoir.

The county is underlain by the New Jersey Coastal Plain aquifer. The major aquifers in this system are the Potomac-Raritan-Magothy, Englishtown, Wenonah-Mt. Laurel, Kirkwood Cohansey, Red Bank, and Vincetown aquifers. Several of the aquifers in the western and central portions of the county are considered depleted and thus have limitations on withdrawals. These sections of the county are known as the Critical Aquifer Water Supply Area 1. More than 50 percent of the drinking water supply in the New Jersey Coastal Plain aquifer comes from groundwater; thus, it is known as a Sole Source Aquifer under the federal Safe Drinking Water Act.

To counter increases in population and corresponding water demand in the Middlesex-Monmouth-Ocean County region, there have been several reservoirs built in the region in recent decades. For instance, the Manasquan Reservoir in Howell (made operational in 1990) has helped homeowners and landowners in parts of Monmouth County shift from a reliance on groundwater to surface water.

Some of Monmouth County's farms rely solely on precipitation and, for less intensive operations, a property's residential water supply. However, many require some type of irrigation system that necessitates a water allocation permit. According to the 2017 US Census of Agriculture, there are 199 irrigated farms in Monmouth County that comprise 3,550 acres. In contrast, the Farmland Assessment data from 2018/19 lists 1,818 irrigated acres. The difference probably stems from different reporting methods.

There are a number of ways to irrigate a farm. Surface water from the local watershed can be collected and stored in a pond and then used to supply agricultural water needs. This method is often used for irrigation during periods of lower-than-normal precipitation. If the area to be irrigated is near a stream, it may be possible to withdraw water without building a pond. Groundwater is also a source of irrigation water. It may be accessed by drilling a well and installing a pump, a potentially expensive proposition. On properties with a high water table, a

farmer may be able to tap groundwater to create a pond without having to drill.

To get some idea of scale, Albert Jarrett of Penn State estimates that irrigating cropland by sprinkler requires supply rates as high as 10 gallons per minute (gpm) per acre. Drip irrigation requires 3 to 7 gpm per acre. Farm ponds can lose 40 to 60 percent of volume to seepage and evaporation. Such ponds require about 4 acres of upland watershed to supply one acre-foot of usable water per year.

The NJ DEP's Division of Water Supply and Geoscience requires farmers to obtain an Agricultural Water Use Registration (registration) or Agricultural Water Use Certification (certification) to withdraw large quantities of surface water or groundwater in excess of 100,000 gpd. There are currently 41 farms in Monmouth County with effective registrations or certifications. An operation must obtain a certification if it withdraws greater than 70 gallons per minute and greater than 3.1 million gallons per month. Forms are available on the NJ DEP's web site. They are submitted to and processed by Rutgers Cooperative Extension and then forwarded to NJ DEP.

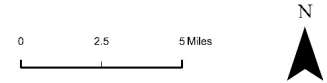
Water diversions were once considered routine but because of increasingly strict environmental regulations and growing competition from other land uses, it's getting harder to obtain permission for water withdrawals. Therefore, it is important not to let certifications lapse. In the coming years, it will be ever more valuable to have existing farm ponds, irrigation systems, and water rights. Farmers can obtain assistance with irrigation and water quality enhancement projects through the United States Department of Agriculture-Natural Resource Conservation Service (USDA-NRCS). The NRCS prepares conservation plans for both preserved and nonpreserved farm owners. These plans may identify water use needs and delivery systems as well as conservation practices. The NRCS and its sister agency, the Farm Service Agency, can help landowners obtain cost-share grants to implement these plans. The SADC also provides grants to eligible landowners to fund up to 50 percent of the costs of approved soil and water conservation projects, including those for irrigation. To be eligible, farms must be permanently preserved or enrolled in a term preservation program.

The pond at the former Duck Hollow Farm in Colts Neck (Monmouth County Division of Planning)



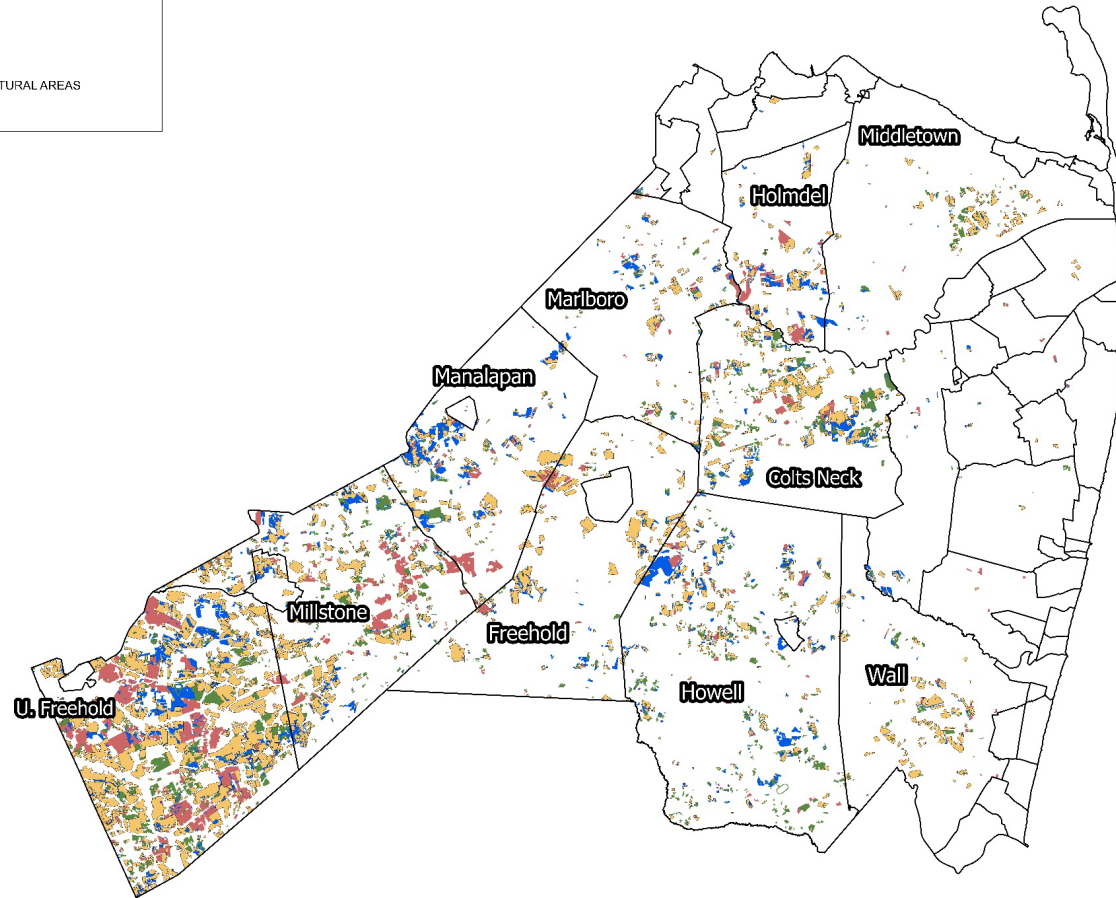
Agricultural Land in Monmouth County

Monmouth County Agriculture Development Board
One East Main Street, Freehold, New Jersey 07728



Legend	
■	AGRICULTURAL WETLANDS (MODIFIED)
■	CONFINED FEEDING OPERATIONS
■	CROPLAND AND PASTURELAND
■	ORCHARDS/VINEYARDS/NURSERIES/HORTICULTURAL AREAS
■	OTHER AGRICULTURE

MAP 1.1



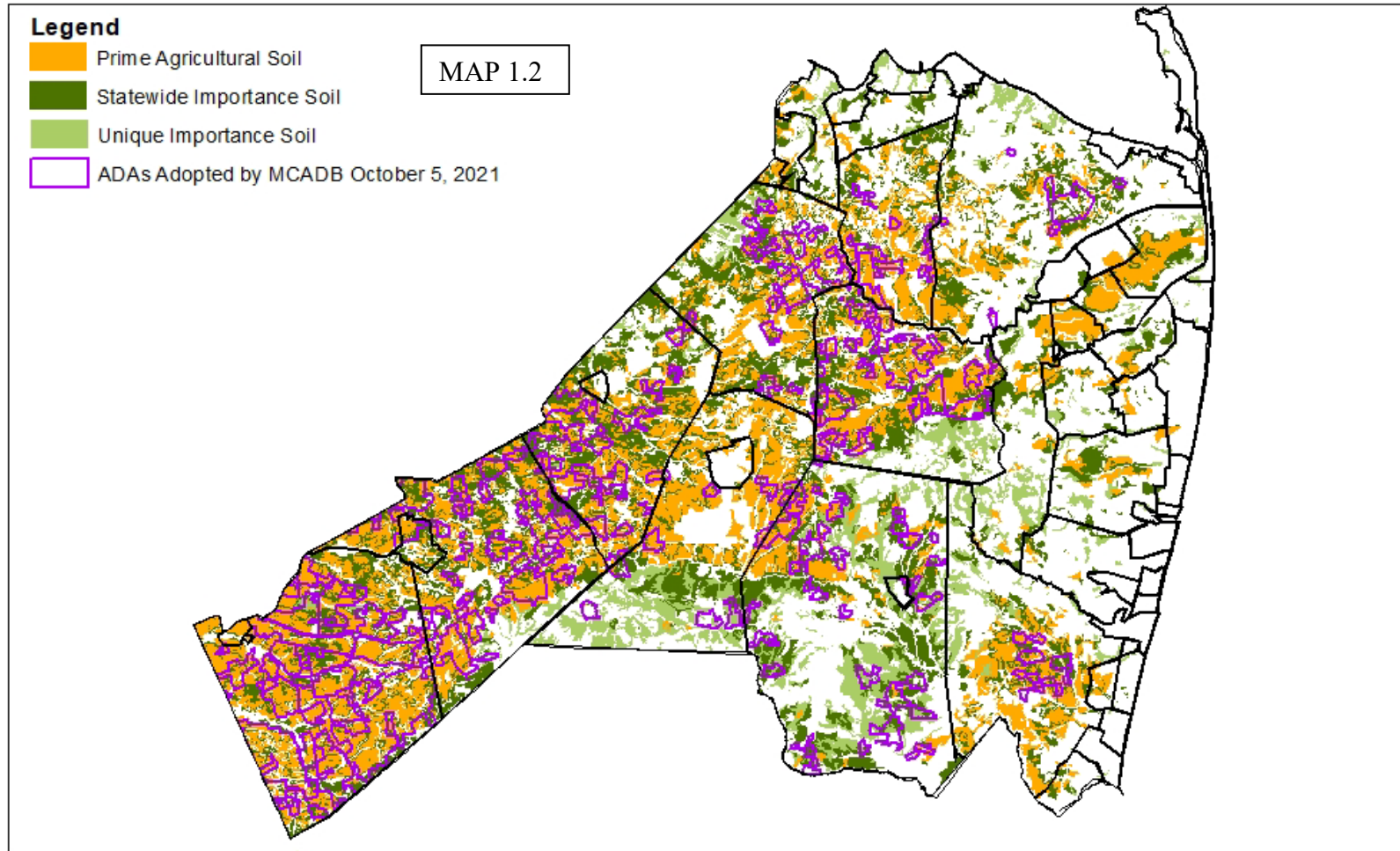
Map Notes:
1. Map created on January 2, 2022
2. Data sources: NJDEP Land Use/Land Cover GIS data (2015), Monmouth County GIS

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Monmouth County

Important Farmland Soils within Agriculture Development Areas



This map was created on March 7, 2022 and is for information purposes only.

Source: NRCS SSURGO Soils GIS Layer
ADAs adopted by the MCADB on October 5, 2021 &
Scheduled for SADC adoption September 2022

0 1.5 3 6 Miles



II. AN OVERVIEW OF MONMOUTH COUNTY'S AGRICULTURAL INDUSTRY

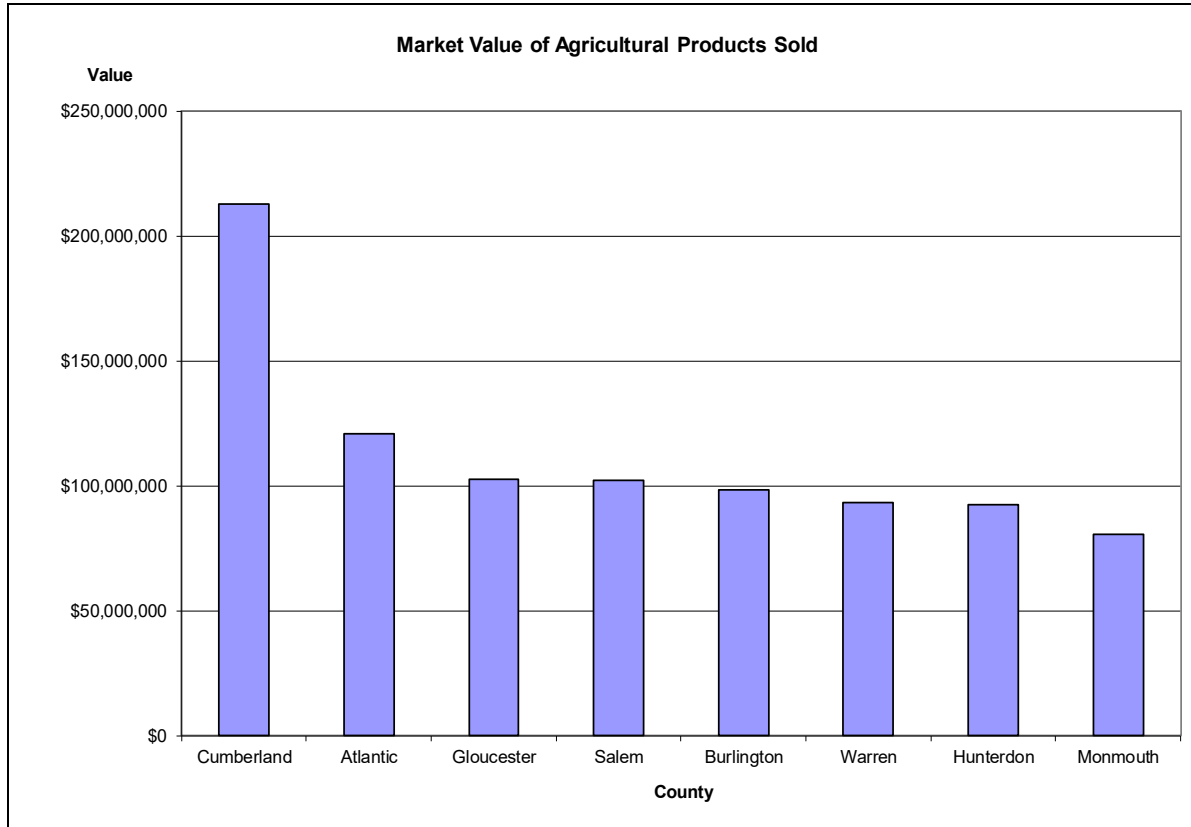
Monmouth County's early economy, like other New Jersey counties during colonial times, was based on subsistence farming. Commercial farming developed during the early part of the 1800's with grain, hay, and nonperishable livestock items sold. Following the Civil War, the production of perishables including milk, eggs, fruits, and vegetables became more prominent. While the rise of the county's manufacturing industry in the late 1800's through the 1900's diminished the prominence of agriculture, farming has remained an important component of Monmouth's economy (Obal, 1997).

According to the United States Department of Agriculture's (USDA's) Census of Agriculture, Monmouth County had 139,465 acres of farmland in 1954. By 2017, this total had declined 72 percent to 39,198 acres, a loss of 100,267 acres of farmland. Despite losing a significant amount of farmland acreage, the Monmouth County agricultural community remains an important part of the county's economy and a major contributor to the state's and country's farming industry. Among other New Jersey counties in 2017, Monmouth County ranked fifth in the state in the number of farms (Chart 1.2) and eighth in farmland acreage. From its third-place position in 2002, Monmouth County dropped to eighth in the market value of agricultural products sold (Chart 2.1). This is likely due to the closing of some large, high-income operations such as Princeton Nurseries and Perretti Farms. In 2017, Monmouth County ranked first in New Jersey and 13th in the United States for equine sales. It was second in the state and 52nd in the US for nursery and greenhouse sales. It was third in New Jersey for poultry and eggs; however, the USDA withheld specific numbers since Puglisi Egg Farm in Howell is the county's primary producer. Monmouth County also had the highest number of certified nurseries and the second-highest acreage of nursery stock among all New Jersey counties, with 6,170 acres of nursery stock outdoors and over two million square feet under glass protection.

A glass greenhouse at Holland Green Farms (Sean Pizzio)



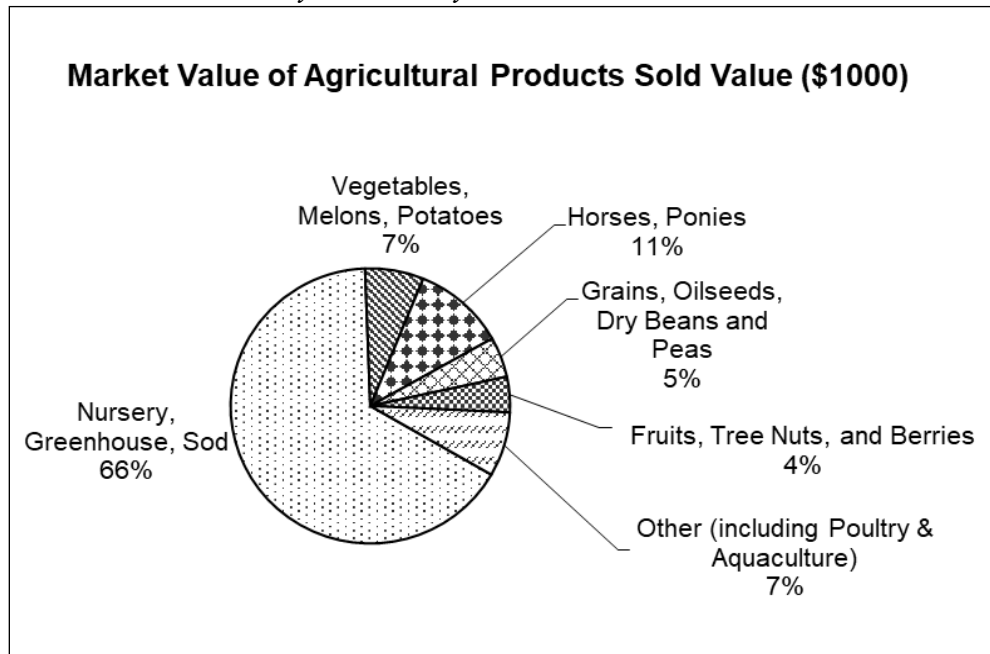
CHART 2.1 Market Value of Agricultural Products Sold in New Jersey's Top 8 Counties



Source: 2017 US Census of Agriculture

According to the 2017 Census of Agriculture, of the \$80.6 million of agricultural products sold in the county each year, the majority is tied to the nursery, greenhouse, floriculture and sod industry (66 percent). Horses, ponies, mules and burros account for 10.7 percent of the market value and vegetables, melons and potatoes account for 6.8 percent of the sales in the county (Chart 2.2).

CHART 2.2 *Percent Market Value of Agricultural Products Sold in Monmouth County, Listed by Commodity*



Source: 2017 US Census of Agriculture

Note: Percentages are rounded to the nearest whole number

A 1988 comprehensive report on the state equine industry (New Jersey Department of Agriculture, 1988) noted that “Monmouth County has to be considered the foundation county of the New Jersey equine industry.” According to the 2017 Census of Agriculture, Monmouth County still ranks first in the state in terms of the number of horses and ponies sold. The same census received feedback from 299 Monmouth County farms with a combined horse and pony inventory of 3,818. The 2019 New Jersey Farmland Assessment forms, on the other hand, tallied 5,256 head of equine animals. Similarly, the county is critical to the state’s nursery, greenhouse, floriculture and sod industry, ranking second in the state in 2017 with over \$53 million in sales.

The significance of Monmouth County’s farming industry can be seen not only at the state level but also the national level, as Monmouth is a Top 100 county in several Census of Agriculture commodity categories (Chart 2.3) including eggplant, bell peppers, sod acres harvested, inventory of horses and ponies, and sales of nursery, greenhouse, floriculture and sod. All commodities dropped in the US rankings from 2002 to 2017. Notably, bell peppers, blueberries, and strawberries dipped, although the total acres planted in those crops were never high for Monmouth County.

CHART 2.3 *Monmouth County's Agricultural Industry in a National Context*

Commodity	2002 Amount	2002 Rank in Country	2017 Farms in County	2017 Amount	2017 US Rank	2017 # Counties w/ Item of Interest
Chinese Cabbage	266 acres	5	2	(D)	(D)	932
Eggplant	53 acres	19	58	57 acres	22	1,433
Bell Peppers	157 acres	34	62	54 acres	98	2,074
Tomatoes in the Open	132 acres	94	88	111 acres	116	2,465
Strawberries	44 acres	62	9	18 acres	217	1,573
Tame Blueberries	31 acres	90	19	21 acres	317	1,690
Sod Harvested	2,392 acres	25	4	1,934 acres	40	589
Nursery, Greenhouse, Floriculture, and Sod Sales	\$59,625,000	47	165	\$53,267,000	55	2,601
Horses and Ponies (Inventory)	5,029	49	299	3,818	77	3,063
Value of Food Sold Directly to Consumers	\$1,681,000	81	129	\$5,468,000	103	2,964

Source: *US Census of Agriculture 2002, and 2017 Special Tabulation Request*
 (D) Withheld to avoid disclosing data for individual farms

Crop/Production Trends

Despite national and statewide prominence in numerous agricultural categories, some sectors of Monmouth's farming industry have shown a marked decline in the last few decades. In 1959, Monmouth County had 58 dairy farms but there were only 5 milk cows reported in Monmouth in 2017. Competition from other areas, low commodity prices, and high production costs all contributed to the decline. Poultry farms followed a similar trend but had a recent rebound, at least on a small scale. In 1959, Monmouth County had 510 poultry farms and compared to 21 poultry farms in 1997. The 2017 Census of Agriculture reported 182 farms with laying hens in Monmouth County and 4 farms with broilers and meat chickens.

Over the past 50 years, vegetable production has also shown a marked decline due to the loss of major food processing plants in New Jersey. The acreage of farmland devoted to vegetable production for processing has gone to field crop production, ornamental plant nurseries, sod, or horse farms or has been sold to residential and commercial developers. Vegetable production for the fresh market has shown a slower decline due to strong local markets for fresh produce (New York and Philadelphia), direct marketing to supermarkets, restaurants, and farm stands, and at pick-your-own vegetable operations. Recently, vegetable farmers have included specialty crops such as herbs and specialty vegetables as well as pumpkins and field flowers to meet the growing demand from consumers. Other newer crops in the county include mushrooms, hazelnuts, and microgreens. The farmers' response to changes in the marketplace has contributed to the overall economic health of the agricultural industry in Monmouth County (Obal, 1997).

As the agricultural industry reacts to the changing economic climate, real estate developers look to farmland to site many of their commercial and residential projects. In 2020, a total of 177 new development applications were submitted to the Monmouth County Division of Planning. Not surprising the regions of Monmouth County that contain the most remaining farmland are also

most frequently targeted for land use change. For example, the largest industrial projects proposed in 2020 were the Rock Solid Realty project which proposed 368,050 square feet of warehouse space in Howell and the AA33 project which proposed 1,220,000 square feet of warehouse space in Millstone. Holmdel, Marlboro, Manalapan, and Howell were all sites for large-scale residential development project applications in 2020, and commercial applications were most frequent in towns such as Howell and Wall.

A study by the American Farmland Trust in 1999 showed that more than one-half of the value of United States farm production was generated in counties in and around urban areas. The population growth in counties that had the highest agricultural productivity was more than twice the national average. Nowhere is this more evident than in Monmouth County.

The importance of agriculture to Monmouth County, and the state, may not be clear to the average resident. The most obvious benefits of agriculture include nearby food production and sales, employment opportunities, and net cash return. Agriculture also provides indirect benefits that contribute to the high quality of life enjoyed by the county's residents, such as providing scenic views that enhance the aesthetic value of communities, providing areas for groundwater recharge, and providing areas for wildlife habitat.

In addition to benefits to the local economy and to the environment, agriculture also benefits the local tax base. The American Farmland Trust conducted a cost of community services study in 1998 on five municipalities in Monmouth County: Freehold Township, Holmdel, Middletown, Upper Freehold and Wall. The study looked at the impact different land uses have on municipal budgets. It showed that open lands such as farms, forests, and open space have a positive fiscal impact on municipal budgets. (American Farmland Trust, 1998). Residential development may appreciate rapidly, but also has a high service demand (education, police, fire, utilities, etc.) that in the end is a net cost to the municipality. Commercial and industrial development, often promoted and sought after by municipalities, provides ratables over the short-term but have been found to actually increase taxes over time and not appreciate as fast as open space and residential development.

Farmland and open space, on the other hand, provide a surplus of tax revenues due to low service demands. This surplus may be used to offset the loss from other land uses that have high service demands. A municipality that provides a balanced approach to land use planning that includes farmland and open space preservation is better equipped to manage its future growth (American Farmland Trust, 1998). The challenge is to preserve farmland, and to maintain and enhance the agricultural industry, with limited funding during a time of high development pressure.

Agricultural Support Services within the Market Region

Monmouth County's agricultural industry relies on many local and regional vendors. The county is lucky to have Farmers Brokerage and Supply (FB&S) in Upper Freehold. FB&S serves a wide swath of New Jersey from Mullica Hill to Baptistown. The store is owned by the NJ Farm Bureau. It sells seed, hardware, parts for tillage equipment, chemicals, and fertilizers. FB&S also has a custom application business. Marlboro Township houses an outpost of Central Jersey Equipment, a John Deere dealer. There are also three Tractor Supply Company outlets in Monmouth County, one in Upper Freehold, one in Tinton Falls, and one in Middletown as well as three outlets just

over the county line. Rick's Saddle Shop in Upper Freehold and Englishtown, Dill's in Freehold, and Ocean Feed in Manalapan are some popular local sources for animal feed. Many area nurseries take advantage of Kube-Pak in Upper Freehold for its starts and seedlings.

Farmers in need of equipment and machinery frequently rely on dealers in Cumberland or Salem counties such as Leslie G. Fogg Inc. or travel to Lancaster County, Pennsylvania to dealers such as Hooper Inc., Messick's Farm Equipment, or Wengers. Many also buy used equipment advertised in regional farm journals and on the Internet or make their own repairs using mail-order parts. For the construction of new barns and stables, many county farmers work with the Amish community in Pennsylvania.

The equine industry has its own network of suppliers that grow and sell hay and feed and offer veterinary and farrier services. Not surprisingly, Monmouth County has no shortage of these purveyors. For example, the State Agriculture Development Committee's draft GreenPages (NJ SADC, 2021) lists 11 equine, large animal, and ruminant veterinarians in the county.

The draft GreenPages is an update to an excellent resource directory for agricultural support services that Rutgers Cooperative Extension of Salem County previously compiled. It is the SADC's intention to publish and distribute this guide in the near future. In its current form, it is organized as an Excel Workbook with tabs for Construction & Contractors, Supplies & Services, Government Offices, Auctions-Coops-Grain Buyers, and Professional Services. Monmouth County's Grown in Monmouth[®] program is another invaluable resource for the agricultural industry in the region, connecting growers to support services, processing facilities, and sales outlets. The Grown in Monmouth website, www.growninmonmouth.com, provides links to legal and business planning resources for farm operations as well as food safety and marketing information.

Other Agricultural-related Industries

Monmouth County's agricultural economy has many demographic and locational advantages and interconnections. As previously mentioned, Monmouth County lies within the populous I-95 Corridor between New York to Philadelphia which creates a strong demand for fresh produce and seafood as well as plant materials for landscaping and garden use. Farmers and fish vendors not only sell their wares at on-site farm stands and community farmers markets but also supply local supermarkets and specialty markets, as well as restaurants. Although there are no large fruit and vegetable processors left in the county, there are several value-added producers that make pies, wine, beer, spirits, non-alcoholic cider, and sorbet. Nursery and horticultural operations sell plant material directly to the consumer at garden centers and farm markets or may sell directly to landscapers. Many of the county's larger operations sell wholesale through catalogs, the Internet, or other means. The county's many prominent standardbred, thoroughbred and sport horse breeders find a market in the industry tied to the county's two racetracks, the Meadowlands, and the NJ Horse Park and even outside the state and country. The nursery, spirits, aquaculture, and agritourism industries are among those described in further detail in Chapter VI.

III. LAND USE PLANNING CONTEXT

The county's agricultural land base and agricultural industry fit within a larger land use planning context. To help select farms suitable for preservation and better understand the constraints and supports for the agricultural economy, this chapter will examine the New Jersey State Development and Redevelopment Plan (SDRP), the Monmouth County Master Plan (2016 and 2018 Re-Examination), overall land use patterns and trends, existing and proposed infrastructure, municipal master plans and zoning, development applications, and transfer of development rights (TDR) opportunities.

This chapter addresses all the county's 53 municipalities; however, certain sections focus on the 12 communities in the county with significant remaining expanses of farmland. These municipalities are Colts Neck, Freehold Township, Holmdel, Howell, Manalapan, Marlboro, Middletown, Millstone, Roosevelt, Tinton Falls, Upper Freehold and Wall.

New Jersey State Development and Redevelopment Plan

As discussed in Chapter 2 of the 2016 *Monmouth County Master Plan*, The State Planning Act of 1985 (N.J.S.A. 52:18A-196 et seq.) created the New Jersey State Planning Commission and the Office of State Planning. The Act requires the commission to prepare and adopt a State Development and Redevelopment Plan (SDRP). The most current adopted plan, *The New Jersey State Development and Redevelopment Plan (2001)*, sets forth a vision for the future of the state along with strategies to achieve that vision.

The 2001 SDRP's reliance on maps had been a point of both contention and distraction for many municipalities as state agencies attempted to use the State Plan Policy Map for regulatory means. Although the Cross-Acceptance process was a helpful exercise in aligning local, county, and state plans and policies, there had been considerable consternation regarding the cost and length of the process as well as the unrealized benefit for communities engaged in Plan Endorsement. According to the October 2011 *Proposed Final Draft - State Strategic Plan: New Jersey's State Development & Redevelopment Plan*, "there is no escaping that this process was mired in starts and stops and paralyzed by competing public interests related to, for example, environmental protection and affordable housing."

Since 2010, the Office of Planning Advocacy (OPA) has been working on developing a new *State Strategic Plan*, one that is more streamlined than previous versions. As stated by the OPA, the new plan will provide,

"...opportunities for responsible growth and redevelopment in New Jersey and create a strategic implementation plan that capitalizes on these opportunities by better coordination of capital improvement investments and regulatory regimes of state agencies. A sustainable framework requires that we balance environmental stewardship, economic growth and social equity." (Department of State, 2012)

On October 19, 2011, the State Planning Commission released a proposed final draft report entitled the *State Strategic Plan: New Jersey's State Development and Redevelopment Plan*. As stated in the document itself,

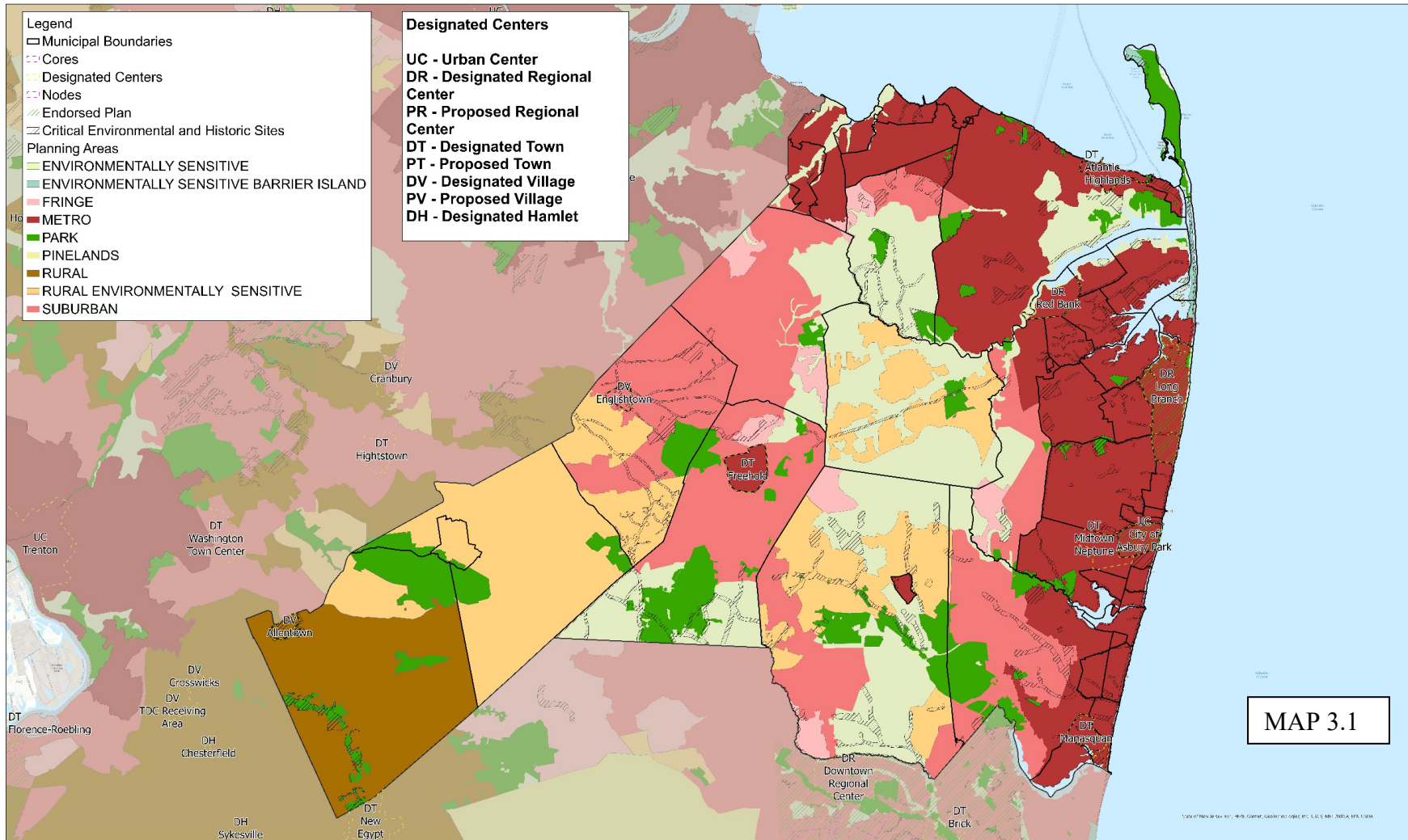
“This State Strategic Plan is New Jersey’s revised and readopted State Development and Redevelopment Plan, designed to meet the statutory charge of representing — a balance of development and conservation objectives best suited to meet the needs of the state.”

The *State Strategic Plan (final draft)* has refocused its policy efforts by eliminating the predominance of the State Plan Map in planning efforts, instead relying on a set of goals and series of “Garden State Values” that better articulated a smart-growth philosophy of development and preservation. The proposed plan establishes a set of criteria to determine areas for different types of growth and preservation, which could guide where various kinds of public investments would be made (NJ Spotlight, 2013). Specifically, the plan’s Goal 3, Preservation and Enhancement of Critical State Resources, is to “Ensure that strategies for growth include preservation of our state’s critical natural, agricultural, scenic, recreation, and historic resources, recognizing the role they play in sustaining and improving the quality-of-life for New Jersey residents and attracting economic growth.”



The preserved C & J Farms and Maple Leaf Farm in Manalapan and Marlboro are two of the last remaining large farms along Monmouth County’s Route 9 Corridor (Monmouth County Division of Planning)

Policy Map of the New Jersey State Development and Redevelopment Plan - Monmouth County



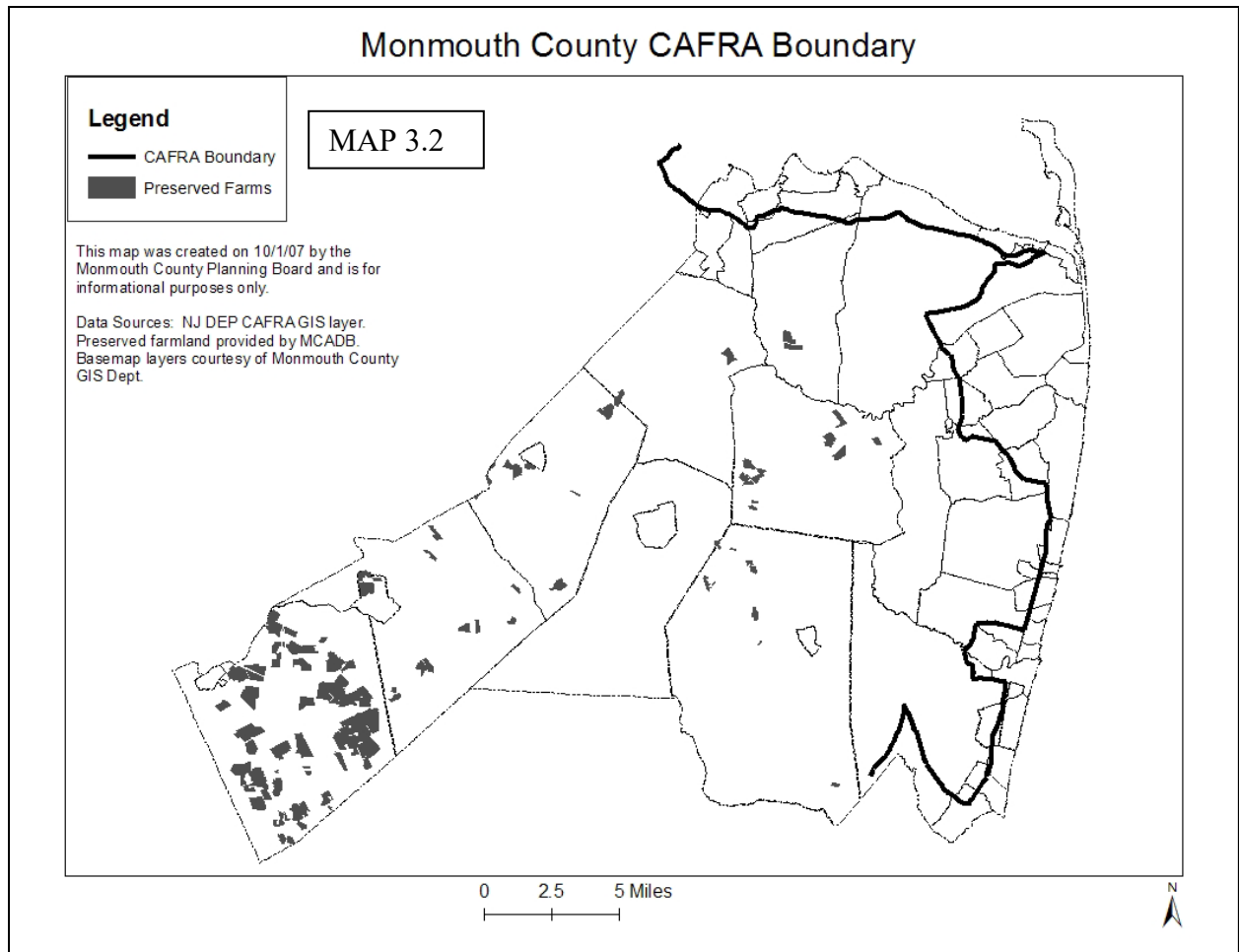
MAP 3.1

Map Notes:
 1. Map created on March 11, 2022 by the Monmouth County Division of Planning for informational purposes only
 2. Data sources: NJ Office of Planning Advocacy, Monmouth County GIS



Special Resources Areas

There are only a dozen communities in Monmouth County with sizable concentrations of farmland. These municipalities have many unique and valuable natural resources but none are located in any special resource area such as the Highlands or NJ Pinelands. The coastal municipalities of Monmouth County are located in a Coastal Area Facility Review Act (CAFRA) zone (See Map 3.2). The zone includes portions of Middletown and Wall but these sections of the townships fall outside the county's Agriculture Development Areas (ADAs).



County Master Plan and Development Regulations

There have been several iterations of the county's master plan over the years. A discussion of early versions as well as the most recent one follows.

History

The preservation of farmland, and the agricultural component of the county's economy, has been a long-standing goal of the Monmouth County Planning Board. *The General Development Plan 1969-1985* contained a land use plan for the county that proposed urban development in three main areas of the county: the Garden State Parkway corridor; the Route 9 corridor; and a greater-

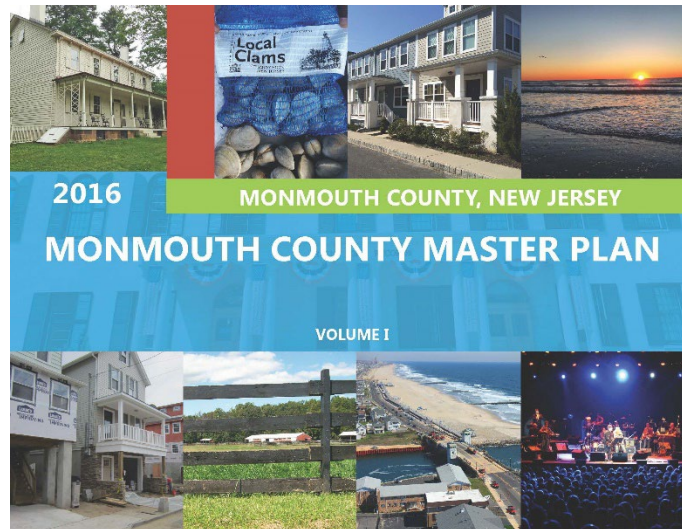
Trenton metropolitan area near Allentown. The land use plan also identified certain areas of the county that were more suitable for agriculture, open space, and low-density development. These areas were located in central Monmouth between the Route 9 and Garden State Parkway growth corridors and in western Monmouth.

The *Monmouth County Growth Management Guide (GMG)*, adopted in 1982, designated Growth Areas and Limited Growth Areas. The GMG identified two Growth Areas based on four criteria: the presence of existing or planned infrastructure; proximity to existing major population and employment centers; proximity to established urban centers; and public transportation service. Limited Growth Areas reflected the following: absence of infrastructure; presence of significant areas of environmentally sensitive or special use lands, and lack of public transportation. The Growth Management Guide further identified Agriculture/Conservation Areas consisting primarily of farmlands and woodlands. Main objectives of the guide included the preservation of prime agricultural land and the maintenance and expansion of the agricultural potential of the county. The guide proposed a regional approach to farmland preservation through a coordinated effort with municipalities, other regional agencies, and the state.

The *Monmouth County Growth Management Guide: Goals, Objectives and Policies*, adopted in 1995, updated, revised and reaffirmed the county's planning goals. One of the main goals of the guide was to promote and uphold the agricultural industry and to provide assistance for farmland preservation. Three main objectives and 21 separate policies underscored this goal.

The 2016 *Monmouth County Master Plan* replaced the GMG as the county's comprehensive master plan. It no longer reflects an era of mass suburbanization and is "more focused on the redevelopment, revitalization, and rediscovery of communities throughout the county." The plan has 14 chapters including one on farmland preservation and one on agricultural and economic development. Both of the chapters updated and expanded upon information in the 2008 *Monmouth County Farmland Preservation Plan*; however, they did not meet the State requirements for comprehensive farmland preservation plans.

The master plan sets 3 goals, each with a series of underlying principles. Goal #2 is to "promote the protection and conservation of natural and cultural resources to help guarantee long-term sustainability." Principal 2.2 focuses on farmland preservation and lists a number of related objectives. Goal #3 is to "promote beneficial development and redevelopment that continues to support Monmouth County as a highly desirable place to live, work, play, and stay." Principal 3.5 aims at agricultural development and establishes five objectives. The Planning Division followed the 2016 document with the *Monmouth County 2018 Master Plan Reexamination*.



A series of more specific regional and categorical plans have been adopted as elements of the County’s Master Plan. These plans include the *Monmouth County Farmland Preservation Plan* (2008), the *Monmouth County Open Space Plan* (2019), and the *Western Monmouth Development Plan* (2004).

