

**DRAFT Morris County  
Comprehensive Farmland Preservation Plan**

November 2022



Prepared by

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Morris County Office of Planning and Preservation  
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**MORRIS COUNTY**  
**COMPREHENSIVE FARMLAND PRESERVATION PLAN**  
**2022**

**Prepared by**

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The original of this report was signed and sealed in accordance with N.J.S.A. 45:14a-12.

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## CHAPTER I: MORRIS COUNTY’S AGRICULTURAL LAND BASE

Morris County has a population of 509,285 persons<sup>1</sup>, is approximately 481 square miles, or 308,123 acres in total, and has approximately 11,600 acres of actively farmed land. In recent years, the farming community has experienced development pressures which threaten the loss of the existing agricultural landscape and by extension, the vitality of the farming industry. The County’s Farmland Preservation Program has been successful, having preserved over 8,070 acres of farmland across 138 farms as of the writing of this plan. Farms in Morris County have been preserved through several programs, including Country, Non-Profit, Municipal and State Programs.

Several sources provide information regarding Morris County’s agricultural statistics. The United States Department of Agriculture (USDA) Census of Agriculture utilizes a surveyed sample of the County’s farmland owners and operators. Another source, Morris County tax assessment data, is based on information provided by landowners on farmland assessment forms, which represents their agricultural operations. The difference in methodologies makes it impractical to compare the data from one source to another, though both sources on their own provide valuable information regarding agriculture in Morris County.

### Location and Size of Agricultural Base

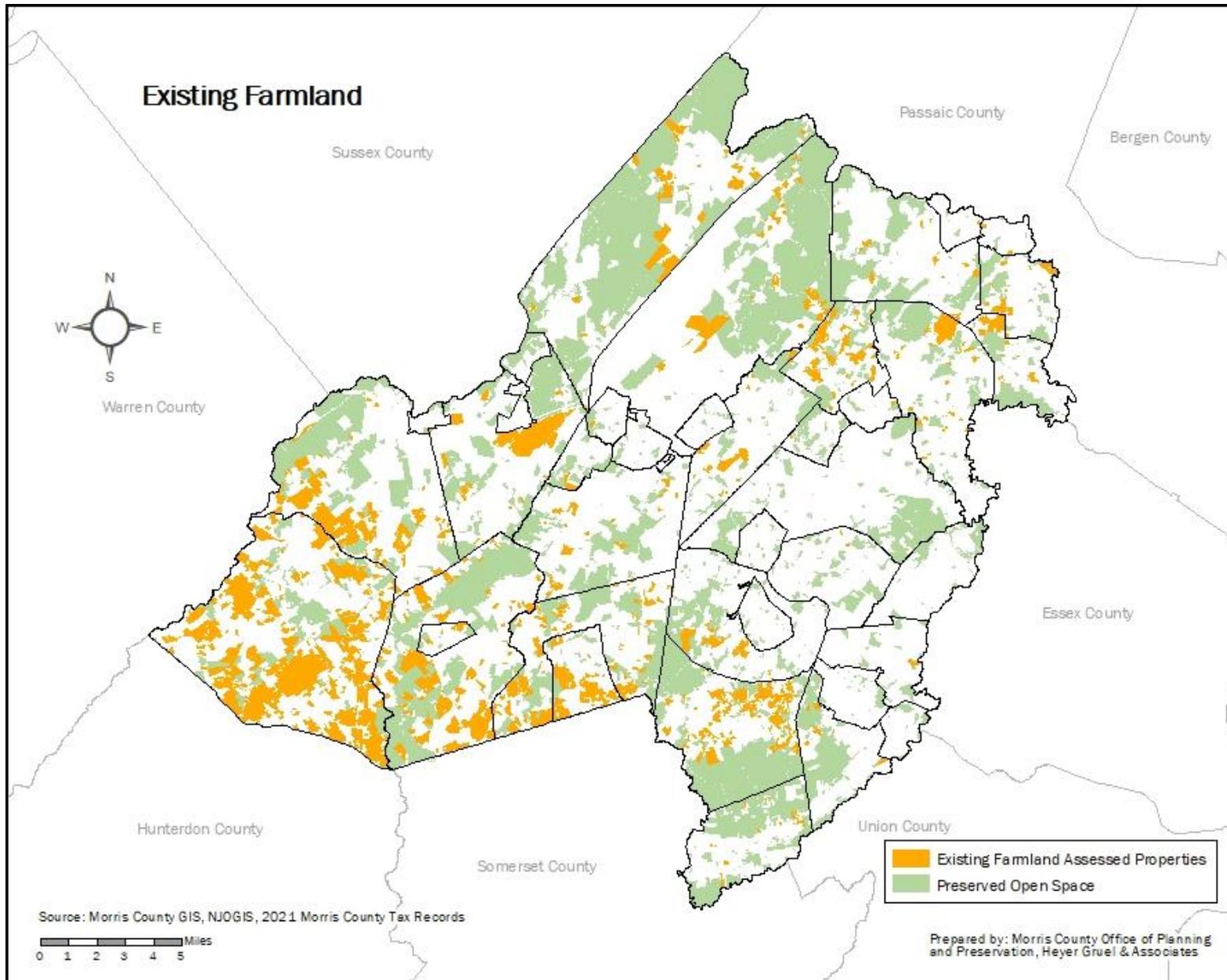
According to 2021 tax assessment records, Morris County has approximately 30,605 acres of assessed farmland, making up 13 percent of the County’s total land area. Of the County’s 40 municipalities, 28 have farmland assessed property. The following chart details the number of acres of farmland per municipality in the County according to tax assessment records. These properties are tax assessed as 3A: Regular Farmland or 3B: Qualified Farmland. As demonstrated below, Washington Township has the most farmland in Morris County, comprising 35.6 percent of all farmland, followed by Chester Township and Mount Olive Township.

Existing Farmland					
Municipality	Acres	Percentage	Municipality	Acres	Percentage
Washington Township	10,889.8	35.6%	Lincoln Park	395.9	1.3%
Chester Township	3,205.2	10.5%	Pequannock Township	307.2	1.0%
Mount Olive Township	2,748.1	9.0%	Kinnelon	257.8	0.8%
Harding Township	1,871.8	6.1%	Chatham Township	146.8	0.5%
Mendham Township	1,758.8	5.7%	Long Hill Township	142.5	0.5%
Roxbury Township	1,602.6	5.2%	Chester Borough	108.4	0.4%
Jefferson Township	1,464.7	4.8%	Mine Hill Township	75.8	0.2%
Rockaway Township	1,278.7	4.2%	Florham Park	44.8	0.1%
Mendham Borough	1,101.9	3.6%	Riverdale	35.9	0.1%
Boonton Township	997.9	3.3%	Wharton	23.2	0.1%
Montville	682.0	2.2%	Hanover Township	19.6	0.1%
Morris Township	539.5	1.8%	Boonton	14.8	0.0%
Denville Township	442.5	1.4%	Mountain Lakes	9.6	0.0%
Randolph	433.6	1.4%	Butler	6.0	0.0%
<b>Total</b>	<b>Acres</b>		<b>Percentage</b>		
	<b>30,605.57</b>		<b>100.0%</b>		

Source: NJ 2021 Tax Assessment Data; acreages calculated in GIS

As shown on the following map, farms are primarily concentrated in the southwesterly portion of Morris County.

<sup>1</sup> U.S. Census Bureau, 2020 Decennial Census

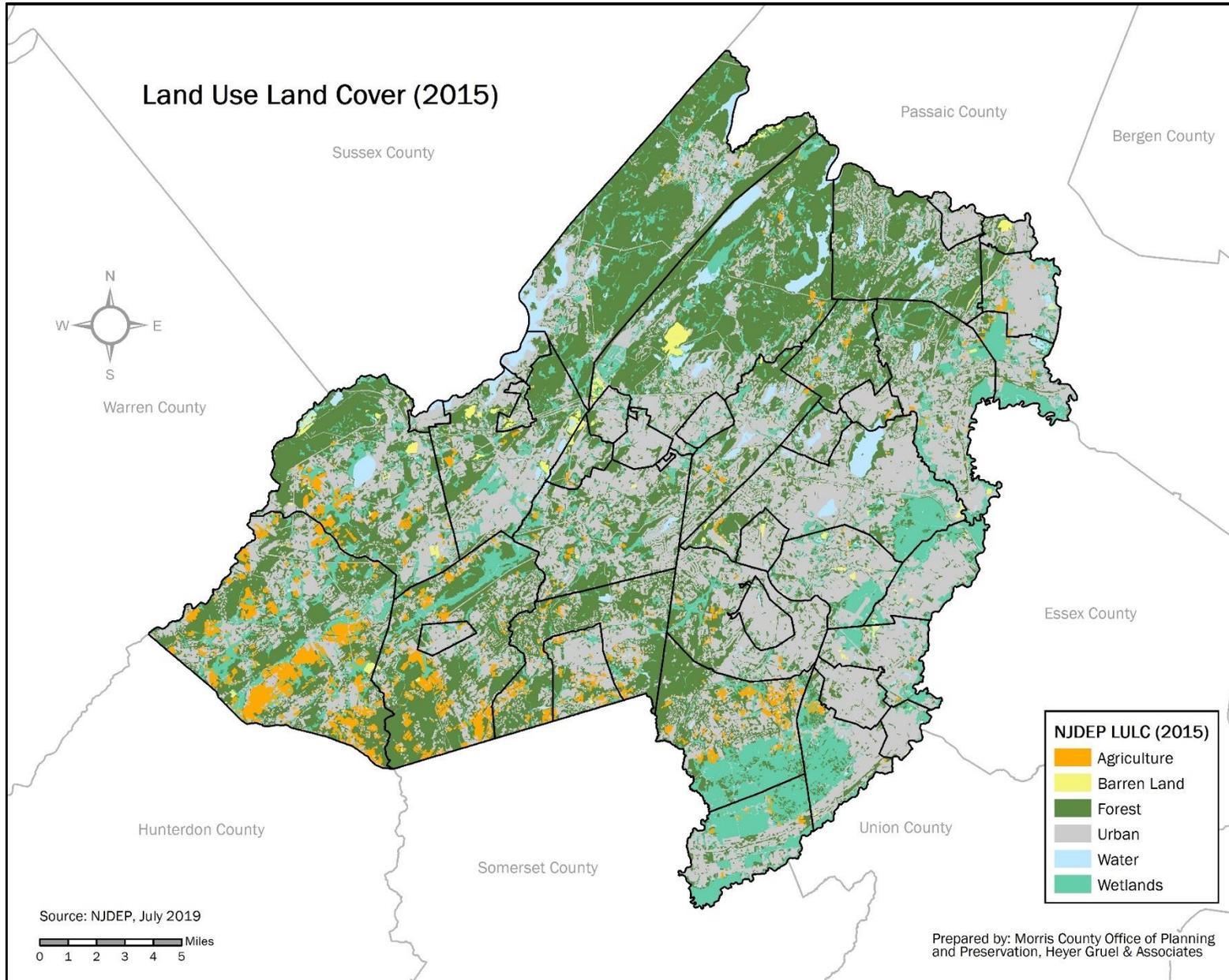


In addition to tax assessment records, New Jersey Department of Environmental Protection’s Land Use Land Cover (LULC) also provides a snapshot of existing land uses within the County. Using aerial photography and remote sensing technology, land use is categorized as either agricultural, barren land, forest, urban, water, or wetlands. As shown by the following table, urban and forested land are the most prevalent land use types in the County with nearly 80 percent of the County’s total area; however, more than 11,600 acres of the County’s total land is used for agricultural purposes.