The *Monmouth County Farmland Preservation Plan* (2008) was prepared to meet the requirements of the State Agriculture Development Committee (SADC) and to guide Monmouth County’s Farmland Preservation Program. The plan recognizes the historical importance of agriculture in the county; sets future goals and targets for the program; outlines preservation techniques, administration, and implementation; describes agricultural industry promotion and development; and ensures consistency with municipal and regional land use planning and preservation efforts. When adopted, this new 2022 Comprehensive Farmland Preservation Plan will replace the 2008 plan.

The *Monmouth County Open Space Plan* (2019) is another component of the county’s master plan. It sets open space acquisition goals, targets specific project areas, and discusses joint efforts between the Monmouth County Park System Farmland Preservation Program.

The *Route 9/Western Monmouth Development Plan* (2004) is a regional study intended to build upon the Growth Management Guide. It focuses on seven municipalities along the Route 9 highway corridor. The plan addresses regional issues and proposes feasible growth and conservation strategies to be incorporated into municipal land use and design regulations. Of the seven municipalities, four participate in farmland preservation programs thus making it an important document which helps guide policy related to the county’s farmland preservation efforts.

The *Panhandle Region Plan* (2011) covers the western reaches of Monmouth County including Upper Freehold, Millstone, Allentown, and Roosevelt. One of the plan’s three primary goals is to “promote farmland retention and support for the agricultural industry and retain the area’s rural and historic landscape and character.” The document includes a chapter on agriculture that

discusses overarching stakeholder concerns, the equine industry, agritourism, soils, Monmouth County and municipal farmland preservation efforts, zoning strategies, agribusiness, the Upper Freehold Historic Farmland Byway, and emergency animal response.

The 2017 *NWS Earle Joint Land Use Study* (JLUS I) is a cooperative land use planning effort among Monmouth County, local governments, and Naval Weapons Station Earle. The study presents a rationale, and provides a policy framework, to support the adoption and implementation of planning and development measures that are compatible with the military installation. The goals of the study are to minimize the public health, safety and welfare impacts of the base on neighboring jurisdictions and to limit the encroachment of the civilian community on the military installation. A *Next Steps to Compatibility Planning Study* is a current project being funded by the military's Office of Local Defense Community Coordination. A follow-up to JLUS I, it focuses on the five municipalities immediately surrounding NWS Earle: Colts Neck, Howell, Middletown, Tinton Falls, and Wall. Its purpose is to promulgate a series of planning tools and recommendations that best support the mission of the base and ensure the safety of citizens in the region.

Current Land Use and Trends

Overall Farmland Trends

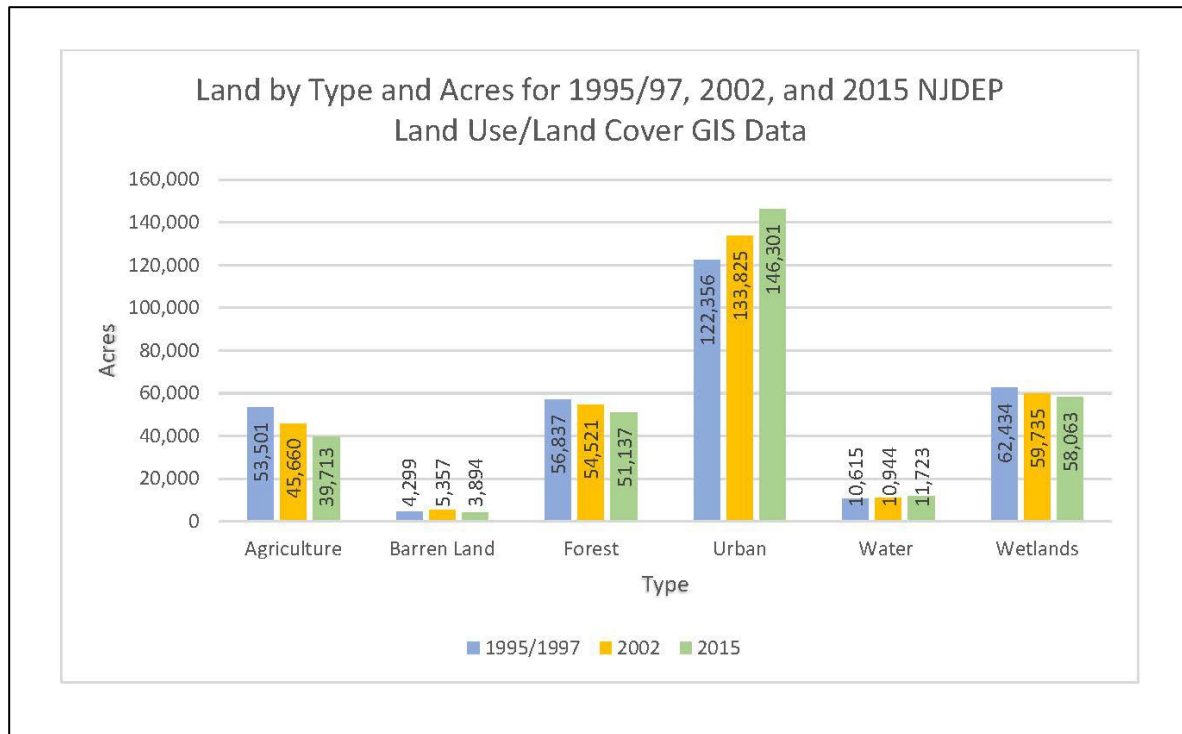
As seen in the first chapter, Chart 1.1 illustrates the most recent farmland acreage history of Monmouth County. The data shows that over the last three decades, the cumulative farmland acreage in Monmouth County has been decreasing. About 40 percent, or 26,648 acres, of farmland converted to other uses between 1987 to 2017.

Since the Farmland Preservation Program's inception in 1987, an estimated cumulative total of 15,630 acres have been preserved throughout Monmouth County through October 2021, thus preserving 32 percent of all available farmland in the County (as per 2019 Farmland Assessment information).

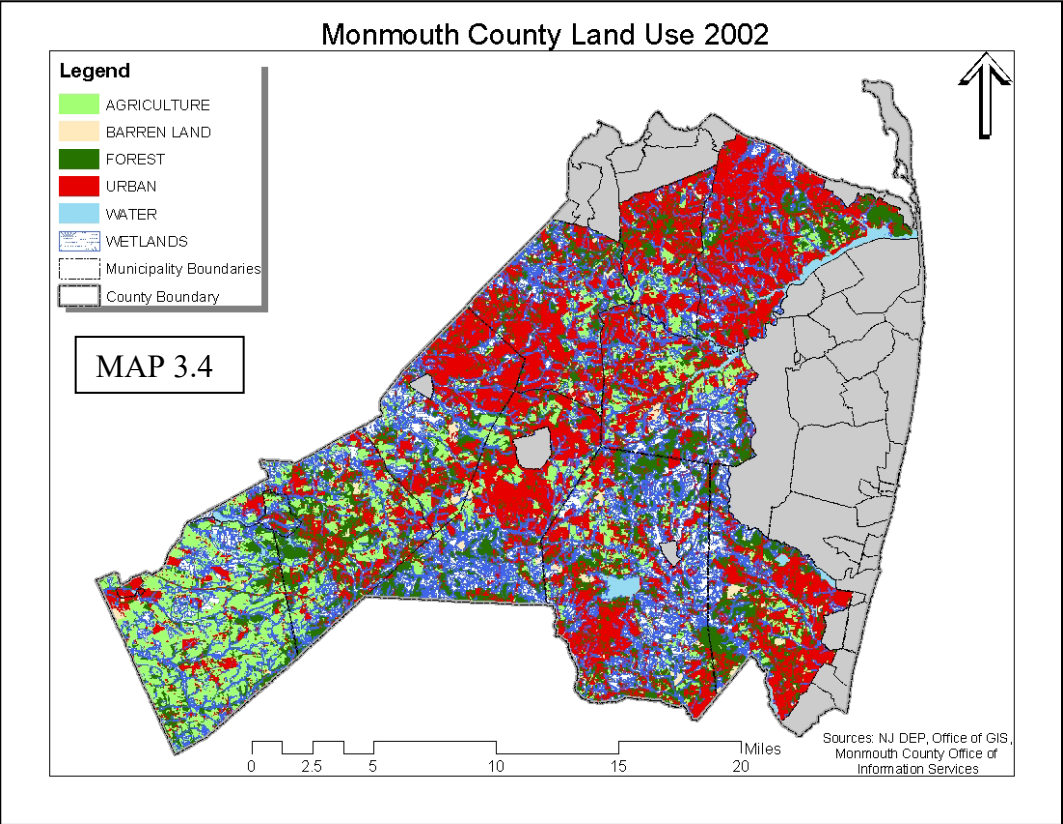
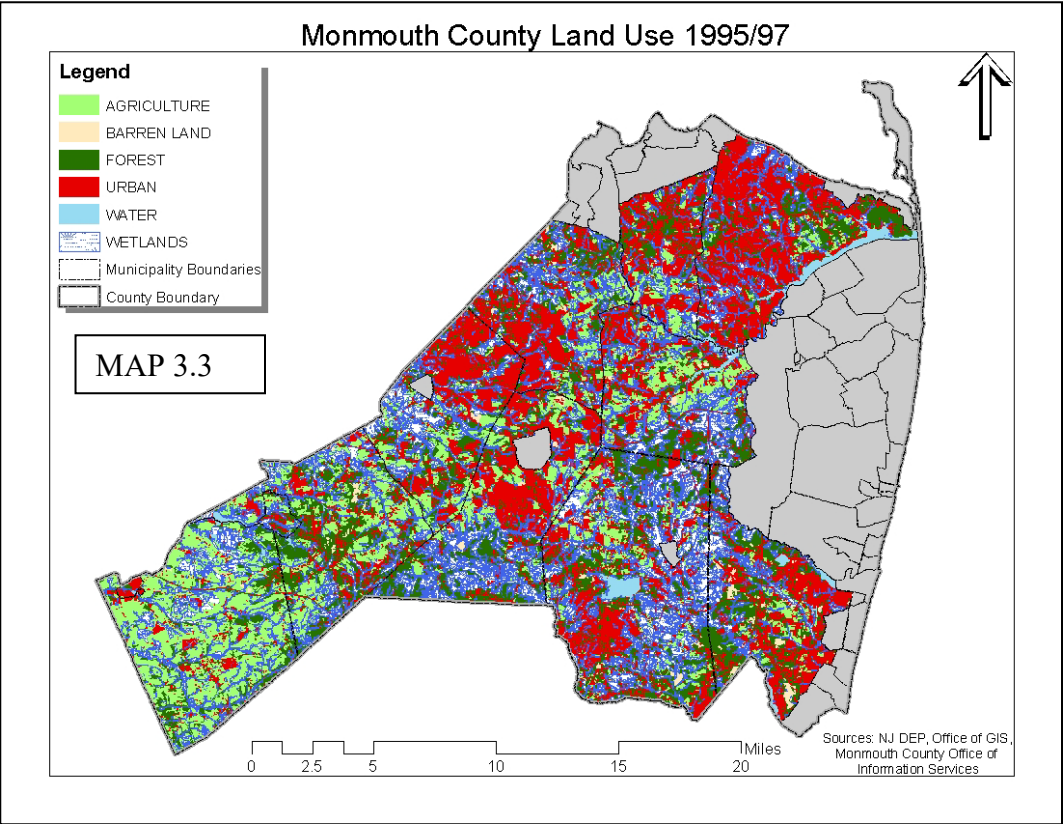
Land Use Trends Using NJ DEP Land Use Data

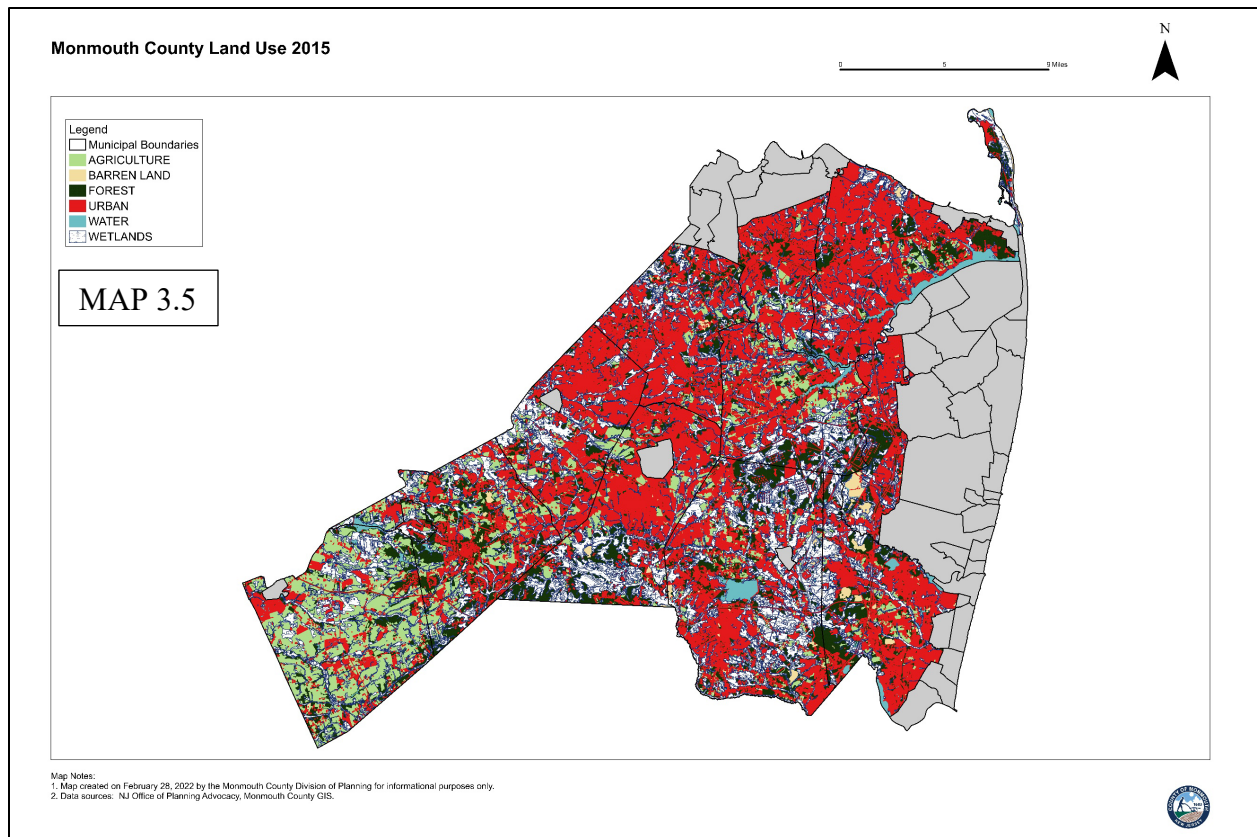
Using available Land Use and Land Cover GIS data from the New Jersey Department of Environmental Protection (NJ DEP), Chart 3.1 shows the changes to land by type between 1995/97, 2002, and 2015. Urban land increased 9 percent between 1995/97 and 2002. It rose by another 9 percent between 2002 and 2015. On the other hand, agricultural lands (including modified agricultural wetlands) decreased by approximately 17 percent between 1995/97 and 2002 in conjunction with a 13 percent drop between 2002 and 2015. Forested land decreased by 4 percent between 1995/97 and 2002 and 6 percent between 2002 and 2015. Other wetlands decreased by 5 percent between 1995/97 and 2002 followed by a 3 percent decrease between 2002 and 2015.

CHART 3.1 Land by Type for 1995/97, 2002, and 2015



The land use/land cover maps that follow (Maps 3.3, 3.4, and 3.5) depict these same land type categories and changes. A total of 12,856 acres changed land types between 1995/97 and 2002 and a total of 25,721 acres changed land types between 2002 and 2015.





Development Pressure and Land Value Trends

Warehouse development and affordable housing projects comprise much of the development pressure Monmouth County has experienced over the past several years. Over the past five years, the County has received development applications seeking approval for over 6.8 million square feet of warehouse space. In particular, warehouse development has focused on properties proximate to the county’s major arterials, such as I-195 and State Highways 33 and 34. In addition, many of the county’s municipalities have approved residential development projects intended to satisfy part of their affordable housing obligation.

The recent resurgence in development activity follows the lull that occurred during and after Great Recession (2007-2009). A return to providing affordable housing and an increase in demand for warehouse space following the onset of the COVID-19 pandemic were the principal factors that led to a ramping up of development activity. The pandemic drove an increase in property values, especially for residences, as residents of urban communities, such as New York City, moved to lower density suburban areas. In addition, shopping habits changed as people sought to minimize contact with other individuals. This then drove the increased demand for warehouse space due to an increase in online shopping. Unfortunately, many warehouse projects are being built based on a speculative demand.

During the community outreach phase of the county’s Master Plan development, one of the working groups noted the long-range challenge of high land values in the region. In 2016 the market value of land and buildings in Monmouth County was \$1,021,640 per farm, which works

out to \$21,581 per acre. The median cost per acre of an easement preserved in Monmouth County from 1987 to 2016 was \$16,600. Because Monmouth County's real estate prices are high, preservation funds do not stretch as far as they do in counties with lower median easement values. High land values also create barriers to entry for young and new farmers, fuel pressure for landowners to sell to developers, and complicate estate planning since heirs may owe substantial taxes.

Sewer Service Areas/Public Water Supply Service Areas

Although most of the agricultural areas of Monmouth County rely on septic systems, portions of the county are served by sewerage authorities such as the Manasquan Regional Sewerage Authority, Western Monmouth Utility Authority, and Bayshore Regional Sewerage Authority. Through its role as a Designated Water Quality Management Planning Agency, Monmouth maintains and amends the county's Wastewater Management Plan and Future Wastewater Service Area (FWSA) map. Monmouth County last updated its Wastewater Management Plan in 2018 but the plan has yet to be adopted by the NJ DEP. However, the county has approved amendments to its FWSA map in coordination with the NJ DEP and in accordance with state regulations. See the most recent map on the Monmouth County [website](#) or use the map viewer on the [Monmouth County GeoHub](#).

The Monmouth County Planning Board's Amendment Review Committee meets as needed to review Site Specific Amendment requests from applicants seeking to expand the sewer service area to connect to sewer lines or discharge over 2,000 gallons of wastewater per day to groundwater. Map 3.6 depicts Monmouth County's current and future sewer service areas relative to agricultural land and Agricultural Development Areas (ADAs). These areas do not overlap significantly with the newest iteration of the county's ADAs map.

Several of the county's agricultural municipalities, including Colts Neck, Millstone, and Upper Freehold, rely almost entirely on well water. Other communities such as Howell, Manalapan, and Roosevelt, are partly served by public water supply companies such as Gordons Corner Water Company, New Jersey American Water Company, and Suez whereas the remaining sections of the municipalities rely on wells. Freehold Township, Marlboro, Middletown, and Wall are primarily served by Freehold Township Water Department, Gordons Corner Water Company, Marlboro Township Municipal Utilities Authority, New Jersey American Water Company, and Wall Township Water Department. Map 3.7 shows water purveyor service areas within Monmouth County.

Monmouth County Sewer Service Areas and Agricultural Land

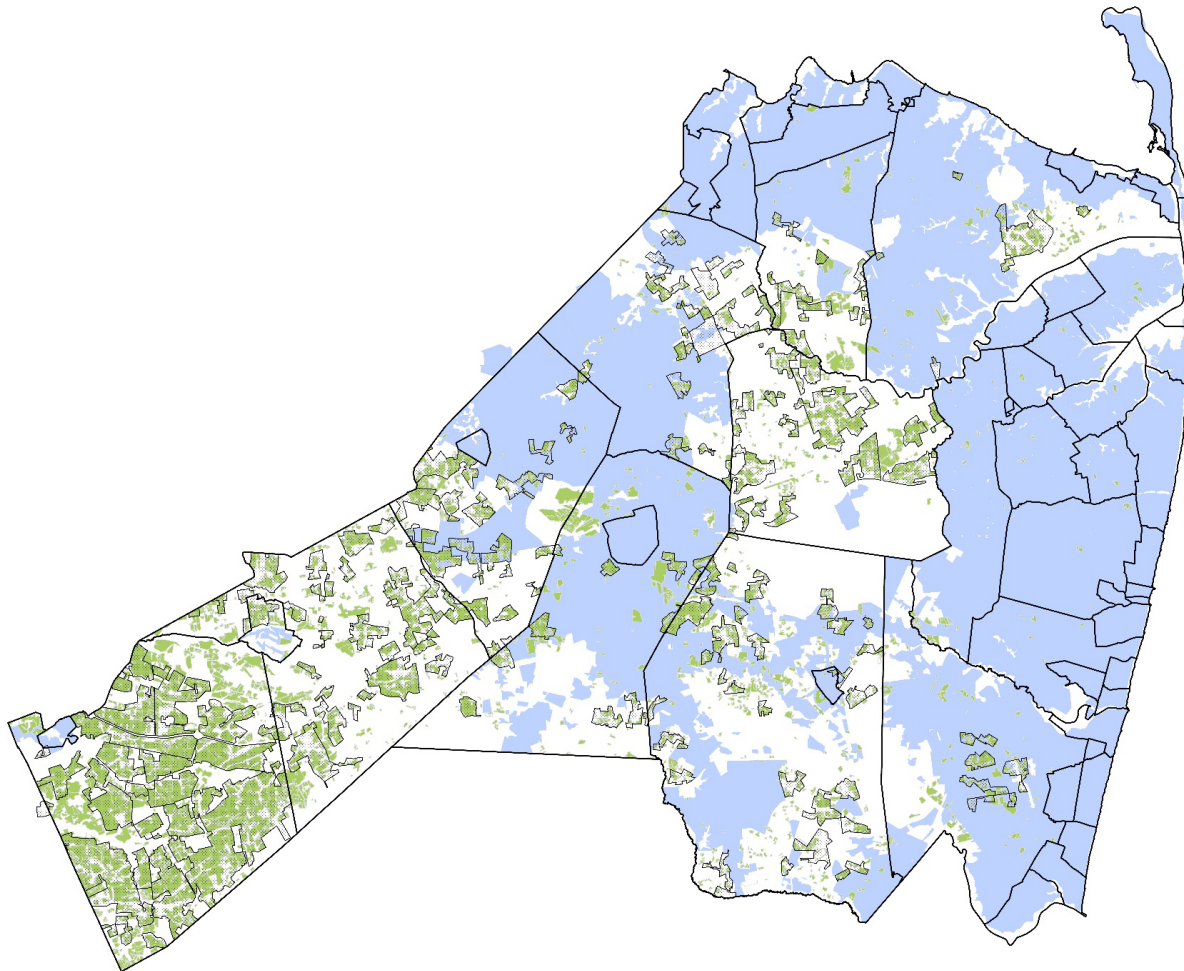
Monmouth County Agriculture Development Board
One East Main Street, Freehold, New Jersey 07728



Legend

- Municipal Boundaries
- Agricultural Land
- Agricultural Development Areas
- Sewer Service Areas

MAP 3.6



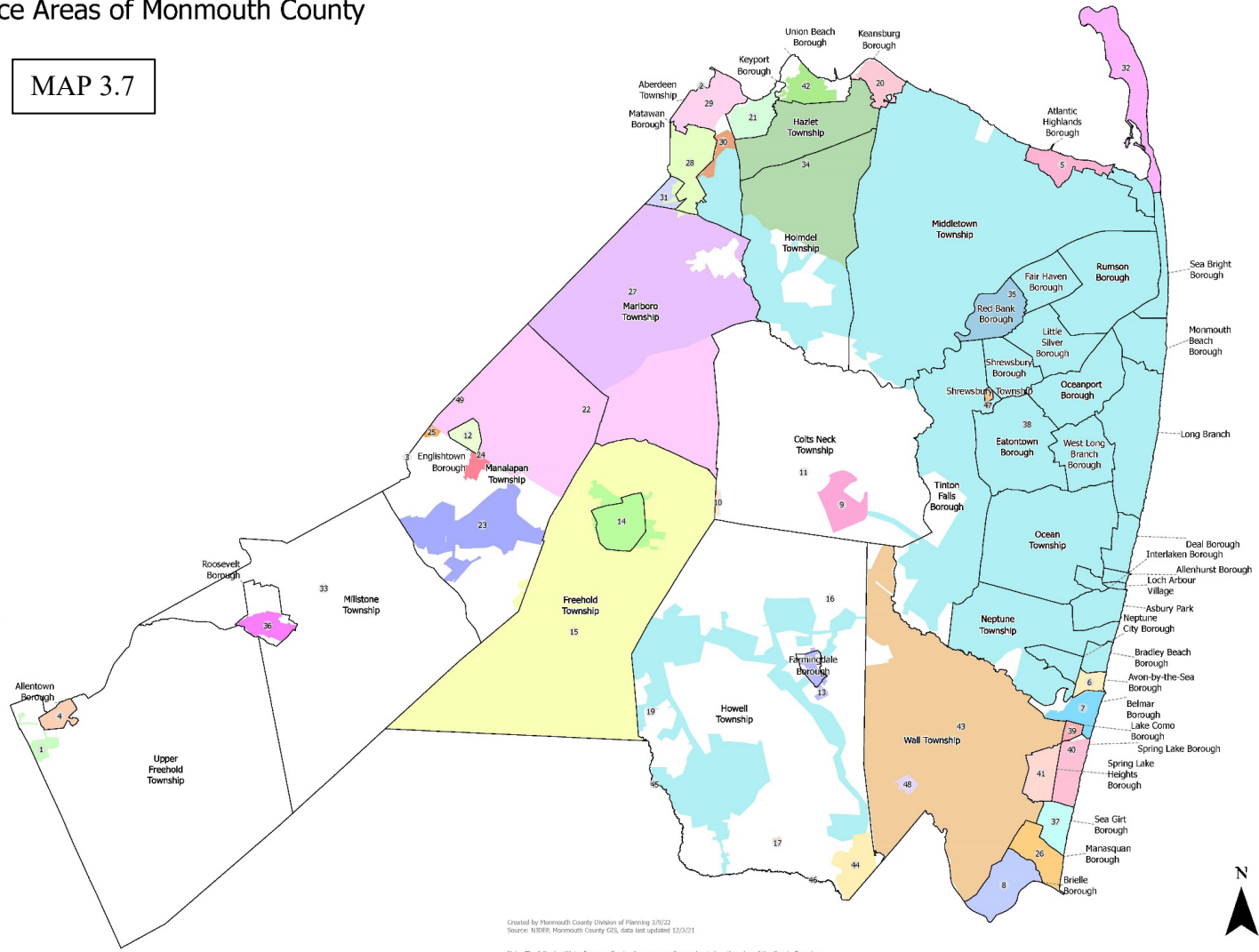
Map Notes:
1. Map created on March 10, 2022 by the Monmouth County Division of Planning for informational purposes only.
2. Data sources: NJDEP Land Use/Land Cover GIS data (2015), Monmouth County GIS
3. ADAs adopted by the MCADB on October 5, 2021



Water Purveyor Service Areas of Monmouth County

MAP 3.7

- Legend
- Municipal Boundaries
 - Monmouth County Water Purveyors
 - 1, Aqua NJ - Hamilton Square
 - 2, Old Bridge MUA
 - 3, Monroe Twp UD
 - 4, Allentown WD
 - 5, Atlantic Highlands WD
 - 6, Avon by the Sea WD
 - 7, Belmar WD
 - 8, Brielle WD
 - 9, US Naval Weapons Station
 - 10, SUEZ Water NJ Colts Neck
 - 11, Brandywine Assisted Living at Colts Neck
 - 12, Englishtown WD
 - 13, Farmingdale WD
 - 14, Freehold Boro WD
 - 15, Freehold Twp WD
 - 16, Angle Inn Motor Court
 - 17, Winding Brook MHP System 1
 - 18, Winding Brook MHP System 2
 - 19, Green Acres NJ MHC LLC
 - 20, Keanburg Water and Sewer Dept.
 - 21, Keyport WD
 - 22, Gordon's Corner WC
 - 23, SUEZ Water NJ Manalapan Knob Hill
 - 24, SUEZ Water Manalapan Milhurst
 - 25, Manalapan Twp WD - Tracy Station
 - 26, Manasquan WD
 - 27, Marlboro Twp Water Utility Division
 - 28, Matawan Borough DW
 - 29, Aberdeen - Cliffwood-Cliffwood Beach
 - 30, Aberdeen - High School/ Oak Shade Area
 - 31, Aberdeen - Freneau
 - 32, Gateway National Rec Area
 - 33, Millstone Manor
 - 34, NJ American - Shorelands
 - 35, Red Bank WD
 - 36, Roosevelt WC
 - 37, Sea Girt WD
 - 38, NJ American - Coastal North
 - 39, Lake Como WD
 - 40, Spring Lake WD
 - 41, Boro of Spring Lake Heights WD
 - 42, NJ American - Union Beach
 - 43, Wall Twp Water Dept
 - 44, Brick Twp MUA
 - 45, Jackson Twp MUA
 - 46, Lakewood Twp MUA
 - 47, Shrewsbury Twp MUA
 - 48, NJ Water Supply Authority - Manasquan
 - 49, SUEZ Water NJ Matchaponix



Created by Monmouth County Division of Planning 3/7/22
 Source: NJDEP, Monmouth County GIS, data last updated 12/3/21

Note: The following Water Purveyor Service Areas are small areas located on the edge of the County Boundary, these areas may or may not be applicable in Monmouth County: 2, Old Bridge MUA, 3, Monroe Twp UD, 46, Lakewood Twp MUA, and 45 Jackson Twp MUA.

Municipal Master Plan and Zoning – Overview

Staff of the Monmouth County Planning Board analyzed master plans and zoning ordinances for the 12 municipalities of primary interest to the Farmland Preservation Program. Each column in Chart 3.3 represents a land development tool or policy that supports, sustains or enhances rural character, agricultural uses or agriculturally based businesses. Tools and policies applicable to a municipality are denoted with an ‘x’ in the appropriate box. These planning techniques include right-to-farm ordinances, clustering, lot size averaging and low-density zoning. Other tools not covered in the chart include special subdivision allowances for preserved farms and provisions for farm stands and agricultural labor housing. A more detailed explanation of these issues by municipality is presented after the table.

CHART 3.2 Policies and Planning Techniques that Support Agriculture

Municipality	Vision Statement	Master Plan Goals and Objectives	Right to Farm	Country Code	Cluster Option	Lot Averaging	Rural Zoning (Lower Density)
Colts Neck		X	X		X	X	X (10-acre)
Freehold Twp		X	X		X		X (5 & 10-acre)
Holmdel		X	X		X	X	X (4 & 5-acre)
Howell		X	X		X	X	X (6-acre)
Manalapan	X	X	X		X	X	X (3 & 4-acre)
Marlboro		X	X		X	X	X (5 & 10-acre)
Middletown		X			X		X (3 & 5-acre)
Millstone	X	X	X		X	X	X (6 & 10-acre)
Roosevelt		X			X	X	X (10-acre)
Tinton Falls					X	X	
Upper Freehold	X	X	X	X	X	X	X (5 & 6-acre)
Wall		X	X		X		X (5 & 6-acre)

1. Colts Neck Township

The Township of Colts Neck identifies preserving its remaining farmland from overdevelopment as a top priority. The municipality has taken numerous steps to promote this goal. It has an active Agricultural Advisory Committee and, with its partners, has preserved more than 20 farms in the last few decades. Its residential districts are regulated to blend in with the agrarian landscape. Colts Neck was one of the first communities in the state to enact 10-acre residential zoning. The municipality encourages lot size averaging for new residential subdivisions in addition to promoting cluster zoning, thereby maintaining large parcels of agricultural and environmentally sensitive lands. To support its agricultural businesses, Colts Neck amended and supplemented its code for temporary farm stands in 2019 to better match the state’s Agricultural Management Practice (AMP) for On-farm Direct Marketing. Furthermore, the township adopted a Farmland Preservation Element for its Master Plan in 2013 which is further supported in the 2020 Re-examination Report.

Some other development regulations enacted by the township that are intended to maintain agriculture as a viable industry and preserve the community’s rural character, include:

- Allowance of agriculture as a permitted principle use in A-1, A-2, A-3, A-4, A-5 and AG zone districts;
- Provisions for farm structures as accessory uses;
- Provisions for additional dwelling units to serve as living quarters with conditions;
- Permission for riding/training stables to hold equine shows and events that are open to the public;
- In the Business Zone, allowance for commercial services and businesses that are needed to maintain and support local and regional agricultural uses; and
- A right-to-farm ordinance.

2. Freehold Township

Freehold Township recently updated its Master Plan (July 2021). Within it, the municipality identifies the following objective related to agriculture:

- To provide sufficient space in appropriate locations within the township for agricultural, residential, business, office, industrial, and public and quasi-public uses in a manner which will provide for balanced township growth and development.

Farming activities continue in the township although they have diminished over time. The municipality has partnered with the county and state on several agricultural easement purchases in the last two decades, including the Clayton and Gibson farms. Lower density zoning is common throughout the southern portion of Freehold Township. The Rural-Environmental (RE) ten-acre zone district encompasses lands not served by public sewer within the Manasquan River, Toms River, and Metedeconk River watersheds. Similarly, a Rural Residential (RR) five-acre zone district encompasses lands with a prevailing high-water table and sensitive environmental features.

Some of the township's development regulations that are intended to maintain agriculture as a viable industry and preserve the community's rural character include:

- Allowance of agriculture as a permitted principle use in all zones (per O-20-12, Ch 265 - Right to Farm) last revised in 2020;
- Allowance of farms in all other residential zones with some limitations;
- Scenic Roadway Corridor Overlay Zone to maintain and enhance the rural character of roadways throughout the township;
- Little or no restrictions on farm fences;
- Allowance of farm stands and associated equipment as permitted accessory uses;
- Provisions for temporary farm stands; and
- Residential cluster option for open space.

3. Holmdel Township

The goals and objectives identified in the 2004 Holmdel Township Master Plan include several statements of policy that support and promote agriculture. Since 2004, the Township adopted the 2010 and 2020 Master Plan Re-examination reports. The major agricultural concern identified in the 2004 Master Plan was the rapid loss of farmland, in large part due to

increasing land values and development pressure. Some of the policies from the 2004 Master Plan which remained legitimate concerns in the 2010 Re-examination report are:

- Protect the unique character of Holmdel, which consists of desirable residential neighborhoods, attractive commercial areas and business campuses, and the historic hamlet of Holmdel Village and its agricultural environs;
- Continue to preserve large contiguous open space areas that provide opportunities for farming;
- Encourage development patterns that maintain opportunities for agricultural activity;
- Promote the continued agricultural use of productive farmland soils;
- Promote the continued viability of the agricultural industry;
- Coordinate park planning with initiatives for farmland and open space preservation and natural resource conservation; and
- Protect the visual quality of scenic corridors throughout Holmdel, particularly vistas of open space, natural features, farmland, and historic sites.

The 2020 Re-examination report did not add a substantive amount of commentary related to agriculture. To better support the retention of farmland in the township, Holmdel adopted its most recent Farmland Preservation Plan in 2010. Also, the township has an Agricultural Advisory Committee and has spearheaded or participated in a number of significant agricultural preservation projects.

The township's zoning code contains various provisions that are supportive of retaining agricultural industry as a viable use. These include:

- A right to farm ordinance;
- Allowance of agriculture and accessory farm buildings in most of the township's residential, office and industrial districts;
- Allowance of retail farm markets as well as temporary farm stands;
- Allowance of pick-your-own activities and associated signs;
- Allowance of temporary worker housing;
- Exemption of certain structures associated with agricultural and horticultural uses from site plan review;
- A cluster development option;
- Lot Area Range Subdivisions utilizing lot averaging; and
- Farmland Easements and Residual Dwelling Site Areas that provide use and bulk standards for properties with farmland preservation easements.

4. Howell Township

Howell prepared its most recent Master Plan Re-examination in 2019. A number of recommendations in the report sought to further delineate land uses from each other to prevent them from encroaching on agricultural and/or rural residential zoning districts. Proposals that relate specifically to agriculture or conservation include:

- Revising the township ordinance to address a loophole in the Agricultural Rural Estate (ARE) district standards. As of November 2019, bulk and dimensional standards that

would apply to grandfathered lots did not include any building or impervious surface coverage limitations;

- Updating the 2006 Conservation Element of the Master Plan; and

As directed, Howell updated its Conservation Element in 2021 and included recommendations for agricultural soils.

Other actions and development regulations enacted by the township intended to maintain agriculture as a viable industry and preserve rural character include:

- An open lands subdivision provision in the ARE zone;
- Cluster subdivisions;
- Lot averaging;
- A right to farm ordinance;
- A farmland preservation parcel allowance that corresponds to severable exceptions in agricultural deeds of easement;
- Adopting the December 2019 update to the Land Use Plan element;
- Submitting annual applications to the SADC's Municipal Planning Incentive Grant Program; and
- A weekly community farmers' market from May to October.

The township's 2011 Farmland Preservation Plan Element of the Master Plan includes the following recommendations and content:

- The identification of project areas for the Municipal Planning Incentive Grant Program;
- Avoiding measures that would accelerate the loss of agricultural land. To this point, the element states: "Zoning in agricultural areas should be principally low density residential. Infrastructure extensions through or to agricultural areas should be discouraged;" and
- The utilization of farmland preservation with other forms of open space protection to maximize public benefit from these programs.

5. Manalapan Township

Manalapan's vision statement includes the conservation of farmland. The most recent Master Plan Re-examination Report was adopted in 2009. The report notes that the total land area of preserved farms and open space in Manalapan increased as a result of the township's efforts, such as participation in the Municipal PIG Program. In addition, Manalapan maintains an Open Space Trust Fund.

Manalapan's most recent Farmland Preservation Plan Element was also adopted in 2009. The municipality's stated goal for preserving farmland is as follows:

The goal of Manalapan Township is to maintain the rural features of the community and secure the environmental, economic, and social benefits derived from farmland in Manalapan Township. To achieve its goal, the township, in conjunction with the County, the State and the private sector, will actively encourage, support and assist participation by local farmers and landowners in the township, County and State

farmland preservation programs in order to preserve as much farmland in the township as possible in the short term.

The Farmland Preservation Plan Element lists several actions taken by the municipality in support of the retention of farmland and the agricultural industry in Manalapan, as follows:

- Establishment of a permanent Agriculture Advisory Committee;
- Funding to support the acquisition of development rights to preserve Manalapan's farms;
- Appointment of a Township liaison to the MCADB;
- A right to farm ordinance;
- Rezoning of farm areas for lower densities and provisions for clustering, noncontiguous clustering, lot size averaging, and agricultural subdivision; and
- Limits to the sewer service area in an effort to discourage urban sprawl and the conversion of farms to non-agricultural uses.

Other Development regulations enacted by the Township intended to maintain agriculture as a viable industry and preserve rural character include the following:

- Establishing farms, farm stands and other accessory farm buildings as permitted uses in most of the township's zone districts; and
- Buffer ordinances.

6. Marlboro Township

Marlboro Township has an Agricultural Advisory Committee and has partnered or led preservation efforts for the F&F Nurseries, McCarron, Smith/Baymar and Stattel farms. In August 2011, Marlboro Township adopted a new Farmland Preservation Plan to replace the previously adopted element of the Master Plan. This comprehensive plan takes a holistic approach towards examining agricultural sustainability in Marlboro Township. In addition to acting as an update for the prior element, the 2011 Farmland Preservation Plan refined the Target Farms and Agricultural Preservation Project Areas for preservation programs. This plan was referenced in the Master Plan Re-examination adopted in July 2012.

Other actions and development regulations used by the township to maintain agriculture as a viable industry and preserve rural character include:

- Low-density residential districts including the Land Conservation (LC) zone (5-acres), Agriculture/Land Conservation (A/LC) zone (10-acres);
- Cluster developments permitted in the LC, R-80, R-60, R-30 zones;
- Lot size averaging permitted in the A/LC zone district;
- Allowance of farms in any zone district, provided that all buildings and structures utilized for farm purposes are set back at least one hundred feet from all property lines or in accordance with the setback requirements of the zone if such requirements are greater;
- Permission for roadside stands as an accessory use to farms in all zone districts for the sale of products raised on the farm but shall not be located closer than forty feet to any street line;
- Provisions for housing for seasonal farm workers;
- Authorizing the annual submission of Municipal PIG applications;

- Hosting a weekly community farmers’ market to promote local farms and ag-related businesses; and
- A right to farm ordinance.

7. Middletown Township

In the past decade, Middletown Township has continued its objective “to encourage the preservation and active use of prime farmland for agricultural production through development of appropriate guidelines...” as stated in its 2004 Master Plan through various means. These include:

- The facilitation of funds and management of the Middletown Township Open Space, Recreation, Floodplain Protection, Farmland and Historic Preservation Trust Fund;
- Increase in collection for the above fund from two cents per \$100 in assessed property valuation to three cents per \$100 in assessed property valuation; and
- Contributing financially to the preservation of 101 acres of farmland in the municipality between 2009 and 2021.

Development regulations that support agriculture include:

- Lower density zoning in the R-220, R-130 and R-110 districts;
- “Performance residential development” as a conditional use in certain zone districts. This type of development techniques is similar to cluster zoning in that the number of lots permitted cannot exceed the lot yield of conventional zoning. Farming and other agricultural activities are permitted as uses in these types of developments as long as they are permanently deed restricted as open space/farmland;
- Agricultural activities including commercial woodland, cropland, fisheries, livestock, pasture and rangeland, nurseries, orchards and vineyards are permitted uses in every zone district; and
- Roadside farm stands are viewed as an accessory use to an agricultural use and are allowed in every zone district.

8. Millstone Township

Millstone Township has a long and rich history as an agricultural community. In its 2017 Master Plan, it is noted that 31 percent of Millstone’s land area is occupied by farms, and that the agricultural products grown in Millstone are vital to supporting local and state food systems, thus contributing to public health by expanding access to fresh foods.

The master plan’s forward-looking vision statement emphasizes the township’s desire to maintain its rural nature. It says:

In 2027, Millstone is a thriving agricultural community, unique and identifiable by the extensive areas of farmland, open space, and environmentally sensitive features that have been preserved for future generations to use and enjoy. These natural, agricultural, and environmental features give Millstone its rural aesthetic, which is highly valued by both residents and visitors alike. Millstone maintains these unique qualities by emphasizing “green” infrastructure over “grey” infrastructure. The Township accommodates development, but manages its location, intensity, and

character through growth management techniques that preserve natural and rural areas from the extension of inefficient infrastructure systems and overdevelopment.

The master plan includes goals and objectives specific agricultural retention and preservation:

- Actively pursue all opportunities for farmland preservation;
- Work with the County on an ongoing basis to accomplish farmland preservation;
- Proactively approach property owners and advertise farmland preservation opportunities;
- Promote agritourism and eco-tourism; and
- Support the township's agricultural industry.

The township's latest Comprehensive Farmland Preservation Plan was adopted in 2020. It is particularly thorough and informative and underscores the township's commitment to maintaining agriculture as a viable industry and preserving the rural character of Millstone.

Millstone's development regulations and actions that support these principles include:

- A right-to-farm ordinance;
- An Agricultural Advisory Council and Open Space and Farmland Preservation Council;
- A dedicated open space tax of 5 cents per hundred dollars of assessed valuation;
- Low-density residential zone districts including the Rural Preservation (10-acre), Rural Conservation (6-acre), Rural Environmental (170,000 SF), and Rural Residential (R-130 and R-80);
- Permission for farming as a principle use in RU-P, RU-C, RE, R-130 and R-80 and a permitted use in Highway Commercial, Business Park District, and Recreational Camp zones;
- Allowance of farm stands and associated farm equipment as accessory uses for farms;
- Farmland/Open Space conservation clusters, including non-contiguous clusters, permitted in the RU-P, RU-C with potential bonus densities;
- Permission for those deed-restricting land through a farmland preservation program to subdivide one fully conforming lot for a single-family residence;
- Lot size averaging in the RU-P, RU-C zones and under certain conditions within the R-170, R-130 and R-80 zones; and
- Variable density techniques in the RE zone district.