<b>NJDEP 2015 Land Use Land Cover</b>		
<b>Land Use</b>	<b>Acres</b>	<b>Percent</b>
Agriculture	11,601.1	3.8%
Barren Land	2,584.6	0.8%
Forest	118,383.6	38.4%
Urban	121,385.1	39.4%
Water	11,160.2	3.6%
Wetlands	43,008.9	14.0%
<b>TOTAL</b>	<b>308,123.5</b>	<b>100.0%</b>

*Source: NJDEP 2015 LULC, acres calculated in GIS*

Differences in acreages between the LULC and the tax assessment data stem from the data source. As noted previously, the LULC is based on aerial photography and remote sensing technology, while the latter stems from digitized tax maps and tax assessment records. It should be noted that the LULC does not account for farmland that is forested or has wetlands; it is solely the area of land that is actively farmed. The following map, entitled “Land Use Land Cover (2015),” shows the locations of these land uses within Morris County.



### Soil Distribution and Types

An important consideration in farmland preservation is the quality of soils for agricultural production. The major advantages of prime agricultural soils are their fertility and lack of limitations for crop production purposes. Prime soils will support almost any type of agriculture common to this region. Soil limitations include steep slopes, extreme stoniness, or wetness, which may hinder cultivation. Prime agricultural soils produce superior crop yield on a consistent basis due to their high fertility content, when measured against those soils not rated as prime.

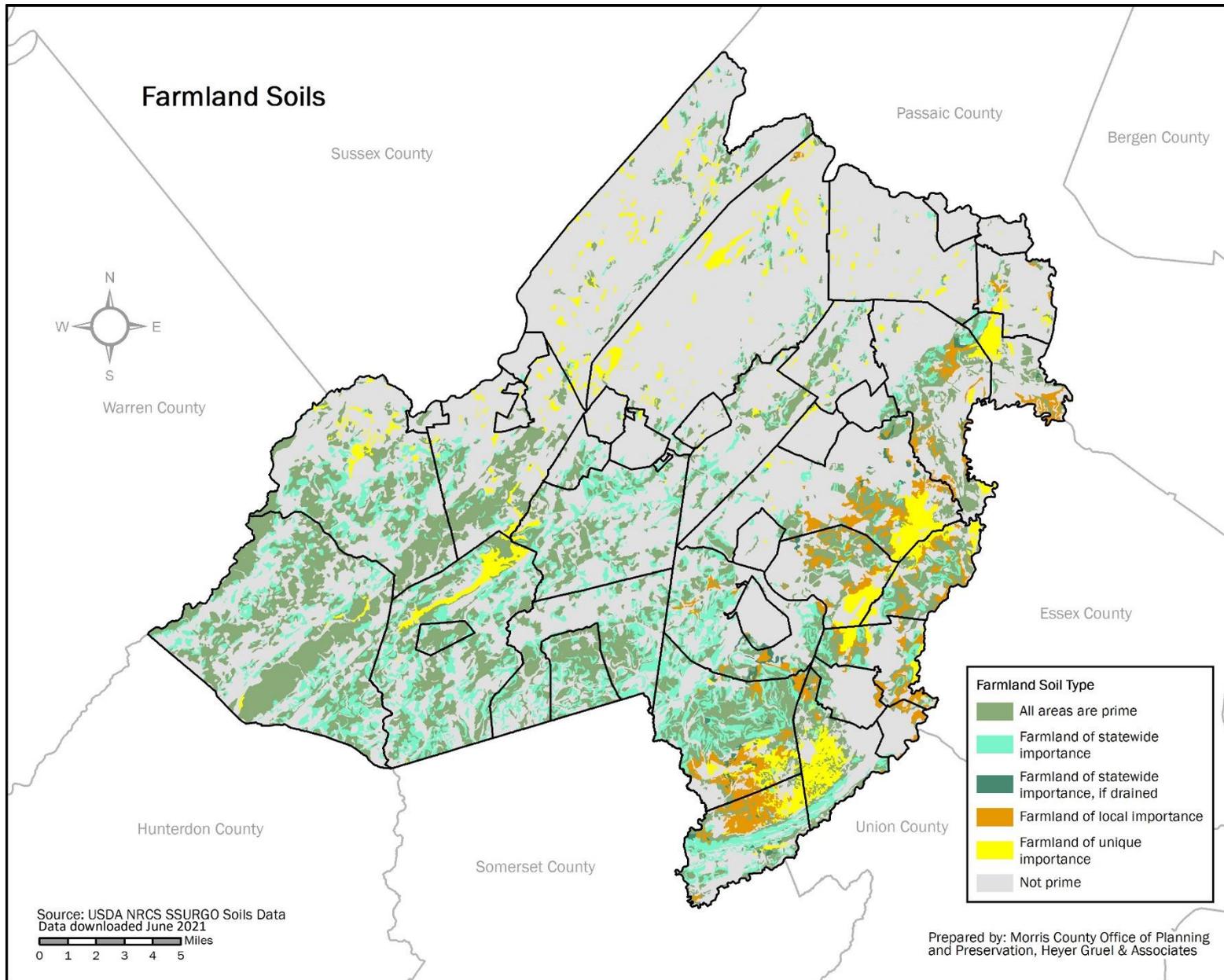
The soil data provided in this report is provided by the Natural Resources Conservation Service (NRCS) of the United States Department of Agriculture (USDA), which started conducting national soil surveys in 1935 and continues today. The farmland classification prescribed by NRCS identifies map units as prime farmland soils, farmland soils of statewide importance, farmland soils of unique importance, or other soils that are not suitable for agriculture. Farmland classification identifies the location and extent of most suitable soils for producing food, feed, fiber, forage, and oilseed crops. This identification is useful in the management and maintenance of the resource base that supports the productive capacity of American agriculture. Morris County has approximately 60,414 acres of prime farmland, 31,271 acres of soils of statewide importance, 12,925 acres of soils of unique importance, 8,814 acres of soils of local importance and 194,699 acres that are categorized as not prime soils.