9. Roosevelt Borough

The Borough of Roosevelt is a planned community designed to reflect the ideals of Ebenezer Howard's Green City movement. Maintaining an agricultural and open space greenbelt around the village core is essential for preserving the intent and character of the borough. The 2001 Master Plan supports the continuation of the historic community planning principles upon which Roosevelt was created. Several goals and objectives established in the Master Plan support this effort, as follows:

- Promote the preservation of the streets, buildings, agricultural fields and open spaces that, together, embody the historically significant village plan;
- Locate new residential uses to preserve the existing greenbelt, which forms the environs of the Roosevelt village core; and
- Encourage neighborhood office and retail uses in the village core, rather than within agricultural and conservation lands within the greenbelts.

Most agricultural lands are located in the northern half of the borough and a smaller portion in the southeast. Approximately 231 acres of farmland have been permanently preserved. The 2017 Master Plan Re-examination Report restated the borough's intent to re-designate and restore the agricultural area located in the northern portion of Roosevelt. The report states the "Borough has continued to work with County, State and non-profit organizations to preserve the original agricultural areas of the original Jersey Homesteads development plan."

Most privately owned land used for agricultural purposes is located in the R-AG-400 zone (10-acre minimum residential zone district). The stated purpose of this zoning district is "to facilitate the continuation of traditional agricultural lands for productive farming purposes in accordance with the original plan and design of Jersey Homesteads and the Roosevelt National Historic District; to minimize residential sprawl; [and] to encourage the perpetuation of the borough's agro-industrial design so long as it may be appropriate and to otherwise further the general purposes of this ordinance." The borough's land development ordinance provides that height limitations do not apply to farm buildings or structures on farms, provided these farm buildings are setback at least 100 feet from every lot line.

10. Tinton Falls Borough

The Borough of Tinton Falls adopted its most recent comprehensive master plan in May 2007. According to the master plan, 3.5 percent of the borough's total land area is used for agricultural purposes. The remaining tracts of farmland are dispersed and are mostly located in the R-1 zone district. Because agriculture represents such a small percentage of the borough's land use and economy, the master plan does not speak directly to preserving remaining farmland or retaining agribusinesses in the community. However, the following development regulations may be considered supportive of farm activities:

- Agricultural uses are permitted in the R-1, R-2, R-3 and R-4 residential districts and the RA Residential Agricultural zone.
- Clustering and lot size averaging options.

11. Upper Freehold Township

Upper Freehold Township is a leader in farmland preservation in both Monmouth County and in New Jersey. As of October 2021, the township ranks second for the most preserved farmland of all municipalities in the State of New Jersey. The township has expressed its strong commitment to maintaining a rural, agrarian based community by adopting assertive policy statements such as its Country Code. The Country Code is direct in telling a general audience (existing and future residents) that there are many inconveniences and costs associated with choosing to live in a rural place, and that these inconveniences and costs are not an excuse to pursue changes to the existing way of life or character of the community. The code states:

This document expresses the philosophy of Upper Freehold Township residents. The residents of this township have either been raised here and chosen to stay or moved here because they enjoy the "rural life." This community has shown a strong commitment to remaining rural by: committing a portion of their tax dollars to Farmland Preservation,

foregoing services taken for granted in suburban and city areas, and traveling the extra distance for the necessities.

In November 2010, Upper Freehold Township adopted its most recent Comprehensive Farmland Preservation Plan. The plan reported on the township's agricultural land base, the local industry and its sustainability, retention, and promotion, the local and county trends of the market and crop production, economic development, land use planning, resource conservation, strategies to preserve farmland, and the future of the Farmland Preservation Program.

In December 2017, Upper Freehold Township adopted the Master Plan and Development Regulations Re-examination Report. The report noted the importance of preserved farmland in the area and the need to uphold community values that support existing and prospective farmland preservation.

Development regulations enacted by the township intended to maintain agriculture as a viable industry and preserve rural character include:

- Noncontiguous clustering permitted in the AR zone;
- Lot averaging in the AR Zone;
- Changing the minimum lot size in the AR zone from 3 acres 6 acres;
- An "Equine community option" added as a conditional use in the AR district;
- Farmland/open space conservation clustering provisions;
- Agricultural preservation subdivisions;
- Allowance of farms as a principal use in all residential and commercial zone districts;
- Allowance of agricultural support uses including, but not limited to, feed and supply stores, granaries, and brokerages in the General Industrial Zone;
- Allowance of structures incidental to a farm use as permitted accessory uses in zone districts in which farms are a permitted principal use; and
- A Right to Farm ordinance.

12. Wall Township

Wall Township aims to retain "the rural character of the central portion of the Township through zoning and farmland preservation," according to the 2015 Wall Township Master Plan Re-examination Report. The report, adopted in September 2015, affirms the township's desire to maintain the natural and green landscape, despite encroaching development pressures in the area. The 2008 Open Space and Recreation Plan further advises priority areas for acquisition as related to farmland preservation and suggests the creation a separate farmland preservation plan for the township. Additional objectives in these documents include adherence to the State and County programs for farmland preservation and pursuit of sufficient provisions for agricultural land uses, to "meet the needs of all citizens". Wall has participated in several agricultural easement acquisition projects under the SADC's umbrella and has also acquired its own easements on farms near its municipal building.

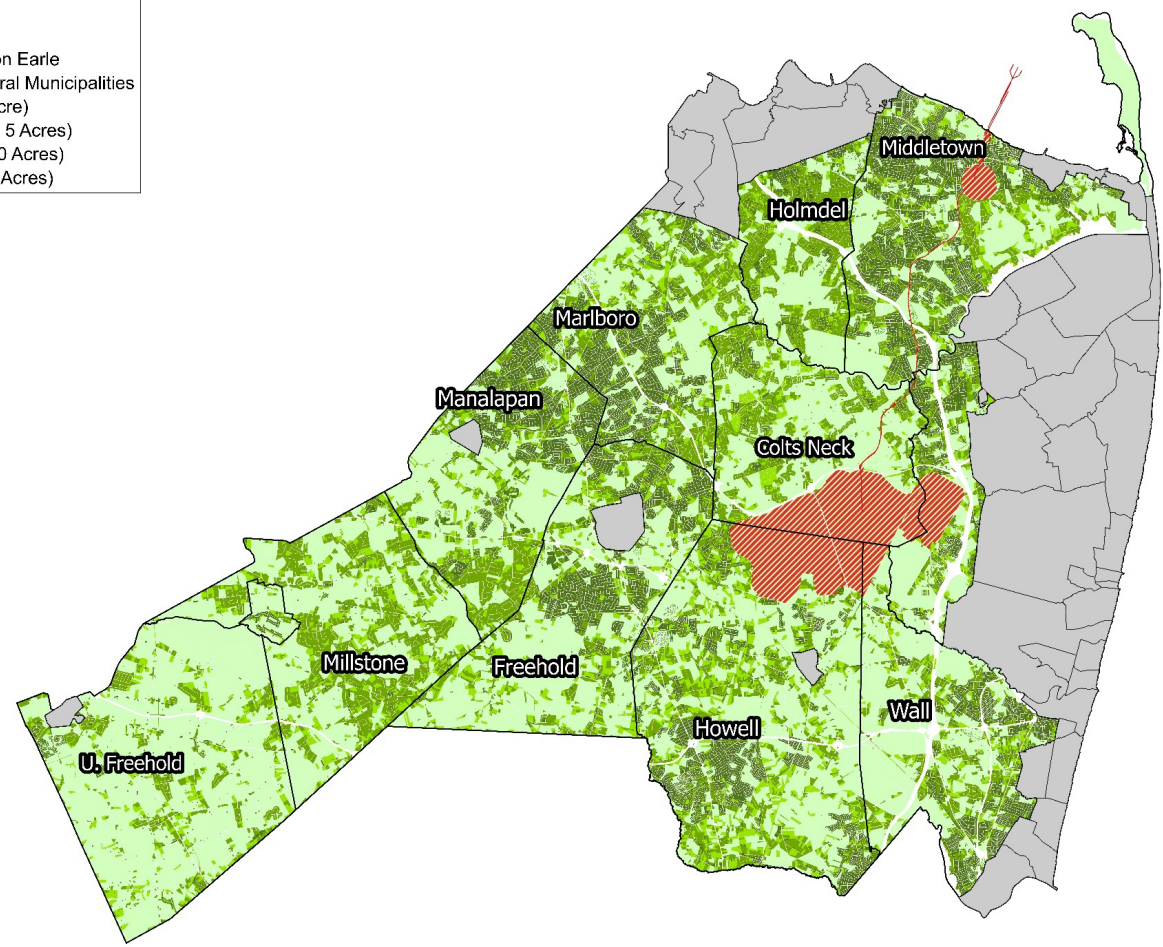
General Lot Size for 12 Main Agricultural Municipalities

0 2.5 5 Miles



- Legend**
- Municipal Boundaries
 - ▨ Naval Weapons Station Earle
 - Parcel Acres in Agricultural Municipalities**
 - Small Lots (< or = 1 Acre)
 - Medium Lots (> 1 or = 5 Acres)
 - Large Lots (> 5 or = 10 Acres)
 - Very Large Lots (> 10 Acres)

MAP 3.8



Map Notes:
 1. Map created on March 11, 2022 by the Monmouth County Division of Planning for informational purposes only.
 2. Data sources: NJDEP 2015 Land Use/Land Cover GIS data, Monmouth County GIS



Lot Size Distribution

Map 3.8 illustrates the distribution of existing lots within the twelve main agricultural municipalities by specific size categories. Chart 3.3 shows the numerical acreage breakdown within each category. The majority of larger lots can be found in SDRP Planning Areas 4, 4B and 5 as well as outside the county sewer service area, whereas the smaller lots are found in Planning Areas 1 and 2 and are typically part of the county sewer service area.

CHART 3.3 Acreage of Existing Lots within Each Size Category

Municipality	Small Lots <1 acre	Medium Lots ≥1 & ≤5 acres	Large Lots >5 & ≤10 acres	Very Large Lots >10 acres
Colts Neck	586	4,380	1,467	13,031
Freehold Township	4,013	3,857	2,351	12,966
Holmdel	1,015	4,447	649	4,530
Howell	4,961	6,286	4,733	20,831
Manalapan	4,262	4,183	1,553	8,403
Marlboro	4,732	3,966	1,831	7,127
Middletown	7,388	4,312	1,516	10,482
Millstone	379	7,071	2,603	12,742
Roosevelt	136	96	90	861
Tinton Falls	1,639	1,278	827	4,646
Upper Freehold	510	3,172	2,055	23,524
Wall	2,882	3,134	1,315	10,178
<i>Total</i>	<i>32,512</i>	<i>46,188</i>	<i>20,996</i>	<i>129,327</i>

Population and Development Applications

The Western and Panhandle regions of Monmouth County are not only home to a majority of the farmland found within the County but also have been experiencing some of the most intense growth and development pressures over the last two decades.

According to the U.S. Census Bureau, the County's overall population has been growing. As seen in Chart 3.4, census counts and projections show an increase in population from 553,124 in 1990 to 643,615 in 2020 (an increase of 16.4 percent) and a projection of 669,624 by 2050 (an estimated increase of 4.0 percent from the 2020 census count). The statistics for the twelve agricultural municipalities share similar growth trends with the county. Eight of the municipalities have gained population since the 2010 U.S. Census. Four municipalities, Colts Neck, Freehold Township, Millstone and Roosevelt, have decreased slightly. All of the communities are expected to grow through 2050. It should be noted that municipal population projections are not particularly accurate or reliable, hence the U.S. Census Bureau and the State of New Jersey only prepare population projections for states, counties and major metropolitan areas.

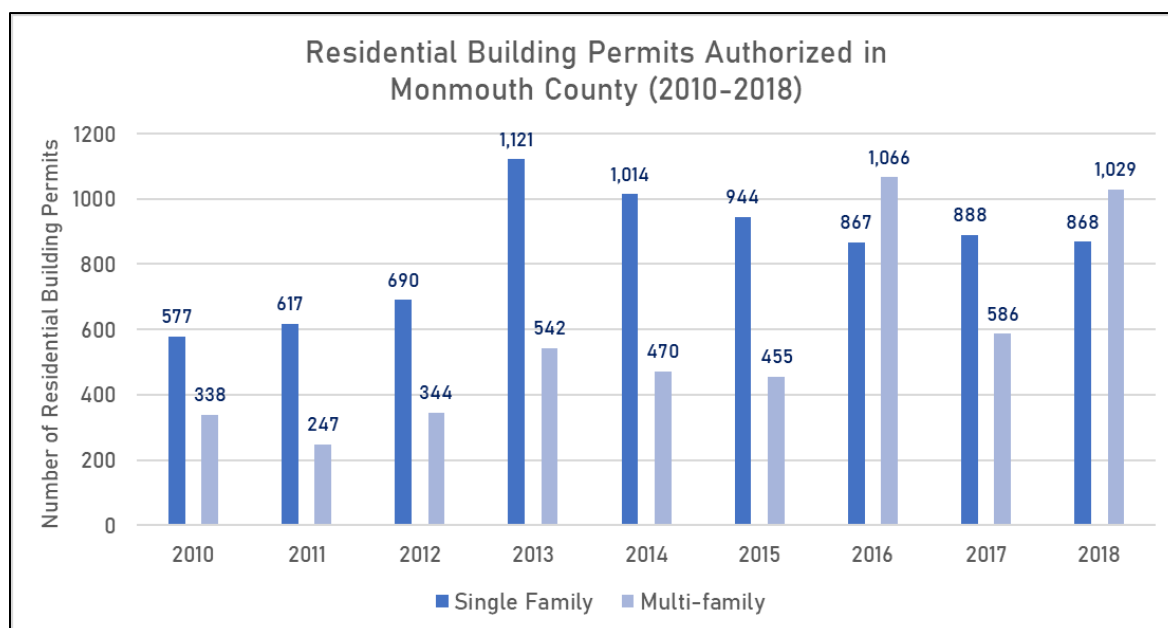
CHART 3.4 Population Data for Monmouth County and Select Municipalities

Municipality	1990	2000	2010	2020	Projected 2050	Percent Change 2020 to 2050 Projection (estimated)
Colts Neck	8,559	11,179	10,142	9,957	10,961	10.1%
Freehold Twp.	24,710	31,537	36,184	35,369	38,075	7.6%
Holmdel	11,532	15,781	16,773	17,400	17,661	1.5%
Howell	38,987	48,903	51,075	53,537	53,905	0.7%
Manalapan	26,716	33,423	38,872	40,905	40,917	0.03%
Marlboro	27,974	36,398	40,191	41,502	42,011	2.0%
Middletown	68,183	67,479	66,522	67,106	69,968	4.3%
Millstone	5,069	8,970	10,566	10,376	10,711	3.2%
Roosevelt	884	933	882	808	993	22.9%
Tinton Falls	12,361	15,053	17,892	19,181	19,552	1.9%
Upper Freehold	3,277	4,282	6,902	7,273	7,362	1.2%
Wall	20,244	25,261	26,164	26,525	27,534	3.8%
Monmouth County	533,124	615,301	630,380	643,615	669,624	4.0%

Sources: Decennial census data from U.S. Bureau of the Census; Population projections from NJTPA

Increased population correlates to increased residential and commercial development. Monmouth County is no exception to this rule. Chart 3.5 tracks the number of residential building permits that were authorized in the county between 2010 and 2018. Map 3.9 highlights the locations of large-scale development applications submitted in 2021 to the Monmouth County Division of Planning. Many of the applications concentrate along the highway corridors of Routes 33, 9, and 34 as well as Texas Road in Marlboro and Ocean Boulevard along the shore.

CHART 3.5 Residential Building Permits Authorized in Monmouth County (2010-2018)



Source: U.S. Census Bureau, Manufacturing and Construction Division

Location of Large-scale Development Review Applications Received in 2021

MAP 3.9

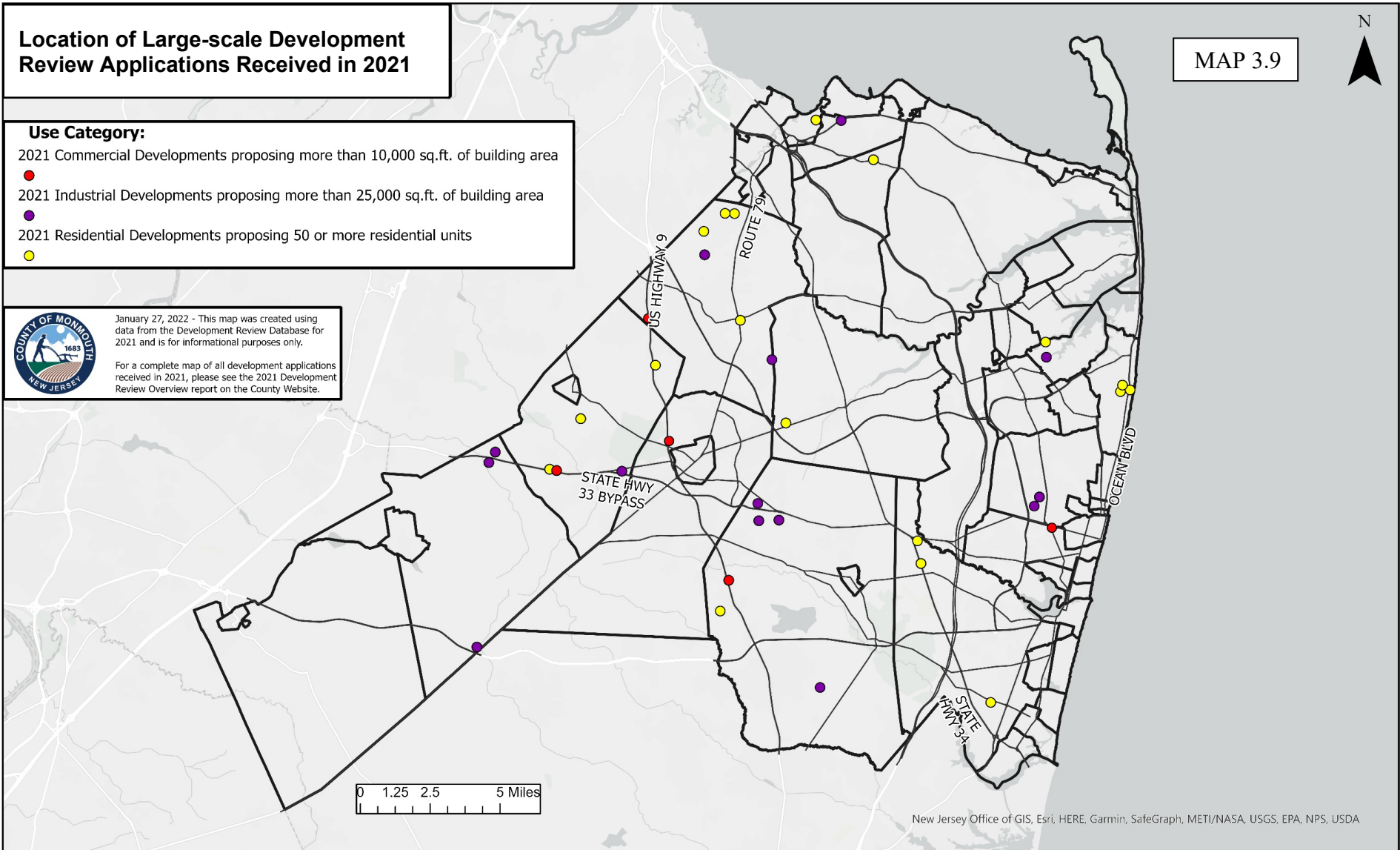


Use Category:

- 2021 Commercial Developments proposing more than 10,000 sq.ft. of building area
- 2021 Industrial Developments proposing more than 25,000 sq.ft. of building area
- 2021 Residential Developments proposing 50 or more residential units



January 27, 2022 - This map was created using data from the Development Review Database for 2021 and is for informational purposes only.
For a complete map of all development applications received in 2021, please see the 2021 Development Review Overview report on the County Website.



New Jersey Office of GIS, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, EPA, NPS, USDA

Description of Innovative Planning Techniques

Land use laws in New Jersey allow for alternates to subdivisions that result in uniform-sized new lots. Techniques include, lot-size averaging, cluster zoning, noncontiguous cluster zoning, and transfer of development rights.

Lot-size Averaging

Lot-size averaging is an approach to subdividing land. It allows parcels of unequal size if the average complies with a zone's minimum lot size. Often the smaller lots are grouped together so that one large parcel with conservation or agricultural value remains undeveloped. The technique is used frequently in Colts Neck Township and has also been applied in Upper Freehold.

Lot-size averaging technique used to subdivide land in Colts Neck, NJ.



Map taken from Monmouth County Map Viewer- Monmouth County NJ Property Viewer

Cluster Zoning

With cluster zoning, principal buildings and structures are grouped together on a site, saving the remainder of a parcel for common open space, conservation, agricultural, recreation, or public uses. Per the 2020 Mercer County CFPP, “Cluster development has a number of distinct advantages over conventional subdivision development. A well-planned cluster development concentrates dwelling units on the most buildable portion of the site and preserves natural drainage systems, vegetation, open space, and other significant natural features that help control stormwater runoff and soil erosion.” A cluster’s shorter street and utility lines foster cost savings, and a closer proximity of residences promotes social interaction and a sense of community.

Noncontiguous Cluster Zoning

As noted on page 5-15 of the 2016 *Monmouth County Master Plan*, communities are exploring alternatives to agricultural easement acquisition for protecting important lands. One newly strengthened tool is noncontiguous clustering whereby one parcel is preserved while its development rights are transferred to a different, noncontiguous parcel that is developed at a higher density than otherwise permitted. As described on the New Jersey Future [website](#), “In 2013 the state legislature passed an update to the cluster development provisions in New Jersey’s Municipal Land Use Law, giving municipalities greater authority to include contiguous and noncontiguous clustering and lot-size averaging in their land use regulations. Municipalities now have the option of directing development through their existing zoning ordinances, or of offering landowners and developers additional benefits via these updated clustering opportunities.”

Lot-size Averaging

Lot-size averaging is an approach to subdividing land. It allows parcels of unequal size as long as the average complies with a zone’s minimum lot size. Often the smaller lots are grouped together so that one large parcel with conservation or agricultural value remains undeveloped. The technique is used frequently in Colts Neck Township and has also been applied in Upper Freehold.

Municipal and Regional TDR Opportunities and Implementation Strategies

Transfer of development rights (TDR) is a mechanism for transferring development rights from one location in a municipality or region to another. Sending areas are delineated for zones in which further development is inconsistent with local planning objectives. Landowners within sending areas may sever their development rights for payment, either by selling the rights directly to a developer or to a special TDR bank. Development rights that are purchased from the landowner or bank are directed to receiving areas. These designated areas have adequate infrastructure and minimal environmental constraints so they are able to accommodate increased density.

TDR is a market-driven system. A robust real estate market helps TDR rights/credits reach values high enough to interest sellers. In turn, a receiving area needs to be desirable and attractive enough to developers to make the extra effort and expense worth undertaking (per communication with Steve Bruder, March 2008). A slowdown of the real estate market would likely reduce the value of credits and deter TDR transactions (Jeffrey Donohoe Associates 2007).

Through a pilot program, Chesterfield and Lumberton in Burlington County were the first New Jersey municipalities to employ TDR, enabling the preservation of 3,657 acres of farmland (as of November 3, 2021 per Burlington County Farmland Preservation Program's database). TDR is also used within the NJ Pinelands and implemented through the Pinelands Development Credit (PDC) system and bank. The State Transfer of Development Rights Act of 2004 enabled municipalities throughout the state to implement their own TDR programs. Several municipalities in Monmouth County have explored the possibility of establishing TDR programs and determined that they weren't ready to move forward due to high start-up costs, market timing, and logistical considerations. Although inter-municipal or regional TDR programs are a possibility for portions of Monmouth County, the county is not part of any special resource area such as the NJ Pinelands or NJ Highlands that have a regional governing authority already in place. Thus implementation could be more challenging.

The Municipal Cross Acceptance Questionnaires (2004) asked municipalities the question, "Is your municipality considering a transfer of development rights program? If so, where and for what purpose?" Municipalities that expressed an interest in TDR were Howell, Marlboro, Upper Freehold and Tinton Falls. There are several other municipalities that might be suitable candidates for a TDR system that protects farmland or open space. However, most of Monmouth County's municipalities are no longer rural so any TDR program in those communities would need to be designed to achieve goals other than farmland protection such as historic preservation or redevelopment.

For municipalities that have not shown an interest in TDR, other conservation planning techniques may be used to help maintain a viable agricultural land base. In the *Agricultural Smart Growth Plan for New Jersey* published in November 2003 by the New Jersey Department of Agriculture, a chapter regarding innovative conservation planning approaches addresses some alternatives. In addition to TDR these techniques include County participation in subdivision review, Planned Unit Developments (PUDs), and ordinance reform.

Use of Mandatory vs. Voluntary Options

Many municipalities offer incentives to encourage developers to choose more innovative planning techniques. This incentive-based approach is common for zones that allow for clustering and lot-size averaging, often allowing for bonus lots as certain criteria are met. The regulatory approach is more often used in zones in which land and environmental constraints limit flexibility. Applicants, of course, retain the right to request variances. Some land use tools can be either voluntary or mandatory, depending on how they are implemented. For example, per the *Innovative Conservation Planning* document on the SADC website:

TDR programs can be voluntary or mandatory depending on a municipality's goals and needs. In a voluntary program, the owner of property in a sending area can either transfer the development potential of that property to a receiving area or develop the property in accordance with the land use ordinance in effect prior to the adoption of the TDR ordinance. In a mandatory program, the owner of property in a sending area can either transfer the development potential of that property at the full value to a receiving area or develop the property at a much-reduced density.

IV. MONMOUTH COUNTY'S FARMLAND PRESERVATION PROGRAM

Before planning for future farmland preservation efforts can begin, a better understanding of areas in which farmland is the preferred or dominant land use, the county's accomplishments to date, the array of preservation programs and conservation options, and coordination with open space initiatives is needed.

Agricultural Development Areas (ADAs)

Agricultural Development Areas serve as the focal point for the county and state's farmland preservation efforts. They are areas in which agriculture is the preferred land use. Farms must be in an ADA to be eligible for any of the State Agricultural Development Committee's farmland preservation programs. The state has set some minimum requirements for ADAs but each county defines its own more specific criteria and delineates its ADAs on a map.

According to statutory guidelines, ADAs must encompass productive lands, not conflict with municipal zoning ordinances, be free of commercial or suburban development, and comprise no more than ninety percent of a county. Monmouth County has set the minimum size for its ADAs at 50 acres. Factors such as soils, and existing land use are used as criteria when determining an ADA. Monmouth County first designated its ADA criteria and delineated a corresponding map in 1984. In early 2006, the county updated its ADA map to reflect changes in land use over the prior two decades and digitized the revised ADAs using a Geographic Information System (GIS). This allowed the data to be easily viewed with tax parcel data, aerial photos, and other information layers. The MCADB clarified its ADA criteria in December of 2016 to emphasize that road rights of way and open space are exempt from the county's ADAs. To reflect changes in land use and better reflect the Farmland Preservation Program eligibility rules, Monmouth County revised its ADAs substantially in 2021. The Monmouth County Agriculture Development Board adopted the ADA map changes in October of 2021. SADC approval is expected when it adopts this revised plan.

In Monmouth County, land is considered part of a designated ADA if it meets the following requirements:

1. Land consists of a parcel or group of reasonably contiguous parcels with a minimum total area of 50 acres and which are currently in agricultural production or have a strong potential for future production.
2. Land is not already committed to non-agricultural development. For example, the following are considered committed to non-agricultural development and therefore exempt from the Notice of Intent requirements of N.J.S.A 4:1C-19 and Subchapter 7 of N.J.A.C. 2:76:
 - a. Existing road rights of way and future road right of way corridors designated in the Monmouth County Road Plan or on the official map or general circulation plan element of a municipal master plan.
 - b. Open space parcels owned or deed restricted by the County of Monmouth, State of New Jersey, federal government, nonprofit or a municipality.
 - c. Extension of roadside public utility electric and gas distribution lines.

- d. Minor improvements and/or repairs to existing transportation and water or sewer infrastructure systems that do not increase capacity or extend service into previously unserved areas.
3. Land meets the statutory criteria for the identification of ADAs:
 - a. “Encompasses productive agricultural lands which are currently in production or have a strong potential for future production in agriculture and in which agriculture is permitted as a non-conforming 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.” (See Requirements 1 and 2 above).

The Agriculture Development Board may consider waivers from the strict application of the above requirements provided that the statutory criteria are met.

The ADAs map avoids most sewer service areas; however, there are some small overlaps as these do not preclude agricultural use. A handful of preserved farms are connected to regional wastewater infrastructure. And, on occasion, a wastewater authority has run infrastructure through a farm to service a nearby neighborhood but the overlying land is still actively farmed. This is the case with the Olbis farm in Freehold Township.





Photo credit: Alexas Fotos (Unsplash)

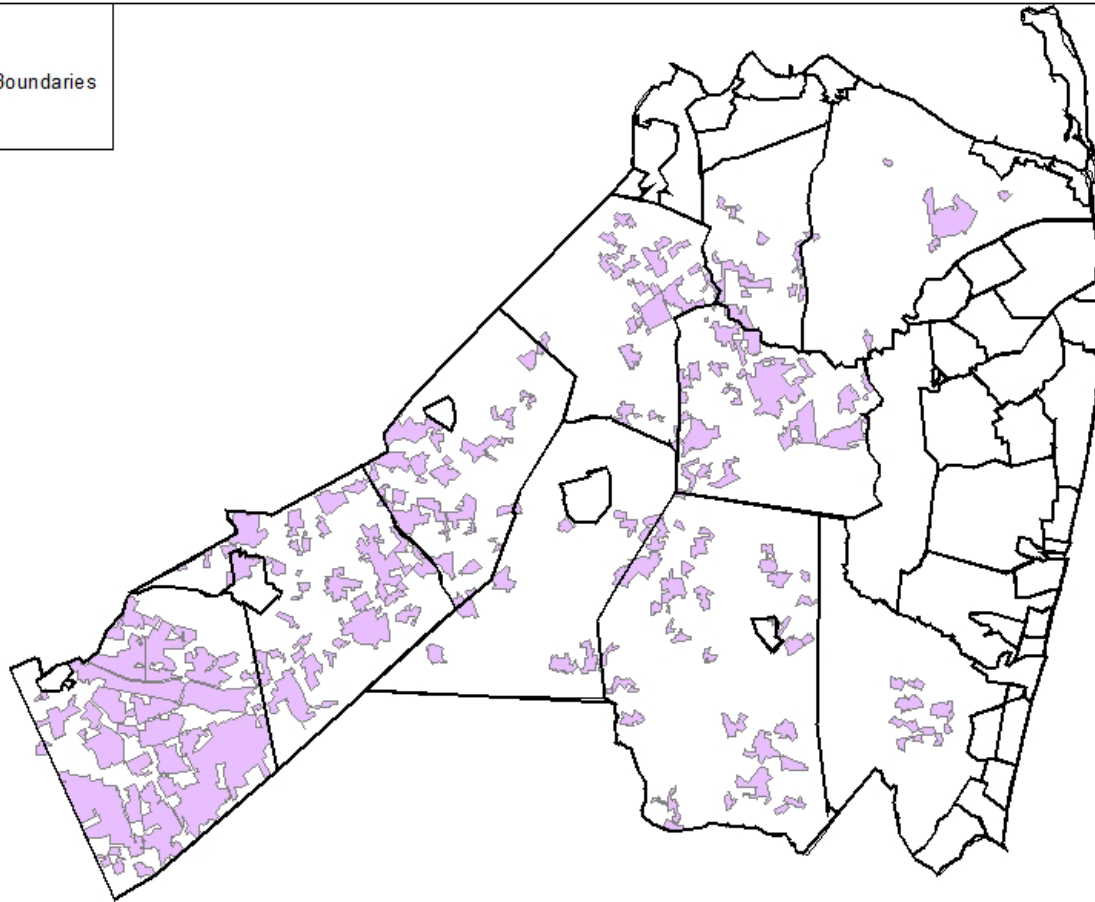
Monmouth County

General Location Map of Agricultural Development Areas

Legend

-  Municipal Boundaries
-  ADAs

MAP 4.1



This map was created on October 18, 2021 and is for information purposes only.

Adopted by the MCADB on October 5, 2021
Scheduled for SADC adoption September 2022

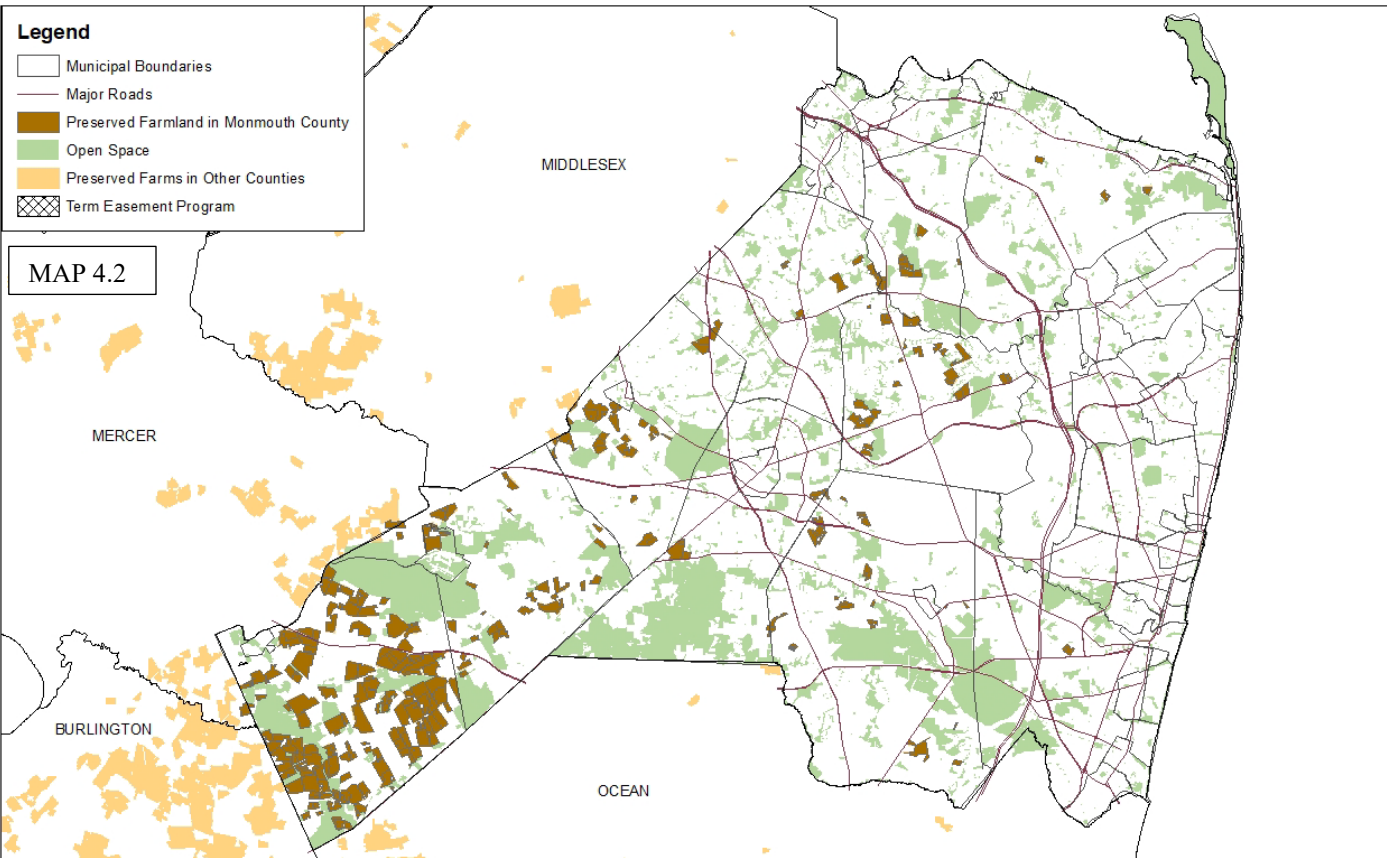
0 1.5 3 6 Miles





Monmouth County Preserved Farms Map

Monmouth County Agriculture Development Board
One East Main Street, Freehold, NJ 07728 732-431-7460



This map was updated through September 30, 2021 and is for information purposes only.

Basemap layers courtesy of Monmouth County Division of Planning.
Preserved farmland in other counties layer provided by SADC.



Farmland Preserved to Date by Program and Municipality

As of October 15, 2021, the county boasts 15,630 acres of permanently preserved farmland. Almost all of the agricultural easements are enrolled in the State's Farmland Preservation Program. A handful of easements were obtained without State financial participation.

The MCADB acquired its first easement in Howell Township in 1987. The deed-restricted farms are spread throughout eleven municipalities (See Chart 4.1). The bulk of the preserved land lies in Upper Freehold Township which possessed over 10,000 restricted acres at the end of October 2021. Colts Neck and Millstone have over 1200 acres of preserved farmland. Manalapan has over 1000 acres, and Howell has over 700 acres. The county has preserved over 5000 acres in the last 14 years.

The pace of preservation in the county has been somewhat uneven over the 35 years that the program has been in effect. The county and state acquired no easements in 1990, 1991 or 1998 but the agencies preserved 1,154 acres in 1989, 1,540 acres in 1996, 1,441 acres in 2008, and 961 acres in 2012. The average number of acres preserved each year in the county is 446, down from the 498 cited in the 2008 Monmouth County FPP. The reasons for the unevenness vary but include fluctuations in funding, property values, and the size of the farms being preserved. For example, a 370-acre easement and a 330-acre easement were recorded in 1996, and the multi-easement Princeton Nurseries deal concluded in 2012.

Chart 4.1 Monmouth County Preserved Farms as of October 15, 2021

Municipality	October 2021 Acreage	June 2007 Acreage	Increase
Colts Neck	1,015	813	202
Freehold Township	273	35	238
Holmdel	398	190	208
Howell	726	393	333
Manalapan	1,242	731	511
Marlboro	282	167	115
Middletown	101	0	101
Millstone	1,235	648	587
Roosevelt	257	257	0
Upper Freehold	10,056	7,346	2,710
Wall	45	0	45
Totals	15,630	10,602	5,028

CHART 4.2 Farmland Preserved Each Year Since 1987

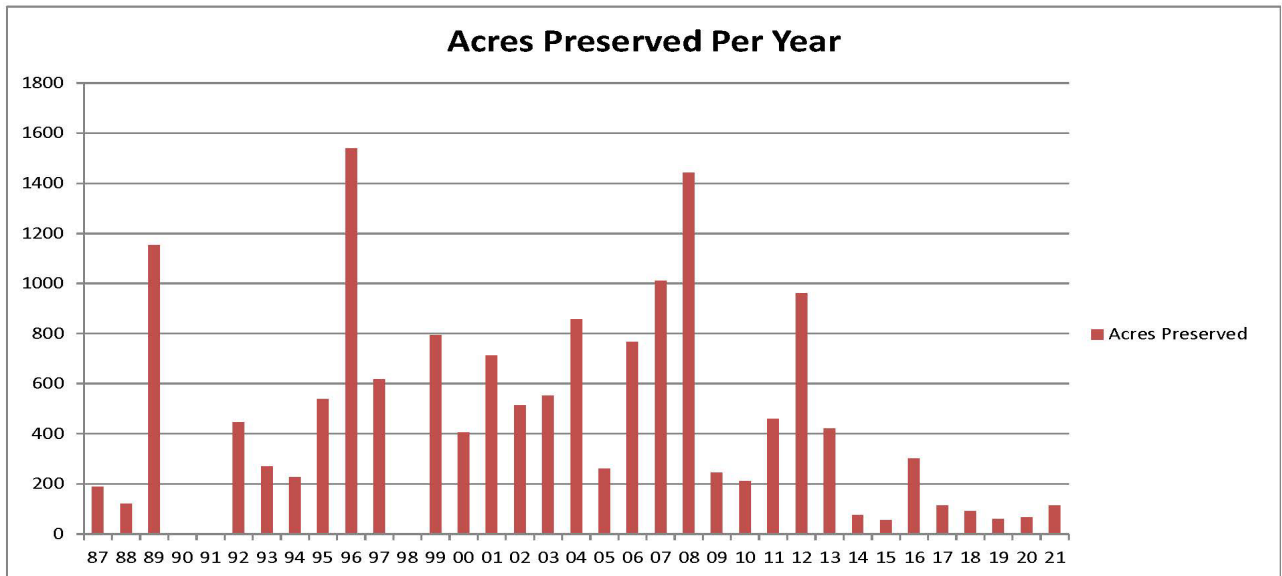


CHART 4.3 Farmland Preserved by Program as of October 15, 2021

Program	Acres
County Easement Purchase Program	8,507
County Planning Incentive Grant Program	853
Municipal Planning Incentive Grant Program	3,083
Direct Easement Program	2,539
Fee Simple Program	249
Interagency Transfer	111
Preserved by Municipal/ Municipal Pre-acquisition	57
Grants to Nonprofits Program	198
Term Easement Program	16
Total Including Term Easement Program	15,650
Permanently Preserved Acreage	15,634

Preservation Programs and Options

The Farmland Preservation Program is an umbrella term for a number of funding programs and conservation options including the County Easement Purchase Program and its successor the County Planning Incentive Grant (PIG) Program, the Municipal Planning Incentive Grant Program, and the Direct Easement Purchase Program. Descriptions follow:

County Easement Purchase Program (CEPP)

The County Easement Purchase Program was the mainstay of Monmouth's Farmland Preservation Program for 20 years. It transitioned to the County Planning Incentive Grant Program around 2007 to 2009 and no longer exists. The CEPP was a highly competitive program. For example, for the state's Fiscal Year 2007 funding round only 78 of 127 applicants received SADC money. During its tenure the program worked as follows: Monmouth County evaluated an interested landowner's property before submitting an application to the state. The SADC then ranked projects from across New Jersey. To be funded through this program, farms needed to have excellent soil quality and development potential as well as satisfy other criteria. Farm size, proximity to other preserved farms, and local government commitment to agriculture affected an application's rank. The state, county, and municipality shared the costs of the easement purchase. In total, 8,507 acres were preserved in Monmouth County under this program.

County Planning Incentive Grant (PIG) Program

As mentioned above, the County PIG is the heir to the County Easement Purchase Program. The goal of the County PIG is to permanently preserve significant areas of contiguous farmland that, in turn, will help promote the long-term viability of the agricultural industry. To be eligible for state funding counties must adopt a comprehensive farmland preservation plan element pursuant to the New Jersey County Planning Act and the SADC rules that went into effect July 2, 2007 and were readopted and amended on July 25, 2019. Counties must also maintain a county agricultural development board and have a dedicated source of funding for farmland preservation. Under the County PIG Program, Monmouth County acquires priority farms within six project areas (See Chapter V for more details). Participating counties receive a periodic base grant and then compete for additional funds. Farms must meet basic state eligibility requirements. The MCADB established additional criteria to help it prioritize applications. Farms must be at least 25 acres in size unless it is adjacent to an already preserved farm. Soils must score 55 or higher in the county's Land Evaluation rating system. The SADC also requires farms preserved through the County PIG to rate at least 70% of the average quality score of the last three funding rounds. Monmouth County usually has the highest or one of the highest minimum scores.

Municipal Planning Incentive Grant (PIG) Program

The SADC established the Planning Incentive Grant Program to provide grants to eligible municipalities to purchase agricultural easements to protect concentrations of farmland in identified project areas. The local municipality and county cover the remainder of the acquisition costs. The PIG program places an emphasis on planning for farmland preservation. To qualify for a Planning Incentive Grant, a municipality must adopt a farmland preservation plan element in its municipal master plan pursuant to the Municipal Land Use Law, adopt a right to farm ordinance, maintain a dedicated source of funding for farmland preservation, and establish an Agricultural Advisory Committee. Grant recipients must delineate project areas and

develop a list of target farms. Until recently, the Municipal PIG Program tended to be less competitive than its sister programs, as it placed less emphasis on soil quality. The SADC implemented new rules for Municipal PIGs in 2019, and now the program works more like the County PIG with base grants and pots of competitive funds.

Seven municipalities in Monmouth County currently participate in the Planning Incentive Grant Program: Colts Neck, Holmdel, Howell, Manalapan, Marlboro, Millstone, and Upper Freehold. As of October 15, 2021, seventy-five farms totaling 3083 acres have been preserved in Monmouth County through the Municipal PIG Program.