The following table compares the total acreage of soil in Morris County to that of active farmland. The active farmland is derived from NJDEP's 2015 Land Use Land Cover classification for agriculture. As shown in the chart below, active farmland in Morris County consists of 60.7 percent prime farmland soils, 1.3 percent soils of statewide importance, 24 percent soils of local importance, and 13 percent soils classified as not prime. Explanations of the farmland classifications are provided below.

Farmland Soils in Morris County				
Soil Type	County-wide		Active Agriculture*	
	Acres	Percentage	Acres	Percentage
Prime Farmland	60,414.0	19.6%	7,043.6	60.7%
Statewide Importance	30,358.2	9.9%	121.7	1.0%
Statewide Importance, if drained	913.4	0.3%	30.2	0.3%
Local Importance	8,814.0	2.9%	2,805.4	24.2%
Unique Importance	12,924.8	4.2%	97.1	0.8%
Not Prime Farmland	194,699.2	63.2%	1,503.0	13.0%
<b>Total</b>	<b>308,123.5</b>	<b>100.0%</b>	<b>11,601.0</b>	<b>100.0%</b>

Source: USDA NRCS Web of Soil Survey, acreages calculated in GIS  
\* Based upon NJDEP 2015 Land Use Land Cover for agricultural lands

As shown on the following map, most prime farmland soils are located within the southern portion of the County within Washington Township, Chester Township, Mendham Township, Mendham Borough, Harding Township, and Mount Olive Township. There are also prime farmland soils located along the eastern boundary of the County, however, these municipalities tend to consist of more urbanized development patterns and lack existing farmland.



In addition to the Farmland Classification, soils also have an assigned non-irrigated land capability class. This classification system is based upon the capability of the soil to support development and agriculture. These Capability Classes are categorized on a scale of 1 through 8, with 1 having few limitations to restrict the use and 8 having the most restrictive limitations. The classes are defined as follows:

1. Class 1 soils have few limitations that restrict their use.
2. Class 2 soils have moderate limitations that reduce the choice of plants or that require moderate conservation practices.
3. Class 3 soils have severe limitations that reduce the choice of plants or that require special conservation practices, or both.
4. Class 4 soils have very severe limitations that reduce the choice of plants or that require very careful management, or both.
5. Class 5 soils are subject to little or no erosion but have other limitations, impractical to remove, that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat.
6. Class 6 soils have severe limitations that make them generally unsuitable for cultivation and that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat.
7. Class 7 soils have very severe limitations that make them unsuitable for cultivation and that restrict their use mainly to grazing, forestland, or wildlife habitat.
8. Class 8 soils and miscellaneous areas have limitations that preclude commercial plant production and that restrict their use to recreational purposes, wildlife habitat, watershed, or esthetic purposes.

Further, the non-irrigated land capability class is also assigned a subclass, which is designated by adding a small letter, "e," "w," "s," or "c," to the class numeral. The letter "e" shows that the main hazard is the risk of erosion unless close-growing plant cover is maintained; "w" shows that water in or on the soil interferes with plant growth or cultivation (in some soils the wetness can be partly corrected by artificial drainage); "s" shows that the soil is limited mainly because it is shallow, droughty, or stony; and "c," used in only some parts of the United States, shows that the chief limitation is climate that is very cold or very dry. Class 1 soils do not have a subclass, as there are few limitations.

The following section details each of the farmland classifications, as well as the land capability class for each soil unit within the county.

#### Prime Farmland Soils

Prime farmland, as defined by the U.S. Department of Agriculture, is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is available for these uses. It could be cultivated land, pastureland, forestland, or other land, but it is not urban or built-up land or water areas. SADC Prime Farmland Soils include all those soils in the USDA Land Capability Class I and selected soils from USDA Land Capability Class II. USDA Class I soils have slight limitations that restrict their use. USDA Class II soils have moderate limitations that reduce the choice of plants or require moderate limitations that reduce the choice of plants or require moderate conservation practices. SADC Prime Farmland is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is also available for these uses.

The criteria for prime farmland designation include: an adequate and dependable supply of moisture from precipitation or irrigation, a favorable temperature and growing season, acceptable acidity or alkalinity, an acceptable salt and sodium content, and few to no rocks. The water supply is dependable and of adequate quality.

Prime farmland is permeable to water and air. It is not excessively erodible or saturated with water for long periods, and it either is not frequently flooded during the growing season or is protected from flooding. Slopes range from 0 to 6 percent.

According to the NRCS, some areas of prime farmland may require measures that overcome a hazard or limitation, such as flooding, wetness, and drought. Onsite evaluation is needed to determine whether the hazard or limitation has been overcome by corrective measures.

According to the NRCS Web of Soils Survey, Morris County has 60,414 acres of soils that are considered Prime Farmland, as detailed in the following chart.