Direct Easement Purchase Program

The SADC purchases easements directly from landowners through the state acquisition program. The state seeks farms that are strategically located within each county and meet or exceed the county average for size and quality score. Currently farms in Monmouth County need to be 35 acres or larger to qualify as a “priority” farm and need to be 25 acres to qualify as an “alternate” farm. Quality scores are based on factors such as soils, tillable acres, proximity to other preserved farms and local support for agriculture. Through the Direct Program, the SADC and its partners have acquired 13 easements on 2,539 acres.

Fee Simple Program

Through the Fee Simple Program, the state buys a farm outright, retires the land’s development rights, then auctions the property to the highest bidder. The property must continue to be farmed. In Monmouth County, the state has preserved four easements totaling 249 acres through this program. It is no longer commonly used.

Grants to Nonprofits Program

Monmouth Conservation Foundation, the Fund for Roosevelt, D&R Greenway, and NJ Conservation Foundation have all played crucial roles in farmland preservation deals in the county. In some cases these organizations functioned as project managers and lead negotiators. In other cases, they served as interim landowners closing with the original property owners, selling an easement to the county and transferring the remaining rights to a conservation minded buyer. Recognizing the utility of land trusts, the SADC established a Grants to Nonprofits program. Monmouth Conservation Foundation has partnered with the county, state, and municipalities on a number of preservation projects through this program and now holds seven agricultural easements.

Interagency Transfer

Sometimes farmland may be preserved through government divestiture. When Marlboro State Hospital was in operation, its patients ran a farm that included a large dairy. The hospital has been closed for number of years. The State of New Jersey divested a portion of the property in 2003. The SADC subsequently auctioned 110 acres to a local nursery owner and restricted the deed to agricultural use.

Municipal Pre-acquisition

Many municipalities pre-acquire easements to meet a landowner’s need to close within a certain timeframe. The township may then seek partial reimbursement at a later date. Typically, the municipality has to record a corrective deed signed by the landowner and assign the easement

from the township to the county or state. Freehold Township used this approach to preserve the Gibson Farm on Route 33 and subsequently assigned the easement to Monmouth County.

County of Monmouth Easement

On one occasion, the County of Monmouth acquired an agricultural easement that uses much of the same language as the usual MCADB deed of easement. This particular 22-acre easement, on Hinck Turkey Farm in Wall, serves as a buffer to Shark River Park, part of the Monmouth County Park System. More commonly, the Monmouth County Park System records agricultural and conservation easements on active farmland that help buffer regional parks. These easements include a right of first refusal that, when exercised, results in the expansion of county parks.

Monmouth County Agriculture Development Board Easement

The Monmouth County Agriculture Development Board has recorded a small number of agricultural easements that use the SADC's template but to which the state did not contribute funds. As long as the easements follow certain guidelines, they are eligible for enrollment in the SADC's Farmland Preservation Program; however, the paperwork to do so can be a hindrance. Depending on the timing of the transaction and the availability of State funds, partial reimbursement may also be possible.

Transfer of Development Rights

As discussed in Chapter III, transfer of development rights (TDR) programs are used to shift development potential out of identified preservation areas, or sending districts, and into identified growth areas, or receiving districts. Receiving districts are usually closer to existing infrastructure and public services and have been deemed more appropriate for development. Developers purchase development rights which are then applied to the receiving district; in most cases, development is permitted at a greater density than normally allowed by zoning.

There are no Monmouth County municipalities that have a TDR program. The first TDR programs established in the state were the NJ Pinelands Development Credit Program and those in Chesterfield and Lumberton, Burlington County. The State adopted legislation in 2004 to enable TDR to expand to other areas of New Jersey. To establish a program, a municipality must prepare a series of planning documents such as a real estate market analysis and a utility service plan. Several NJ communities, such as Woolwich and Fanwood set up their own programs. TDR is currently used in dozens of jurisdictions across the country including the Lake Tahoe region in Nevada and California; Boulder County, Colorado; and Collier County, Florida. Perhaps the most successful program is the one in Montgomery County, Maryland. Between 1980 and 2000, that county's mandatory TDR program preserved more than 38,251 acres of farmland (American Farmland Trust, 2000).

Installment Purchase Agreements

Through an installment purchase agreement (IPA), a public agency acquires a development easement through a payment plan that may be spread out over a period of time, typically 20 to 30 years. The landowner receives semi-annual, tax-exempt interest payments with the principal due at the end of the contract term. The landowner can sell the installment purchase agreement at any time to recover the outstanding principal.

The installment purchase agreement method was developed in Howard County, Maryland in 1989 as a means to get the most out of public funds for farmland preservation and has since been used in Harford County, Maryland; Virginia Beach, Virginia; and Burlington County, New Jersey. Installment purchase agreements enable the landowner to defer capital gains taxes until the principal is paid as well as stretching public funds. In 2008, Monmouth County preserved the Hofling Farm in Upper Freehold using an IPA. The county and township paid a portion of the consideration to the landowner at closing. Since then, Monmouth County has issued twice-yearly payments which will sunset in 2028. At that time, the family will also receive the balance of the consideration. More recently, Freehold Township used an IPA to purchase an easement on the Gibson Farm. The easement has been assigned to the Monmouth County Agriculture Development Board.

Donations and Bargain Sales

A landowner can ensure that his or her property will remain free from development by making a tax-deductible contribution of the land, or the development rights to the land, to a public body or a nonprofit organization. This can also be done through a will and is an effective tool in estate planning. Although no farmers have donated agricultural easements to the MCADB, a number have sold easements at a discount. By selling for less than the fair market value, a landowner realized immediate income and can write off the difference between the purchase price and the highest appraised value as a charitable income tax deduction.

Like-kind Exchange

A 1031 exchange, or like-kind exchange, is a way for landowners to defer capital gains taxes by preserving their farm and buying a new farm or comparable property within a certain time period. A like-kind exchange was an important component of the 2004 Reed Sod Farm deal in Upper Freehold and Robbinsville townships. In addition, the current owner of the former Sigismondi Farm on Dey Grove Road in Manalapan Township purchased the preserved farm as part of a 1031 exchange.

Phased Payment Purchase Plan

With a Phased Payment Purchase Plan (PPPP), the county would set an agreed upon, pre-designated schedule of payments with the landowner. The agreement would include the number of payments, annual date for payment, and the amount of principle for each payment. No interest would be paid. The SADC would phase its payments as per the schedule and would not provide a lump sum. All of the payment vouchers would be signed prior to closing. This approach is an option for property owners concerned about capital gains implications.

Term Farmland Preservation Programs

Landowners can petition the county to enter their property into a term preservation program for a period of eight or sixteen years. Various incentives and protections are offered to landowners that agree to keep their land in agricultural production for the duration of the term. Two types of term programs are available: non-municipally approved and municipally approved. The municipally-approved program takes longer to process but offers more benefits. Both programs require the enrolled property to remain in agricultural production and place restrictions on non-agricultural development for an eight or sixteen-year period. In exchange for participating in the program, the following benefits are available:

Non-Municipally Approved

- 50 percent cost-share on a soil and water conservation project;
- Use of farm structure designs approved by the State Agriculture Development Committee without requiring approval from an architect or engineer; and
- Provides additional points towards site assessment score for purchase of development easements.

Municipally Approved

- 50 percent cost-share on a soil and water conservation project;
- Use of farm structure designs approved by the State Agriculture Development Committee without requiring approval from an architect or engineer;
- Protection for 11 years from any municipal zoning changes;
- Protection from a public body acquiring lands through eminent domain unless the acquisition is for public safety reasons;
- Protection from nuisance complaints regarding farm operations;
- Exemption from emergency water or energy restrictions; and
- Provides additional points towards site assessment score for purchase of development easements.

Farmers sometimes enroll in a Term Program to find temporary relief while they consider more permanent options or use the cost-share funds to improve their operations. Currently two farms in Monmouth County are enrolled in 8-year programs.

Coordination with Open Space Preservation Initiatives

Inter-agency cooperation can help achieve greater results in the protection of the county's natural resources. The MCADB routinely works with the Monmouth County Park System, the NJ DEP Green Acres Program, nonprofits such as Monmouth Conservation Foundation and D&R Greenway to coordinate preservation projects. Meetings are held on a regular basis with these groups to manage active projects and evaluate future joint acquisitions. In addition, the county Farmland Preservation Program coordinates with municipalities such as Millstone and Holmdel that are undertaking trail corridor projects that pass through agricultural lands.

There are also several NJ Green Acres Program trail and greenway projects in the county. They include the Crossroads of the American Revolution Project: Princeton Battlefield to Monmouth Battlefield Section and the Capitol to the Coast Trail. The [New Jersey Conservation Blueprint](#), supported by New Jersey Conservation Foundation, The Nature Conservancy, and Rowan University, is a large-scale effort that promotes and maps greenways and linkages among parks and natural areas throughout the state. In addition to these intercounty projects, the Monmouth County Park System is working to preserve and enhance various regional parks within the county as well as connector trails and greenways.

The Monmouth County Farmland Preservation Plan complements the 2019 *Monmouth County Open Space Plan* prepared by the Monmouth County Park System. The Open Space Plan, an adopted element of the Monmouth County Master Plan, identifies land preservation goals and objectives and identifies sites recommended for acquisition and/or protection. The county

currently owns or maintains more than 18,000 acres of parkland and has set a goal of owning 21,000 acres of recreation land.

Map 4.3 corresponds to pages 60 and 61 of the 2019 *Monmouth County Open Space Plan*. It focuses on regional park establishment and expansion and proposes a series of greenways and blueways throughout the county. The Monmouth County Park System is taking the lead on acquiring properties and easements along a number of stream corridors including Lahaway Creek, the Metedeconk River, Doctors Creek, and the Manasquan River. The Park System is also working on several rails to trails projects and the preservation of century forests.

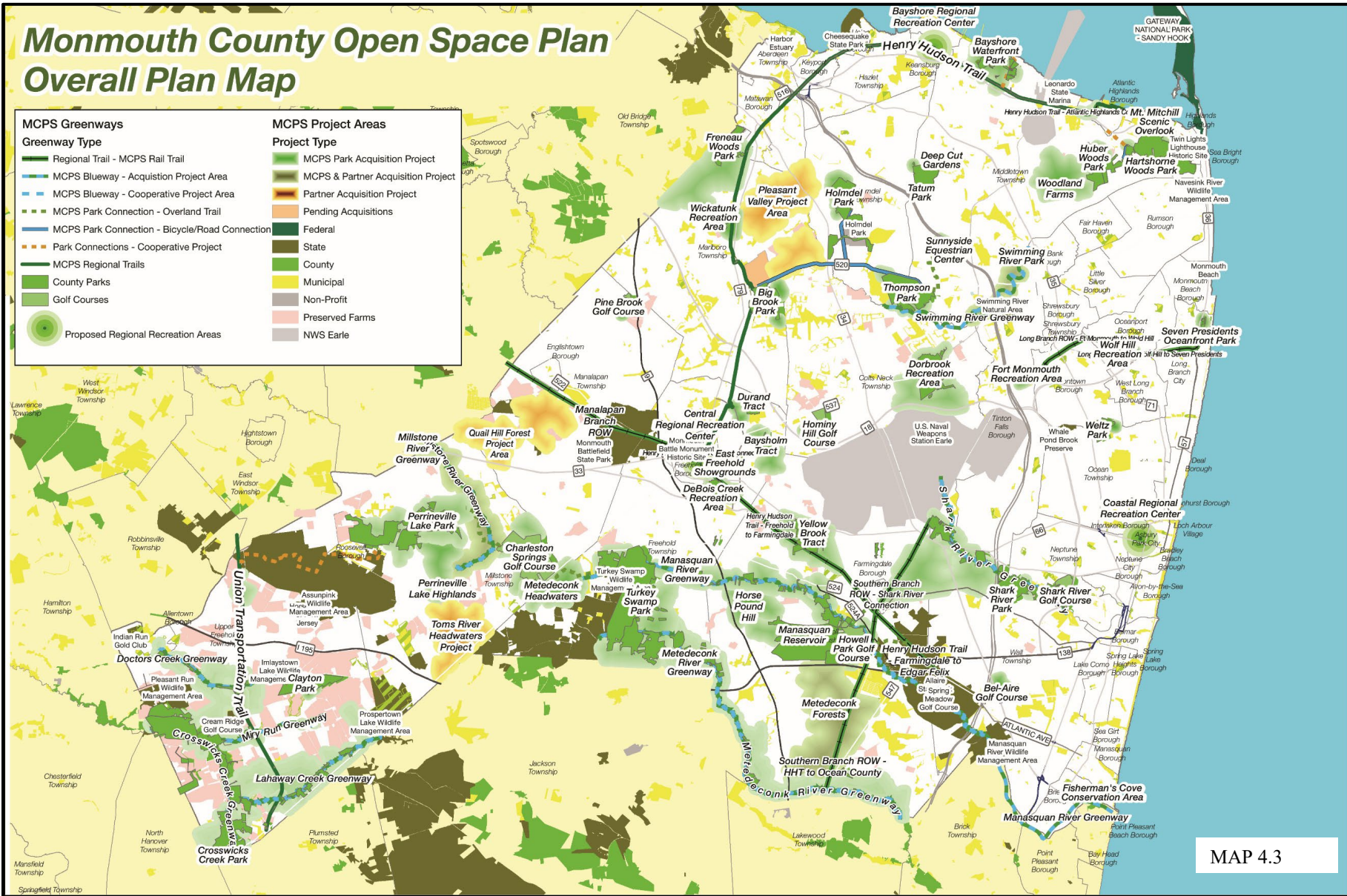
In addition to its plan, the Monmouth County Park System's Park and Recreation Policy recognizes that "Agricultural land is a valuable natural resource..." and that "it is in the public interest to use agricultural land wisely and to preserve and protect it from adverse development." Further, the Park System recognizes that farmland preservation is necessary "...to promote the protection and preservation of agricultural land for the public benefit as a source of food and fiber, as irreplaceable open space which provides visual and psychological relief from urbanization and contributes to the unique rural landscape of Monmouth County while preserving and enhancing the aesthetic character of the county's communities (Monmouth County Park System, 1998)."



*A stream corridor in Millstone Township
(Gene Madeam)*

Monmouth County Open Space Plan Overall Plan Map

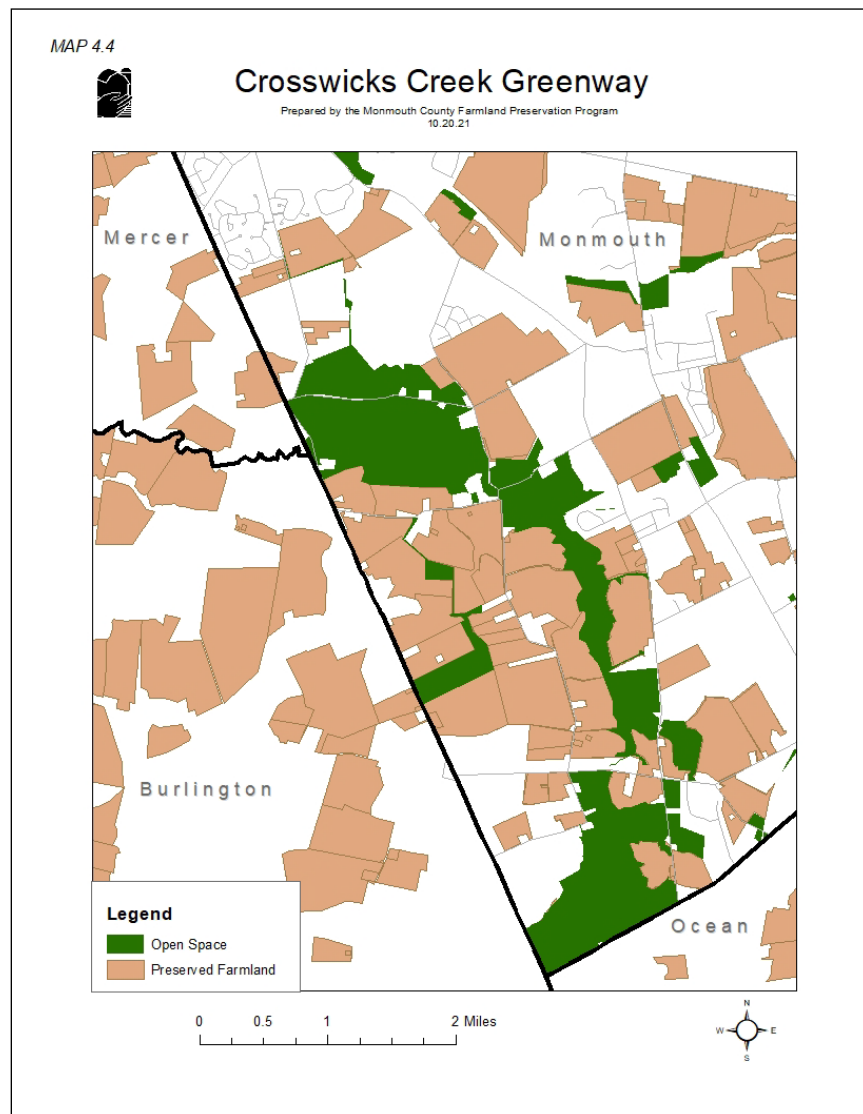
MCPS Greenways		MCPS Project Areas	
Regional Trail - MCPS Rail Trail	MCPS Park Acquisition Project	MCPS & Partner Acquisition Project	Partner Acquisition Project
MCPS Blueway - Acquisition Project Area	Pending Acquisitions	Federal	State
MCPS Blueway - Cooperative Project Area	County	Municipal	Non-Profit
MCPS Park Connection - Overland Trail	Golf Courses	Preserved Farms	NWS Earle
MCPS Park Connection - Bicycle/Road Connection	Proposed Regional Recreation Areas		
Park Connections - Cooperative Project			
MCPS Regional Trails			



MAP 4.3

Open space preservation complements and is compatible with farmland preservation, and vice versa. Preserved woodlands, fields and other natural features in agricultural areas provide a buffer from incompatible land uses, such as encroaching residential development, upon farm operations. On the other hand, farmland provides scenic views and helps to maintain a core area of preserved, undeveloped lands.

Through the joint efforts of the Park System and the Farmland Preservation Program, a significant amount of land has been preserved along the Crosswicks Creek stream corridor in Upper Freehold (Map 4.4). The Park System has acquired the stream corridor in fee simple, and the Farmland Preservation Program has purchased the development rights to adjacent farms. By working together, the farmland preservation program targets the tilled acreage while the Park System targets adjacent waterways. The county is taking a similarly coordinated approach along Doctors Creek in Upper Freehold and the Manasquan River in Howell Township.



The county's open space preservation initiatives seek not only to protect natural resources but also to provide land to serve the recreation needs of present and future generations. Many of the large tracts of land and greenway corridors preserved through the County Park System are used for recreation by equestrians, indirectly supporting this segment of the agricultural industry. The Park System's practice of leasing fields for farming as a land management tool also supports the county's agricultural industry.

Aside from working with organizations with a regional focus, the county Farmland Preservation Program has preserved several farms that tie into local trail and greenway efforts. For example, Millstone Township has established a network of equestrian trails throughout the municipality. To enhance the network, just prior to the county's purchase of agricultural easements on the Restine and Wagner farms, the township acquired 15'-wide bridle trail easements on the properties. In addition, during the preservation of the former F&F Nurseries property in Holmdel, the project partners excluded extra width along Roberts Road and Crawfords Corner to accommodate a future pathway that is now being established.

The REPI Program

Through the Department of Defense's Readiness and Environmental Protection Integration (REPI) program, Monmouth County and Monmouth Conservation Foundation have been awarded over \$2 million to preserve lands in the vicinity of Naval Weapons Station Earle. The partners have crafted a combined conservation and agricultural easement to support the mission of the military base, protect water supply, decrease the risk of public harm, and minimize development and habitat loss. The grant requires a 50% match which will be covered by the county, Monmouth Conservation Foundation, and municipalities. The project area covers a 2-mile buffer around the base, a 3000' buffer of Normandy Road, a stretch of the Bayshore coastline, and the watersheds of the Swimming River, Manasquan, and Glendola Reservoirs.

Farmland Preservation Program Funding Expended to Date by Source

Since 1987 over \$252 million has been spent on farmland preservation in Monmouth County. Of that total, the County spent \$53.9 million from its Capital Budget, and \$7.4 million from its Open Space and Farmland Preservation Trust Fund. Appendix A is a list of farms preserved through October 15, 2021 with their cost share breakdown.

Monitoring of Preserved Farmland

Just prior to closing on an easement, MCADB staff conducts a baseline survey of the farm to document existing conditions. Staff completes a report and photographs the structures on the site as well as areas of interest. MCADB staff then monitors annually each of the easements it holds and submits a digital summary report, called an eForm, to the SADC. Landowners and farm managers are contacted in advance of the visits and invited to join staff on site. The visits are an excellent opportunity to update landowner contact information, document changes on the farm, answer questions about the preservation program and refer landowners to those that can provide agricultural technical assistance. As the number of preserved farms in Monmouth County has grown to over 200, and many farms have transferred to new owners, monitoring accounts for a greater portion of staff time and attention than in the early years of the program. Accordingly, staff has been exploring the use of new technology such as unmanned aerial vehicles (drones) and tablets to increase efficiency. It should be noted that the SADC also monitors farms that are preserved by the Direct Easement and Fee Simple programs. Farms preserved by the Grants to Nonprofit Program are monitored by the nonprofit entity.

V. FUTURE FARMLAND PRESERVATION PROGRAM

This chapter focuses on the future of the county's farmland preservation program. It touches on short-term and longer-term goals, project areas in which to concentrate efforts, eligibility and ranking criteria, policies related to easement acquisitions, funding and administrative resources.

Preservation Goals

In the last 15 years, development has clearly outpaced preservation. However, through the combined efforts of the Monmouth County Park System and the Monmouth County Farmland Preservation Program, the county has protected over 8,561 acres of land. For instance, 5,028 acres of farmland have been preserved since June 30, 2007, and the Monmouth County Park System has preserved 3,533 acres of open space since 2008 (3,530 acres in fee and 3 acres as easements). Monmouth County has been acquiring agricultural easements for the past 35 years and has preserved an average of 447 acres a year, with some notable peaks in 2007, 2008 and 2012. Based on applications in the pipeline, the county hopes to preserve over 620 acres of farmland in the next two years.

Unfortunately, the once frantic pace of preservation in the mid-aughts has not continued and will continue to taper. Land values in the county have risen and the pool of eligible farms has shrunk. Even with creative funding strategies, available money will not go as far in the future, limiting how many farms and how many acres the county and its partners can preserve in a given year. The good news is that landowner interest in the Farmland Preservation Program is still strong.

Weighing these factors and limitations, the county's 5-year cumulative acquisition goal is **18,577** acres and the 10-year goal is **20,053** acres. These numbers include some farms preserved through deeds that do not follow the SADC's model. Please see Chart 5.1 for a breakdown of the MCADB's 1-year, 5-year and 10-year goals by municipality.



CHART 5.1: Cumulative Monmouth County Farmland Preservation Goals

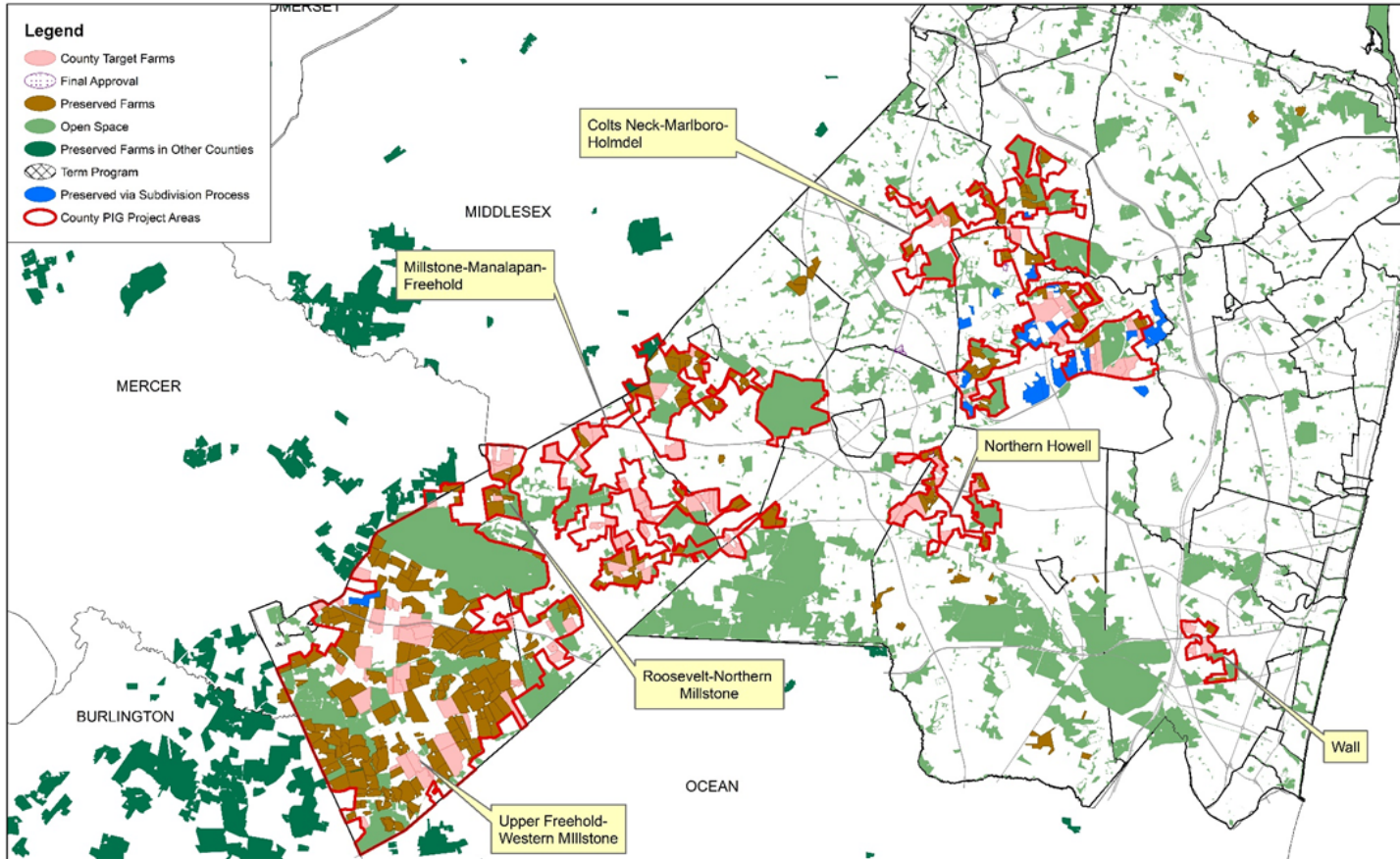
Municipality	Total Muni Acres	Ag Acres (2019 tax data)	Perm. Pres. Ag Acres (SADC+) 11/15/21	1 Year Goal (Acres)	5 Year Goal (Acres)	10 Year Goal (Acres)	Notes
Aberdeen	3,488	64	0	0	20	20	Largest remaining farm would need alternate option
Colts Neck	20,288	4,484	1,015	1,315	1,550	1,625	Preserved acreage does not include lot-sized averaging parcels
Eatontown	3,243	25	0	0	0	0	
Farmingdale	339	29	0	0	15	15	Would need alternate preservation option for largest remaining farm
Freehold Twp	23,680	3,011	273	275	277	277	
Hazlet	3,584	30	0	0	0	0	Largest remaining ag parcel is targeted for open space
Holmdel	11,456	1,055	398	398	505	505	Ag acres don't include publicly-owned Bayonet Farm, Cross Farm, Longstreet Farm, and DePalma Farm
Howell	39,744	5,645	726	772	1,000	1,150	
Manalapan	19,744	3,600	1,242	1,242	1,400	1,575	Over 1,000 acres of parkland leased to farmers not included in ag acres
Marlboro	19,398	2,524	282	309	350	375	
Middletown	26,291	1,874	101	101	150	200	
Millstone	23,923	7,077	1,421	1,421	2,021	2,420	Permanently preserved acreage includes Marino & Fredericks easements.
Neptune Twp.	5,120	20	0	0	0	0	
Ocean	7,168	26	0	0	0	0	
Roosevelt	1,235	367	257	257	287	300	One of larger remaining farms would need an alternate preservation option
Rumson	3,328	56	0	0	0	0	
Shrewsbury Borough	1,472	14	14	14	14	14	Township preserved last farm with conservation/ag easement with our assistance.
Tinton Falls	9,696	363	0	0	0	0	
Upper Freehold	30,368	16,410	10,174	10,340	10,840	11,300	We hit ambitious 10-year goal of 2008 plan. Tom-Shannon ag easement included in total preserved ag acreage.
Wall	19,846	2,239	67	67	140	270	Pres. acres includes 22-acre Stockland easement
West Long Branch	1,811	29	7.5	7.5	7.5	7.5	7.5-acre conservation/ag easement
County Total		48,962	15,978	16,519	18,577	20,053	

Total land area data from *Monmouth County At-A-Glance*; Farmland Assessed County Total includes a few nonlisted municipalities.



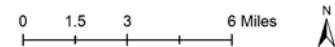
County PIG Project Areas and Target Farms

Monmouth County Agriculture Development Board
One East Main Street, Freehold, NJ 07728 732-431-7460



This map was created on November 30, 2021 and is for information purposes only.

Basemap layers courtesy of Monmouth County Division of Planning.
Preserved Farmland in Other Counties layer provided by SADC.



Project Areas

There are six project areas in Monmouth County (see Map 5.1). MCADB staff delineated the first set of boundaries during the preparation of the 2008 *Monmouth County Farmland Preservation Plan by creating a map that overlaid* all of the County PIG target farms and with other layers of interest such as existing preserved farms, open space, and active projects. Staff then performed a manual cluster analysis around the main groupings of farms to arrive at five main project areas. Subsequently, staff modified the shapes to better correspond with the county's ADA boundaries and eliminate already developed areas. Several years after the adoption of the 2008 plan, the county added a sixth project area in Wall Township. There are a few eligible, scattered farms that are essentially orphaned from the project areas; the county is unlikely to pursue these through the County PIG Program but possibly through another funding stream in the future. Monmouth County's six basic project areas are as follows:

- Upper Freehold-Western Millstone,
- Roosevelt-Northern Millstone,
- Millstone-Manalapan-Freehold,
- Colts Neck-Marlboro-Holmdel,
- Northern Howell, and
- Wall.

The **Upper Freehold-Western Millstone Project Area** covers just about all of Upper Freehold Township, plus Assunpink Wildlife Management Area (WMA) and a few preserved and target farms in western Millstone Township. Assunpink was included, in part, because its trails are regularly used by the equine community. The Upper Freehold-Western Millstone Project Area contains the most preserved farmland and target farms (see Chart 5.2 and Map 5.1). This project area forms the heart of a four-county regional project area that the SADC refers to as the Central Jersey Project Area. Upper Freehold and western Millstone Township's project area is surrounded by preserved farmland in Burlington, Mercer and Ocean counties. Monmouth County is proud that Upper Freehold has the most preserved farmland of any municipality in the state and intends to help keep this honor. As expected, the project area contains a significant expanse of prime agricultural soil (see Chart 5.3).

The **Roosevelt-Northern Millstone Project Area** covers northern Roosevelt Borough and an adjacent section of Millstone Township. The northern portion of Roosevelt Borough is almost entirely preserved as farmland or open space. In fact, the borough has only a few remaining mid-sized farms. One is under contract with Monmouth County Park System. Another is on the Farmland Program's target farms list.

The **Millstone-Manalapan-Freehold Project Area** covers parts of three municipalities in Monmouth County and one in Middlesex. It spans parts of Millstone, Roosevelt, Manalapan and western Freehold Township as well as a little bit of Monroe Township since a couple of farms cross county borders. The project area includes Monmouth Battlefield State Park in Manalapan and Freehold since a significant portion of the park is leased to farmers. The project area spills into Freehold Township just west of Turkey Swamp state and county parks to pick up some of the remaining eligible farmland in that municipality. This update pared down the project area to eliminate some areas devoid of eligible farms, devoted to nonagricultural use, or incorporated in public parks.

The **Colts Neck-Marlboro-Holmdel Project Area** covers much of Colts Neck north of Naval Weapons Station Earle. There are some gaps in this part of Colts Neck due to intervening development. The project also extends into Marlboro and Holmdel. Much of the project area is linked by Willow Brook, a

tributary of the Swimming River Reservoir. There has been significant state investment in this project area over the years. Fee Simple and Direct Program easements include those on the Greenfields Farm the former Chase Tract, Eastmont Orchards, and some divested Marlboro State Hospital lands. County-held easements include two former F&F Nurseries parcels, the former Stattel farm, and H.M.F. Associates, Inc. The project area also includes many development set asides (as farmland or open space) through Colts Neck’s lot-size averaging provision of its 10-acre zone.

The **Northern Howell-Eastern Freehold** Project Area includes some of the best soil in Howell. It spills over slightly into Freehold Township and includes eight existing preserved farms, including Gibson and Thompson that were added to the list since the 2008 plan and nine target farms. Land values are climbing in this project area and development pressure is increasing, especially due to interest in building warehouses.

The **Wall** Project Area lies in the center of the municipality, just east of the Garden State Parkway. Monmouth Conservation Foundation partnered with Wall Township, Monmouth County and the SADC to preserve two agricultural easements in the project area. Four other farms are targeted for preservation through the County PIG Program.

CHART 5.2: Project Area Density Calculations per N.J.A.C. 2:76-17.5

Colts Neck-Marlboro-Holmdel Project Area		11,265 Acres
Number of Target Farms Including Those with Final Approval	13	
i. Targeted Farms (acres)	1,363	
ii. Application Granted Final Approval (acres)	0	
iii. Development Easements Already Purchased (acres)	1,618	
iv. Other Permanently Deed Restricted Farmlands (acres)	587	
v. Enrolled in 8-year Program (acres)	0	
vi. Open Space (acres)	3,276	
Total ii to vi. (acres)	5,481	
Density (ii. to vi. / total area)	0.49	
Roosevelt-Northern Millstone Project Area		1,196 Acres
Number of Target Farms Including Those with Final Approval	3	
i. Targeted Farms (acres)	271	
ii. Application Granted Final Approval (acres)	0	
iii. Development Easements Already Purchased (acres)	431	
iv. Other Permanently Deed Restricted Farmlands (acres)	0	
v. Enrolled in 8-year Program (acres)	0	
vi. Open Space (acres)	212	
Total ii to vi. (acres)	643	
Density (ii. to vi. / total area)	0.54	
Millstone-Manalapan-Freehold Project Area		11,290 acres

Number of Target Farms Including Those with Final Approval	28	
i. Targeted Farms (acres)	2,242	
ii. Application Granted Final Approval (acres)	0	
iii. Development Easements Already Purchased (acres)	1,863	
iv. Other Permanently Deed Restricted Farmlands (acres)	0	
v. Enrolled in 8-year Program (acres)	0	
vi. Open Space (acres)	6,000	
Total ii to vi. (acres, parcels in more than one category only counted once)	7,863	
Density (ii. to vi. / total area)	0.70	
Northern Howell-Eastern Freehold Project Area		2,010 acres
Number of Target Farms Including Those with Final Approval	9	
i. Targeted Farms (acres)	642	
ii. Application Granted Final Approval (acres)	47 (also covered by iii)	
iii. Development Easements Already Purchased (acres)	371	
iv. Other Permanently Deed Restricted Farmlands (acres)	0	
v. Enrolled in 8-year Program (acres)	0	
vi. Open Space (acres)	343	
Total ii to vi. (acres, parcels in more than one category only counted once)	714	
Density (ii. to vi. / total area)	0.36	
Upper Freehold-Western Millstone Project Area		31,051 acres
Number of Target Farms Including Those with Final Approval	31	
i. Targeted Farms (acres)	3,189	
ii. Application Granted Final Approval (acres)	0	
iii. Development Easements Already Purchased (acres)	10,667	
iv. Other Permanently Deed Restricted Farmlands (acres)	118	
v. Enrolled in 8-year Program (acres)	0	
vi. Open Space (acres)	8,964	
Total ii to vi. (acres, parcels in more than one category only counted once)	19,749	
Density (ii. to vi. / total area)	0.64	

Wall Project Area		798 acres
Number of Target Farms Including Those with Final Approval	4	
i. Targeted Farms (acres)	203	
ii. Application Granted Final Approval (acres)	0	
iii. Development Easements Already Purchased (acres)	46	
iv. Other Permanently Deed Restricted Farmlands (acres)	22	
v. Enrolled in 8-year Program (acres)	0	
vi. Open Space (acres)	184	
Total ii to vi. (acres, parcels in more than one category only counted once)	252	
Density (ii. to vi. / total area)	0.32	

CHART 5.3 Soil Classification of Target Farms

Soil Classification	Acres
Colts Neck-Marlboro-Holmdel Project Area Target Farms (1,749 acres)	
Prime Agricultural Soil	938
Statewide Important Soil	439
Unique Important Soil	0
Total	1,377
Targeted Farm Soil Productivity	0.79
Northern Howell Project Area Target Farms (851 acres)	
Prime Agricultural Soil	538
Statewide Important Soil	204
Unique Important Soil	20
Total	762
Targeted Farm Soil Productivity	0.90
Roosevelt-Northern Millstone Project Area Target Farms (548 acres)	
Prime Agricultural Soil	215
Statewide Important Soil	264
Unique Important Soil	0
Total	479
Targeted Farm Soil Productivity	0.87
Millstone-Manalapan-Freehold Project Area Target Farms (2,242 acres)	
Prime Agricultural Soil	1,160
Statewide Important Soil	732
Unique Important Soil	3
Total	1,885
Targeted Farm Soil Productivity	0.84

U. Freehold-Western Millstone Project Area Target Farms (3,189 acres)	
Prime Agricultural Soil	2,134
Statewide Important Soil	787
Unique Important Soil	0.2
Total	2,921
Targeted Farm Soil Productivity	0.92
Wall Project Area Target Farms (203 acres)	
Prime Agricultural Soil	134
Statewide Important Soil	40
Unique Important Soil	0
Total	174
Targeted Farm Soil Productivity	0.86



Preserved farms in the Colts Neck-Marlboro-Holmdel Project Area (Fred Yahn, Eagle Drone Solutions, Inc.)

Minimum Eligibility Criteria

In anticipation of rule changes pertaining the state's farmland preservation programs, the MCADB established a subcommittee in 2006 to determine criteria for the County PIG. The MCADB formally adopted Policy PIG-6a a few weeks after the SADC's new rules became effective. The board amended its policy on January 11, 2022. Aside from meeting the minimum state eligibility requirements, farms being considered for the County PIG must be at least 20 acres in size or be adjacent to an already preserved property. A farm must also have a Land Evaluation score of at least 55. This score is based on an index (from 0 to 100) that ranks the agricultural quality of a property's soils. The index awards points for prime agricultural soils, soils of statewide importance, and unique soils.

Even if a property does not meet the criteria for the County PIG, it may meet the minimum SADC standards for other programs. Thus, the county intends to continue to partner with municipalities and nonprofits to preserve eligible farms through the Municipal Planning Incentive Grant Program and Grants to Nonprofits Program.

County Ranking Criteria

Landowner applications are accepted on a rolling basis by the MCADB. The Board periodically reviews applications and analyzes such factors as development potential, proximity to other preserved farms, size, soil quality, tillable acreage, the farm's overall Land Evaluation Site Assessment score (LESA) and/or SADC quality score, expected cost, and available funding. This ensures that only the highest quality applications are submitted for consideration for the County PIG Program. If the MCADB is unable to move forward on an application at a given time, and the farm otherwise meets the county minimum criteria, the application may be reconsidered at a later date.

The LESA score and the SADC's quality score are very similar methods of analyzing a candidate farm. Following the switch from the County Easement Purchase Program (with its single, annual application deadline and competition among farms throughout the entire state) to the County PIG, MCADB staff has relied less heavily on the former. The LESA score is a tally of the Land Evaluation score noted above and a Site Assessment score that assigns points to such factors as percentage of property actively farmed, proximity to other preserved property, local commitment to the farmland preservation program (supportive zoning and planning, willingness to cost share), size of the farm, and stewardship (e.g., an existing Farm Conservation Plan, enrollment in the Term Easement Program, etc...). The LESA methodology was last modified and adopted by the MCADB on March 6, 2002.

Since 2007, the SADC has required County PIG projects to meet a certain quality score under the statewide scoring system. The system is very similar to the county's LESA. It looks at factors such as soils, tillable acres, boundaries and buffers, local commitment, size and density, CADB prioritization, and imminence of change. The SADC, however, assigns points and weights criteria differently than the county. The MCADB will rate its farms using the state system as well as its own, and at some point, may convert completely to the SADC system. The SADC rules also require eligible farms to meet or exceed 70 percent of the average quality score of all County PIG farms that received preliminary approval in the last three fiscal years. This currently comes out to a score of 49 for Monmouth County (70 percent of 70.83). This is among the highest thresholds in the state.

County Policies Related to Farmland Preservation Applications & Preserved Properties

As listed in Appendix C, Monmouth County has a number of formal and informal policies related to its treatment of applications. The MCADB follows SADC guidelines and policies related to the approval of agricultural labor units, house replacements, and the exercise of Residential Dwelling Site Opportunities (RDSOs). In 2022, it finalized a checklist for house replacement requests to assist with reviews.

Agricultural Labor Housing

It is up to the landowner whether or not to list a residence as an agricultural labor housing unit in the deed of easement. The decision depends on whether or not a family member lives in the home (which is prohibited by the deed), the current use of the dwelling, and future plans for the farm. The MCADB receives about one request a year from already preserved farms wishing to erect a new agricultural labor housing unit. In such cases, staff meets with the landowners and visits the site. Then the Board reviews the completed SADC application, determines how the new unit will benefit the operation and considers the size and placement of the proposed dwelling, the anticipated responsibilities of the employee(s), as well as the agricultural production on the farm. Once approved, paperwork is forwarded to the SADC which must also pass a resolution in favor of the request.

House Replacement

House replacement requests on preserved farms have been averaging two a year in Monmouth County. Similar to the agriculture labor housing requests, staff conducts a site visit and obtains as much information as possible from the applicants. In making its decision, the Board considers the landowners' needs and motives (for instance, sometimes the original house is no longer habitable due to fire, termites, etc.), the size and location of the new building envelope, and impact on the farming operation. The county does not have a house size restriction but adopted a thorough house replacement review checklist in January of 2022. This checklist was spurred by the increasing complexity and size of replacement requests. If approved by the MCADB, a request is passed on to the SADC who must also grant approval.

RDSOs

A handful of preserved farms in Monmouth County have Residential Dwelling Site Opportunities. These are floating housing opportunities that a farm over 100 acres in size may request as part of their deed of easement. None of the county's RDSOs have been exercised in recent years. If the county were to receive a request it would follow the SADC's Policy P-31 regarding the exercise of an RDSO. The policy is meant to ensure that construction and use of a residential unit is for an agricultural purpose.

Division of Premises

The MCADB also receives approximately one Division of the Premises request a year. If granted, such requests enable the fee owner of a preserved property to divide an agricultural easement and sell one or more resulting farms. The Board follows the SADC's policy P-30-A and has the landowner complete the associated form. The form requires the landowner to elaborate on the purpose of the division. The policy also demands that the farms resulting from the division be viable. To make this determination, the MCADB looks at the size of the new parcels, distribution of wetlands, and soils scores. The MCADB has approved eleven divisions over the years. Once the MCADB grants approval, the application goes to the SADC. If the SADC approves the division, the landowner must record a corrective deed or deeds.

Approval of Exceptions

The county has no formal policy on exceptions. Exceptions are areas of a farm that are specifically delineated so they are will not be subject to the majority of restrictions in the deed of easement. More and more, the MCADB and SADC encourage farms to establish an exception area to ensure future flexibility and not simply reflect a snapshot in time. Staff tries to ensure that the size and location of an exception makes sense for the farming operation. The use of an exception often depends on the presence of nonagricultural uses on the site, long-term plans for the farm, and whether or not the deal is a joint project with another government agency that might be buying some land in fee. In years past, landowners applying to the County Easement Purchase Program lost points for certain types of exceptions. In fact, the SADC rating system for the County PIG still deducts points for exceptions. Due in part to this historic disincentive, many older deeds of easement lack exception areas. Accordingly, the legislature has tried to rectify the situation by authorizing the SADC to allow eligible farms to apply for a Rural Microenterprise permit for “customary rural activities” and agricultural support services.

Easement Enforcement Policy

Monmouth County now has over 200 preserved farms. With farms transitioning to new owners and operations changing to accommodate current trends and market conditions, there has been an increase in observable deed of easement compliance issues. Accordingly, the MCADB adopted policy GEN-9 in November of 2020 to outline a process for handling potential violations. The process focuses on four steps: inquiry, remediation, confirmation and enforcement measures.

County Funding Plan

Identifying high quality farms and delineating project areas is a first step towards preservation. However, the county subsequently needs to figure out how to pay for the land and come up with suitable financial policies.

Overall, farmland preservation is a beneficial practice for Monmouth County. Purchasing agricultural easements is a less expensive way to control development than fee simple or open space acquisition. An easement costs about two-thirds the price of an outright acquisition. And because the county partners with the state and municipalities, it typically secures grants for up to 75 percent of the easement purchase price. So the county usually ends up spending 16 percent of what a fee simple purchase would cost.

County Funding Sources

Historically, the Monmouth County Farmland Preservation Program relied on the county’s Capital Budget to fund its share of easement purchases. This method required budgeting one to two years in advance of closing, often prior to appraisals being completed. From 1987 to 2012, the County directed a total of \$53,902,347 from its Capital Budget and related bonds towards the purchase of agricultural easements. Currently, the Farmland Preservation Program depends on the Open Space, Recreation, Floodplain Protection, and Farmland and Historic Preservation Trust Fund for the county share of agricultural easement purchases. The fund’s current tax rate of 2.5 cents per \$100 of equalized valuation generated \$36,375,774 in 2020 with added and omitted taxes of \$218,695. The vast majority of the open space tax funds go to the Monmouth County Park System which does not use the Capital Budget for its land purchases or park maintenance. Starting in 2006, the county has set aside \$1.1 million a year for the Farmland Program from the Open Space Trust Fund. This unrestricted money has greater flexibility than the Capital Budget

funds. It is used not only for easement purchases but also for associated ancillary costs such as surveys, appraisals, title policies, and legal fees. It has also been used for the purchase of zero coupon bonds for Installment Purchase Agreements (IPAs) and annual interest payments to IPA holders. To date, the Farmland Preservation Program has used over \$7.4 million of the fund for easement purchases and \$272,000 for ancillary costs.

It should be noted that controlling development is not the goal of the *Monmouth County Open Space Plan* or the open space preservation program managed by the Monmouth County Park System. The goal of the Park System's program is to permanently preserve public land of county significance to support future regional conservation and recreation needs throughout Monmouth County. Public ownership is often needed to ensure the protection of natural and recreation resources and provide permanent public access

MCADB Financial Policies

The MCADB has adopted several policies related to the funding of easement purchases. They include: GEN -2 Procedures Governing the Funding of Easement Purchases, GEN -7 Procedures Governing the Expenditure of County Farmland Preservation Funds from the County's Open Space, Recreation, Floodplain Protection, and Farmland and Historic Preservation Trust Fund. The Board also has policies related to the review of Direct Easement Purchase Program and Nonprofit Program funding requests. Policies PIG-6 and PIG-7 pertain to ordering and reimbursing ancillary costs (e.g. appraisals, title work, surveys) for the Municipal and County PIG programs.

Policy GEN-7 establishes priorities for the use of the Farmland Program's subaccount of the county's Open Space Trust Fund. First priority is for interest payments on existing IPAs. Second priority is to cover the county's share of agricultural easement purchases not included in the annual capital budget. Third priority is for ancillary costs. Fourth is for the purchase of zero coupon bonds for future IPAs.

Policy GEN-2 pertains to the funding for the County and Municipal Planning Incentive Grant programs. The state's share of the total cost of the easement determines the county and municipal share. The state's share of the total cost is the same percentage as the county's share of the remaining costs. The municipality is responsible for the rest of the funds. For example, if the state funds 60 percent of the easement purchase price, the county will fund 60 percent of the remainder (24 percent of the total cost). The municipality will then fund 40 percent of the remainder (16 percent of the total cost). This 60-24-16 split is the most common in the county. See Chart 5.4 for an illustration. The MCADB's policy was adopted before the SADC converted to its current cost share formula which lowers the state contribution as land values rise. Since the change in the SADC formula, municipalities whose easement values regularly exceed \$50,000 an acre such as Colts Neck, Marlboro, and Middletown have been required to pay more than 16 percent of an easement's total consideration.

Policies PIG-6 and PIG-7 were last amended in 2020 to reflect changes in the SADC's reimbursement policies. The agency used to reimburse both a municipality and a county for 50 percent of the cost of title searches and policies, appraisals, and surveys. Now it only reimburses municipalities if funds are available. In addition, PIG-7 enables the county to obtain approval from the CADB to order a third appraisal or an appraisal update related to a Municipal PIG

project. It also recognizes that the county, as the ultimate easement holder, is usually better positioned to order surveys for both Municipal and County PIG projects.

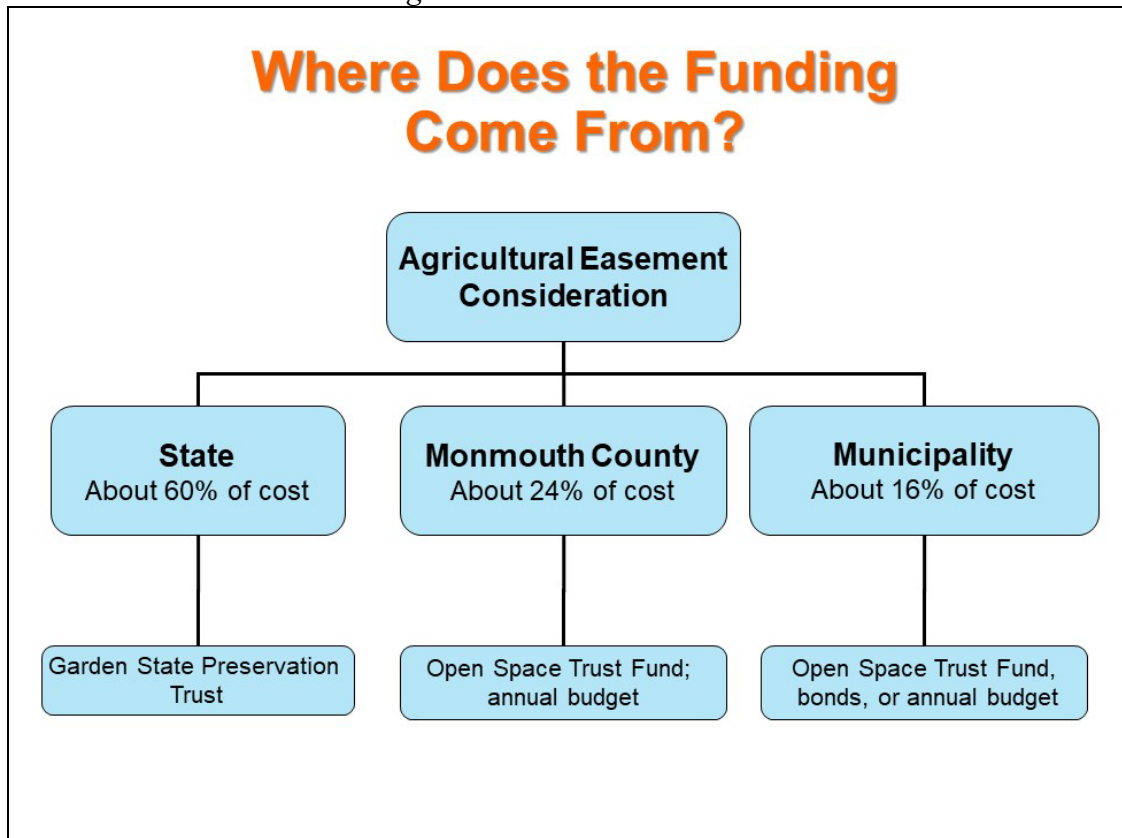
The county's policies for Direct Program and Nonprofit Program projects do not specify cost share. The policies merely explain the process for making a recommendation to the Board of County Commissioners on whether or not to contribute funds to a project. County contributions have ranged from 0 percent to 26 percent, with 25 percent being the most common.

The county has some other funding-related policies. A municipality must issue its share of an easement by check (or by wire) prior to closing. Also, some municipalities and counties in the state negotiate an easement's price with landowners. The MCADB relies on the state to determine the offer price. The price, called the Certified Market Value, is based on two appraisals prepared using SADC standards. The MCADB will not pay above the Certified Market Value of an easement but will allow partnering municipalities to offer landowners additional funds as long as the total consideration of the easement does not exceed the highest appraisal. For various reasons, landowners sometimes agree to a price lower than the certified market value.



Photo Credit: Monmouth County Division of Planning

CHART 5.4: Where Does the Funding Come From?



Cost Projections and Funding Plan Associated with 1, 5 and 10-year Preservation Goals

MCADB staff developed cost projections related to the county’s near-term, 5 and 10-year preservation goals (see Chart 5.5). Projections for the 2022 and 2023 budget years will come closer to matching actual costs since a number of the projects included already have certified market values or are similar to recent comparable sales. The cumulative 5 and 10-year budget numbers are based on easement cost share data from the past five years. The average easement value for this time period was over \$36,000 but there is a lot of variation in land value throughout the county depending on zoning and environmental factors. Thus, future easements in municipalities such as Upper Freehold and Millstone were calculated at \$15,000 an acre and others were calculated at or above the average.

CHART 5.5: 10-year Cost Projections

	Estimated Acres	Total Cost	State Share	County Share	Municipal Share
2022/2023 Budget	620	\$16,500,000	\$9,900,000	\$3,960,000	\$2,640,000
Cumulative 5-year Budget Est.	2,564	\$60,000,000	\$36,000,000	\$14,400,000	\$9,600,000
Cumulative 10-year Budget Est.	4,041	\$87,000,000	\$52,200,000	\$20,880,000	\$13,920,000

After decades of reliance on bonds, the SADC’s share of easement purchases is now tied to the Corporate Business Tax. With the County and Municipal PIG programs, the SADC establishes grant allocations to each program. During each funding cycle, the SADC reviews the expenditure of each County and Municipal PIG program for the past three years and sets base grant allocations to each with a maximum eligibility for a competitive grant, or they risk losing their base grant through re-appropriation. Regardless of base grant eligibility, the competitive grant funds, which are administered on a first come, first served basis, are available to County and Municipal PIG programs as long as they have an approved annual PIG application update. Seven Monmouth County municipalities currently participate in the Municipal PIG Program.

Other Financial Information

Nine of Monmouth’s eleven municipalities with active farmland have open space trust funds. Most have been used to cost share on agricultural easement acquisitions. A number of communities bond, too, to enable the preservation of farmland. Chart 5.6 depicts some of the financial resources potentially available for farmland projects. No municipalities listed have repeated annual appropriations.

CHART 5.6: Preservation-oriented Financial Resources of Select Monmouth County Municipalities

Municipality	Tax Rate per \$100	Total OSTF Annual Revenue Generated (2021)	Repeated Issuance of Bonded Indebtedness
Colts Neck	\$0.012	\$370,153.00	X
Freehold Twp.	\$0.03	\$2,060,436.00	
Holmdel	\$0.035	\$1,091,386.65	X
Howell	\$0.02	\$1,509,227.28	
Manalapan	\$0.02	\$1,433,064.48	
Marlboro	\$0.01	\$728,188.68	
Middletown	\$0.03	\$3,574,844.22	
Millstone	\$0.06	\$1,137,598.31	X
Roosevelt	No Trust Fund		
Upper Freehold	\$0.06	\$12,777,846.86	X
Wall	No Trust Fund		

Administrative Resources

Monmouth County devotes significant administrative resources to the Farmland Preservation Program. The Monmouth County Division of Planning provides staff support for the MCADB and the Farmland Preservation Program. There are two full-time staff devoted to the program, and other members of the Environmental Sustainability and Integrative Strategic Planning sections pitch in as needed (many of them helped prepare sections of this plan). The program has also employed seasonal interns. The MCADB relies on the county’s network of attorneys for its legal needs. The county has assigned attorneys that are familiar with real estate and right-to-farm matters to work with the Farmland Preservation Program.

Until two years ago, the Farmland Program used a Microsoft Access database designed by the county's Information Technology Services Department. It was designed in 2000 and was subject to some minor updates in the intervening decades. It stored data on preserved farms, applicants, and interested landowners. The database proved invaluable for calculating Land Evaluation scores, a task that the USDA-NRCS used to perform for the county by hand. Because the county no longer supports Microsoft Access software, the information is being transitioned to a new database.

Luckily, Monmouth County boasts excellent GIS resources. The County of Monmouth has ArcPro and ArcMap licenses through ESRI and an extensive, centralized GIS portal available to employees. The portal includes parcel boundaries as well as infrastructure and natural features layers and aerial imagery provided through a contract with NearMap. The portal also contains federal and state GIS data layers for wetlands and soils among other things. MCADB staff uses GIS on a daily basis to analyze properties and create maps.

Factors Limiting Farmland Preservation Implementation

Various factors may limit the ability to preserve farmland in the county. These factors include land supply, landowner interest, funding, projected costs, administrative resources, bureaucracy, and time constraints. There are approximately 49,000 acres of farmland assessed land in the county, of which 15,630 acres are preserved. Over time, land development has reduced available farmland by thousands of acres. Compounding that, the current push to build large warehouses along highway corridors makes development pressure acute for farms in those areas. On a more positive note, the success of the Monmouth County Park System's open space preservation efforts has further eliminated opportunities for agricultural easement purchases. Also, several of Monmouth County's semi-rural communities are approaching buildout and will simply have no more farms left to preserve. In addition, Monmouth County has a contingent of farmers that have no plans to sell to developers but aren't comfortable restricting their properties or undertaking transactions with government agencies.

On the financial end, land values are an order of magnitude higher than in the early years of the county's Farmland Preservation Program, and the SADC's base grants for the County and Municipal PIG programs do not go as far in Monmouth as in some other parts of the state. On the administrative end, the MCADB staff has had to devote greater time and energy to stewardship and right to farm matters in recent years leaving less time for acquisitions. Moreover, the sheer length of the acquisition timeline does not meet the needs of many landowners. The application and appraisal process itself is often protracted with many layers of review. Afterwards, projects sometimes bottleneck depending on the workload of each member of the acquisition team.

VI. ECONOMIC DEVELOPMENT

It is not enough to simply preserve the county’s farmland to keep farms in business. It is also important to strengthen existing markets for agricultural products and establish new market opportunities. 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.”

The Economic Engine of Agriculture

As discussed on page 9-13 of the 2016 *Monmouth County Master Plan*, there are many interconnected suppliers, service providers, distributors, processors, and sales venues that depend upon and support local farms. For example, suppliers furnish feed and seed, fuel, packaging, and equipment. Service providers range from manure removers to well drillers to barn builders to roofers and solar installers. Processors mill lumber, butcher meat, and can vegetables. According to the NJ Department of Labor and Workforce Development, there were 100 Monmouth County businesses involved in agriculture in the 3rd quarter of 2014. On a wider stage, in 2015, Farm Credit East published the second edition of *Northeast Economic Engine: Agriculture, Forest Products, and Commercial Fishing*. The report focused on eight states including New Jersey. The authors used an IMPLAN (economic impact assessment) software system to analyze 2012 data. They found that agriculture, fishing, and forestry generated an economic impact of \$103.4 billion and supported 483,375 jobs on and off the farm. As shown in Figure 6.1: Economic Impact of Agriculture on the Northeast’s Economy, the value of the products at the farm, forest and dock multiplied as they progressed to market and generated hundreds of thousands of additional jobs along the way. In New Jersey, this amounts to a \$12.8 billion impact on state economic output, and 56,598 jobs. This comes to \$226,156 in agricultural output per job.

Figure 6.1 Economic Impact of Agriculture on the Northeast’s Economy



Source: Farm Credit East’s 2015 *Northeast Economic Engine* Report

Economic Impact – Jobs Data

Agriculture is an ever-evolving business. Changes to Monmouth County’s agricultural landscape are being fueled by several trends including an aging and dwindling population of farmers, a fluctuating nursery industry (which is tied to the vagaries of the real estate market and the disposable income of local residents), and a fragile horse racing industry. Trends in the equine industry as well as the nursery, greenhouse, floriculture, and sod industry are

discussed in further detail later in this chapter. There are indicators that declines in agriculture-related employment are stabilizing after a falloff, and the agricultural economy is shifting to new specialties that are also described in Chapter VI.

As Figure 6.2: Average Annual Number of Agriculture Jobs in Monmouth County illustrates, 2014 U.S. Bureau of Labor Statistics Quarterly Census of Employment and Wages data and the 2012 US Census of Agriculture showed that the county experienced a 30 percent decline in the total number of agricultural jobs between 2002 and 2012, 820 in 2012 down from 1,172 in 2002. The biggest job losses were seen in the crop production industry (533 in 2012, down from 893 jobs in 2002), greenhouse and nursery production (657 jobs vs. 388 jobs), and vegetable and melon farming (136 jobs vs. 65 jobs). Numbers for 2017 to 2020 are relatively stable with some fluctuations up and down. For example, as depicted in Figure 6.3, there were 20 greenhouse and nursery operations in the county in 2017 employing 366 staff and 29 in 2021 employing 328 workers. The picture is not entirely bleak. The decline of select agricultural industries is an opportunity for emerging operations such as spirits and specialty crops to gain traction, trends which will be described later in this chapter.

Figure 6.2 Average Annual Number of Agriculture Jobs in Monmouth County

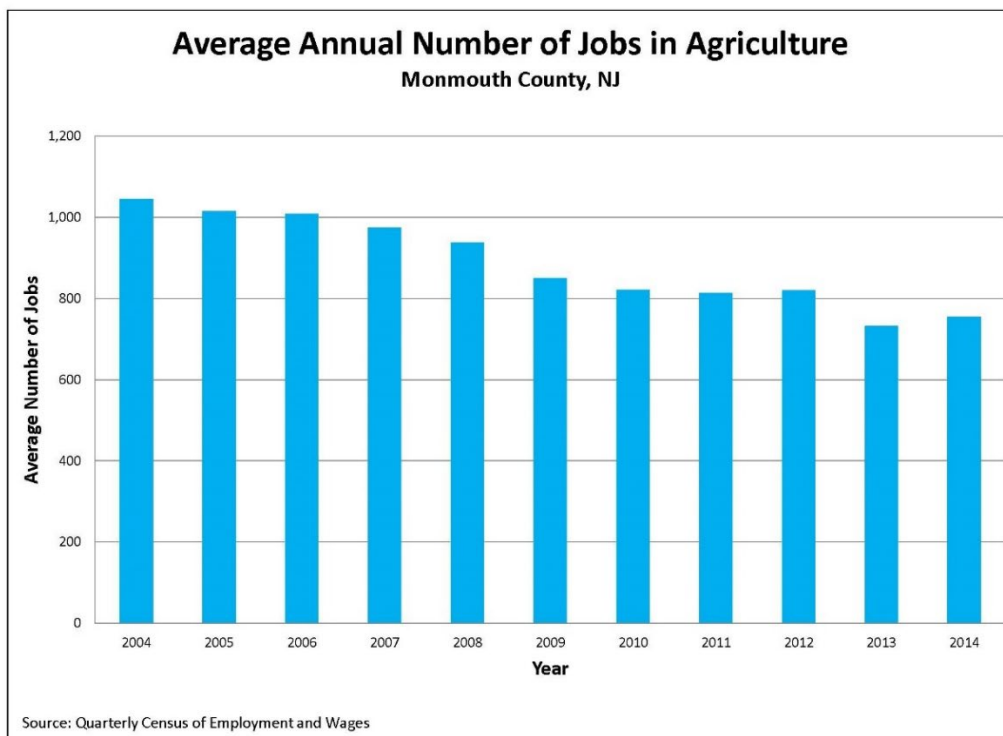
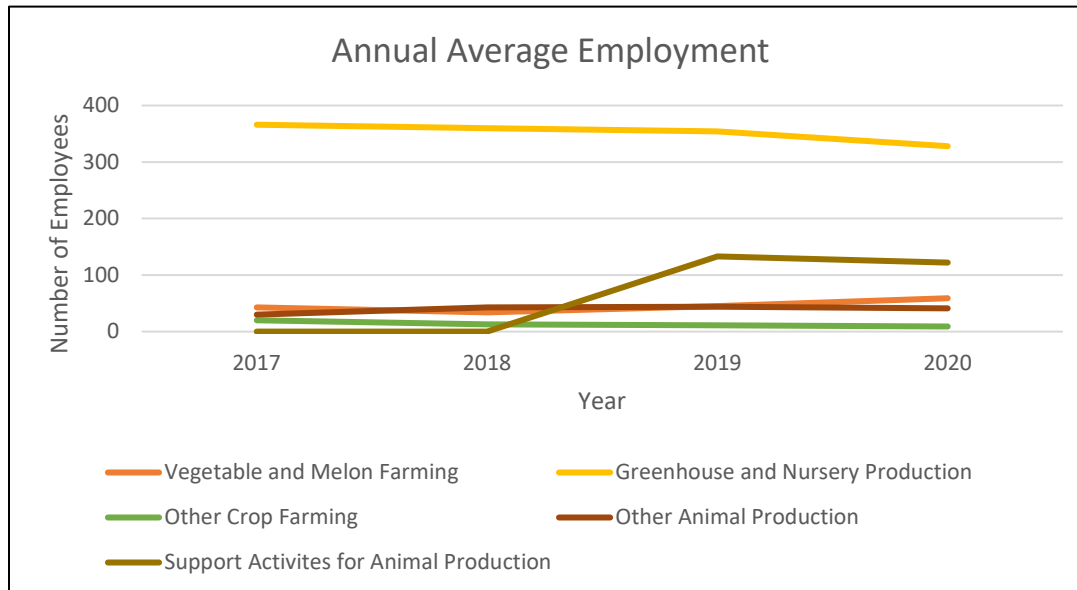


Figure 6.3 Average Annual Employment for Sample Sectors



Source: U.S. Bureau of Labor Statistics, *Quarterly Census of Employment and Wages*

Economic Threats and Challenges

As mentioned above, Monmouth County’s agricultural economy faces a number of threats as well as short and long-term challenges. At this writing, there is a critical shortage of labor that has been accelerated by the Covid-19 pandemic. The goods handling and movement industry is impacting the labor market offering higher pay and arguably better working conditions. There is a materials shortage especially for the nursery and landscaping industry. The supply chain has been disrupted by the pandemic, and trucking and shipping are problematic (among other reasons, it is hard to find drivers with CDL licenses). It is too soon to tell if these challenges will remain post-pandemic.

Stakeholder meetings for the 2016 *Monmouth County Master Plan* identified additional threats to and weaknesses for agriculture and economic development. Feedback from members of the agricultural community during the development of this CFPP update further refine this list:

- Pressure to convert farms to other uses (e.g. affordable housing, warehouses, etc.);
- Fragility of the standardbred industry (if main training centers cease operation, impacts amplify);
- Spotted lanternfly & invasive species;
- Crop predation by deer and other wildlife;
- Changing weather patterns;
- High cost of entering the business for young/new farmers;
- A need to recruit the next generation of interested and willing farmers;
- Limited physical expansion opportunities due to surrounding development patterns;
- Shortage of commercial kitchens, despite new cottage industry law;
- Water supply and quality; and
- Government regulations.

Agricultural Industry Retention, Expansion and Recruitment Strategies

There are many strategies for agricultural industry retention, expansion, and recruitment to counter the threats noted above. Each year, the delegates of the annual State Agricultural Convention are asked to endorse economic development strategies for various sectors of New Jersey's food and agricultural industry. The 2007 document, entitled *New Jersey Department of Agriculture 2007 Economic Development Strategies*, lists 121 strategies organized around the following sectors: produce, horticulture, field and forage crops, dairy, livestock and poultry, organic, seafood, equine, wine and general. The 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.

Institutional

Governmental agencies, academic institutions, and community groups all work hard to provide support and marketing services to farming operations. These services range from business coaching and promotion to land matching programs.

Farmer Support

The Monmouth County Division of Economic Development runs a marketing and branding program known as Grown in Monmouth®. It aims to connect producers and buyers, identify new markets, provide business skill assistance, and help landowners and farmers expand and sustain agricultural operations. Grown in Monmouth maintains a [website](#) that currently includes 13 interactive directories of farms and attractions around the county ranging from Christmas tree farms to nurseries to pick-your-own sites. Two new directories are being developed for cut flowers and apiaries.

Staff of the MCADB receive numerous inquiries each year from potential buyers interested in preserved farms for sale and also fields occasional calls from sellers. The county regularly refers existing and potential farmers to the NJ Land Link. According to its [website](#), the service "is designed to help farmers and landowners connect through a database of farmland available, farming opportunities sought, and land characteristics and production goals." The website maps and describes farms for sale or lease, posts listings from those looking for farmland, and links to resources related to farm practices, farm transfer planning, and business planning. Monmouth Conservation Foundation initiated the Farm to Field Project several years ago to encourage landowners and existing or aspiring farmers to network and establish connections to aid in the transfer of farmlands.

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) offers a course entitled Exploring the Small Farm Dream taught by Jess Niederer of Chickadee Creek Farm in Hopewell, NJ. Rutgers Cooperative Extension runs a program called RU Ready to Farm-Beginner Farmer Training Program. The program is co-directed by Bill Errickson, one of Monmouth County's agricultural agents. Year 1 of the course meets every other week over 30 weeks. It focuses on the business aspect of farming such as budgeting and business plans, loans, and regulations as well as technical subjects such as IPM and soil science. Year 2 of the

program will provide hands-on training in running a CSA at the Rutgers Specialty Crop Research and Extension Center in Cream Ridge. Aside from offering courses, Rutgers Cooperative Extension will deploy its agents to work with landowners to select crops and livestock suited to the soils of a particular site.

Beyond 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, disaster, safety-net, and loan programs for which area farmers are eligible. Whole Foods Market instituted a privately funded loan program in 2006 known as the Local Producer Loan Program. Since its inception, Whole Foods has granted \$26 million for low interest loans to 360 suppliers around the country. Monmouth County's Community Development Program, in conjunction with the Monmouth County Division of Economic Development, used to offer a Small Business Loan Program for which farmers could apply. The program is not currently active but the county is exploring possible alternatives. In the meantime, entrepreneurs have been taking advantage of relatively cheap home equity loans for business-related needs.

America's Small Business Development Center at Brookdale Community College runs classes that may enhance workforce and business owner skills and knowledge. The county and its nonprofit and municipal partners periodically offer workshops on topics related to estate planning such as tax incentives and options for preservation. MCADB staff also directs many landowners to the SADC's December 2004 publication *Transferring the Family Farm: What Worked, What Didn't for 10 NJ Families*. The report offers case studies on the orderly – and not so orderly – intergenerational transfer of farmland and farm assets and includes a profile of Monmouth County's Heritage Hill Farm. Additionally, Land for Good, a Vermont-based nonprofit, sponsored a four-part Farm Succession Planning webinar series in early 2022 that was open to farmers from the Northeast.

Small business resiliency to disruption events and climate change, including vulnerabilities and adaptations for agricultural industry, is another area garnering interest and support from Monmouth County and academia. In 2022, County Planning Division, Economic Development, and Emergency Management staff met with Robin Leichenko of the Rutgers Department of Geography and The Rutgers Climate Institute to assist with a research study on small business resiliency.

Marketing and Public Relations Support from Monmouth County Government

Grown in Monmouth provides a number of services to its members and the public. Aside from a series of GIS StoryMaps, the Grown in Monmouth website has a searchable online directory where purveyors are identified by categories such as organic or USDA Good Agricultural Practices (GAP) certified. The website also includes links to external resources related to business development, Covid-19, and marketing among other topics. Also, Grown in Monmouth hosts a Facebook page and sponsors Farmer Fridays on social media. It profiles one member grower each week. The goals are to elevate the Grown in Monmouth brand and promote area farmers. The campaign brings market awareness to growers and develops relationships between vendors and customers.

The Monmouth County Division of Planning, the Monmouth County Park System, and Monmouth Conservation Foundation have been working to bring attention to the *Upper Freehold Historic Farmland Byway*, one of NJDOT's eight designated scenic byways. The goal of the scenic byway is to showcase the historic, cultural, and agricultural heritage of Allentown and Upper Freehold to the public. The 24-mile route starts at Walnford Mill and ends at the intersection of Polhemustown Road and Route 539. Along the way, it passes scenic farmland, the Horse Park of New Jersey, and Cream Ridge Winery.

Marketing and Public Relation Support – State Government

The New Jersey Department of Agriculture instituted the Jersey Fresh promotional campaign in 1984 to increase awareness of locally grown produce and food products. Numerous farmers, value-added producers, and venues use the Jersey Fresh logo. The related Jersey Grown designation is specific to NJ nursery stock. The NJ Department of Agriculture maintains a web site, <https://findjerseyfresh.com/>, which can be used to search for growers, recipes, and products made with NJ-grown ingredients.

Agricultural Education and Market Research Coordination

Rutgers University and its affiliated programs are the backbone of agricultural education in the state. Rutgers Cooperative Extension (RCE), which falls under the umbrella of the New Jersey Agriculture Experiment Station (NJAES), which runs educational and research programs in all 21 NJ counties is comprised of three main departments: Agriculture and Natural Resources (ANR), 4-H, and Family and Community Health Sciences (FCHS). The ANR department provides technical assistance and recommendations related to crops and livestock and works to sustain and enhance agricultural production. Producers contact ANR agents for assistance with issues such as soil fertility, water quality and supply (including drought and irrigation management), integrated pest management, and crop management. One agricultural agent is based in the Monmouth County agricultural building on Kozloski Road in Freehold Township. He primarily works with commercial agriculture and horticulture operations but also assists homeowners, school groups, and government agencies. A second agent focuses on fisheries and aquaculture and splits time among Monmouth, Ocean, and Atlantic counties. The Rutgers Master Gardeners of Monmouth County are focused on training volunteers and sponsoring educational programming related to home and community-scale gardens.

Rutgers University operates two New Jersey Agriculture Experiment Stations in Monmouth County. The Rutgers Specialty Crop Research and Extension Center in Cream Ridge (Upper Freehold Township) conducts and disperses research related to the production of specialty crops including trees and small fruits such as apples, peaches, apricots, nectarines, brambles, and strawberries as well as ornamental nursery crops. The center is also a training site for the RU Ready to Farm Beginner Farmer Training Program. It has been upgrading its facilities and expanding its research to include native plants and specialty crops such as hazelnuts as well as pest management. Rutgers Plant Science Research and Extension Farm in Adelphia (Howell Township) supports research on fine turf and athletic field turf. NJAES manages several other stations in the State.

The Cream Ridge research station places a lot of emphasis on plant breeding. Research at the station 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 thereby reducing the need for chemical inputs. Other scientists affiliated with the center research growing medias, irrigation, fertility management practices, native plants, hazelnuts, and high tunnels.

Outside the county, the Rutgers University Equine Science Center promotes economic development of the equine industry. It strives to identify problems, offer solutions to the horse industry and horse owners, and influence public policy. The Rutgers Food Innovation Center is another unit of the NJAES system. It is a business incubator that helps early stage entrepreneurs and existing food companies bring concepts to market. The Rutgers EcoComplex in Burlington County has an emphasis on energy systems such as agrivoltaics (for more information see page 105 of this plan). Rutgers NJAES Office of Continuing Education offers a number of courses related to the equine, horticulture and sod industries.

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, animal science, and plant science among others.

Agricultural education and marketing pair together in various other education settings around Monmouth County, helping bridge the gap between growers, the current and future workforce, and consumers. For example, West Belmar Elementary School maintains an aquaponics system with support from Drop the Beet Farms. Students grow approximately 1400 heads of lettuce a year and assemble salads for sale. The Monmouth County Vocational School District's Culinary School in Asbury Park and the Career Center in Freehold feature locally grown ingredients like baby ginger in their curriculum. Students prepare value-added products like soup that are then sold to the public at events like Made in Monmouth.

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. Asbury Park, Atlantic Highlands, Belmar, Highlands, and Red Bank are some of the communities in Monmouth County that sponsor farmers markets. Howell, Marlboro, and Bell Works in Holmdel have all established community markets since the publication of the last farmland plan.

Other area farmers venture outside the county to weekly suburban and urban markets. Jeff's Organic Produce sells organic produce in Monmouth County as well as Morristown, West Windsor, and Toms River. Similarly, Asprocolas Acres travels to Linden, Scotch Plains, South Bound Brook, Nutley, and Edison markets as well as selling locally.



Two River Mushroom Co. display at the Bell Works Fresh Farmers Market (H. Honigfeld)

Roadside Farm Stands, Farm Markets, Specialty Markets

The Monmouth County Planning Board and MCADB support roadside stands and farmers markets. There are many farm stands and more formal farm markets in the county as well as several large specialty markets. Popular roadside stands include Samaha's Farm (Aberdeen), McCormack Farms (Middletown), C & J Farms (Marlboro and Manalapan), and Gibson Farm (Freehold Township). More formal farm markets include Wemrock Orchards (Freehold and Manalapan border) and Battleview Orchards (Freehold). These markets grow their own produce and obtain goods from others in the region. Some of these operations offer a pick-your-own component. Monmouth County also boasts a number of nursery and garden centers such as Maple Leaf Gardens (Manalapan), A. Casola Farms and Greenhouses (Holmdel), Barlow's (Wall), and Brock Farms (Freehold Township).

Monmouth County has several larger specialty markets that feature produce from local growers as well as their own. For example, Delicious Orchards in Colts Neck started as a roadside stand and expanded to become a large country market. According to its web site, the store gets 2.5 million visitors a year. Delicious Orchards is widely known and advertises in the *New York Times*. The market features homemade baked goods and pies and an incredible array of fruits and vegetables. Corn, tomatoes, eggplants, peppers and squash sold at the market typically come from Monmouth County farms. Delicious Orchards also buys green beans and melons from local farmers. The market also sells overstock from local farms that cannot sell all of their crop yield to their own customer base. The popularity of markets such as Delicious Orchards as well as country markets such as Sickles Market in Little Silver is likely to continue.

Sales to Supermarkets and Produce Markets

Supermarkets and produce markets are a common sales outlet for Monmouth County's larger farms. Louis Davino Greenhouses in Millstone partners with Saker ShopRites to sell ornamental plants such as impatiens. The pots are attractively branded with the Grown in Monmouth logo. Mushroom King in Manalapan sells wholesale organic shitake and oyster mushrooms to over 100 retailers including Whole Foods. It also sells to the meal kit company Hello Fresh as well as Restaurant Depot. Holland Greenhouses Inc. in Upper Freehold and Monroe distributes its tulips via supermarkets along the East Coast. Puglisi Egg Farms in Howell supplies a number of supermarket chains such as Saker ShopRites as well as farm markets such as Battleview Orchards and Wemrock Orchards in Freehold Township. Direct to supermarket sales have been on the rise in recent years and present additional growth opportunities for area farmers. However, USDA-GAP (good agricultural practices) certification requirements are a barrier for entry for most smaller farms.

According to its website, the Tri-County Cooperative Auction Market in Hightstown started in 1933 in response to the Great Depression, allowing farmers to band together to sell their products and support the local agricultural economy. Over time, these farmers continued to sell produce and livestock to wholesale-only customers. More recently, the market has invited the general public to purchase products at wholesale prices. Asprocolas Acres, C & J Farms, Forrest Farm, Kauffman Farms, and Peck are some of the more than 50 members.

Twin Pond Farm in Howell is USDA-GAP certified and sells to Hunts Point Produce Market in NYC. Other Monmouth County farms sell to the Philadelphia Produce Market in the southwest Philly. Farmers also purchase goods there to supplement items grown on their farm management units and sold at their retail markets.

Community Supported Agriculture (CSAs) and Preorders

With a CSA, the consumer pre-pays for a season's "share" and receives a weekly or bi-weekly supply of produce. Organizing a CSA enables the farmer to predetermine his/her customer base, reduce risk, and avoid having to go into debt at the beginning of the season. Grown in Monmouth maintains a CSA directory for Monmouth County on its web page. Currently there are 12 listings, including Mendies Family Farm in Roosevelt, Silver Forge Farm in Manalapan, and Ramblin Sol in Cream Ridge. Crops span from herbs to fruit to heirloom vegetables. There are even 2 cut flower clubs. Some of the CSAs operate year-round, offering eggs and greenhouse-grown microgreens in the colder months.

According to the Monmouth County Division of Economic Development, the number of CSAs in the county increased during Covid as a way to limit indoor human contact but enable growers to continue to sell products. Some farms may revert back to old models once the pandemic diminishes. Those CSAs that remain will need to price competitively with supermarkets and assemble a distinct array of products.

A slightly different model also emerged during the pandemic: preorders and e-commerce. Internet-based ordering provides convenience to customers and more predictability for growers. Asprocolas Acres of Millstone offers its customers deliveries in the region. This service complements its Fruit and Veggie Club which runs from June through October. The club

packages the operation's vegetables as well as fruit grown on a friend's farm. Samaha's Farm, based in Aberdeen, also takes web orders whereas Holland Ridge runs a substantial Internet-order flower business. An article in the *New Jersey Farmer* (Cribbs 2022) noted that the Covid-19 pandemic accelerated the growth of agricultural e-commerce businesses looking to recruit regional farmers to use their software and distribution services.

Agritourism

Tourism is a significant part of Monmouth County's economy. In 2014 tourism spending accounted for \$2.28 billion. Agricultural tourism, more commonly known as agritourism, is a growing component of these expenditures. According to Rutgers University Bulletin E333, *The Economic Contributions of Agritourism in New Jersey (2011)*, during 2006 one out of five farms in the state offered agritourism, most frequently involving some form of on-farm direct to consumer marketing. Rutgers found that farms with \$250,000 or more in annual sales are more likely to host agritourism activities. The activities fall into five categories: direct to consumer sales, educational tourism, entertainment, accommodations, and outdoor recreation.

There is a foreseeable expansion in opportunities for agritourism, particularly as Halloween and fall events keep growing in popularity. These family-oriented attractions help many Monmouth County farms stay afloat. Haunted hayrides, corn mazes, pick-your-own produce, and harvest festivals are just some of the seasonal offerings drawing people to the more rural areas of the county. Happy Day Farm in Manalapan, Eastmont Orchards in Colts Neck, and Holland Ridge Farm in Upper Freehold are prime examples of farms that have established themselves as family destinations. Yet, an influx of visitors brings rising concern about traffic congestion on rural roadways. The 2020 [Monmouth Within Reach](#) study aimed to address some of these concerns. Appendix G of the document is an Agritourism Mitigation Report with useful graphics and recommendations.



Holland Ridge Farm in Upper Freehold (H. Honigfeld)

Direct to Restaurant Sales

Being in the heart of the New York to Philadelphia metropolitan corridor means a sizable and affluent restaurant going public. Thus, a number of local farms and seafood operations have begun to sell produce directly to restaurants. For example, Puglisi Egg Farms sells to the Perkins restaurant chain as well as local Howell establishments such as Cathy's Bagel Shoppe, Colonial Coffee Shoppe, Big City Bagels, and Sorrentino's Subs. The Grown in Monmouth restaurant directory, a GIS Story Map, includes fifty venues in the county. These venues cluster in Asbury Park, Red Bank, and Freehold. Due to increased consumer and food purveyor awareness about and interest in local foods, one expects to see expanded opportunities for direct to restaurant sales.

Businesses

Agricultural operations rely on a vast network in suppliers and services to keep themselves running. Similarly, they fuel a system of distributors and processors.

Input Suppliers and Services

Chapter II previously detailed some of the key suppliers and support services in the region. This section will expand upon the discussion to touch on the nursery industry.

Monmouth County plays an important part at all aspects of the nursery business including the supply level. For example, Kube Pak, of Upper Freehold, sells 3000 varieties of annual, perennial, and vegetable plugs to greenhouses throughout the country. It focuses on herbaceous not woody plants and sells plugs in three sizes to those who don't have the ability or facilities to do their own propagation. Seventy-five percent of Kube Pak's business is within a four hour truck drive. The rest of its merchandise is shipped. As a complement to its plug business, Kube Pak also has a nursery wholesale operation.

Aside from herbaceous plant growers, there are a number of wholesale nurseries in Monmouth County that specialize in woody plants. Purveyors include Four Seasons Nursery (Manalapan) and Halka Nursery (statewide). Most clients are spread throughout the East Coast.

Product Distributors and Processors

Aside from distribution channels described above, there are two local produce distributors: Cuttler Produce in Tinton Falls and Brubella in Freehold. Per the Grown in Monmouth website (accessed 12/15/21), Brubella offers Monmouth-grown tomatoes, asparagus, beets, and corn to restaurants, country clubs, hotels, and franchises. Cuttler Produce, on the other hand, sells "fruits, vegetables, specialties, and exotics" to restaurants, delis, markets, and bars.

There are no major grain or vegetable processing facilities in Monmouth County. One western Monmouth farm is interested in establishing a grain mill for its own use. There are some smaller processing venues. For instance, Slope Brook Farm in Colts Neck operates a processing and packaging facility. The facility is located on a 6-acre track but the operation encompasses approximately 900 acres of leased land in Colts Neck and the surrounding area. Puglisi Egg Farms, of Howell, is another processor and distributor. It sells eggs to supermarkets, farm markets, and restaurants. Hinck's Turkey Farm, in Wall, operates a USDA-approved meat processing facility. It processes 10,000 free range turkeys a year and sells the output in its retail

delicatessen store. Godeks Farm, an abattoir in Marlboro, has been in operation for fifty years and sells meat from goats, lambs, pigs, and cattle. Processing often adds value to agricultural products and expands market opportunities. For instance, pies, baked goods, and cider are prepared and sold to countless customers at Delicious Orchards, Wemrock Orchards, and Battleview Orchards.

The county is home to a number of seafood distributors. Belford Seafood Coop in Middletown distributes marine fish, blue crab, lobsters, and whole squid. Brooks Seafood Distributors, of Sea Bright, distributes catfish, rainbow and brook trout, marine fish and shellfish, fish cakes, frog legs, and roe caviar. Brooks operates one of the two clam purification plants in the county. Other distributors are located in Highlands, Neptune, and Long Branch.

Wineries, Craft Breweries, and Distilleries

Wineries, craft beer breweries, and distilleries are expanding their presence in New Jersey and the county. According to the U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages, there were 27 such establishments in Monmouth County in 2021, employing 147 people. These numbers are up from 8 businesses and 93 employees in 2017. All told, there were over 50 wineries in the state at end of 2021. Monmouth County has good soils for grape production and lies in a world viticulture zone. The state's Alcohol Beverage Control division (ABC) has issued licenses in Monmouth County for wineries such as Cream Ridge Winery in Upper Freehold, 4JGs in Colts Neck, and Fox Hollow in Holmdel. The Garden State Wine Growers Association features these wineries in the Monmouth and Ocean County Wine Trail. Tomasello Winery, a South Jersey wine producer, has a tasting room at Wemrock Orchards in Freehold. Avventura LLC of Upper Freehold has planted grapes and is working to enter the market.

Demand for New Jersey grapes is growing and currently exceeds the available supply. Accordingly, Cream Ridge Winery conceived of the Grape Acres Project to match landowners with potential growers and offer technical support and a guaranteed buyer for those who grow grapes on small plots of land. Authorized by state legislation, a pilot program just ended that allowed special occasion events such as weddings on wineries located on preserved farms. This provided an alternate and complementary source of income for winery owners. Although no Monmouth County wineries currently host weddings and lifetime milestone events, they often provide background music and other entertainment for the enjoyment of their customers.

Aside from wineries, microbreweries are rapidly emerging throughout the state. Current Monmouth County craft breweries include Carton Brewing (Atlantic Highlands), Dark City Brewing Company (Asbury Park), Source (Colts Neck), Kane (Ocean), Jughandle Brewing Company (Tinton Falls), Ross Brewing Company (Middletown), and Screamin' Hill Brewery (Cream Ridge). Screamin' Hill Brewery was the state's first 'farm to glass' brewery using hops, pumpkins, and other farm-grown products to make their beer. Carton Brewing began operation during 2011 in a 5,000 square foot warehouse and then expanded to meet high demand. In 2016, Carton distributed to more than 250 bars, restaurants, and liquor stores in the tri-state area with over 300 stores on their waiting list. These breweries attract visitors from all over the state and align to a growing national trend of craft brewery popularity. The most successful microbreweries have distribution models that include tap space and bulk distribution. Recent

legislation allows certain breweries to sell beer at farmers' markets within the constraints of ABC regulations. According to njcraftbeer.com (accessed December 28, 2021), Alternate Ending Beer Co. and Jughandle sell at the Marlboro market.