Prime Soils				
Symbol	Soil Description	Land Capability Classification	Acres	Percentage
AnoB	Annandale gravelly loam, 3 to 8 percent slopes	2 e	5,339.9	8.8%
BabA	Bartley loam, 0 to 3 percent slopes	2 w	579.0	1.0%
BabB	Bartley loam, 3 to 8 percent slopes	2 e	3,039.9	5.0%
BhnB	Birdsboro silt loam, 2 to 6 percent slopes	2 e	37.9	0.1%
BohB	Boonton moderately well drained gravelly loam, 3 to 8 percent slopes	2 e	1,002.3	1.7%
CakA	Califon loam, 0 to 3 percent slopes	2 w	1,361.7	2.3%
CakB	Califon loam, 3 to 8 percent slopes	2 e	3,902.0	6.5%
CanB	Califon gravelly loam, 3 to 8 percent slopes	2 e	952.4	1.6%
CapfB	Califon variant loam, 3 to 8 percent slopes	2 e	1,329.9	2.2%
EkhB	Ellington loamy substratum variant fine sandy loam, 3 to 8 percent slopes	2 w	791.8	1.3%
GkaoB	Gladstone gravelly loam, 3 to 8 percent slopes	2 e	9,107.8	15.1%
HanB	Haledon silt loam, 3 to 8 percent slopes	3 w	4,486.3	7.4%
NekB	Neshaminy gravelly silt loam, 2 to 6 percent slopes	2 e	1,011.6	1.7%
NerB	Netcong gravelly sandy loam, 3 to 8 percent slopes	2 e	4,303.2	7.1%
PdtB	Pattensburg gravelly loam, 3 to 8 percent slopes	2 e	441.1	0.7%
PeoB	Penn channery silt loam, 3 to 8 percent slopes	2 e	1,783.7	3.0%
PohA	Pompton sandy loam, 0 to 3 percent slopes	2 w	637.5	1.1%
PohB	Pompton sandy loam, 3 to 8 percent slopes	2 w	3,736.4	6.2%
RkrB	Riverhead sandy loam, 3 to 8 percent slopes	2 s	0.5	0.0%
RksA	Riverhead gravelly sandy loam, 0 to 3 percent slopes	2 s	361.3	0.6%
RksB	Riverhead gravelly sandy loam, 3 to 8 percent slopes	2 s	4,725.2	7.8%
RksnB	Riverhead variant gravelly sandy loam, 3 to 8 percent slopes	2 s	1,279.9	2.1%
RocB	Rockaway gravelly sandy loam, 3 to 8 percent slopes	2 e	2,172.1	3.6%
TurA	Turbotville loam, 0 to 3 percent slopes	2 w	1,190.4	2.0%
TurB	Turbotville loam, 3 to 8 percent slopes	2 e	2,927.9	4.8%
WadB	Washington loam, 3 to 8 percent slopes	2 e	1,132.7	1.9%

Prime Soils (Continued)				
Symbol	Soil Description	Land Capability Classification	Acres	Percentage
WhpA	Whippany silt loam, 0 to 3 percent slopes	2 w	268.1	0.4%
WhpB	Whippany silt loam, 3 to 8 percent slopes	2 w	1,077.0	1.8%
WhphA	Whippany silt loam, sandy loam substratum, 0 to 3 percent slopes	2 w	528.5	0.9%
WhphB	Whippany silt loam, sandy loam substratum, 3 to 8 percent slopes	2 w	906.0	1.5%
<b>TOTAL</b>			<b>60,414.0</b>	<b>100.0%</b>

Source: USDA Web of Soil Survey, acreages calculated in GIS

Soils of Statewide Importance

SADC Soils of Statewide Importance include those soils in the USDA Land Capability Class II and Class III that do not meet the criteria as SADC Prime Farmland Soils. USDA Class II soils have moderate limitations that reduce the choice of plants or require moderate conservation practices. Class III soils have severe limitations that reduce the choice of plants or require special conservation practices, or both. These soils can economically produce high yields of crops when treated and managed according to acceptable farming methods. Some may produce yields as high as SADC Prime Farmland if conditions are favorable. Criteria for defining and delineating this land are to be determined by the appropriate state agency or agencies. In some states, farmland of statewide importance may also include tracts of land that have been designated for agriculture by state law. Morris County has 30,358 acres of soils that are classified as being of Statewide Importance.

Soils of Statewide Importance				
Symbol	Soil Description	Land Capability Classification	Acres	Percentage
AnoC	Annandale gravelly loam, 8 to 15 percent slopes	3 e	1,037.5	3.4%
AnoC2	Annandale gravelly loam, 8 to 15 percent slopes, eroded	3 e	3.5	0.0%
BacC	Bartley gravelly loam, 8 to 15 percent slopes	3 e	611.3	2.0%
BohC	Boonton moderately well drained gravelly loam, 8 to 15 percent slopes	3 e	1,110.2	3.7%
CakC	Califon loam, 8 to 15 percent slopes	3 e	993.9	3.3%
ChrC	Chenango silt loam, 8 to 15 percent slopes	3 e	0.0	0.0%
DufC2	Duffield silt loam, 6 to 12 percent slopes, eroded	3 e	0.3	0.0%
EkhhC	Ellington loamy substratum variant fine sandy loam, 8 to 15 percent slopes	2 w	933.5	3.1%
GkaoC	Gladstone gravelly loam, 8 to 15 percent slopes	3 e	6,293.0	20.7%
GkaoC2	Gladstone gravelly loam, 8 to 15 percent slopes, eroded	3 e	124.2	0.4%
HanC	Haledon silt loam, 8 to 15 percent slopes	3 e	789.7	2.6%

Soils of Statewide Importance (Continued)				
Symbol	Soil Description	Land Capability Classification	Acres	Percentage
MenC	Meckesville moderately well drained gravelly loam, 6 to 12 percent slopes	3 e	5.6	0.0%
NekC	Neshaminy gravelly silt loam, 6 to 12 percent slopes	3 e	1,341.1	4.4%
NerC	Netcong gravelly sandy loam, 8 to 15 percent slopes	3 e	2,710.6	8.9%
PaoC	Parker gravelly sandy loam, 3 to 15 percent slopes	3 e	8,668.3	28.6%
PdtC	Pattensburg gravelly loam, 8 to 15 percent slopes	3 e	287.5	0.9%
PeoC	Penn channery silt loam, 8 to 15 percent slopes	3 e	1,205.5	4.0%
RerB7	Reaville deep variant channery silt loam, 0 to 6 percent slopes	4 w	1,073.9	3.5%
RksC	Riverhead gravelly sandy loam, 8 to 15 percent slopes	3 e	2,074.3	6.8%
RocC	Rockaway gravelly sandy loam, 8 to 15 percent slopes	3 e	1,091.0	3.6%
WadC2	Washington loam, 8 to 15 percent slopes, eroded	3 e	3.3	0.0%
<b>TOTAL</b>			<b>30,358.2</b>	<b>100.0%</b>

Source: USDA Web of Soil Survey, acreages calculated in GIS

The following chart details the soils which are of statewide importance if drained. These soils can be capable of producing yields as high as Statewide important soils when drained. The County has 913 acres of soil that are considered to be of Statewide importance if drained.

Soils of Statewide Importance, if drained				
Symbol	Soil Description	Land Capability Classification	Acres	Percentage
BoyAt	Bowmansville silt loam, 0 to 2 percent slopes, frequently flooded	6 w	0.0	0.0%
MknA	Minoa silt loam, 0 to 3 percent slopes	3 w	236.2	25.9%
MknB	Minoa silt loam, 3 to 8 percent slopes	3 w	677.1	74.1%
<b>TOTAL</b>			<b>913.4</b>	<b>100.0%</b>

Source: USDA Web of Soil Survey, acreages calculated in GIS

#### Soils of Unique Importance

Unique soils are those soils other than prime farmland soils that are used to produce specific high value food and fiber crops. It has the special combination of soil quality, location, growing season, and moisture supply needed to economically produce sustained high quality and/or high yields of a specific crop when treated and managed according to acceptable farming methods. Examples of such crops are citrus, tree nuts, olives, cranberries, and other fruits and vegetables. Nearness to markets is an additional consideration. Unique farmland is not based on national criteria. It commonly is in areas where there is a special microclimate, such as the wine country in California. Morris County has 12,925 acres of soils that are of unique importance.

Unique Importance Soils				
Symbol	Soil Description	Land Capability Classification	Acres	Percentage
AdrAt	Timakwa muck, 0 to 2 percent slopes, frequently flooded	5 w	3,460.8	26.8%
CarAt	Catden muck, 0 to 2 percent slopes, frequently flooded	5 w	7,522.4	58.2%
CatbA	Catden muck, 0 to 2 percent slopes	5 w	98.4	0.8%
PafAt	Natchaug muck, 0 to 2 percent slopes, frequently flooded	5 w	866.9	6.7%
WkkAt	Willette muck, 0 to 2 percent slopes, frequently flooded	7 w	976.1	7.6%
<b>TOTAL</b>			<b>12,924.8</b>	<b>100.0%</b>

Source: USDA Web of Soil Survey, acreages calculated in GIS

#### Soils of Local Importance

Soils of local importance include those soils that are not prime or of Statewide importance and are used for the production of high value food, fiber or horticultural crops. In some local areas, certain farmlands are not identified as having national or Statewide importance. Where appropriate, these lands are identified by the local agency or agencies concerned as important to local agricultural production. These may also include tracts of land that have been designated for agriculture by local ordinance. Morris County has 8,814 acres of soil that are of local importance.

Soils of Local Importance				
Symbol	Soil Description	Land Capability Classification	Acres	Percentage
PbphAt	Parsippany silt loam, sandy loam substratum, 0 to 3 percent slopes, frequently flooded	4 w	8,813.9	100.0%
RorAt	Rowland silt loam, 0 to 2 percent slopes, frequently flooded	2 w	0.0	0.0%
<b>TOTAL</b>			<b>8,814.0</b>	<b>100.0%</b>

Source: USDA Web of Soil Survey, acreages calculated in GIS

#### Not Prime Farmland Soils

Not prime farmland soils include those soils that are not prime farmland, not of statewide importance, not unique, or of local importance. These soils lack the physical and chemical characteristics which allow for agricultural crops to thrive. Not prime farmlands are listed below.

Not Prime Farmland				
Symbol	Soil Description	Land Capability Classification	Acres	Percentage
AhcBc	Alden mucky silt loam, gneiss till substratum, 0 to 8 percent slopes, extremely stony	7 s	72.9	0.0%
BhdAt	Biddeford silt loam, 0 to 2 percent slopes, frequently flooded	6 w	3,253.4	1.7%
BOXCC	Boonton and Haledon soils, 8 to 15 percent slopes, extremely stony	7 s	859.5	0.4%
CakBb	Califon loam, 0 to 8 percent slopes, very stony	6 s	3,773.9	1.9%

Not Prime Farmland (Continued)				
Symbol	Soil Description	Land Capability Classification	Acres	Percentage
CakCb	Califon loam, 8 to 15 percent slopes	6 s	759.4	0.4%
CanBb	Califon gravelly loam, 0 to 8 percent slopes, very stony	6 s	129.7	0.1%
ChkC	Chatfield-Hollis-Rock outcrop complex, 0 to 15 percent slopes	7 s	118.2	0.1%
ChkE	Chatfield-Hollis-Rock outcrop complex, New Jersey Highlands, 35 to 60 percent slopes	7 s	47.6	0.0%
CoaA	Cokesbury loam, 0 to 3 percent slopes	4 w	6.9	0.0%
CoaBb	Cokesbury loam, 0 to 8 percent slopes, very stony	7 s	156.1	0.1%
CoaBc	Cokesbury loam, 0 to 8 percent slopes, extremely stony	7 s	6,402.9	3.3%
CobA	Cokesbury gravelly loam, 0 to 3 percent slopes	4 w	2,110.6	1.1%
CobB	Cokesbury gravelly loam, 3 to 8 percent slopes	4 w	1,569.5	0.8%
CobBb	Cokesbury gravelly loam, 0 to 8 percent slopes, very stony	7 s	1.8	0.0%
CobBc	Cokesbury gravelly loam, 0 to 8 percent slopes, extremely stony	7 s	0.1	0.0%
EkhD	Ellington loamy substratum variant fine sandy loam, 15 to 25 percent slopes	2 w	281.3	0.1%
FmhAs	Fluvaquents, loamy, 0 to 3 percent slopes, occasionally flooded	3 w	26.0	0.0%
FNAT	Fluvaquents and Udifluvents, 0 to 3 percent slopes, frequently flooded	5 w	5.9	0.0%
GkaoD	Gladstone gravelly loam, 15 to 25 percent slopes	4 e	2,138.1	1.1%
GKAPCC	Gladstone and Parker soils, 8 to 15 percent slopes, extremely stony	7 s	237.4	0.1%
HcuAt	Hatboro-Codorus complex, 0 to 3 percent slopes, frequently flooded	5 w	4,436.0	2.3%
HhmBc	Hibernia loam, 0 to 8 percent slopes, extremely stony	7 s	150.8	0.1%
HhmCa	Hibernia loam, 3 to 15 percent slopes, stony	4 s	10,089.7	5.2%
HhmDb	Hibernia loam, 15 to 25 percent slopes, very stony	6 s	619.0	0.3%
HncD	Hollis-Rock outcrop-Chatfield complex, New Jersey Highlands, 15 to 35 percent slopes	7 s	83.0	0.0%
HokCg	Holyoke silt loam, 0 to 15 percent slopes, rocky	7 s	674.3	0.3%
HomE	Holyoke-Rock outcrop complex, 15 to 45 percent slopes	7 e	789.2	0.4%
KkrE	Klinesville channery silt loam, 25 to 45 percent slopes	7 e	238.8	0.1%
NehDb	Neshaminy silt loam, 12 to 18 percent slopes, very stony	6 s	436.7	0.2%
OtsC	Otisville gravelly loamy sand, 3 to 15 percent slopes	4 s	2,403.0	1.2%
OtsD	Otisville gravelly loamy sand, 15 to 25 percent slopes	6 s	607.1	0.3%