There is a lot of excitement surrounding new craft spirit makers. Fittingly, Monmouth County is home to Laird & Company of Colts Neck, America's oldest commercial distillery with federal distillery license Number One from circa 1780. It processes locally and nationally grown apples into Applejack and apple brandy. According to Laird's web site, it takes 7,000 pounds of apples to produce one barrel of apple brandy. A newer entry into the scene is Colts Neck Stillhouse which makes gin, whiskey, and vodka. Keyport's 3DR Distillery is another recent addition to the scene. A farm in Millstone Township is laying the groundwork to enter the hard cider business but is still a number of years away from opening to the public.

Anticipated Agricultural Trends

With such steep land prices, only certain sectors of the agricultural economy can afford to remain in Monmouth County. Crop farms in Monmouth County are holding their own. There has even been a slight increase in corn production due to national interest in biofuels. Nursery and equine operations face a number of challenges but, with their high market value sales, can stay viable and competitive under the right conditions. Pursuit of other high-value crops, such as specialty vegetables, herbs, and nuts, that can be grown on small parcels of land is an attractive option for many landowners. The overall trend in Monmouth County is towards diversification. For example, farmers may supplement vegetables with herbs and cut flowers and offer family entertainment. Direct market sales, i.e. selling directly to consumer or retail outlets, are increasingly important as farmers can garner better prices by eliminating the middleman.

Some notable trends and sectors are further described below:

Equine Sector

Per the 2016 Master Plan, the equine sector is a critical facet of the regional agricultural economy but has been under stress. Recently one of the key remaining standardbred training facilities in the heart of the county was rezoned to allow for redevelopment into two large warehouses, a recreational skating rink, and light commercial uses. Should the current owners pursue this option, there would be far-reaching consequences for the local racing industry.

Local equestrians race and train for appearances at Monmouth Park (thoroughbred) and Freehold Raceway (standardbred harness racing) as well as the Meadowlands (thoroughbred and standardbred) and out of state. Karyn Malinowski and Paul Gottlieb of Rutgers University published a report entitled *2014 State of the New Jersey Horse Racing Industry: Post-Report of the Governor's Advisory Commission on New Jersey Gaming, Sports, and Entertainment*. The white paper analyzed racing opportunities, thoroughbred and standardbred breeding, preserved farms, and hay production. It raised concerns related to reduced racing opportunities plus a significant number of preserved equine farms for sale, particularly in Monmouth County. Thankfully, there have been recent positive signs. More stallions and mares are being bred and foals delivered in New Jersey than in recent years. In addition, the state has renewed its \$20 million racing purse subsidy for 2022.

The Monmouth County Agriculture Development Board (MCADB) continues to preserve equine farms in the county and process new preservation applications for horse farms. There are already scores of equine farms preserved within the county. The prior Monmouth County Agricultural Agent and the County of Monmouth have been very involved in helping organize the Open Space Pace and Festival of Horses held each September at Freehold Raceway. The all-day festival features a parade of horses, educational exhibits, horse races, music, and entertainment designed to promote racing and attract new audiences. The event is recognized as a state agricultural fair and drew 4,500-5,000 attendees in 2014 and about 6000 in 2015. After taking a break for the Covid pandemic, the event is scheduled to resume in 2022.

Racinos have long-been sought in the Garden State. A racino combines a racetrack with a machine gaming facility. Most are limited to slot machines and electronic gaming only, although some have table games such as blackjack. Legislation just passed to allow machine gaming at racetracks in New Jersey, provided the tracks host a minimum number of live racing days. The additional gambling options attract new customers to the complex who may never have attended a horse race. Higher attendance and additional revenue allow the tracks to offer higher purses and upgrade facilities. This raises the quality of racing, drawing more media attention and larger crowds.

There are other positive trends emerging in this sector, especially when pairing racing with agritourism. As noted in the *Monmouth County 2015 Profile*, during Monmouth Park's 2014 season (May 10th to September 28th), daily attendance averaged 9,926. That is a 3 percent increase from 2013. The grandstand side of the track received an upgrade with a sports bar just outside of the paddocks at which patrons can watch and wager on sporting events. Moreover, the track has attracted new audiences by sponsoring festivals and family fun days. The 2015 profile noted that average on-track handles jumped 5.6 percent to \$538,540. As of early 2022, wagering for live racing at all three racetracks is up.

Although many farms associated with the racing industry are in transition, there are signs that other areas of the equine sector are maintaining or expanding their footing. A number of farms in the county have transitioned from racehorses to show horses (hunters, jumpers, and dressage) as well as therapeutic riding. In Upper Freehold, the Horse Park of New Jersey sponsors many horse shows that feature top competitors in dressage, cross country, and show jumping. Other equine events take place at the East Freehold Showgrounds in Freehold Township. In addition, several farms in the county sponsor rodeos and team penning events as a way to interest buyers in their livestock and attract newcomers and audiences to the sports.



Photo Credit: Monmouth County Division of Planning

Nursery, Greenhouse, Floriculture, and Sod Industry

Nursery, greenhouse, floriculture and sod account for approximately 66% of the agricultural products sold in Monmouth County and should continue to be a large component of the county's agricultural economy based on the high demand from homeowners and landscapers. The hundreds of residential and commercial developments being built each year in the county require landscaping. And the base of existing home and business owners seeking plant stock is vast. Grown in Monmouth has many members with ties to the industry and works to increase market opportunities by linking growers with wholesale and retail buyers. There is an emerging trend towards growing and selling more native nursery stock and opportunities for institutions to purchase more native species from local nurseries.

The nursery sector is not without its challenges, 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 South Jersey and elsewhere which puts even large operations under pressure. Princeton Nurseries, once the biggest player in the county's nursery industry and the biggest landowner in county, went out of business in 2010. Luckily almost all of the tillable acreage of the operation was preserved through the Farmland Preservation Program and sold to other growers.

Aquaculture

Commercial fishing, aquaculture, and seafood processing have a historic foothold in Monmouth County. Within the state, Farm Credit East estimates that 3,185 people are employed in the industry. Belford in Middletown Township is one of New Jersey's 6 major fishing ports. The port is known for the Belford Seafood Co-op. Clams and oysters are harvested in Monmouth County but not at high levels. However, a relatively new business, Barnegat Oyster Collective, has established a base in Wall Township. It leases shellfish beds

from the state near Barnegat Light in Ocean County and then completes the production process at a facility on a farm in Wall. The operation sells wholesale to restaurants and the public and just gained approval to sell shellfish directly to consumers at a retail farm market on the Wall site.

Because clams cannot be sold without first undergoing a cleansing process called depuration, there are two plants in the county for that purpose, one private and one grant-funded. There are various seafood festivals, including the Belmar Seafood festival, that are held throughout the year in Monmouth County to promote local businesses.

Some new ideas may further enhance this economic sector. In Connecticut, for example, the Thimble Island Oyster Company has been using the entire water column to grow kelp, oysters, mussels, and scallops. They call this system three dimensional (3D) or vertical farming. Elsewhere, Community Supported Fisheries (CSFs), a spin on the CSA concept, are gaining traction. A pilot program in Atlantic County operated for the last three years under the auspices of Rutgers Cooperative Extension of Ocean County. Their Agricultural Agent worked with a variety of fishing docks and shellfish farmers to diversify offerings. The CSF accommodates biweekly pickups. Clams are available year-round and fill in more seasonal offerings such as soft shell crab and thresher shark. The concept is expanding closer to Monmouth County, with a CSF in Old Bridge at a culinary boutique called Heirloom Kitchen. The seafood industry may also be a focal point for economic development. Middletown Township considers its Port of Belford to be a candidate for redevelopment to attract additional users to an area anchored by a ferry terminal and commercial fishing hub. The municipality worked with a consultant to prepare the 2017 *Port Belford Redevelopment Plan* to explore the possibility of new uses in this waterfront area.

Specialty Crops

Specialty vegetables and niche crops are also growing sectors of the economy. Produce, particularly greens and herbs, that cater to Hispanic, Asian and Asian Indian palettes and recipes, reflect demographic changes in the nation and can be financially lucrative. According to the 2010 U.S. Census, between 2000 to 2010, Mexican, Puerto Rican, Chinese, and Asian populations grew significantly on the East Coast. These East Coast populations saw the following growth rates from 2000 to 2010: Puerto Rican, 32.5%; Mexican, 92%; Chinese, 40%; Asian Indians, 66%. To take advantage of these growing markets and the influence of immigrants on American cuisine in general, Rutgers University has been conducting research on which potential offerings grow best under local conditions.

Monmouth County traditionally had some very large Asian vegetable farms in Millstone Township that sold to New York City's Chinatown. Due to retirements and the advancing age of the producers, there are only a few such farms left. One Millstone farm, New Sun Sang Farm, transitioned from vegetables to tofu-grade soy beans to service a similar clientele while reducing their labor and transportation needs. With the county's large Hispanic population, tomatillos and cilantro are in demand. African marigolds are a newer crop being advanced by Rutgers and Grown in Monmouth. The Fulfill food bank distributed the flowers to clients on Día de los Muertos this year. Researchers at the Cream Ridge Experiment Station have planted 5 acres of hazelnuts and are growing ginger in high tunnels to test and encourage high profitability crops on

minimal acreage. Two mushroom farms, Mushroom King in Manalapan and Two River Mushroom Co. in Sea Bright, are having success in selling to supermarkets and restaurants. Cut flowers are also a trending, high value specialty crop.

Season Extending Technology

As discussed in Chapter 9 of the 2016 Master Plan, a number of Monmouth County's farms are extending their growing seasons through innovative technologies as well as marketing strategies. Hoop houses and moveable high tunnels allow the production of ornamental nursery stock as well as herbs, greens, and vegetables through overwintering and early seeding before the average frost-free date. They also pair well with high-profitability crops. Similarly, operations such as Holland Greenhouses are expanding into Monmouth County and building large, gutter-connected glass greenhouses for the production of herbs, vegetables, and flowers for the wholesale market. One long-established farm, Beyond Organic Growers (located at Reid Sod Farm in Howell), uses aeroponic technology within a greenhouse to grow organic herbs and vegetables throughout the year for local restaurants and markets. Drop the Beet Farms in Freehold Township uses aquaponics to grow herbs, microgreens, and other produce. Aquaponics, hydroponics, and aeroponics are increasingly popular growing methods for Monmouth County's farmers. Many of these systems incorporate vertical designs to make more efficient use of smaller spaces.

Other Technology Trends

Aside from growing apparatuses, other technological advancements and innovations have the potential to benefit agriculture. With labor in short supply, robotics is a tool upon which farm operations have begun to rely. For example, at the January National Farm Bureau Convention the New Jersey delegation toured McCorkle Nurseries in Georgia. The operation used robotics to move potted plants (NJ Farm Bureau Facebook post from January 8, 2022). Unmanned aerial vehicles, commonly called UAVs or drones, are also having positive impacts on farming. They can be used for the precision application of fertilizer and pesticides, data gathering, crop and livestock monitoring, and health assessments. Drones can increase efficiency, save time, and enable farmers to oversee portions of a property that are difficult to access. They are also helpful for storytelling for marketing and social media purposes.

Urban Agriculture

As indicated in the 2016 Master Plan, urban agriculture can increase a community's access to healthy food as well as employment, education, and community engagement opportunities. Urban agriculture can also repurpose former brownfields. In Asbury Park, Interfaith Neighbors opened an urban farm as a complement to its Kula Café, a restaurant and job training program housed in the Springwood Center. Kula Urban Farm includes a year-round greenhouse and outdoor raised beds. The farm sells plants, vegetables, and leafy greens. It allows local residents to volunteer in exchange for produce or revenue sharing and will incorporate an entrepreneurial garden (*Asbury Park Sun*, 2014). Elsewhere in the state, AeroFarms of Newark opened a multi-story, hydroponic leafy green and herb production facility in 2016. The company employs more than 80 people at its various locations (Dun & Bradstreet). Finally, Duke Farms in Hillsborough has established an Urban Agriculture Regional Training Center to teach individuals and organizations to plan, develop, and operate community food projects focused on such topics as composting, hoop houses, aquaponics, and micro-green production.

Community gardens and schoolyard gardens are other ways in which Monmouth County residents are growing and distributing fresh produce, improving health and wellness, and participating in the local food system. There are at least 30 community and schoolyard gardens in the county, a number of which bring together volunteers who tend plots for the purpose of food donation. Backyard farms are likewise increasing in popularity, not just for the production of vegetables, fruit, herbs, and greens but also for fresh eggs and honey. There is even a Colts Neck business called Oasis Backyard Farms that helps people set up their own organic vegetable gardens. Unfortunately, the desire to replace lawns with raised garden beds and house beehives and chicken coops, even on a small scale, can conflict with local ordinances and zoning. The Right to Farm Act is not designed to cover microfarms in urban and suburban neighborhoods. In some cases, amendments to municipal ordinances may be required to better accommodate these trends.

Agricultural Support Needs

Support for the agricultural industry is of importance to Monmouth County. However, at this time the county does not intend to play a lead role in siting new agricultural facilities and infrastructure. Such initiatives are more likely to be led by trade groups and associations such as the Commercial Vegetable Growers Association or the Thoroughbred Breeders Association who are more finely attuned to the needs of their specific industry. The MCADB and Planning Board staff are certainly willing to provide advice and feedback to any parties interested in such ventures. As seen in Chapter III, the Planning Division and MCADB work closely with agricultural municipalities to ensure that land use regulations are tenable for farmers and that the county's agricultural operations are adequately protected by right-to-farm ordinances.

Flexible Land Use Regulations

As detailed in Chapter III, nine of Monmouth County's twelve municipalities with notable remaining farmland have Right to Farm ordinances and a number make subdivision approval contingent upon the recording of a notification clause within the resulting deeds stating that farming is an adjacent and protected use. However, as outlined in Mercer County's 2020 Comprehensive Farmland Preservation Plan, there are areas where municipal sensitivity to the land use needs of agriculture can be strengthened:

- Setting sign requirements specific to farms and recognizing the seasonality of certain events and activities on site;
- Increasing height maximums to accommodate deer fences;
- Exempting certain farm structures from building height restrictions;
- Permit fee reduction for agricultural buildings;
- Setting buffering standards for new subdivisions adjacent to working farms; and
- Establishing a straightforward special event approval process for farms.

Ag Representation in Economic Development Organizations

County and Ag Extension staff as well as County Commissioners participate in many economic and workforce development organizations related to agriculture. Our farmers are quite involved with industry networking and advocacy groups too. These organizations and associations include:

Monmouth Ocean Development Council (MODC)
County of Monmouth Workforce Development Board
4H Advisory Councils
FFA
MCVSD Culinary School and Career Center
NJ Vegetables Growers Association
NJ Turf Grass Association
NJ Nursery & Landscape Association
NJ Landscape Contractors Association
NJ Christmas Tree Growers Association
NJ Wine Growers Association
NJ Equine Advisory Board
NJ Horse Council
Standardbred Breeder and Owners Association
American Equine Practitioners
Monmouth County Save the Horse Committee
NJ Sire Stakes Board of Trustees
NJ Farm Bureau
NJAES Board of Managers.

VII: NATURAL RESOURCE CONSERVATION

Managing and conserving soil and water is key to a vital agricultural industry. Similarly waste management and energy supply are critical issues for Monmouth County's farmers.

Natural Resource Protection Coordination

There are a number of agencies that coordinate natural resource protection and various grant programs administered by these organizations. Summaries follow.

Natural Resources Conservation Service (NRCS)

The United States Department of Agriculture (USDA)-Natural Resources Conservation Service (NRCS) assists landowners and managers with conserving soil, water and other natural resources. The agency has a field office at the county's agricultural building in Freehold Township and offers technical and financial assistance. NRCS staff prepares conservation plans for preserved and non-preserved farm owners and then helps landowners secure funds through Farm Bill programs to address resource concerns on the properties. Preserved farm owners are required by their deeds of easement to prepare a conservation plan. The Monmouth County Agriculture Development Board (MCADB) staff refer these landowners to the USDA-NRCS or authorized consultants who customize a conservation plan the farm operation. Conservation plans are a written record of management decisions and conservation practices to be used on a farm. The plans are intended to help protect soil fertility and health, increase plant productivity, improve water quality, and attract desirable wildlife.

Farm Service Agency (FSA)

According to its [website](#), the USDA-Farm Service Agency (FSA) is "a safety outlet for producers. It helps ensure:

- The well-being of American Agriculture, the environment, and the American People through efficient and equitable administration of farm commodity programs;
- Farm ownership, operating, and emergency loans;
- Conservation and environmental programs;
- Emergency and disaster assistance[; and]
- Domestic and international food assistance and international export credit programs."

The agency's "goals are to:

- Stabilize Farm Income[;]
- Help Farmers Conserve Land and Water Resources[;]
- Provide Credit to New or Disadvantaged Farmers[; and]
- Help Farm Operations Recover From the Effects of Disaster."

The agency has a field office at the county's agricultural building in Freehold Township.

Soil Conservation Districts

The Freehold Soil Conservation District (SCD) serves Monmouth and Middlesex counties. The office administers the Soil Erosion and Sediment Control Act Chapter 251 as part of New Jersey State policy. According Freehold SCD's [website](#), the aim of the act is "to reduce the danger from storm water runoff, to retard nonpoint source pollution from sediment and to conserve and protect the land, water and other natural resources of the state." Construction, grading and demolition projects that disturb more than 5000 square feet of surface area of the land require

soil erosion and sediment control plans. Farm operations may be required to prepare such a plan for parking lot installation, soil grading, and the erection of agricultural structures. Cultivation of farmland for food, fiber, or animals is typically exempt.

Rutgers Cooperative Extension of Monmouth County

The Rutgers New Jersey Agricultural Experiment Station (NJAES) Cooperative Extension office in Freehold Township is a partnership among Rutgers Cooperative Extension, Boards of County Commissioners, and the USDA. It provides information and assistance on a variety of topics including agriculture and natural resources. Rutgers Cooperative Extension of Monmouth County focuses its program on commercial agriculture and horticulture, environmental and resource management issues, farm business development and marketing, pesticide safety and training, integrated pest management, animal waste management, and other related topics. The lead county extension agent serves as a nonvoting member of the Monmouth County Agriculture Development Board.

Natural Resource Protection Programs

There is a myriad of conservation-oriented grant programs available to both preserved and unpreserved farmers.

SADC Soil and Water Conservation Grant Program

The State Agriculture Development Committee's (SADC's) Soil and Water Conservation Grant Program provides grants, up to 50 percent of a project's costs, to owners of permanently preserved farms and Term Agreement participants. Irrigation, erosion control, pollution control, and stream corridor enhancement projects are among those that are eligible. Many Monmouth County farmers have obtained Soil and Water Conservation grant money in the past few decades (NJ SADC, November 2019). Now that it has a stable source of funding from the Corporate Business Tax, the SADC has been able to direct a lot more money to the program in recent years.

SADC Deer Fencing Grant Program

The SADC provides grants of up to 50 percent of a project's costs to owners of permanently preserved farms for the installation of high-tensile woven wire deer fencing. The funds are capped at \$20,000. The fencing must meet the specifications of SADC Policy P-53 and have a minimum lifespan of ten years. Applicants are required to complete training prior to installing the fence (NJ SADC, December 2019). Additionally, recognizing the negative impacts of deer foraging, Governor Murphy signed a law in January 2022 to enable the Department of Agriculture to award fence installation grants to unpreserved farms with a minimum of \$10,000 in gross annual sales (SNN, 2022).

Federal Conservation Programs

According to the NRCS and FSA's websites, the agencies administer a number of Federal Farm Bill programs including the Agricultural Conservation Easement Program (ACEP), Agricultural Management Assistance Program (AMA), the Conservation Reserve Program (CRP), the Conservation Stewardship Program (CSP), the Emergency Conservation Program (ECP), the Emergency Forest Restoration Program, the Environmental Quality Incentives Program (EQIP), the Farmable Wetlands Program (FWP), the Healthy Forests Reserve Program (HFRP), the Regional Conservation Partnership Program (RCPP), and the Source Water Protection Program

(SWPP). The latest Farm Bill was enacted in 2018 and expires in 2023. To encourage participation in these programs, MCADB staff regularly directs farmers to the local NRCS and FSA offices and distributes program information during annual monitoring visits of preserved farms. Further information on the various programs described below can be found on www.farmers.gov. The descriptions included in this chapter reflect web page contents as of January 2022.

The Agricultural Conservation Easement Program (ACEP) protects agricultural viability and conservation values of eligible land by limiting nonagricultural uses which negatively affect them. To accomplish this ACEP protects croplands and grasslands on eligible working farms and ranches through Agricultural Land Easements (ALE). Eligible land under ALE includes parcels enrolled to protect prime, unique, or other productive soil; parcels enrolled to provide protection of grazing uses and related conservation values; parcels containing historical or archeological resources; and land that furthers a state or local policy consistent with the purposes of ACEP-ALE. Under ALE, the NRCS may contribute up to 50 percent of the fair market value of the easement and up to 75 percent if it is determined that the land is of special environmental significance. Monmouth County has yet to preserve any parcels with ALE funds but there are a number of farms that received federal funds from previous iterations of the easement purchase program. Additionally, through Wetlands Reserve Easements (WRE), ACEP helps landowners protect, restore, and enhance wetlands which have been previously degraded due to agricultural uses. WRE enrollment options include permanent, 30-year, or term easements as well as 30-year contracts. There is one Wetlands Reserve Easement in Monmouth County.

The Agricultural Management Assistance Program (AMA) helps agricultural producers manage financial risk through diversification, marketing, or natural resource conservation practices. AMA concentrates on three specific concerns: water management, tree planting, and risk management. There is one current contract in Monmouth County for an organic blueberry operation. Monmouth County has two active AMA participants and eight applications for 2022 funding.

The Conservation Reserve Program is a land conservation program in which farmers are paid to remove environmentally sensitive land from agricultural production and instead plant species that will improve environmental health and quality. The goal of the program is to improve water quality, prevent soil erosion, and reduce loss of wildlife habitat. Contracts for land enrolled in CRP are from 10 to 15 years in length. The long-term goal of the program is to re-establish valuable land cover to help improve water quality, prevent soil erosion, and reduce loss of wildlife habitat. In 2021, CRP introduced new incentives to focus on climate change mitigation. Landowners enroll in either the General Signup or Continuous Signup CRP program. Each have slightly different rules. The General Signup is ranked nationally and includes whole field practices. On the other hand, Continuous Signup is not ranked, and all eligible applicants are accepted as long as the project is feasible and funding is available. There is also a new Grassland CRP program which pays for the maintenance of grasslands and also employs a national ranking. It does not cost share on the establishment of grass but pays an annual rental fee. Participants may graze or hay the land within the confines of program rules. There are two traditional, 10-year CRP contracts within Monmouth County. Both protect highly erodible soils through tree plantings in the first case and grass in the second. Another continuous CRP contract, also for 10

years, protects water quality through the establishment of filter strips.

The Conservation Reserve Enhancement Program (CREP) falls under the umbrella of the continuous CRP program. CREP shares the same goals as CRP, accomplishing them through implementation of four specific conservation practices: grass waterways, filter strips, riparian forested buffers, and contour grass strips. CREP provides additional benefits not available through CRP signup types such as higher incentive payments that increase the total amount of rental payments received as well as an additional 10 percent cost-share through the State of New Jersey. There is currently an active contract in Monmouth County (Gabor Grunstein, personal communication, April 5, 2022).

The Conservation Stewardship Program (CSP) provides technical and financial support to help agricultural producers maintain and improve their conservation systems and adopt new conservation activities to address resource concerns. CSP provides support for a variety of conservation efforts including addressing soil loss, excess water, air quality and greenhouse gas emissions, improvement of wildlife habitat, and energy efficiency. Participants earn higher payments for better conservation. There are no CSP contracts in Monmouth County.

Per the USDA, the Emergency Conservation Program (ECP) “helps repair damage to farmlands caused by natural disasters and helps put in place methods for water conservation during severe drought. The ECP does this by giving ranchers and farmers funding and assistance to repair the damaged farmland or to install methods for water conservation.” ECP is administered by FSA state and county committees and county offices. FSA county committees determine land eligibility based on on-site inspections of damaged land and the type and extent of damage. Assistance is given in the form of technical assistance and cost-share payments.

The Emergency Forest Restoration Program (EFRP) provides cost-share payments to owners of eligible forests to restore forests damaged by natural disasters. Like the ECP, the FSA county committee implements the EFRP for all disasters, with the exception of drought and insect infestation.

The Environmental Quality Incentives Program (EQIP) provides financial and technical assistance to agricultural producers and non-industrial forest managers to address natural resource concerns and enhance environmental benefits by improving water and air quality, conserving water, improving soil health, reducing erosion, improving or creating wildlife habitat, and mitigating drought and weather volatility. The program provides assistance in the form of conservation incentive contracts to eligible applicants to carry out conservation practices in areas including cover crops, forest stand improvement, prescribed grazing, and irrigation, among others. The program offers contracts with a maximum term of ten years that provide incentive payments to farmers to execute approved practices. Monmouth County farmers have used EQIP money for irrigation projects, manure management, composting facilities, prescribed grazing systems, agrichemical handling facilities, and soil erosion projects. Currently, there are 20 active EQIP contracts in Monmouth County and 14 applications for 2022 funding.

The goal of the Farmable Wetlands Program (FWP) is to restore previously farmed wetlands and buffers to restore vegetation and water flow which improves water quality, traps and breaks

down pollutants, prevents soil erosion, prevents flooding, and provides wildlife habitat. Participants agree to restore wetlands, establish plant cover, and take that land out of commercial use in exchange for an annual rental payment for their enrolled acres. FWP contract last 10 to 15 years and are processed through local FSA offices.

The Healthy Forests Reserve Program (HFRP) helps landowners restore, enhance and protect forest resources on eligible land through easements and financial assistance. Through HFRP, landowners promote the recovery of endangered or threatened species, improve plant and animal biodiversity and enhance carbon sequestration. HFRP provides landowners with 10-year restoration agreements and 30-year or permanent easements for specific conservation actions.

The Regional Conservation Partnership Program (RCPP) promotes coordination between NRCS and its partners to deliver conservation assistance to producers and landowners. RCPP promotes coordination of NRCS conservation activities that offer value-added contributions to address on-farm, watershed, and regional natural resource concerns. NRCS provides assistance to producers through partnership agreements and RCPP conservation program contracts. RCPP funding is divided into funding for projects in Critical Conservation Areas or for projects in a single state or across several states. Monmouth County has one RCPP contract to address soil erosion and one applicant for 2022 funding under the program.

The Source Water Protection Program (SWPP) is a joint project with USDA, USDA-FSA, and the National Rural Water Association. SWPP is designed to help prevent pollution of surface and ground water used as the primary source of drinking water by rural residents. Through this program areas in need of pollution prevention are identified and then technicians work with state rural water associations to create local teams of citizens and individuals from federal, state, local, and private organizations. These teams collaborate to create a plan to promote clean source water and identify voluntary actions that farmers and ranchers can implement to prevent water pollution.

Water Resources

Freshwater systems in Monmouth County include lakes, reservoirs, rivers, and streams. Some of the County's most notable freshwater systems include the Manasquan River, the Swimming River, Compton Creek, and the Pine Brook. Numerous natural and man-made small ponds and lakes are found throughout Monmouth County. Freshwater streams that drain to the Delaware River from Monmouth County include the Crosswicks Creek, Doctors Creek, and Assunpink Creek. Those flowing north into the Raritan River include the Deep Run, Manalapan and Matchaponix Brooks, and the Millstone River. The Navesink River, Shrewsbury River, Compton Creek, and Chingarora Creek all flow to Raritan Bay. The Toms River and the northern branch of the Metedeconk River have their headwaters in Monmouth County before flowing into Ocean County.

There are six major aquifers in Monmouth County. They are the Raritan and Magothy formations, the Englishtown Formation, the Wenonah Formation and Mount Laurel Sand, the Red Bank Sand, the Vincetown Formation, and the Kirkwood Formation (MCEC, 1978). Over-withdrawals from the Raritan and Magothy Formations risk the threat of salt-water intrusion, as these formations may have a hydrologic connection with the Atlantic Ocean. Groundwater in

Monmouth County is generally of high quality, but it may contain impurities of silica, iron, calcium, magnesium, sodium, potassium, bicarbonate, sulfate, chloride, fluoride, nitrate, and/or hydrogen sulfide (Jablonski, 1968).

In the past, Monmouth County had abundant groundwater resources, but over time development and the increase in year-round population stressed this resource. When properly managed, Monmouth County aquifers have the potential to recharge and resupply. Recharge occurs through either infiltration or precipitation on the intake or outcrop areas of the geological formation. In humid areas such as New Jersey, recharge from precipitation normally occurs during the spring, when there is frequent rain and low evaporation rates. Winter recharge is negligible due to often frozen ground. The summer and fall months have high evaporation rates which, coupled with soil requirements, make them less conducive to infiltration.

The 2016 *Monmouth County Master Plan* recommends the preservation of open spaces and upland forests to increase opportunities for water quality improvements and groundwater recharge as a stakeholder strategy and encourages farming practices and the use of best management practices that conserve water resources. The following paragraphs will touch on water conservation strategies and the role of various agencies in addressing water allocation issues.

Water Conservation Strategies

The Sustainable Agriculture Network, an affiliate of the United States Department of Agriculture, published a very useful guide to water conservation in 2006 entitled, “Smart Water Use on Your Farm or Ranch.” The guide focuses on three main aspects of conserving water on agricultural lands: managing soil to increase water availability, plant management, and water management. There are several techniques to better manage soil for water conservation. The goal is to increase the organic content of the soil to improve water holding capacity. This can be done by spreading manure, applying composts, using cover crops between or amid cash crops, and reducing tillage. When managing plants for water conservation, farmers should select species adapted to local conditions. Native and drought tolerant plants can help reduce water needs. Crop rotation is often a beneficial practice. Finally, water conservation can be accomplished by adjusting water delivery systems, lining ditches with impermeable materials, and better timing water applications. Terraces and swales can help control drainage flows to give water more time to infiltrate.

Agency Roles

In Monmouth County, Rutgers Cooperative Extension Agency processes the paperwork for farmers’ water use registration and certification requests. The agency forwards these papers to the NJ DEP. The NJ DEP has decision-making authority regarding water allocations. However, the NJ Water Supply Authority and Delaware River Basin Commission receive notification and may provide input on water allocation matters in their areas of jurisdiction.

Waste Management Planning

Farm waste may range from animal byproducts to solid waste. Farmers need to abide by relevant regulations and laws to ensure public health and safety.

Animal Waste

Animal waste has the potential to impact ground and surface water quality. If poorly managed, such waste products may introduce unwanted bacteria into water supplies. Waste management and recycling practices vary. With its thousands of laying hens, Puglisi Egg Farms has implemented an elaborate manure management system and regularly trucks waste off-site. For smaller farms, operations such as Slope Brook Farms collect manure, mix it with topsoil, and apply the result as a soil additive on other cropland. On the other side of the waste recycling equation, Reed Sod Farm in Upper Freehold uses coffee grinds and other food waste to enhance the soil on its land.

The New Jersey Department of Agriculture and state law requires farms with eight or more Animal Units (1 Animal Unit equals 1,000 pounds), or which import over 142 tons of manure, to develop and implement an Animal Waste Management Plan (AWMP). Also, depending on their scale, animal feeding operations that exceed certain livestock population thresholds are required by the State to obtain New Jersey Pollutant Discharge Elimination System (NJPDES) permits and develop AWMPs. Because of its abundance of equine operations, Monmouth has more certified AWMP farms registered with the NJ DEP than any other county (Bill Sciarappa, Rutgers University, personal communication, June 21, 2017).

Solid Waste and Fill

It should be noted that Monmouth County has a recycling and solid waste management section that is housed at the Monmouth County Reclamation Center. Staff members provide advice and resources for farmers looking to recycle tires and wood pallets and remove old farm dumps and newer construction debris. The center publishes the *Monmouth County Resident's Recycling Guide* that covers a various solid waste management vendors, information, and resources. Specifically for plastics, the Cooperative Extension of Monmouth County has partnered with Allied Recycling of Mount Holly and the Monmouth County Board of Agriculture to promote free recycling of plastic pesticide containers. This program is offered to agricultural, professional, and commercial pesticide applicators who hold NJ DEP pesticide licenses. Also, the NJ Department of Agriculture has its own Agricultural Recycling Program. More information on these programs is available on the NJ Department of Agriculture's [website](#).

MCADB staff frequently notice solid waste piles on the farms that they monitor and field municipal and neighbor complaints about debris and discarded vehicles on unpreserved farms. The filling of low-lying areas and wetlands is another concern, especially when the source of the material is unknown or it is obvious that the soil has not been screened. In response to concerns related to the illegal dumping of soil and fill materials statewide, in 2020, NJ Senate Bill S1683, known as the "Dirty Dirt" legislation was signed into law. The law requires companies that are currently engaged in, or otherwise providing soil and fill recycling services, that do not currently possess a valid A-901 license, to obtain a Soil and Fill Recycling License (NJ DEP, 2020).

Organic Waste

Pre- and post-consumer food waste, leaves, and felled trees and brush can be both a problem and a resource for farms. Farms have the potential to use excess organic material for feed and soil additives and reduce the volume of waste trucked to landfills. However, coordination and approval are often required from state, county, and local government agencies. For example, a

few livestock farms in Monmouth County been accepting source-separated food waste (leftover fruit and vegetable scraps from supermarkets and food purveyors) to use as a feed supplement. In its 2022 final decision for I.M.O. Helmlinger’s Meadow Hill Farm, the SADC determined that the practice of feeding food waste to cattle could be eligible for protections under the Right to Farm Act but the specific variables of the operation were found not to be covered. The matter is currently under appeal. More than a dozen farms in Monmouth County have obtained permission to accept large volumes of municipal and landscaper leaves to be incorporated into the soil and replenish nutrients. Many of these farmers receive payment for the leaves so it is important to make sure that soil fertility and capacity are not compromised by the financial incentive to accept leaves. Similarly, farms are often a convenient location for tree service companies to store and process their waste as well as sell resulting mulch and firewood. Unfortunately, these farms are often in land use zones that do not allow for these activities.

Energy Conservation Planning

A number of Monmouth County farmers have begun to tap alternative and sustainable energy sources to power their homes, buildings, and irrigation pumps.

Solar

SADC has adopted an Agricultural Management Practice (AMP) under the Right to Farm Act for the construction, installation, operation or maintenance of solar energy generation facilities, structures, and equipment on commercial farms. The AMP provides standards for where and how solar energy generation facilities are installed and operated on farmland and guides these facilities away from prime farmland. A substantial number of local farms have installed solar power systems on house and barn roofs and in fields to make electricity, lower utility costs, and reduce pollution.

As the State legislature works to achieve clean energy goals and combat climate change, demand for solar energy production is increasing. To combat the diversion of farmland for solar energy production, several pieces of legislation were signed in 2021 that address this and create balance between enabling solar development and protecting the state’s best farmland and other natural resources. The Grid Supply Bill (A4554) established a successor program to the Board of Public Utilities (BPU) solar renewable energy certificate program (SREC). The revised program limits the use of Land with prime or statewide important soils and certain preserved lands for solar development unless a waiver is granted and requires consultation between BPU and the Secretary of Agriculture (NJFB, 2021).

According to the Rutgers EcoComplex [website](#), the Dual Use Solar Act established a pilot program for farmers to have agrivoltaic systems on their property while the technology is being tested, observed, and refined. Agrivoltaics is a newer concept that prioritizes farming but pairs it with in-field solar arrays. Farming on land with standard solar panels is difficult because of the limitations in using farm equipment around them and the shade that occurs from the panels. Agrivoltaic systems can be built high enough to allow for farm equipment operation below them and also allow for better light distribution resulting in lower impact on crop productivity.

Wind

Wind power is another sustainable source of energy. A few farms in the county still maintain small windmills, and a preserved farm in Western Monmouth is planning to install a wind-powered grain mill. With its modest wind strengths, the interior of the county is not well-suited to large scale wind power operations. However, the coastal regional shows more promise. Community Energy, Inc., an affiliate of Iberdrola, has been working to install wind farms in the Jersey Shore area. In 2005 it installed its first one in New Jersey, consisting of five turbines, at the Atlantic County Utilities Authority wastewater treatment plant in Atlantic City. Electric customers can purchase the property's wind generated electricity through the New Jersey CleanPower Choice Program. A number of new offshore wind farms are scheduled to commence construction beginning in 2023. Most will be concentrated in the Atlantic City area but some projects are planned for further north along the New Jersey coast all the way up to Sandy Hook. Per the NJ DEP's [website](#), the new wind farms will be constructed and operated by several companies. The combined projects will create one of the largest offshore wind farms in the country.

Geothermal

Geothermal energy is a feasible option for some area farmers. For instance, the Stivala farm in Colts Neck has a geothermal system to heat and cool its primary residence. According to the Clean Energy and Sustainability Analytics Center at Montclair State University's [website](#):

Because of the relatively consistent ground temperature throughout the state, New Jersey is relatively well suited for geothermal energy projects. Currently, there are state incentives for installing geothermal energy systems, and executive orders signed in 2018 have made geothermal power a part of New Jersey's renewable energy plan for the future. Geothermal energy technology allows for improved energy efficiency, which is a key benefit for the densely populated state.

Biofuels

Biofuels are derived from plant or animal waste and can be burned directly or converted into liquid or gas fuel to produce energy. Farmers may convert manure into methane to be used as an energy source through the biodigestion process. Annual crops such as corn, sorghum, and soybeans are grown and processed for biofuels in some areas. Biofuel crops, also known as biomass, should be grown in environmental and economically sustainable ways, limiting adverse effects on natural ecosystems and biodiversity and reliance on any single crop should be avoided. Farmers should also use caution not to plant crops that could become invasive. The NRCS recommends that farmers could use land not currently in production for biomass crops, providing them with income-generating alternatives for underused land. In addition, some biomass crops have strong root systems and provide the benefit erosion and flood control as well as carbon sequestration.

EVs

Electric vehicles are becoming more accessible to farmers. Manufacturers are developing a new generation of electric and battery-powered tractors and harvesters as an alternative to diesel-powered machines (BIS Research, 2022). They have the potential to decrease the reliance on fossil fuels as well as increase efficiency and agricultural production. In the meantime, there is an expanding array of hybrid and electric vehicle options for farmers' personal use.

Farm Management Practices

Farming is an ever-evolving science. The desire to respond to a changing climate, stochastic weather events, and invasive species has spurred research and the implementation of new management practices.

Carbon Sequestration

Carbon sequestration, or carbon farming, is a farm management practice that can address climate change, enhance profitability, improve farm energy efficiency, and improve air and soil quality. Climate, soil type, type of crop, and management practices determine the ability of agricultural land to sequester carbon. Farming practices that minimally disturb the soil encourage carbon sequestration, resulting in the slowing or reversing of the loss of carbon from fields (Schahczenski and Hill, 2009). The NJ DEP is currently seeking public comment on its Natural and Working Lands Strategy, which will present statewide policies, recommendations, and strategies to reduce and sequester carbon dioxide by implementing management practices. The plan will focus, in part, on participation from the agricultural community and the role that agricultural lands play in carbon sequestration (NJ DEP, 2021).

Duke Farms, a 2,742-acre preserve in Hillsborough, Somerset County, is experimenting with rotational grazing of its cattle to increase the carbon storage capacity of its land. The goal is to pull carbon dioxide out of the air by moving cattle around the farm. This allows pasture to rest and revegetate. The resulting deep-rooted plants help store carbon, and the manure that is deposited around the property can add carbon to the soil (Cooper, 2022).

No-till and Strip-till Agriculture

No-till and strip-till agriculture are farming methods that minimize the mechanical disturbance of soil. The techniques can slow erosion, improve soil health, enhance water availability, and help control pests and disease. They are especially effective on sandy, dry and sloping terrain. The practice is often combined with conservation crop rotation, cover crops, mulching, and residue and tillage management. The NRCS has several relevant documents available on its [website](#).



Rooftop solar panels on a preserved farm (Monmouth County Division of Planning)

Outreach and Incentives

MCADB staff regularly dispenses information and advice to farmers of preserved and non-preserved land throughout the county in response to phone and email inquiries about natural resource conservation. This information encompasses literature as well as Internet addresses of various resources.

In addition, annual monitoring of preserved farms offers an opportunity for the landowner and MCADB staff to identify and discuss potential conservation issues on preserved properties. This provides an occasion to remind preserved farm owners of the various natural resource conservation programs available to them. Staff routinely distributes literature on conservation plans and federal programs.

The NRCS's Freehold Service Center also conducts extensive outreach. Employees produce newsletters, attend Board of Agriculture meetings, forward information to the MCADB and the Freehold Soil Conservation District Board, and set up booths at the Monmouth County Fair as well as municipal fairs. Staff members also give talks at forums such as the Central New Jersey Vegetable Growers meeting and seminars sponsored by the Millstone Township Agriculture Advisory Committee.

VIII: AGRICULTURAL INDUSTRY SUSTAINABILITY, RETENTION, AND PROMOTION

Monmouth County recognizes the importance of supporting its existing agricultural industry. The 2016 *Monmouth County Master Plan* encourages the development of model right-to-farm (RTF) ordinances for municipalities that, when adopted and enforced, would help sustain and promote agricultural business while decreasing right-to-farm cases. In addition, the plan includes recommendations supporting the purchase agricultural easements; provision of professional and technical assistance to the Monmouth County Agriculture Development Board (MCADB), municipal partners, and other agricultural stakeholders; and evaluation of agricultural industries in a regional context to improve the long-term agricultural sustainability.

Right-to-Farm and Agricultural Mediation Programs

The intent of the Right to Farm Act (RTFA) is to protect responsible commercial farms from nuisance complaints and unreasonably restrictive municipal ordinances that hinder the ability to continue agricultural production. The State of New Jersey adopted the Right to Farm Act in 1983 and amended it in 1998 and 2014. The act declares that the “protection of commercial farm operations from nuisance action, where recognized methods and techniques of agricultural production are applied, while, at the same time, acknowledging the need to provide a proper balance among the varied and sometimes conflicting interests of all lawful activities in New Jersey.” The MCADB, as part of its responsibilities, 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 interpretation of the Right to Farm Act and its provisions.

The 1998 amendments to the Right to Farm Act revised the definition of a commercial farm and expanded the list of agricultural activities that may preempt county or municipal regulation, as long as the health and safety of the public are not threatened. The act stipulates the types of activities a farm may engage in as well as the steps for various agencies to follow in reviewing disputes regarding any farm activity. Moreover, the amendments expanded the jurisdiction of the county agriculture development boards regarding right-to-farm issues and practices. The 2014 amendments changed some of the procedures for how the RTFA is promulgated at the county and state level while also responding to right-to-farm case law. In response to *Curzi v. Raub* (NJ Superior Court, Appellate Division 2010), 200-foot neighbor notification is now required for all SSAMP applications. Notice must be given to all property owners and other stakeholders within 200 feet of the applicant’s farm. The second change relates to the content of the resolutions passed by county agriculture development boards. Procedures now require findings of fact and conclusions of law in addition to referencing any supporting documents used to make a decision.

Monmouth County encounters an abundance of right-to-farm cases. The reasons are multifold. The population of many formerly rural communities has grown very quickly. With changing land use, more farms are being surrounded by new industrial, commercial, and residential uses. Many of these new neighbors are not accustomed to agricultural activity and may be unsympathetic to the farming practices that may create unwanted odors, noises, or views. Sometimes local ordinances or codes constrain agricultural practices or result in increased operating costs for farmers, and the right-to-farm process is an alternative avenue to obtaining a

variance. The *Township of Franklin v. den Hollander* decision allows the MCADB to hear these cases and override local ordinances when appropriate.

There are two main types of right-to-farm matters: Site-specific Agricultural Management Practice (SSAMP) and Conflict Resolution cases. A landowner or farmer files an SSAMP request with the MCADB. As long as the farmer is eligible for protection under the Right to Farm Act, the board will review the request, visit the farm with appropriate professionals, and hold a public hearing to determine whether or not an operation or specific farming practices meet generally accepted standards. Sometimes SSAMPs are used proactively to protect a farmer from future complaints or legal action. Other times a landowner is already aware of neighbor displeasure or has received municipal violation notices. Conflict resolution hearings are prompted by the filing of complaint form with the MCADB by a neighbor or a municipality. The review process is similar although the burden of proof, role of the SADC, and time limitations differ.

Monmouth County has handled 39 SSAMP requests since 1999. That's over one-quarter of the 145 SSAMP hearings held statewide in that time. Monmouth County has held 14 Conflict Resolution hearings during the same period. All but a few of the hearings have resulted in resolutions that upheld that a particular farming activity or operation conformed to generally accepted management practices. Cases have covered poultry operations, wildlife management, aquaculture, source separated food waste, retail farm markets, vineyards, mushroom cultivation, nursery and greenhouse operations, and deer fencing.

Not every inquiry or application results in a hearing. Sometimes requests don't make it to the hearing stage because of eligibility issues or because differences are settled with a municipality or neighbor. Farmers and complainants are encouraged to resolve conflicts informally. The SADC runs a great voluntary mediation program to help parties reach agreements. There have been a handful of successful mediations in the county, including two in which MCADB staff participated. One mediation involved an owner of a preserved farm and a municipality. The parties disagreed on road right-of-way maintenance issue. With a trained mediator, the matter was resolved in 1.5 hours. The *New Jersey Agricultural Mediation Program Handbook: A Guide for Farmers, Neighbors, and Municipalities* (NJ SADC, 2016) and the "New Jersey's Agricultural Mediation Program Fact Sheet FS1254" (Kimmel et al., July 2016) offer further information about the process and its benefits.

A number of Monmouth County municipalities support the rights of the farmer and have adopted right-to-farm ordinances. Those municipalities include Colts Neck, Freehold Township, Howell, Manalapan, Millstone, Upper Freehold and Marlboro and most recently, Holmdel, and Wall (see Chart 8.1). The Township of Upper Freehold has taken additional action and adopted a "Right to Rural Life" ordinance, also known as the Country Code, in 1998. The ordinance expresses the philosophy of the township toward rural living, farmland preservation, and protection of the rural environment. The ordinance reminds residents not to expect "perfectly paved roads, water and sewer service, a local police department, municipal trash pick-up, and other luxuries." Residents are made aware that "slow moving farm machinery on the road, early morning tractor noise, and perhaps unpleasant odors of natural fertilizers" are an integral part of country living.

Several of the municipalities noted above initially adopted right-to-farm ordinances prior to the SADC's creation of a model ordinance. This resulted in sections of ordinances being less specific than the model. Since then, a number of municipalities have updated their ordinances to better align with the RTFA. Freehold Township's ordinance, for instance, was quite short although comprehensive in its protection of the various aspects of farming but has since been updated to align with the SADC's model. On the other hand, some of the early municipal ordinances grant farmers protections beyond the model. For example, Howell Township's ordinance not only grants various protections to farming activities but also establishes a 50-foot buffer zone between a farm and a new development and sets a notification provision for those that purchase properties within 1,500 feet of a farm. Millstone's ordinance, like Freehold's, was established prior to the Right to Farm Act. It affords farmers wide-ranging protections. In 1999, the township added a notice of farm use provision. Upper Freehold was another early adopter of an effective right-to-farm ordinance. The township went a step further in establishing its Country Code that is described above.

Manalapan's right-to-farm ordinance is similar to the state model and includes a notice of farm use clause for subdivisions. Marlboro Township's ordinance incorporates much of the language from the state model and expands upon it. Colts Neck's ordinance contains some language that contradicts not only the model but also the Right to Farm Act. The township places limits on processing facilities, hog, and poultry operations and abattoir. The county and state have recommended that Colts Neck update its ordinance to be more consistent with the state model. Holmdel and Wall Township adopted right-to-farm ordinances in 2009 and 2010 respectively which follow the SADC model. In addition, municipalities in the county that would benefit from right-to-farm ordinances are Middletown and Roosevelt.



*Air cannons have been the subject of several right-to-farm cases in the county
(Monmouth County Division of Planning)*

CHART 8.1 Municipal Right-to-Farm Ordinances

Municipality	Citation	Enactment Date	Consistency with SADC Model and Right to Farm Act
Colts Neck	Chapter 102, Section 102-4	2002	Some language that contradicts RTF Act pertaining to processing facilities, hog & poultry operations, and abattoir.
Freehold Township	Chapter 265-1	1981, 2020	Preceded creation of SADC and RTF Act. Brief but comprehensive. Later amended language to better conform to SADC model.
Holmdel	Chapter 25	2009	Aligns with SADC model.
Howell	Chapter 244	1981, 1999 amendment	Preceded model. Sets 50' buffer between farms and new developments and 1500' notification provision .
Manalapan	Chapter 164	1999, 2004	Similar to model and includes farm use notification clause.
Marlboro	Chapter 220-36	2006	Follows model and expands upon it.
Millstone	Chapter 27-1	1980, 1999 added notice of farm use	Preceded creation of SADC and RTF Act. Wide range of protections. Notification clause added in 1999.
Upper Freehold	81-605 Chapter 23	1981, 1998 for Country Code	Another early, effective ordinance. Township also adopted Country Code in 1998.
Wall	Chapter 105-1	2010	Aligns with SADC model.

Farmland Assessment

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." As explained in the 2015 *Farmland Assessment Overview* by the New Jersey Department of Agriculture, to be eligible for farmland assessment, a landholder must own at least 5 acres and generate at least \$1,000 per year for the first 5 acres, plus \$5 per each additional acre of agricultural income annually. The land must have been actively devoted to agriculture or horticulture for the current tax year and the two prior years. The farm residence is not eligible for the lower tax rate. Approximately 38,881 acres and 2,526 tax lots are farmland assessed in Monmouth County. Landowners with farmland assessed property can save thousands, if not tens of thousands, of dollars a year.

Reduced tax rates benefit the agricultural community by keeping farming costs manageable. In turn, municipalities gain by retaining a land use that demands fewer public services than other types of use. As already described in Chapter II, the American Farmland Trust's 1998 study entitled *The Cost of Community Services in Monmouth County, New Jersey* found that farms and open lands have a net positive impact on local budgets in Monmouth County.

Other Strategies

The 2016 *Monmouth County Master Plan* includes implementation strategies promoting the retention and sustainability of the agriculture industry in Monmouth County. Strategies include seeking grants, connecting producers with resources, providing support for Grown in Monmouth programs, and amending county development regulations to trigger notifications related to Agriculture Development Areas. The county supports other strategies for retaining agricultural viability including permit streamlining, agricultural vehicle movement routes, agricultural labor housing, wildlife management, and education. The Division of Motor Vehicles (DMV) issues farm-use plates for farm machinery and implements to travel on public highways from one farm to another. Such vehicles must travel between daylight hours and cannot be driven more than 15 miles from the farm. Tractors and equipment that cannot move in excess of 20 miles per hour do not need to be registered with the DMV. Aside from vehicle movement, equestrian travel on roadways is of concern to the county. Two communities, Millstone and Colts Neck, have posted special 25 MPH speed limit signs to remind drivers to safely share the road with horses and their riders. Moreover, Millstone Township is an example of a municipality that reduces permit fees for commercial agricultural building structures.

Wildlife management is also important for the retention of agriculture. Crop losses to deer and other animals can be significant. The NJ Agriculture Experiment Station estimates that deer alone account for \$5-10 million of annual losses. Deer fencing, hunting, and air cannons are all employed by Monmouth County farmers to deter crop predation. In fact, the county has heard several right-to-farm cases related to these practices. Delving deeper into the problem, the New Jersey Agriculture Experiment Station just released a report entitled, *White-Tailed Deer and the Hidden Costs to Farmers' Livelihoods: A Case Study of New Jersey Stories* (Paulin et al. 2022). The NJ Farm Bureau assisted with the project which profiles 27 farmers and the damages they incurred. In 2018 and 2019 the Colts Neck Wildlife Committee prepared its own report for the municipality, conducting a deer census for the Clover Hill section of town. The group found that there were 250 deer per square mile in the neighborhood, 25 times the density considered healthy for the ecosystem (May 8, 2019 presentation to the Colts Neck Township Committee).

The Monmouth County Park System plays an important role in managing deer in the county's agricultural communities. In the 2020 - 2021 season, the Park System issued 952 permits to hunt in twenty-two park areas including Clayton Park, the Crosswicks Creek Greenway, and Thompson Park. These lands are either adjacent to farmland or have sections leased to farmers. In all, 950 deer were harvested during the season. The Park System's primary objective is to promote forest health by harvesting deer or putting pressure on deer populations. However, an ancillary benefit is the reduction of crop predation on nearby farmland. On the other side of the wildlife management coin, many farmers install nest boxes to attract insectivores such as purple martin. Similarly, managing farmland and adjacent areas for beneficial wildlife can promote agritourism by drawing birders and others to a particular operation.

Agricultural Education and Promotion

Preservation of the land is only a small part of the farmland preservation process. Farmland preservation must go beyond the purchase of development easements and make the effort to ensure that the agricultural industry remains not only a viable component of the county's economy, but a major component of the county's character and lifestyle. The Monmouth County Division of Planning and the Monmouth County Agriculture Development Board have been involved in the following activities designed to promote the agricultural industry in Monmouth County:

- Provision of technical assistance to farmers on right-to-farm and zoning matters;
- Referral of farmers to appropriate agricultural agencies and professionals for stewardship and management issues;
- Promotion of comprehensive and coordinated planning that balances the need for growth with the needs of the agricultural industry;
- Review of municipal master plans and zoning ordinances for both positive and negative agricultural impacts;
- Organization of educational forums and presentations on farmland preservation opportunities and financing as well as agricultural issues such as hydroponics, spotted lanternflies, pollinators, and right to farm;
- Publication of articles in the *Monmouth County Environmental Newsletter*;
- Participation in the Monmouth County Sustainable Jersey hub;
- Publication of EcoTips brochures;
- Coordination of the Monmouth County Greentable, a forum for open space and farmland topics held quarterly from 2002 to 2014; and
- Publication and distribution of other documents discussed in Chapter VI.

CONCLUSION

For many years, the main goal of the Monmouth County Agriculture Development Board has been to preserve prime agricultural land. This goal has been implemented by the following means:

- Developing a regional perspective for farmland conservation in cooperation with State, regional and municipal governments; and
- Encouraging public acquisition of farmlands and the purchase of development rights on farmland for the purpose of maintaining working farms and agricultural lands which may be lost to development.

Although residential and commercial development continues to reduce the supply of farmland in the county, Monmouth County is still far from being built out. Farmland preservation will continue to be the primary focus of the MCADB for the near term. At the same time, stewardship of existing preserved farms as well as leadership in right-to-farm matters for all commercial farms in the county will continue to be a priority for the MCADB and, one anticipates, will require a rising time commitment. These issues tie into the larger goal of agriculture retention and viability upon which, along with economic development, Monmouth County will place increasing emphasis in the future.

APPENDICES

APPENDIX A: PRESERVED FARMS IN MONMOUTH COUNTY AS OF NOVEMBER 15, 2021 AND THEIR COST

	Original Owner	Municipality	Year	Acres Paid	Per Acre Cost	Total Cost	State Cost	County Cost	Municipal Cost	Federal or Nonprofit Cost
1	Meade, David	Howell	1987	63.063	\$6,861.95	\$432,735.00	\$212,670.50	\$220,064.50	\$0.00	
2	New Jersey Conservation Foundation	Upper Freehold	1987	125.212	\$5,100.00	\$638,581.20	\$319,290.60	\$319,290.60	\$0.00	
3	Fretz, Dorthea	Upper Freehold	1988	121.242	\$4,200.00	\$509,216.40	\$254,608.20	\$254,608.20	\$0.00	
4	Gower, Walter G. & Mary Louise	Upper Freehold	1989	87.878	\$11,000.00	\$966,658.00	\$483,329.00	\$483,329.00	\$0.00	
5	Lahaway Creek Farm	Upper Freehold	1989	69.877	\$8,100.00	\$566,003.70	\$0.00	\$566,003.70	\$0.00	
6	Walnridge Farms Inc.	Upper Freehold	1989	196.48	\$6,000.00	\$1,177,197.00	\$753,406.08	\$423,790.92	\$0.00	
7	Search, William O. & JoAnn B.	Upper Freehold	1989	182.871	\$8,323.00	\$1,522,035.50	\$974,102.72	\$547,932.78	\$0.00	
8	Kossatz, Mary	Upper Freehold	1989	94.207	\$9,800.00	\$923,228.60	\$590,866.30	\$332,362.30	\$0.00	
9	Bullock, Martin, Lorraine and Janet	Upper Freehold	1989	105.449	\$10,000.00	\$1,054,490.00	\$674,873.60	\$379,616.40	\$0.00	
10	Meirs, Elizabeth & Richard Wright	Upper Freehold	1989	234.2165	\$8,000.00	\$1,873,732.00	\$1,199,188.48	\$674,543.52	\$0.00	
11	James Lamb & Son Inc.	Upper Freehold	1989	183.191	\$7,868.55	\$1,441,448.00	\$31,789.82	\$1,409,658.18	\$0.00	
12	Walnford Stud	Upper Freehold	1992	78.14	\$8,150.00	\$636,841.00	\$382,104.60	\$254,736.40	\$0.00	
13	Monmouth Conservation Foundation	Upper Freehold	1992	165.341	\$7,025.81	\$1,161,655.20	\$813,158.64	\$348,496.56	\$0.00	
14	Zion, Robert	Upper Freehold	1992	201.718	\$4,350.00	\$877,473.30	\$701,978.64	\$175,494.66	\$0.00	
15	Collins, Edward and Mary	Upper Freehold	1993	270.2264	\$4,056.49	\$1,096,171.07	\$712,511.20	\$383,659.87	\$0.00	
16	Gravatt, Carlton and Barbara	Upper Freehold	1994	91.7981	\$2,500.00	\$229,495.25	\$137,697.15	\$91,798.10	\$0.00	
17	Gravatt, Carlton, Barbara, Roger & Linda	Upper Freehold	1994	132.062	\$2,500.00	\$330,155.00	\$183,105.28	\$147,049.72	\$0.00	
19	Estate of Mary Hendrickson	Upper Freehold	1995	111.132	\$5,952.74	\$661,540.10	\$427,188.85	\$222,633.69	\$11,717.56	
21	Reed, Stuart Jr. and Carole	Upper Freehold	1995	97.003	\$4,600.00	\$446,213.80	\$306,529.48	\$139,684.32	\$0.00	
22	Reed, Stuart Jr. and Carole	Upper Freehold	1995	69.877	\$4,400.00	\$307,458.80	\$212,426.08	\$95,032.72	\$0.00	
23	Estate of Stuart L. Reed Sr.	Upper Freehold	1995	143.468	\$5,000.00	\$717,340.00	\$487,791.20	\$229,548.80	\$0.00	
24	Monmouth Conservation Foundation	Upper Freehold	1995	111.473	\$3,928.78	\$437,952.48	\$328,464.36	\$109,488.12	\$0.00	
18	Faber, Robert & Patricia	Upper Freehold	1996	175.8402	\$5,500.00	\$967,121.10	\$641,816.73	\$325,304.37	\$0.00	
20	Osborn, Leslie & Evelyn	Upper Freehold	1996	139.3266	\$6,000.00	\$835,959.60	\$543,373.74	\$292,585.86	\$0.00	
26	Gerath, Frank & Anna	Upper Freehold	1996	85.482	\$5,700.00	\$487,247.40	\$320,557.50	\$166,689.90	\$0.00	
27	Fair Winds Farm Inc.	Upper Freehold	1996	136	\$5,613.44	\$763,427.50	\$501,206.75	\$262,220.75	\$0.00	
28	Perretti, William	Upper Freehold	1996	372	\$5,750.00	\$2,139,000.00	\$1,404,300.00	\$734,700.00	\$0.00	
29	Punk, Albert & Dorothy	Upper Freehold	1996	186.7208	\$5,739.83	\$1,071,745.43	\$701,606.55	\$370,138.88	\$0.00	yes, p/o SADC share
30	Rue Brothers, Inc.	Upper Freehold	1996	321.025	\$6,499.54	\$2,086,516.25	\$1,332,160.38	\$754,355.87	\$0.00	
31	Search, William & JoAnn	Upper Freehold	1996	106.5994	\$5,000.00	\$532,997.00	\$362,437.96	\$170,559.04	\$0.00	
25	Dey, Stephen P. II, Elizabeth Smith, Stephen P. Dey III & Gregory SI Dey	Upper Freehold	1997	127.1978	\$5,811.32	\$739,186.80	\$480,471.42	\$258,715.38	\$0.00	
32	526 Upper Freehold Corp. (Irwin Shipper) <i>Original parcel subdivided</i>	Upper Freehold	1997	389.6674	\$6,000.00	\$2,338,004.40	\$1,519,702.86	\$818,301.54	\$0.00	
33	Freiberger Farms Inc.	Upper Freehold	1997	85.345	\$2,800.00	\$238,966.00	\$175,810.70	\$59,997.54	\$3,157.77	
58	Blasig, Carl Jr. & Michele	Millstone	1997	1.8300		\$9,259.80	\$6,276.90	\$2,982.90	\$0.00	
								Mercer County covered above		
140	Longo, Robert and Margie	Wall	1997	22.65	\$16,379.69	\$371,000.00	\$ -	\$371,000.00		
34	Dittmar, George Jr. & Florence & George Dittmar Jr. Trust (Original parcel)	Colts Neck	1999	190.869	\$13,520.00	\$2,580,548.88	\$1,806,384.22	\$770,293.84	\$3,870.82	
35	Lamb, Elizabeth	Upper Freehold	1999	66.789	\$6,290.00	\$420,102.81	\$273,066.83	\$147,035.98	\$0.00	
36	Concorde Stud Farms Inc.	Upper Freehold	1999	240	\$4,992.00	\$1,172,945.29	\$797,753.17	\$375,192.13	\$0.00	
37	Dey, S Perrine II and Elizabeth	Upper Freehold	1999	126.4343	\$6,040.00	\$763,663.17	\$495,622.46	\$268,040.72	\$0.00	
38	Mazzucco, Mary	Millstone	1999	53.3175	\$5,520.00	\$294,312.60	\$206,018.82	\$88,293.78	\$0.00	
39	Quiet Winter Farms Inc.	Colts Neck	1999	64.668	\$16,160.00	\$1,045,034.88	\$731,524.41	\$313,510.47	\$0.00	
40	Potter, Frank and Joan Gordon	Upper Freehold	1999	64.277	\$4,794.00	\$308,143.94	\$210,597.16	\$97,546.78	\$0.00	
41	Van Pelt, Richard & Laurette	Upper Freehold	2000	32.452	\$4,622.07	\$149,995.42	\$0.00	\$149,995.42	\$0.00	
42	Freiberger, Rupert and Kathleen	Upper Freehold	2000	112.138	\$8,700.00	\$975,600.60	\$588,724.50	\$386,876.10	\$0.00	
43	DiPiero, Domenic & Rosera	Upper Freehold	2000	114.976	\$4,729.53	\$543,782.40	\$370,659.84	\$164,466.43	\$8,656.13	yes, p/o SADC share

	Original Owner	Municipality	Year	Acres Paid	Per Acre Cost	Total Cost	State Cost	County Cost	Municipal Cost	Federal or Nonprofit Cost
44	Freiberger Farms Inc.	Upper Freehold	2000	129.34	\$5,500.00	\$711,370.00	\$472,091.00	\$227,315.05	\$11,963.95	
68	SADC/Estate of Elizabeth Lamb	Upper Freehold	2000	11.9716	\$25,059.31	\$300,000.00	\$300,000.00	\$0.00	\$0.00	
45	McCrane, John & Margrit	Colts Neck	2001	72.269	\$10,925.00	\$789,538.83	\$473,723.30	\$157,907.77	\$157,907.77	
46	Gasko Limited Partnership	Manalapan	2001	17.877	\$4,887.50	\$87,134.35	\$59,411.81	\$20,502.20	\$7,220.34	
								Middlesex County covered above	Monroe covered above	
49	Keymer, Susan	Howell	2001	62.803	\$9,400.00	\$590,348.20	\$354,208.92	\$210,400.10	\$25,739.18	
50	Blackburn, John & C. Elizabeth and Rachel Robbins	Colts Neck	2001	85.572	\$16,700.00	\$1,429,052.40	\$857,431.44	\$400,077.51	\$171,543.45	
47	Fund for Roosevelt	Roosevelt	2001	149.071	\$12,500.00	\$1,863,387.50	\$1,118,032.50	\$708,087.25	\$37,267.75	FFR paid muni share
48	Fund for Roosevelt	Roosevelt/Millstone	2001	86.656	\$12,800.00	\$1,109,196.80	\$665,518.08	\$421,494.78	\$22,183.94	FFR paid muni share
69	SADC/Chase Bank	Holmdel	2001	190	\$45,585.41	\$8,661,227.90	\$6,661,228.00	\$1,500,000.00	\$500,000.00	
71	SADC/Visceglia (now All Monmouth Landscaping & Design)	Manalapan	2001	47.513	\$14,000.00	\$665,182.00	\$665,182.00	\$0.00	\$0.00	
51	Kildee Farms	Manalapan/ Marlboro	2002	217.999	\$26,793.00	\$5,840,847.21	\$3,504,508.32	\$2,079,341.61	\$256,997.28	
52	McCrane, John & Margrit	Colts Neck	2002	37.654	\$14,725.00	\$554,455.15	\$332,673.09	\$155,225.26	\$66,556.80	
53	McNab, Bruce & Barbara	Millstone	2002	37.944	\$5,512.50	\$209,166.30	\$138,732.75	\$56,339.80	\$14,093.75	
54	Reese, Walter & Cynthia	Upper Freehold	2002	62.05	\$5,700.00	\$353,685.00	\$232,687.50	\$114,947.63	\$6,049.88	
55	Lantier, Douglas & Bette	Manalapan	2002	23	\$5,675.00	\$130,525.00	\$85,962.50	\$39,660.62	\$4,901.88	
56	Burke, Edward & Helen Vass	Manalapan	2002	16.91	\$10,500.00	\$177,555.00	\$106,533.00	\$63,564.69	\$7,457.31	
57	Herbst, John & Joan	Upper Freehold	2002	19.336	\$7,000.00	\$135,352.00	\$81,211.20	\$51,433.76	\$2,707.04	
61	Barney, Edward & Ramona	Colts Neck	2002	45.567	\$25,000.00	\$1,139,175.00	\$1,139,175.00	\$0.00	\$0.00	
62	Colts Neck Township/Five Points	Colts Neck	2002	27.314	\$18,390.12	\$502,307.84	\$502,307.84	\$0.00	\$0.00	
63	Leister, Alfred and Kathleen	Upper Freehold	2002	14.48	\$14,147.10	\$204,850.00	\$204,850.00	\$0.00	\$0.00	
74	Buono/Township of Millstone	Millstone	2002	10.0056	\$12,200.00	\$122,068.32	\$0.00	\$29,296.40	\$92,771.92	
59	Dey, S Perrine & Elizabeth	Upper Freehold	2003	83.5765	\$5,000.00	\$417,882.50	\$284,160.10	\$127,036.28	\$6,686.12	
60	Estate of Edith Karl	Millstone	2003	88.891	\$9,200.00	\$817,797.20	\$490,678.32	\$292,771.40	\$34,347.48	
65	Borshowsky, Paul	Howell	2003	25.24	\$27,023.77	\$682,080.00	\$682,080.00	\$0.00	\$0.00	
66	Palmer, C. Taylor Jr. and June	Manalapan	2003	145.214	\$21,300.00	\$3,093,058.20	\$3,093,058.20	\$0.00	\$0.00	
64	Estate of Richard Satterthwait	Upper Freehold	2003	208.767	\$9,798.05	\$2,045,510.00	\$2,045,510.00	\$0.00	\$0.00	
70	Sessa, Mario & Irene	Colts Neck	2004	29.7766	\$19,270.00	\$573,795.08	\$344,277.05	\$172,138.52	\$57,379.51	
72	Smith, Katherine C. & Catherine K.	Manalapan	2004	106.569	\$20,500.00	\$2,184,664.50	\$1,310,798.70	\$777,740.56	\$96,125.24	
80	Holland, Donald J. & Wanda B.	Manalapan	2004	21.259	\$11,500.00	\$244,478.50	\$146,687.10	\$87,034.35	\$10,757.05	
73	Kizis, Michael & Barbara	Upper Freehold	2004	11.028	\$6,000.00	\$66,168.00	\$43,009.20	\$15,053.22	\$8,105.58	yes, p/o SADC share
81	Trenton, Albert A. & Barbara L.	Upper Freehold	2004	22.15	\$8,500.00	\$188,275.00	\$114,072.50	\$44,959.29	\$29,243.21	yes, p/o SADC share
82	Sensi, Herbert & Karen	Upper Freehold	2004	18.21	\$6,720.00	\$122,371.20	\$77,574.60	\$28,396.56	\$16,400.04	yes, p/o SADC share
83	Valnoski, Margaret J.	Upper Freehold	2004	19.91	\$7,000.00	\$139,370.00	\$87,604.00	\$32,540.11	\$19,225.89	yes, p/o SADC share
84	O'Hare, Martin J. & Deborah	Upper Freehold	2004	18.7498	\$3,500.00	\$65,624.30	\$46,874.50	\$13,312.36	\$5,437.44	yes, p/o SADC share
85	Smith, John J.	Upper Freehold	2004	18.47	\$7,000.00	\$129,290.00	\$81,268.00	\$30,186.63	\$17,835.37	
86	Marchese, Susan	Howell	2004	9.8	\$16,000.00	\$156,800.00	\$94,080.00	\$37,632.00	\$25,088.00	
90	Brocklebank, S. Wayne	Howell	2004	46.878	\$38,500.00	\$1,804,803.00	\$1,082,881.80	\$433,152.72	\$288,768.48	
91	Giambone, Arthur G. & Mona J.	Howell	2004	16.092	\$36,500.00	\$587,358.00	\$352,414.80	\$140,965.92	\$93,977.28	
87	Reed Family RELP	Upper Freehold	2004	200.289	\$15,804.66	\$3,165,500.00	\$2,732,166.66	\$216,666.67	\$216,666.67	
88	Reed, Stuart, Carole & David	Upper Freehold	2004	115.099	\$16,433.68	\$1,891,500.00	\$1,458,166.67	\$216,666.67	\$216,666.67	
89	Reed Family RELP	Upper Freehold	2004	92.479	\$15,603.54	\$1,443,000.00	\$1,009,666.67	\$216,666.67	\$216,666.67	
92	State of NJ Department of Treasury	Marlboro	2004	110.16	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
94	Trapani, Angelo J. & Anna M.	Millstone	2005	17.801	\$16,500.00	\$293,716.50	\$176,229.90	\$70,491.96	\$46,994.64	
93	Fund for Roosevelt	Roosevelt	2005	28.9077	\$11,600.00	\$335,329.32	\$201,197.59	\$80,479.04	\$53,652.69	FFR paid muni share
95	Archbold, Elsie	Howell	2005	32.217	\$34,000.00	\$1,095,378.00	\$657,226.80	\$262,890.72	\$175,260.48	
76	Valerio/Halka Nurseries/Twp. of Millstone	Millstone	2005	66.7737	\$14,000.00	\$934,831.80	\$560,899.08	\$224,359.63	\$149,573.09	
75	Twp. of Millstone/Butch, Patricia & John	Millstone	2005	73.144	\$6,510.16	\$476,179.14	\$380,943.46	\$57,141.41	\$38,094.27	
79	Twp. of Millstone/Pilcher, Edith Wills	Millstone	2005	41.643	\$6,594.88	\$274,630.75	\$174,789.57	\$63,548.91	\$36,292.27	

	Original Owner	Municipality	Year	Acres Paid	Per Acre Cost	Total Cost	State Cost	County Cost	Municipal Cost	Federal or Nonprofit Cost
100	Blaso, Peter & Michelle	Upper Freehold	2006	20.64	\$22,000.00	\$454,080.00	\$272,448.00	\$108,979.20	\$72,652.80	
96	Linney, John & Lissa	Howell	2006	11.546	\$28,000.00	\$323,288.00	\$193,972.80	\$77,589.12	\$51,726.08	
97	Cohen, Michael & Patricia	Colts Neck	2006	12.4	\$4,500.00	\$55,800.00	\$38,440.00	\$11,959.30	\$5,400.70	
98	Medlin, Jay & Mariana Pedro Medlin	Colts Neck	2006	6.713	\$73,500.00	\$493,405.50	\$288,155.53	\$119,865.99	\$85,383.99	
99	Cooley, Justus & Nancy	Colts Neck	2006	8.318	\$51,000.00	\$424,218.00	\$254,114.90	\$100,190.73	\$69,912.37	
101	Casale, George & Anita	Howell	2006	8.961	\$29,000.00	\$259,869.00	\$155,921.40	\$62,368.56	\$41,579.04	
103	Peacock, Donald & Georgiana	Howell	2006	5.551	\$24,000.00	\$133,224.00	\$79,934.40	\$44,763.26	\$8,526.34	
104	Jennings, Joseph & Karin	Upper Freehold	2006	75.292	\$26,500.00	\$1,995,238.00	\$1,197,142.80	\$478,857.12	\$319,238.08	
107	Costigan, John & Elizabeth Crombie	Howell	2006	11.137	\$19,000.00	\$211,603.00	\$126,961.80	\$71,098.61	\$13,542.59	
108	Sinha, Betty & Eric, Trustees	Millstone	2006	27.693	\$28,750.00	\$796,173.75	\$477,704.25	\$267,514.38	\$50,955.12	
110	Dey, Claude H.	Millstone	2006	34.544	\$29,000.00	\$1,001,776.00	\$601,065.60	\$240,426.24	\$160,284.16	
112	Daum, Roy, Henry & Scott	Manalapan	2006	66.049	\$26,000.00	\$1,717,274.00	\$911,476.20	\$364,590.47	\$441,207.33	
102	Herenchak, Alexander & Lyudmyla	Upper Freehold	2006	136.14	\$20,000.00	\$2,722,800.00	\$2,722,800.00	\$0.00	\$0.00	
106	Purdey, Frances	Colts Neck	2006	107.935	\$62,000.00	\$6,691,970.00	\$3,831,692.50	\$1,157,710.81	\$1,702,566.69	
105	Honadle, Harold E. & Ruth H.	Upper Freehold	2006	13.415	\$12,400.00	\$166,346.00	\$99,807.60	\$39,923.04	\$26,615.36	
109	de Groot, Claire/Township of Colts Neck	Colts Neck	2006	22.912	\$63,000.00	\$1,443,456.00	\$851,180.80	\$349,264.69	\$243,010.51	
78	Twp. of Millstone/Mattei, John & Joann	Millstone	2006	69.8254	\$6,529.29	\$455,910.29	\$319,136.99	\$82,063.98	\$54,709.32	
111	Mullery, Brendon G.	Millstone	2006	26.6717	\$18,056.59	\$481,599.94	\$288,959.86	\$115,584.05	\$77,056.03	
67a	Barclay/Township of Colts Neck	Colts Neck	2006	46.53	\$17,000.00	\$791,010.00	\$791,010.00	\$0.00	\$0.00	
67b	Barclay/Township of Colts Neck	Colts Neck	2006	51.01	\$17,000.00	\$867,170.00	\$867,170.00	\$0.00	\$0.00	
113	McFie, Scott & Bonnie	Millstone	2007	11.916	\$31,000.00	\$369,396.00	\$221,637.60	\$88,655.04	\$59,103.36	
114	Schultz Family Living Trust	Manalapan	2007	31.318	\$22,000.00	\$688,996.00	\$413,397.60	\$165,359.04	\$110,239.36	
77	Twp of Millstone/Infante, Joseph, Carmine, & Rocco Jr.	Millstone	2007	54.1445	\$17,803.47	\$963,960.00	\$578,375.88	\$231,350.40	\$154,233.72	
117	Restine, Philip J. & Bette Marie Restine Ivins	Millstone	2007	19.54	\$38,000.00	\$742,520.00	\$445,512.00	\$178,204.80	\$118,803.20	
115	Eisner, Jack & Martha	Manalapan	2007	55.695	\$33,000.00	\$1,837,935.00	\$1,002,510.00	\$401,004.00	\$434,421.00	
119	Sunset Stables LLC	Howell	2007	26.957	\$25,000.00	\$673,925.00	\$404,355.00	\$161,742.00	\$107,828.00	
116	Ernst, Roger & Laurie	Upper Freehold	2007	130.654	\$27,000.00	\$3,527,658.00	\$2,116,594.80	\$846,637.92	\$564,425.28	
120	Cuddihy, John J. Jr	Howell/Freehold	2007	65.229	\$18,000.00	\$1,174,122.00	\$704,473.20	\$281,789.28	\$187,859.52	
123	Moccia, Maryann	Manalapan	2007	36.881	\$11,600.00	\$427,819.60	\$256,691.76	\$102,676.70	\$68,451.14	
118	Jannuzzelli, Judith & Joseph	Upper Freehold	2007	46.399	\$36,000.00	\$1,670,364.00	\$946,539.60	\$434,294.64	\$289,529.76	
124	Plum Tree Holding Company LLC	Howell	2007	42.3	\$40,000.00	\$1,692,000.00	\$1,015,200.00	\$406,080.00	\$270,720.00	
121	Lemack, Edward and Bernice	Upper Freehold	2007	33.175	\$25,000.00	\$829,375.00	\$497,625.00	\$199,050.00	\$132,700.00	
122	Helmlinger, Walter	Upper Freehold	2007	19.080	\$25,500.00	\$486,540.00	\$291,924.00	\$116,769.60	\$77,846.40	
125	Sheltered Valley Vineyard and Tree Farm LLC	Upper Freehold	2007	25.719	\$18,800.00	\$483,517.20	\$290,110.32	\$116,044.13	\$77,362.75	
126	Schottman, Doreen & Shaffery, Mark	Howell	2007	9.013	\$21,000.00	\$189,273.00	\$113,563.80	\$45,425.52	\$30,283.68	
127	Scibilia, A. Keith & Maureen	Upper Freehold	2007	12.990	\$29,400.00	\$381,906.00	\$229,143.60	\$91,657.44	\$61,104.96	
130	Wagner, Lance	Millstone	2007	23.642	\$31,000.00	\$732,902.00	\$439,741.20	\$175,896.48	\$117,264.32	
131	Aker, Fred & Jean & Phyllis Mazza	Howell	2007	10.077	\$23,500.00	\$236,809.50	\$142,085.70	\$56,834.28	\$37,889.52	
132	Helt, Brenda	Upper Freehold	2007	11.334	\$18,000.00	\$204,012.00	\$122,407.20	\$48,962.88	\$32,641.92	
133	Twp of Holmdel (F & F Nurseries, Inc.)	Holmdel	2007	59.440	\$46,307.00	\$2,752,488.08	\$1,651,492.85	\$660,597.14	\$440,398.09	
128	Reed, Carol	Howell	2007	15.650	\$21,000.00	\$328,650.00	\$197,190.00	\$78,876.00	\$52,584.00	
134	Sullivan, Christopher & Silsbe, Coral	Manalapan	2007	12.792	\$31,814.26	\$406,968.00	\$222,580.80	\$89,032.32	\$95,354.88	
129	Teller, Thelma & Richard Klein et al.	Millstone	2007	26.243	\$26,000.00	\$682,318.00	\$409,390.80	\$163,756.32	\$109,170.88	
136	Lois K. Rogers GST Trust (1)	Manalapan	2007	50.9	\$15,500.00	\$788,950.00	\$366,480.00	\$146,592.00	\$275,878.00	

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137	Lois K. Rogers GST Trust (2)	Manalapan	2007	53.1	\$15,000.00	\$796,500.00	\$398,250.00	\$159,300.00	\$238,950.00	
139	Okerson, Charles, III & Joyce	Howell	2007	35.302	\$18,000.00	\$635,436.00	\$349,489.80	\$139,795.92	\$146,150.28	
138	Blanda, Wayne and Irene	Upper Freehold	2007	48.908	\$28,500.00	\$1,393,878.00	\$836,326.80	\$334,530.72	\$223,020.48	
141	Credith Shelter Bypass Trust	Upper Freehold	2007	11.497	\$17,000.00	\$195,449.00	\$117,269.40	\$46,907.76	\$31,271.84	
142	Hock, Dorothy	Upper Freehold	2007	28.118	\$30,000.00	\$843,540.00	\$506,124.00	\$202,449.60	\$134,966.40	
135	T&T Realty LLC, Richard & Alexander Tullo	Howell	2008	147.943	\$15,800.00	\$2,337,499.40	\$1,402,499.64	\$560,999.86	\$373,999.90	
143	Smith, Charles & Lois	Upper Freehold	2008	135.078	\$19,600.00	\$2,647,528.80	\$796,950.45	\$1,049,268.15	\$801,310.20	
144	Twp of Upper Freehold Twp/Hudler Trust	Upper Freehold	2008	50.700	\$22,000.00	\$1,115,400.00	\$669,240.00	\$267,696.00	\$178,464.00	
146	Baldwin, Jay	Millstone	2008	24.302	\$34,000.00	\$826,268.00	\$495,760.80	\$198,304.32	\$132,202.88	
147	Carlson, Toby & Haley	Upper Freehold	2008	41.825	\$24,000.00	\$1,003,800.00	\$602,280.00	\$240,912.00	\$160,608.00	
148	Amdur, Richard & Mary	Colts Neck	2008	44.037	\$37,000.00	\$1,629,369.00	\$924,777.00	\$369,910.80	\$334,681.20	
149	Hammond, Henry III & Janice	Colts Neck	2008	19.784	\$91,000.00	\$1,800,344.00	\$964,470.00	\$411,318.09	\$424,555.91	
152	Walnridge Farm, Inc.	Upper Freehold	2008	17.432	\$29,000.00	\$505,528.00	\$303,316.80	\$121,326.72	\$80,884.48	
151	Boyken, Diane	Millstone	2008	33.753	\$35,000.00	\$1,181,355.00	\$708,813.00	\$283,525.20	\$189,016.80	
154	Annarella, Vincent	Middletown	2008	37.914	\$66,330.25	\$2,514,845.10	\$1,000,000.00	\$201,187.00	\$0.00	
145	Millstone Twp/Hom	Millstone	2008	165.828	\$30,000.00	\$4,974,840.00	\$2,387,923.20	\$955,169.28	\$1,631,747.52	
155	Herbert, Marie #1	Upper Freehold	2008	49.080	\$31,500.00	\$1,546,020.00	\$927,612.00	\$371,044.80	\$247,363.20	
157	F & F Nurseries, Inc	Marlboro	2008	78.6	\$57,061.23	\$4,485,012.68	\$2,328,358.37	\$1,291,791.00	\$864,863.31	
156	Nurko, Ann	Millstone	2008	28.288	\$43,710.00	\$1,236,468.48	\$741,881.09	\$296,752.43	\$197,834.96	
150	Millstone Twp/Wong	Millstone	2008	115.228	\$35,000.00	\$4,032,980.00	\$1,977,312.48	\$790,924.99	\$1,264,742.53	
153	Virag-Non, Christine et al.	Freehold	2008	36.535	\$38,000.00	\$1,388,330.00	\$832,998.00	\$333,199.20	\$222,132.80	
158	Clayton Family Limited Partnership +	Freehold	2008	139.139	\$63,500.00	\$8,835,326.50	\$5,207,277.08	\$2,138,263.78	\$1,489,785.65	
159	Hofing, August & Shirley **	Upper Freehold	2008	35.980	\$31,000.00	\$1,115,380.00	\$0.00	\$847,688.80	\$267,691.20	
160	Herbert, Marie (2)	Upper Freehold	2008	49.107	\$20,000.00	\$982,140.00	\$589,284.00	\$235,713.60	\$157,142.40	
161	Rose Danielle, as Executrix for Serafina Infante, Rocco Infante, Jr., Carmine Infante & Joseph Infante...	Upper Freehold	2008	55.252	\$33,500.00	\$1,850,942.00	\$1,110,565.20	\$444,226.08	\$296,150.72	
165	McCormack, Jane, William, Leah, Cynthia	Middletown	2008	28.791	\$150,000.00	\$4,318,650.00	\$1,763,448.75	\$1,043,288.67	\$1,511,912.58	
163	Kenney, James & Beverly	Millstone	2008	50.550	\$32,000.00	\$1,617,600.00	\$970,560.00	\$388,224.00	\$258,816.00	
164	Reese, Paul & Janis	Manalapan	2008	22.481	\$43,480.00	\$977,473.88	\$445,123.80	\$178,049.52	\$354,300.56	
162	Herbert, Marie (3)	Upper Freehold	2008	32.383	\$36,500.00	\$1,181,979.50	\$709,187.70	\$283,675.08	\$189,116.72	
166	Fatigati, Cathy	Upper Freehold	2009	31.255	\$20,500.00	\$640,727.50	\$384,436.50	\$153,774.60	\$102,516.40	
167	Thompson, Janet & the Estate of Carmine Casola Sr.	Upper Freehold	2009	78.147	\$18,500.00	\$1,445,719.50	\$867,431.70	\$346,972.68	\$231,315.12	
169	Jovich, Walter	Upper Freehold	2009	39.827	\$35,000.00	\$1,393,945.00	\$836,367.00	\$334,546.80	\$223,031.20	
168	Campanella Family Limited Partnership	Upper Freehold	2009	96.770	\$26,000.00	\$2,516,020.00	\$1,509,612.00	\$603,844.80	\$402,563.20	
170	Sherman, Michael & Nancy	Manalapan	2010	56.328	\$25,500.00	\$1,436,364.00	\$750,000.00	\$355,010.88	\$331,353.12	
171	Baldachino, Gerald	Manalapan	2010	66.738	\$28,350.00	\$1,892,022.30	\$173,518.80	\$494,862.27	\$356,047.23	\$867,594.00
172	Klein, Rowena	Upper Freehold	2010	47.702	\$25,000.00	\$1,192,550.00	\$710,700.00	\$291,042.00	\$190,808.00	
173	Township of Marlboro (McCarron)	Marlboro	2010	42.024	\$14,633.98	\$614,978.38	\$368,987.11	\$147,594.81	\$98,396.46	
174	High Ridge Holding Company, Inc.	Upper Freehold	2011	176.440		\$3,705,246.30	\$3,705,246.30	\$0.00	\$0.00	
175	High Ridge Holding Company, Inc.	Upper Freehold	2011	126.365		\$2,776,089.80	\$3,705,246.30	\$0.00	\$0.00	
176	RTR New Home Building Contractors, Inc	Upper Freehold	2011	48.162	\$32,000.00	\$1,541,184.00	\$750,000.00	\$544,595.00	\$246,589.00	
177	Campusome Inc.	Upper Freehold	2011	50.0	\$19,700.00	\$916,050.00	\$549,630.00	\$219,852.00	\$146,568.00	