Not Prime Farmland (Continued)				
Symbol	Soil Description	Land Capability Classification	Acres	Percentage
PapD	Parker very gravelly sandy loam, 15 to 25 percent slopes	4 e	2,460.9	1.3%
ParC	Parker cobbly loam, 3 to 15 percent slopes	4 s	300.5	0.2%
ParD	Parker cobbly loam, 15 to 25 percent slopes	6 s	51.7	0.0%
ParEe	Parker cobbly loam, 18 to 40 percent slopes, extremely stony	7 s	180.3	0.1%
PauCc	Parker-Gladstone complex, 0 to 15 percent slopes, extremely stony	7 s	15,614.9	8.0%
PauDc	Parker-Gladstone complex, 15 to 25 percent slopes, extremely stony	7 s	8,534.0	4.4%
PawE	Parker-Rock outcrop complex, 25 to 45 percent slopes	7 s	6,530.1	3.4%
PbpAt	Parsippany silt loam, 0 to 3 percent slopes, frequently flooded	5 w	3,172.5	1.6%
PbtAt	Parsippany very poorly drained variant silt loam, 0 to 2 percent slopes, frequently flooded	4 w	0.0	0.0%
PgmD	Penn-Klinesville channery silt loams, 12 to 18 percent slopes	4 e	510.4	0.3%
PHG	Pits, sand and gravel	8 s	1,292.5	0.7%
PrkAt	Preakness sandy loam, 0 to 3 percent slopes, frequently flooded	4 w	3,595.8	1.8%
PrnAt	Preakness silt loam, 0 to 3 percent slopes, frequently flooded	4 w	44.8	0.0%
PrsdAt	Preakness dark surface variant sandy loam, 0 to 3 percent slopes, frequently flooded	4 w	1,276.9	0.7%
QY	Quarries	8 s	57.3	0.0%
RkgBb	Ridgebury stony loam, New Jersey Highlands, 0 to 8 percent slopes, very stony	6 s	2,595.5	1.3%
RkgBc	Ridgebury stony loam, New Jersey Highlands, 0 to 8 percent slopes, extremely stony	7 s	4,516.8	2.3%
RNAAC	Rock outcrop	8 s	574.0	0.3%
RNRE	Rock outcrop-Rockaway complex, 15 to 35 percent slopes	8 s	7,986.9	4.1%
RobCb	Rockaway sandy loam, 8 to 15 percent slopes, very stony	6 s	23,516.5	12.1%
RobDc	Rockaway sandy loam, 15 to 25 percent slopes, extremely stony	7 s	10,285.7	5.3%
RoefBc	Rockaway loam, thin fragipan, 0 to 8 percent slopes, extremely stony	7 s	25.5	0.0%
RoefCc	Rockaway loam, thin fragipan, 8 to 15 percent slopes, extremely stony	7 s	218.3	0.1%
RoefDc	Rockaway loam, thin fragipan, 15 to 35 percent slopes, extremely stony	7 s	132.0	0.1%
RokD	Rockaway-Chatfield-Rock outcrop complex, 35 to 60 percent slopes	6 s	345.9	0.2%
RomC	Rockaway-Rock outcrop complex, 8 to 15 percent slopes	7 s	6,794.4	3.5%

Not Prime Farmland (Continued)				
Symbol	Soil Description	Land Capability Classification	Acres	Percentage
RomD	Rockaway-Rock outcrop complex, 15 to 25 percent slopes	7 s	5,551.3	2.9%
RomE	Rockaway-Rock outcrop complex, 25 to 45 percent slopes	7 s	2,199.4	1.1%
RooC	Rockaway-Urban land complex, thin fragipans, 0 to 15 percent slopes	3 e	24.8	0.0%
RooD	Rockaway-Urban land complex, thin fragipans, 0 to 25 percent slopes	4 e	14.0	0.0%
SweDc	Swartswood fine sandy loam, 15 to 25 percent slopes, extremely stony	7 s	0.2	0.0%
UccAs	Udifluvents, 0 to 3 percent slopes, occasionally flooded	2 w	13.4	0.0%
UdaB	Udorthents, 0 to 8 percent slopes, smoothed	3 w	1.5	0.0%
UdkttB	Udorthents, loamy fill substratum, 0 to 8 percent slopes	3 w	1.8	0.0%
UdrB	Udorthents, refuse substratum, 0 to 8 percent slopes	7 s	797.4	0.4%
UR	Urban land	8 s	6,840.0	3.5%
URPOMB	Urban land, Pompton substratum, 0 to 8 percent slopes	8 s	0.1	0.0%
URWETB	Urban land, wet substratum, 0 to 8 percent slopes	8 s	554.6	0.3%
USCHRC	Urban land-Chatfield-Rock Outcrop complex, 0 to 15 percent slopes	8 s	0.6	0.0%
USGKAC	Urban land-Gladstone complex, 8 to 15 percent slopes	8 s	1,371.1	0.7%
USHALB	Urban land-Haledon complex, 3 to 8 percent slopes	8 s	2,891.6	1.5%
USNESB	Urban land-Neshaminy complex, 0 to 8 percent slopes	2 s	628.5	0.3%
USPENB	Urban land-Penn complex, 0 to 8 percent slopes	8 s	536.6	0.3%
USPREB	Urban land-Preakness complex, 0 to 8 percent slopes	8 s	396.9	0.2%
USRHVB	Urban land-Riverhead complex, 3 to 8 percent slopes	8 s	10,028.3	5.2%
USROCC	Urban land-Rockaway complex, 3 to 15 percent slopes	8 s	7,717.6	4.0%
USROCD	Urban land-Rockaway complex, 15 to 25 percent slopes	8 s	612.7	0.3%
USWHHB	Urban land-Whippany, occasionally flooded complex, 0 to 8 percent slopes	8 w	906.2	0.5%
WATER	Water		9,572.8	4.9%
WhvAb	Whitman cobbly loam, New Jersey Highlands 0 to 3 percent slopes, very stony	5 s	944.6	0.5%
WuoBc	Wurtsboro silt loam, 0 to 8 percent slopes, extremely stony	7 s	0.1	0.0%
<b>TOTAL</b>			<b>194,699.2</b>	<b>100.0%</b>