	Original Owner	Municipality	Year	Acres Paid	Per Acre Cost	Total Cost	State Cost	County Cost	Municipal Cost	Federal or Nonprofit Cost
179	Sigismondi, Pamela, Renaldo, Marie, Rose, Armido	Manalapan	2011	33.0	\$13,000.00	\$429,000.00	\$ 217,800.00	\$87,120.00	\$124,080.00	
180	Perl Acres Realty Inc.	Millstone	2011	25.073	\$35,000.00	\$877,555.00	\$526,533.00	\$210,613.20	\$140,408.80	
178	Clayton, Thomas A. & Jeanne Clayton Revocable Trust	Howell	2012	26.470	\$37,500.00	\$992,625.00	\$595,575.00	\$238,230.00	\$158,820.00	
181	Olbis, Caroline	Freehold	2012	15.538	\$58,000.00	\$901,204.00	\$ 534,507.20	\$ 219,396.56	\$ 147,300.24	
182	Crosswicks Farms Inc. (Wemple)	Upper Freehold	2012			\$1,543,292.04				
183	Wm. Flemer's Sons, Inc. & Crosswicks Farms, Inc. (Scheese/Gravatt)	Upper Freehold	2012			\$2,303,983.35				
184	Allentown Tree Farm (Hutchinson)	Upper Freehold	2012			\$1,415,121.87				
185	Wm. Flemer's Sons, Inc. & Allentown Tree Farm (Schlaepfi)	Upper Freehold	2012			\$1,379,825.3				
186	Wm. Flemer's Sons, Inc. (Mifflin)	Upper Freehold	2012			\$1,207,973.11				
187	Wm. Flemer's Sons, Inc. (Josephson)	Upper Freehold	2012			\$1,032,350.55				
188	Allentown Tree Farm & Crosswick's Farms, Inc. (Anderson)	Upper Freehold	2012			p/o \$1,647,381.95				
189	Allentown Tree Farm (Hannon)	Upper Freehold	2012			\$292,874.86				
	Flemer Entities Summary of Cost Share	Upper Freehold		608.260	varied	\$9,134,216.41	\$4,554,548.87	\$2,810,312.80	\$1,769,354.74	
190	Gimbel, Louis S. III & Valerie	Middletown	2012	34.238	\$43,000.00	\$1,472,234.00	\$736,117.00	\$368,058.50	\$0.00	\$368,058.50 (MCF)
191	Sigismondi, Renaldo, Marie, Rose, Armido and the Estate of Pamela Sigismondi	Manalapan	2012	94.302	\$4,500.00	\$424,359.00	\$216,264.40	\$57,667.89	\$168,426.71	
192	Schaumloeffel/The Hidden Lakes Farm	Upper Freehold	2012	159.527	\$17,298.50	\$2,759,578.36	\$2,759,578.36	\$0.00	\$0.00	
193	Diamond Developers at Burke Farm LLC	Manalapan	2013	96.502	\$12,000.00	\$1,158,024.00	\$694,814.40	\$277,929.60	\$185,280.00	
195	The Sycamores LLC	Manalapan	2013	22.161	\$ 27,272.73	\$ 604,390.97	\$305,821.80	\$122,328.72	\$176,240.45	
196	Lustgarten, Kenneth	Upper Freehold	2013	86.235	\$14,000.00	\$1,207,290.00	\$724,374.00	\$289,749.60	\$193,166.40	
197	Lustgarten, Kenneth	Upper Freehold	2013	71.165	\$15,500.00	\$1,103,057.50	\$661,834.50	\$264,733.80	\$176,489.20	
198	Lustgarten, Kenneth	Upper Freehold	2013	69.947	\$14,000.00	\$979,258.00	\$587,554.80	\$235,021.92	\$156,681.28	
199	Lustgarten, Kenneth	Upper Freehold	2013	75.595	\$14,500.00	\$1,096,127.50	\$822,095.63	\$274,031.87	\$0.00	
200	Conover, Vera & Arnold N. Conover Unified Credit Trust	Wall	2014	32.733	\$14,000.00	\$458,262.00	\$229,131.00	\$57,282.75	\$114,565.50	\$57,282.75 (MCF)
201	Cicalese, Veronica	Colts Neck	2014	15.133	\$55,000.00	\$832,315.00	\$495,605.75	\$200,495.05	\$136,214.20	
194	Smith, James & Elvira	Marlboro	2014	26.996	\$18,500.00	\$499,426.00	\$226,766.40	\$90,706.56	\$181,953.04	
202	Estate of Joyce M. Kaut	Millstone	2015	55.817	\$13,350.00	\$745,156.95	\$447,094.17	\$178,837.67	\$119,225.11	
203	Conover, John Richard Jr.	Wall	2016	12.770	\$19,000.00	\$242,630.00	\$107,500.00	\$30,328.75	\$74,472.50	\$30,328.75 (MCF)
204	John D. Thompson Sr. Family Limited Partnership	Howell	2016	67.735	\$17,100.00	\$1,158,268.50	\$694,961.10	\$277,984.44	\$185,322.96	
205	Molski, Clara	Upper Freehold	2016	103.777	\$21,900.00	\$2,272,707.54	\$1,363,624.52	\$545,449.81	\$363,633.21	
207	Lustgarten, Kenneth	Upper Freehold	2016	128.322	\$12,400.00	\$1,591,192.80	\$1,591,192.80			
206	Wright, Constance	Upper Freehold	2017	47.188	\$16,300.00	\$769,164.40	\$461,498.64	\$184,599.46	\$123,066.30	
208	Jessop, Paul & Laurie Molnar	Colts Neck	2017	36.020	\$33,000.00	\$1,188,660.00	\$713,196.00	\$285,278.40	\$190,185.60	
209	Hom, Frank, Fay, Wickie, et al.	Millstone (& E. Windsor)	2017	31.893	\$10,800.00	\$344,444.40	\$344,444.40	\$0.00	\$0.00	
210	Feigus, Brad & Barbara	Howell	2018	20.62	\$13,000.00	\$268,060.00	\$114,441.00	\$57,220.50	\$67,788.25	\$28,610.25 (MCF)
211	Callan, George	Holmdel	2018	11.011	\$62,500.00	\$688,187.50	\$300,000.00	\$208,884.81	\$158,096.57	\$21,206.12 (FOHOS)
212	Jersey Longhorn, LLC	Upper Freehold	2018	59.042	\$12,500.00	\$738,025.00	\$442,815.00	\$177,126.00	\$118,084.00	
213	de Groot, Robin; Dana Grobicki, et al.	Colts Neck	2019	41.148	\$39,000.00	\$1,604,772.00	\$802,386.00	\$401,193.00	\$200,596.00	\$200,596.00 (MCF)
214	Druesne, Maeve & Barry	Colts Neck	2019	18.367	\$55,150.00	\$1,012,940.05	\$490,000.00	\$264,640.33	\$131,682.21	\$126,617.51 (MCF)
215	H.M.F. Associates, Inc.	Holmdel & Marlboro	2020	59.752	\$39,800.00	\$2,378,129.60	\$1,426,877.76	\$570,751.10	\$380,500.74	

	Original Owner	Municipality	Year	Acres Paid	Per Acre Cost	Total Cost	State Cost	County Cost	Municipal Cost	Federal or Nonprofit Cost
217	Peplowski, Raymond & Jean	Millstone	2020	7.017	\$35,000.00	\$245,595.00	\$ 147,357.00	\$58,942.80	\$39,295.20	
216	Mosley, George & Lillian	Colts Neck	2021	25.645	\$35,000.00	\$897,575.00	\$538,545.00	\$215,418.00	\$143,612.00	
218	Township of Marlboro (Stattel)	Marlboro	2021	43.210	\$35,000.00	\$1,512,350.00	\$907,410.00	\$362,964.00	\$241,976.00	
	TOTALS					\$252,034,175.91	\$156,949,595.91	\$61,315,927.35	\$31,701,856.37	
	County Total includes Middlesex and Mercer contributions									
	** Installment Purchase Agreement used, Cash at closing \$360,380.									
	MCF= Monmouth Conservation Foundation; FFR = Fund for Roosevelt; FOHOS = Friends of Holmdel Open Space									

APPENDIX B: MONMOUTH COUNTY PIG TARGET FARMS

The following pages list target farms for the State Agriculture Development Committee's County Planning Incentive Grant (PIG) Program. The listed farms appear to meet the State and county eligibility criteria for the program. The farms are grouped by Project Area, as described in Chapter V. Further analysis will be needed to confirm eligibility should the county be in a position to move forward on a preservation project. Although a number of landowners on these lists have contacted the county to express interest in preservation, quite a few have not and may, in fact, have no immediate desire to preserve their farms. The farms are not listed in priority order. Given financial and other constraints the county intends to preserve a handful of the listed farms through the County PIG in a given year.

Colts Neck-Marlboro-Holmdel Project Area

County Target Farms							
	Block	Lot	Municipality	Owner (Current for Target Farms, Original for Preserved Farms)	GIS Acres	Tax, Deed, or Application Acres	
1	39	4, 2	Colts Neck	Big H Group LLC	49	48	
2	364	1	Marlboro	Lembo, Menotti	28	26	
3	206	26, 27	Marlboro	Maghan, James	31	29	
4	41	29	Colts Neck	Maida	30	29	
5	50	4.01	Colts Neck	Patricia King Bailey Inc. (Overbrook Farm)	107	107	
6	50	17, 23	Colts Neck	Patricia King Bailey Inc. (Overbrook Farm)	138	138	
7	160	9	Marlboro	Providence D'Arpa Irrevocable Trust	73	73	
8	33	3, 32, 34	Colts Neck	Spinella Family LLC/JCL Realty	107	92	
9	10; 19; 20	3; 14.2,15, 21; 1, 7	Colts Neck	Springsteen (Chapman)	395	372	
10	157; 159	34.01; p/o 11	Marlboro	State of NJ, Department of Human Services	115	115	
11	51	1.2	Colts Neck	Synergy Farms LLC	32	30	
12	2	2	Holmdel	Victory Universal LLC	92	91	
13	48	25.1, 26, 27	Colts Neck	Wellspring Stables Florida LLC	166	168	
					Total	1,363	1,318
Final Approval Granted by SADC, County or Municipality							
1	7.30	3.18	Colts Neck	Stivala	18	18	
					Total	18	18
Deed Restricted Farmland							
1	9	11	Colts Neck	Amdur, Richard & Mary		45	
2	34	15.01	Colts Neck	Barclay/Township of Colts Neck		47	
3	34	15.02	Colts Neck	Barclay/Township of Colts Neck		51	
4	39	6 (now 6.01)	Colts Neck	Barney, Edward & Ramona		46	
5	21	5	Colts Neck	Blackburn, John & C. Elizabeth and Rachel Robbins		86	
6	20	5	Colts Neck	Cicalese, Veronica		15	
7	9	5	Colts Neck	Cohen, Michael & Patricia		13	
8	43	2, 2.01, 2.03	Colts Neck	Colts Neck Township/Five Points		27	
9	14	9	Colts Neck	Cooley, Justus & Nancy		8	
10	7.30	5	Colts Neck	de Groot, Claire/Township of Colts Neck		23	
11	7.30	4	Colts Neck	de Groot, Robin; Dana Grobicki; et al.		41	
12	23; 22	18, 19.01;17	Colts Neck	Dittmar, George Jr. & Florence & George Dittmar Jr. Trust <i>Original parcel subdivided</i>		191	
13	39	9.01	Colts Neck	Druesne, Maeve & Barry		18	
14	156	3	Marlboro	F&F Nurseries Inc.		79	

15	17	19 & 20	Colts Neck	Hammond, Henry & Janice		20
16	15; 156	2; 4	Holmdel / Marlboro	HMF Associates, LLC		60
17	34	2	Colts Neck	McC Crane, John & Margrit		72
18	34	18, 19	Colts Neck	McC Crane, John & Margrit		38
19	10	8	Colts Neck	Molnar, Laurie & Paul Jessop		36
20	20	2.01	Colts Neck	Mosley, George & Lillian		26
21	5	2	Colts Neck	Purdey, Frances		110
22	23	15	Colts Neck	Quiet Winter Farms Inc.		65
23	11	portion of 32, 33, 34, 35 and 36 (now 33.01)	Holmdel	SADC/Support Development Corp. (Carmine & Danielle Casola)		96
24	11	portion 32 and p/o 36	Holmdel	SADC/Support Development Corp. (Fox Hollow Farms, LLC.)		94
25	43	4, 5	Colts Neck	Sessa, Mario & Irene		30
26	171	52.02	Marlboro	Smith, James & Elvira		27
27	157	34.04	Marlboro	State of NJ Department of Treasury (LJ Pesce Inc.)		110
28	20	p/o 4	Holmdel	Township of Holmdel (F&F Nurseries Inc.)		59
29	155	13.03	Marlboro	Township of Marlboro (McCarron)		42
30	206	25	Marlboro	Township of Marlboro (Stattel)		43
				Total		1,618
Other Permanently Deed Restricted Farmland						
1	41.01	5.13	Colts Neck	Abbatiello, Anthony	60	64
2	48	23.01	Colts Neck	Colonial Farms Realty	88	96
3	51	1.01	Colts Neck	Cooke, Robert	42	45
4	33	2	Colts Neck	Degennaro, Anthony	49	50
5	22	10.14	Colts Neck	Desaye	61	62
6	9	2.01, 2.07, 2.08	Colts Neck	Gutierrez (2.01 and 2.08), Garmany (2.07)	59	63
7	10	2.02 & 2.09	Colts Neck	Mauro	31	31
8	31	1.03, 1.04	Colts Neck	(lot 1.03 part of golf course) & Rehm (L 1.04)	40	41
9	48	21	Colts Neck	Spatial Design	126	127
10	19	12	Colts Neck	Sullivan	31	31
				Total	587	610

Open Space						
	Open Space				3,276	

Northern Howell-Eastern Freehold Project Area

County Target Farms						
	Block	Lot	Municipality	Owner (Current for Target Farms, Original for Preserved Farms)	GIS Acres	Tax, Deed or Application Acres
1	164	5.01	Howell	Forman, W. Peter, Peter & Clayton W.	30	30
2	45; 170	3; 29	Freehold Township; Howell Township	Gibson Farm LLC	27	27
3	170	18.02	Howell	Hillpot, Dorothy & Joan Lipsky	24	24
4	183	11	Howell	Lewis, Paul & Joan Kovacs	48	45
5	170	14, 15, 16, 12.01	Howell	Linney, John & Sean	27	27
6	167	15.01	Howell	The Patterson Family Farm LLC	70	68
7	164	19, 20, 20.1	Howell	Reid Sod Farm / TG Acquisitions LLC	140	141
8	79	14,	Freehold Township	Rutgers University	84	85
9	164	25	Howell	Rutgers University	119	122
Total					642	638
Final Approval Granted by SADC, County or Municipality						
1	44	4 through 7	Freehold Township	Gibson Farm, LLC (preserved but still processing reimbursement)	47	47
Total					47	47
Deed Restricted Farmland						
1	170; 171; 44	30.03; 10.01; 9	Howell & Freehold Twp	Archbold, Elsie		32
2	176; 183	42.05; 31	Howell	Brocklebank, Wayne		47
3	176	41, 42.02	Howell	Giambrone, Arthur G. & Mona J.		16
4	44	4 through 7	Freehold Township	Gibson Farm, LLC		47
5	164; 168	8.01, 15.01, 16; 38	Howell	John D. Thompson Family Limited Partnership		68
6	178.06	8, 14, 15	Howell	Keymer, Susan		63
7	166; 164	3; 17, 21	Howell	Meade, David & Judy		63
8	164	7.01, 13.01	Howell	Okerson, Charles H.		35
Total						371
Open Space						
Total					343	

Roosevelt-Northern Millstone Project Area

County Target Farms						
	Block	Lot	Municipality	Owner (Current for Target Farms, Original for Preserved Farms)	GIS Acres	Tax, Deed or Application Acres
1	11	17, 23	Millstone	Palma	211	211
2	11	11	Millstone	XTRT LLC (Davino)	30	30
3	1	10	Roosevelt	Wong	30	28
Total					271	269
Final Approval Granted by SADC, County or Municipality						
Total					0	0
Deed Restricted Farmland						
1	2	1, 2, 3	Roosevelt	Fund for Roosevelt		149
2	1; 10	1, 2, 3, 7, 8; 1	Roosevelt/Millstone	Fund for Roosevelt		88
3	5	4, 6, 7	Roosevelt	Fund for Roosevelt		28
4	11, 12	22.02, 2	Millstone	Township of Millstone/Hom		166
Total						431
Open Space						
	Open Space				212	

Millstone-Manalapan-Freehold Project Area

County Target Farms							
	Block	Lot	Municipality	Owner (Current for Target Farms, Original for Preserved Farms)	GIS Acres	Tax, Deed or Application Acres	
1	47	5.0	Millstone	Baldachino, Gerald Sr.	76	75	
2	46	22	Millstone	Boss Win Farm	25	25	
3	17	19	Millstone	Ceronics Inc.	40	39	
4	60	4	Manalapan	Csaki, Elizabeth B.A.	39	39	
5	79.02	4.01, 4.02, 7	Manalapan	Donowitz	30	30	
6	91	20, 20.01	Freehold Township	E Brock LTD Partnership	115	117	
7	84.01	9.03	Manalapan	Elton Pt Partnership/Steven Depalma	23	26	
8	74	12	Manalapan	Gaitway Farm	165	159	
9	26; 42	5.01; 1, 4, 5.02, 8.01, 9	Millstone	Halka	269	268	
10	28	17, 18	Millstone	Halka	62	65	
11	39.01	10, 15.01	Millstone	Halka	101	102	
12	44	2	Millstone	Halka	119	119	
13	41	1	Millstone	Halka	33	30	
14	46	7.0	Millstone	Halka Brothers Landscaping	114	110	
15	84	24	Manalapan	Halka Nurseries Inc.	65	65	
16	84	25	Manalapan	Halka Nurseries Inc.	62	65	
17	84	28	Manalapan	Halka Nurseries Inc.	41	42	
18	46	10	Millstone	Halka, Chester & Elsie	64	62	
19	39.01; 40	17; 6.0	Millstone	Halka, Chester J. & Chester Jr.	133	128	
20	84.02	5.02, 6	Manalapan	Hendrickson, Charles P. Estate	30	30	
21	17; 23	10.0; 2.02	Millstone	Hom, Fay M. et als	84	84	
22	17	24.0	Millstone	Iacono, Guglielmo & Raffaella	83	82	
23	69	11.06, 11.07	Manalapan	Lazewski/Mar-Bar-L Farms, LLC	121	121	
24	17	6.0	Millstone	Liu Land Investment LLC	111	110	
25	67	14.01	Manalapan	Luhrs, Woodrow N. & Donna	26	26	
26	16	3.0	Millstone	Ponderosa Crossings LLC	148	148	
27	41	2	Millstone	Scotto	37	39	
28	84	30.01	Manalapan	Theofanis, Joanna	26	28	
					Total	2,242	2,234
Final Approval Granted by SADC, County or Municipality							
					Total	0	0
Deed Restricted Farmland							
1	67	9.06	Manalapan	Baldachino, Gerald		67	

2	43	16.01	Millstone	Baldwin, Jay		24
3	46	4.01	Millstone	Boyken, Dianne Lee		34
4	17	24.03	Millstone	Buono/Township of Millstone		10
5	65	19	Manalapan	Burke, Edward & Helen Vass		17
6	17	26.20, 26.21, 26.24	Millstone	Butch, Patricia & John/Twp. of Millstone		73
7	89	9, 10, 11	Freehold Twp	Clayton Family Limited Partnership		139
8	70	1.02	Manalapan	Daum, Roy, Henry & Scott		66
9	47	4	Millstone	Dey, Claude H.		35
10	69	9, 8.01	Manalapan	Diamond Developers at Burke Farm LLC		97
11	64	16.01,16.11,16.12, 16.13,17,21,23,24, 30,31.01	Manalapan	Eisner, Jack & Martha		56
12	59	13.02, 13.03	Manalapan	Gasko Limited Partnership		18
13	59	1.04	Manalapan	Holland, Donald J. & Wanda B.		21
14	48	3.0	Millstone	Kenney, Beverly & James		51
15	69	4	Manalapan	Lantier, Douglas & Bette		23
16	70	21	Manalapan	Lois K Rogers GST Trust		53
17	70	22	Manalapan	Lois K Rogers GST Trust		51
18	46	11	Millstone	Mazzucco, Mary		53
19	14	13	Millstone	McFie, Scott & Bonnie		12
20	44	4.01	Millstone	McNab, Bruce & Barbara		39
21	70	29	Manalapan	Moccia, Maryann		37
22	45	10.03	Millstone	Mullery, Brendon G.		27
23	89	8, 8.02	Freehold Twp	Olbis, Caroline		16
24	59	5, 6.07	Manalapan	Palmer, C. Taylor & June		145
25	64	3	Millstone	Pilcher, Edith Wills/Twp. of Millstone		42
26	46	9	Millstone	Restine, Philip J. & Bette Marie Restine Ivins		20
27	60; 61	10; 3	Manalapan	SADC/Visceglia		48
28	67	23	Manalapan	Schultz Family Living Trust		31
29	70	3.05, 4.01, 5, 6	Manalapan	Sherman, Michael		56
30	59	4	Manalapan	Sigismondi, Estate of Pamela, Renaldo, Marie, Rose & Armido		98
31	64	11	Manalapan	Sigismondi, Pamela, Renaldo, Marie, Rose, & Armido		33
32	84	14.03, 14.06	Manalapan	Smith, Katherine C. & Catherine K.		107
33	61	11.02; 11.03	Manalapan	Sullivan, Christopher & Coral Silsbe		13
34	69	1	Manalapan	The Sycamores LLC		22
35	46	6	Millstone	Valerio/Halka Nurseries/Twp. of Millstone		67
36	87.01	9, 9.01	Freehold Twp	Virag-Non, Christine et al.		37

37	47	2	Millstone	Wong, David, Fay, Ed, Lillian Chu, May/ Twp. of Millstone		115
				Total		1,863
Other Deed Restricted Farmland						
1	64	10.01	Millstone	Fredericks, William & Lillian		59
2	38	1 (1.01 too)	Millstone	Marino/The Equine Clinic of New Jersey		127
				Total		176
Open Space						
1	Various		Manalapan, Millstone	Open Space	5,729	
2	72	25.12	Manalapan	Villante, Gertrude (Happy Day Farm) easement	70	
3			Manalapan	Monmouth Council of Boy Scouts easement	201	
				Total	6,000	

Upper Freehold-Western Millstone Project Area

County Target Farms						
	Block	Lot	Municipality	Owner (Current for Target Farms, Original for Preserved Farms)	GIS Acres	Tax, Deed or Application Acres
1	26	1, 3	Upper Freehold	Arnoff/Stein	55	60
2	53	13.01	Upper Freehold	Blanchett, Thomas & Susan	41	39
3	23	1.01	Upper Freehold	Bohonyi / JAB Realty Management LLC	55	57
4	16.01	19	Upper Freehold	Brookside Legacy Farm, LLC	41	41
5	32	4.06	Upper Freehold	Conover	49	50
6	33	7	Upper Freehold	Czaki, Elizabeth	128	128
7	57.01	1.01, 1.02, 1.03, 1.04	Millstone	D.E.N.J., Inc.	40	40
8	55	20.07	Upper Freehold	Ducey	20	20
9	41	p/o 1	Upper Freehold	Fair Winds Farm	172	172
10	23.01	1	Upper Freehold	High Ridge Farm A	96	90
11	13	6, 11.06	Upper Freehold	JRRS, Inc.	76	76
12	12	10	Upper Freehold	Keleman	115	115
13	12	8, 8.05	Upper Freehold	Keris	23	23
14	57.01	p/o 26	Millstone	Kheder, Abdul Hady	75	75
15	42	4	Upper Freehold	Klein, Michael & Susan	32	30
16	22	5	Upper Freehold	Kube Pak	39	41
17	53	3.01, 3.05	Millstone	Lee, David	27	27
18	19	9, 11, 11.04, 11.05	Upper Freehold	Lohmeyer/Hogan	37	39
19	35	19	Upper Freehold	Lustgarten	27	26
20	55	2	Upper Freehold	Lustgarten	118	109
21	17	8.01, 9	Upper Freehold	Pannick (farm extends into Millstone so may be possible to add those lots)	40	40
22	22	2, 4, 24.01	Upper Freehold	Hot Lead Stables II, LLC/ Parisi	346	350
23	24	9.01,10	Upper Freehold	Rozansky / Allentown Davis Investors LLC	220	215
24	55	1.06, 21	Upper Freehold	Rutgers University	239	245
25	3	1	Millstone	Skeba, Stanley	35	35
26	31	5	Upper Freehold	Stern, Richard	164	164
27	27	24, 25, 26, 38.01	Upper Freehold	Taft /Davis Station LLC	282	275
28	35	1	Upper Freehold	The Holmes-Stead Farm LLC	254	254
29	36	2	Upper Freehold	The Holmes-Stead Farm LLC	142	142
30	52	7	Millstone	Thueng C/O May Lai	86	90

31	22.01	24	Upper Freehold	West, Arthur & Jean West Gladney	115	115
				Total	3,189	3,183
Final Approval Granted by SADC, County or Municipality						
					0	0
				Total	0	0
Deed Restricted Farmland						
1	16; 24	9.02; p/o 22.01 (reconfigured), p/o 23 (reconfigured)	Upper Freehold	526 Upper Freehold Corp. (Irwin Shipper) <i>Original parcel subdivided</i>		404
2	47.06	28	Upper Freehold	Allentown Tree Farm & Crosswick's Farms, Inc. (Anderson)		19
3	43	14.03	Upper Freehold	Allentown Tree Farm (Hannon)		25
4	50	20.01	Upper Freehold	Allentown Tree Farm (Hutchinson)		77
5	51	p/o 7 (now 7.06)	Upper Freehold	Blanda, Wayne		49
6	1.02; 1.01	1, 3, 5; 2	Millstone	Blasig, Carl & Michele		2
7	52	1	Upper Freehold	Blaso, Peter & Michelle		21
8	20	7	Upper Freehold	Bullock, Martin, Lorraine & Janet		105
9	24	p/o 8	Upper Freehold	Campanella Family Limited Partnership		97
10	16	13.01	Upper Freehold	Campusome Inc.		50
11	50	1.01, 1.02	Upper Freehold	Carlson, Toby & Haley		42
12	42; 43	2; 7	Upper Freehold	Collins, Edward & Mary		270
13	28	1, 1.02	Upper Freehold	Concorde Stud Farms Inc.		239
14	47.06	19	Upper Freehold	Credit Shelter Bypass Trust		11
15	43	17	Upper Freehold	Crosswicks Farms Inc. (Wemple)		100
16	50	21	Upper Freehold	Dey, S Perrine & Elizabeth		84
17	50	1	Upper Freehold	Dey, S Perrine II & Elizabeth		126
18	51	9 (now 9.06)	Upper Freehold	Dey, S. Perrine II		127
19	13	1	Upper Freehold	DiPiero, Domenic & Rosera		115
20	32	3	Upper Freehold	Ernst, Roger & Laurie		131
21	51, 52	12, 5	Millstone	Estate of Edith Karl		89
22	15.01	27	Upper Freehold	Estate of Mary Hendrickson		111
23	28, 39	9, 1, 13	Upper Freehold	Estate of Richard Satterthwait		209
24	10; 11	8; 11	Upper Freehold	Estate of Stuart L. Reed Sr.		149
25	31	2	Upper Freehold	Faber, Robert & Patricia		176
26	20	3	Upper Freehold	Fair Winds Farm Inc.		136

27	52	4	Upper Freehold	Fatigati, Cathy		31
28	23	23.01, 25.01	Upper Freehold	Freiberger Farms Inc.		85
29	13	3.01	Upper Freehold	Freiberger Farms Inc.		133
30	23.01	23, 25	Upper Freehold	Freiberger, Rupert & Kathleen		112
31	53; 54 (now 54.01)	4 (now also 4.02);10	Upper Freehold	Fretz, Dorteia <i>Original parcel subdivided</i>		125
32	32	5	Upper Freehold	Gerath, Frank & Anna		85
33	51	1	Upper Freehold	Gower, Walter		88
34	12	5	Upper Freehold	Gravatt, Carlton & Barbara		92
35	13	14, 15	Upper Freehold	Gravatt, Carlton, Barbara, Roger & Linda		136
36	50	4.03	Upper Freehold	Helmlinger, Walter		19
37	51	9.04	Upper Freehold	Helt, Brenda		11
38	9	5	Upper Freehold	Herbert Marie (3)		32
39	13	p/o 23	Upper Freehold	Herbert, Marie (1)		49
40	13	p/o 23	Upper Freehold	Herbert, Marie (2)		50
41	32	4.02	Upper Freehold	Herbst, John & Joan		19
42	50	7	Upper Freehold	Herenchak, Alexander & Lyudmyla		136
43	27	23	Upper Freehold	High Ridge Holding Company, Inc.		126
44	27	22	Upper Freehold	High Ridge Holding Company, Inc.		176
45	47.06	19.07	Upper Freehold	Hock, Dorothy		28
46	33	1	Upper Freehold	Hofling, August & Shirley		36
47	8	1	Millstone & E. Windsor	Hom, Fay et al.		97
48	51	2.01	Upper Freehold	Honadle, Harold E. & Ruth H.		14
49	54	2.11	Millstone	Infante, Joseph, Carmine, & Rocco Jr./ Township of Millstone		56
50	53; 51; 55	1; 6; 19 (1.02; 6.03; 19.01 owned by Park System)	Millstone	James Lamb & Son Inc. <i>Original parcel subdivided</i>		183
51	51	2 (now 2.26)	Upper Freehold	Jannuzzelli, Judith & Joseph		46
52	51	8	Upper Freehold	Jennings, Joseph & Karin		75
53	23	8.04	Upper Freehold	Jersey Longhorn, LLC		59
54	50	2.03, 2.031	Upper Freehold	Jovich, Walter		40
55	35	2	Millstone	Kaut, Estate of Joyce M.		56
56	51	2.03	Upper Freehold	Kizis, Michael & Barbara		11
57	24	11	Upper Freehold	Klein, Rowena		48
58	31, 20	1, 9	Upper Freehold	Kossatz, Mary		94
59	55	17	Upper Freehold	Lahaway Creek Farm		70

60	15	41	Upper Freehold	Lamb, Elizabeth	67
61	37	1.02	Upper Freehold	Leister, Alfred & Kathleen	14
62	50	4	Upper Freehold	Lemack, Edward & Bernice	33
63	32	6.03	Upper Freehold	Lustgarten, Kenneth	71
64	32	6.07	Upper Freehold	Lustgarten, Kenneth	70
65	34	25.09, 26	Upper Freehold	Lustgarten, Kenneth	76
66	34	27.01	Upper Freehold	Lustgarten, Kenneth	86
67	35	23	Upper Freehold	Lustgarten, Kenneth	128
68	51; 52	11; 6.01	Millstone	Mattei, John & Joann/Twp. of Millstone	70
69	14	4	Upper Freehold	Meirs, Elizabeth & Richard Wright	234
70	38	2, 2.01, 2.02, 3	Upper Freehold	Molski, Clara	104
71	50	3	Upper Freehold	Monmouth Conservation Foundation	165
72	41	3	Upper Freehold	Monmouth Conservation Foundation	111
73	32	1	Upper Freehold	New Jersey Conservation Foundation	125
74	7	2	Millstone	Nurko, Ann P.	28
75	32	4.01	Upper Freehold	O'Hare, Martin J. & Deborah	19
76	31	4	Upper Freehold	Osborn, Leslie & Evelyn	139
77	54	5.04	Millstone	Perl Acres Realty, Inc.	25
78	20	2, 5 (now 5.01), 8 (now 8.01)	Upper Freehold	Perretti, William <i>Original parcel subdivided</i>	374
79	15.01	36.01	Upper Freehold	Potter, Frank & Joan Gordon	64
80	16	10	Upper Freehold	Punk, Albert & Frederick	187
81	23	13, 22.01	Upper Freehold	Reed Family RELP	200
82	43	22.29	Upper Freehold	Reed Family RELP	92
83	11	1, 12	Upper Freehold	Reed, Stuart Jr. & Carole	98
84	13	18, 21, 22	Upper Freehold	Reed, Stuart Jr. & Carole	70
85	27	43	Upper Freehold	Reed, Stuart, Carole & David	115
86	12	11, 11.07, 11.08, 11.09	Upper Freehold	Reese, Walter & Cynthia	62
87	16	4	Upper Freehold	Rose Danielle as Executrix for Serafina Infante, Rocco Infante, Jr., Carmine Infante & Joseph Infante	55
88	55	20.03	Upper Freehold	RTR New Home Building Contractors, Inc.	48
89	15; 15.01; 16	17.02; 17, 18; 12	Upper Freehold	Rue Brothers, Inc. <i>Original parcel subdivided</i>	332
90	14	2	Upper Freehold	SADC/Estate of Elizabeth Lamb	12
91	31	p/o 6, 9, 9.05, 10	Upper Freehold	Schaumloeffel/The Hidden Lakes Farm	160
92	52	2	Upper Freehold	Scibilia, A. Keith & Maureen	13

93	51	3 (now 3.02, 3.03 and 3.04)	Upper Freehold	Search, William & JoAnn		183
94	35	16	Upper Freehold	Search, William & JoAnn		111
95	50	2.04	Upper Freehold	Sensi, Herbert & Karen		18
96	52	1.02	Upper Freehold	Sheltered Valley Vineyard and Tree Farm		26
97	31	25	Millstone	Sinha, Betty & Eric, Trustees		28
98	34	1	E. Windsor	Skeba		58
99	50	2	Upper Freehold	Smith, John J.		18
100	27	42	Upper Freehold	Smith, Lois & Charles		135
101	35	23, 24	Millstone	Teller, Thelma & Philip Klein, et al.		26
102	19	1	Upper Freehold	Thompson, Janet & Estate of Carmine Casola Sr.		78
103	54	2.08	Millstone	Trapani, Angelo J. & Anna M.		18
104	37	1	Upper Freehold	Trenton, Albert A. & Barbara L.		22
105	36	3	Upper Freehold	Twp of Upper Freehold/ Hudler Trust		51
106	50	2.05	Upper Freehold	Valnoski, Margaret J.		20
107	8	3.04	Upper Freehold	Van Pelt, Richard & Laurette		32
108	51	8.02	Upper Freehold	Walnford Stud		78
109	54	1	Upper Freehold	Walnridge Farm Inc.		17
110	55, 56	18, 19	Upper Freehold	Walnridge Farms Inc.		196
111	50	13	Upper Freehold	Wm. Flemer's Sons, Inc. & Allentown Tree Farm (Schlaepfi)		108
112	43	14.03	Upper Freehold	Wm. Flemer's Sons, Inc. & Crosswicks Farms, Inc. (Scheese/Gravatt)		137
113	50	9	Upper Freehold	Wm. Flemer's Sons, Inc. (Josephson)		74
114	50	11.04	Upper Freehold	Wm. Flemer's Sons, Inc. (Mifflin)		87
115	24	12	Upper Freehold	Wright, Constance		47
116	33	5, 6	Upper Freehold	Zion, Robert <i>Original parcel subdivided</i>		202
				Total		10,667
Other Deed Restricted Farmland						
1	12	7.01	Upper Freehold	Tom-Shannon LLC		118
				Total		118
Eight Year Programs						
				Total	0	

Open Space			
	Open Space (including Park System-owned lots of Fretz, Lamb, and Search properties)	9,144	
	Open Space (excluding Park System-owned lots of Fretz, Lamb, and Search properties)	8,964	

* Has final approval from one or more partners

Wall Township Project Area

County Target Farms						
	Block	Lot	Municipality	Owner	GIS Acres	Tax, Deed or Application Acres
1	800	22	Wall	McDowell, Fred	91	90
2	800	56, 25	Wall	Pollara Fam LLC	41	42
3	774	7	Wall	Pyle, Louise Charlotte	22	22
4	774	5	Wall	Thompson, Chester E Jr. et als	49	48
Total					203	203
Final Approval Granted by SADC, County or Municipality						
Total					0	0
Deed Restricted Farmland						
1	772	3	Wall	Conover, Vera A.		33
2	772	2	Wall	Conover, John Richard Jr.		13
Total						46
Other Deed Restricted Farmland						
3	804	8.01	Wall	Stockland Farms, Inc.		22
Open Space						
	Open Space				184	

* Has final approval from one or more partners

APPENDIX C: MCADB POLICIES

General Policies

<i>Policy Number</i>	<i>Date of Adoption</i>	<i>Policy Name</i>	<i>Additional Background</i>
GEN - 1	09/03/03	Procedures Governing the Funding of Easement Purchases	Originally adopted August 7, 2002. Clarified 9/3/03.
GEN - 2	4/03/04	Procedures Governing the Funding of Easement Purchases	
GEN - 3	4/03/04	Procedures Governing the Review of Proposed State Direct Easement Purchases	
GEN - 4	8/03/05	Proposed Substantial New Uses on Preserved Farmland: Interpretation of Deed of Easement	Overridden by GEN - 5.
GEN - 5	9/07/05	Proposed New Uses on Preserved Farmland: Interpretation of Deed of Easement	
GEN - 6	10/04/06	Procedures Governing the Expenditure of County Farmland Preservation Funds Made Available Outside the Regular Budget Cycle	
GEN - 7	1/11/22	Procedures Governing the Expenditure of County Farmland Preservation Funds Made from the County's Open Space, Recreation, Floodplain Protection, and Farmland and Historic Preservation Trust Fund	Originally adopted 10/4/06. Amended 7/11/07 and 1/11/22
GEN - 8			NEVER ADOPTED
GEN - 9	11/4/20	Deed of Easement Enforcement Policy	

Planning Incentive Grant Policies

<i>Policy Number</i>	<i>Date of Adoption</i>	<i>Policy Name</i>	<i>Additional Background</i>
PIG - 1	8/07/02	Procedures Governing the Endorsement of Municipal Planning Incentive Grant Applications by the Monmouth County Agriculture Development Board and the Processing of Individual Applications	Includes clarification memo from 11/18/03
PIG - 2	3/3/04	Procedures Governing Monmouth County Agriculture Development Board Review of Planning Incentive Grant Amendments/Applications	Original version adopted November 5, 2003. Amendments adopted 3/3/04
PIG - 3	4/03/04	Procedures Governing Monmouth County Agriculture Development Board Review of Planning Incentive Grant Amendments/Applications	Original version adopted 11/05/03. Revisions adopted 4/03/04
PIG - 4	9/01/04	Planning Incentive Grant Program Easement Acquisition Policies/Procedures	Amendment to 8/07/02 PIG -1 Policy
PIG - 5	4/06/05	Planning Incentive Grant Individual Easement Acquisition Policies	Amendment to 8/07/02 PIG -1 Policy
PIG - 6a	1/11/22	Criteria and Application Evaluation Procedures for the County Planning Incentive Grant Program	Original adopted 7/11/07. Amended 9/5/07, 1/2/08, and 1/11/22.
PIG - 6	5/5/20	Reimbursement of Ancillary Costs for Municipal Planning Incentive Grant Projects	Original adopted 3/7/12 and amended 5/5/20. Also modifies PIG-1 and PIG - 5.
PIG - 7	5/5/20	Reimbursement of Ancillary Costs for County Planning Incentive Grant Projects	

Right to Farm Policies

<i>Policy Number</i>	<i>Date of Adoption</i>	<i>Policy Name</i>	<i>Additional Background</i>
RTF - 1		Procedures Governing Monmouth County Agriculture Development Board Right to Farm Hearings	
RTF - 2		Procedures Governing Monmouth County Agriculture Development Board Right to Farm Hearings – Conflict Resolution	
RTF - 3	8/24/00	SADC – Guidelines for the Development and Recommendation of Site-Specific Agricultural Management Practices (“AMPs”) by County Agriculture Development Boards	
RTF - 4	12/05/01	Procedures Governing Requests to Monmouth County Agriculture Development Board for Site-Specific Agriculture Management Practices Recommendations Under the Right to Farm Act	
RTF - 5	7/08/04	Procedures Governing Requests to Monmouth County Agriculture Development Board for Site-Specific Agriculture Management Practices Recommendations Under the Right to Farm Act	Supersedes December 2001 Procedures

APPENDIX D: BIBLIOGRAPHY

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APPENDIX E: LINKS TO REFERENCED WEBSITES

Farm Service Agency

<https://www.fsa.usda.gov/>

Grown in Monmouth

<https://www.growninmonmouth.com/>

Kula Urban Farm

<https://interfaithneighbors.org/kula-urban-farm/>

Monmouth County

<https://www.visitmonmouth.com/>

Monmouth County GeoHub

<https://gis-monmouthnj.opendata.arcgis.com/>

Monmouth Within Reach Study

<https://www.visitmonmouth.com/Page.aspx?Id=5192>

New Jersey Conservation Blueprint

<https://www.njmap2.com/blueprint/>

NJ Craft Beer:

<https://njcraftbeer.com/>

NJ Department of Environmental Protection (NJDEP)

<https://www.nj.gov/dep/>

NJ Department of Agriculture: Jersey Fresh

<https://findjerseyfresh.com/>

NJ Farm Bureau

<https://njfb.org/>

NJ Future Noncontiguous Cluster Development

<https://www.njfuture.org/issues/environment-and-agriculture/land-preservation/tdr-clustering/noncontig-cluster-development/>

NJ Land Link:

<https://njlandlink.org/>

Rutgers Cooperative Extension

<https://njaes.rutgers.edu/extension/>

Rutgers Cooperative Extension:
The Economic Contributions of Agritourism in New Jersey
<https://njaes.rutgers.edu/pubs/publication.php?pid=E333>

State Agriculture Development Committee (SADC)
<https://www.nj.gov/agriculture/sadc/>

United States Department of Agriculture (USDA)
<https://www.usda.gov/>

United States Department of Agriculture
Natural Resources Conservation Service (USDA-NRCS)
<https://www.nrcs.usda.gov/wps/portal/nrcs/site/national/home/>

APPENDIX F: MCPB Resolution of Adoption

Resolution 2022-13

RESOLUTION ADOPTING THE 2022 MONMOUTH COUNTY FARMLAND PRESERVATION PLAN AS AN ELEMENT OF THE MONMOUTH COUNTY MASTER PLAN

Commissioner Ross F. Licitra offers the following Resolution and moves its adoption:

WHEREAS, the Monmouth County Planning Board adopted The *Monmouth County Growth Management Guide* in October 1982 as the official County Master Plan; and

WHEREAS, the Monmouth County Planning Board adopted the *Monmouth County Master Plan* on October 17, 2016 replacing the *Monmouth County Growth Management Guide* as the official County Master Plan; and

WHEREAS, the Monmouth County Planning Board adopted the *2008 Monmouth County Farmland Preservation Plan* on May 19, 2008 as an element of the County Master Plan; and

WHEREAS, a County Comprehensive Farmland Preservation Plan (CCFP) is required for participation in the County Planning Incentive Grant Program under N.J.S.A. 4:1C-43-1; and

WHEREAS, State statute N.J.A.C. 2:76-17.4(c) requires that CCFPs be updated every ten years to remain eligible for grant funding through the County Planning Incentive Grant Program; and

WHEREAS, staff of the Monmouth County Division of Planning and Monmouth County Agriculture Development Board staff prepared the July 2022 *Monmouth County Farmland Preservation Plan* ("the Plan") update; and

WHEREAS, the preservation of agricultural land and support for the agricultural economy have been identified as priorities for the county, and the Plan provides guidance for the county's Farmland Preservation Program; and

WHEREAS, the Monmouth County Agriculture Development Board held two public meetings, one on December 7, 2021 and one on April 5, 2022, as required by state law, to discuss the Plan update; and

WHEREAS, the Monmouth County Planning Board held a public hearing on August 15, 2022 to propose the adoption of the July 2022 *Monmouth County Farmland Preservation Plan* as an updated element of the *Monmouth County Master Plan* following the publication of an official notice in a newspaper of general circulation (*The Star Ledger*) and the transmittal of the notice of the public hearing 20 days prior to the hearing to the Municipal Clerk and Planning Board Secretary of each municipality in the county; and

WHEREAS, no public comment was received at the hearing.

NOW, THEREFORE BE IT RESOLVED, that the Monmouth County Planning Board hereby adopts the July 2022 *Monmouth County Farmland Preservation Plan* as an element of the Monmouth County Master Plan, replacing the previous 2008 County Comprehensive Farmland Preservation Plan.

BE IT FURTHER RESOLVED, in accordance with N.J.S.A. 40:27-4 that an attested copy of the July 2022 *Monmouth County Farmland Preservation Plan* be sent to the Monmouth County Board of County Commissioners, the legislative body of every municipality in Monmouth County, and the Monmouth County Board of Recreation Commissioners.

Seconded by Jennifer DiLorenzo and passed upon the following roll call vote:

In the affirmative: Charles Casagrande, Jennifer DiLorenzo, Joseph Ettore, Judy Martinelly, Marcy McMullen, James C. Schatzle, Commissioner Ross F. Licitra, James Giannell

In the negative: None
Abstain: None
Absent: Commissioner Lillian G. Burry

I do hereby certify that the forgoing
is a true copy of a Resolution adopted by
the Monmouth County Planning Board
at a meeting on September 19, 2022

A handwritten signature in cursive script, reading "JoAnn Denton", is written over a horizontal line.

JoAnn Denton

SECRETARY TO THE BOARD