### Irrigation and Water Resources

Irrigation can be used by farmers to create viable agricultural land that would otherwise be unsuitable for intensive crop production. Irrigation transports water to crops to increase yield, keeps crops cool under excessive heat conditions, and can be used to prevent freezing.

Although natural precipitation can provide some water for agricultural operations, it does not provide a consistent supply of water to sustain farming activities. As a result, farmers must adopt irrigation practices based on their farm's location and surrounding environment. The most common sources of irrigation include:

- Drilling wells and pumping water from the ground. This method is regarded as the most popular technique but is also the costliest.
- Farm pond irrigation method. This technique captures surface water from the surrounding area. In areas where the water table is very close to the surface, it taps into the groundwater.
- Pumping water from a stream. Farmers may adopt this method if their farmland is close to streams, lakes, and rivers.
- Farmers can then choose between different methods of irrigation, including sprinkler or drip irrigation systems. Generally, drip irrigation systems are thought to be the more efficient method. The following table represents the number of farms and acres irrigated within Morris County, based on U.S. Census of Agriculture data.

Morris County communities rely on both surface and ground water supply sources for their water needs. Surface water supplies are derived from some reservoirs, lakes and streams situated throughout the County. The majority of water supply is derived from groundwater resources. subsurface sources are obtained from fractured rock aquifers such as the Igneous and metamorphic, Jacksonburg Limestone, Kittatinny Supergroup, and Hardyston Quartzite, and Rocks of the Green Pond Mountain Region, Kittatinny Mountain, and Minisink Valley in the westerly portion of the County, and the Basalt and Brunswick Aquifer in the easterly portion.<sup>2</sup>

Morris County Irrigated Farms & Acreage 1987-2017				
Year	Farms	% Change	Acres	% Change
1987	66	-	483	-
1992	64	-3.0%	566	17.2%
1997	79	23.4%	865	52.8%
2002	87	10.1%	855	-1.2%
2007	78	-10.3%	1,006	17.7%
2012	99	26.9%	726	-27.8%
2017	121	22.2%	1,707	135.1%

Source: U.S. Census of Agriculture

<sup>2</sup> Aquifers of New Jersey by Herman et al, NJGS, NJDEP, 1998. <https://www.state.nj.us/dep/njgs/pricelst/ofmap/ofm24.pdf>

### Statistics and Trends

Historically, roughly 80 percent of Morris County has been classified as either forest or urban land according to NJDEP Land Use Land Cover data. From 2002 to 2015, the County experienced an overall loss of 1,700 acres of agricultural land or 12.8 percent between 2002 and 2015, while urban land increased by 8,149 acres or 7.2 percent. The following table details the changes in the land use classification of Morris County from 2002 to 2015.

Morris County Land Use Land Cover 2002-2015										
Land Use	2002		2007		2012		2015		Change: 2002-2015	
	Acres	Percent	Acres	Percent	Acres	Percent	Acres	Percent	Acres	Percent
Agriculture	13,302	4.3%	12,733	4.1%	11,749	3.8%	11,601	3.8%	-1,700.7	-12.8%
Barren Land	3,432	1.1%	2,710	0.9%	2,540	0.8%	2,585	0.8%	-847.5	-24.7%
Forest	123,769	40.2%	119,133	38.7%	118,819	38.6%	118,384	38.4%	-5,385.3	-4.4%
Urban	113,236	36.8%	119,137	38.7%	120,749	39.2%	121,385	39.4%	8,149.3	7.2%
Water	10,645	3.5%	11,303	3.7%	11,347	3.7%	11,160	3.6%	514.9	4.8%
Wetlands	43,740	14.2%	43,108	14.0%	42,920	13.9%	43,009	14.0%	-730.7	-1.7%
<b>TOTAL</b>	<b>308,124</b>	<b>100.0%</b>	<b>308,124</b>	<b>100.0%</b>	<b>308,123</b>	<b>100.0%</b>	<b>308,124</b>	<b>100.0%</b>	-	

Source: NJDEP Land Use Land Cover; acreages calculated in GIS

### Number of Farms and Farm by Size

According to the U.S. Agriculture Census, the number of Morris County farms has fluctuated since its peak in 1987. The number of farms hit a low point in 2012 at 366; however, as of 2017 the number of farms rebounded to 418.

Number of Morris County Farms		
Year	Number	% Change
1987	430	-
1992	395	-8.1%
1997	383	-3.0%
2002	407	6.3%
2007	422	3.7%
2012	366	-13.3%
2017	418	14.2%

Source: U.S. Census of Agriculture

The size of farms has fluctuated since 1987, likely due to subdivisions occurring within the county's municipalities and being developed or converted into other land uses. Farms that are between 1 to 49 acres have experienced an increasing trend since 1987. In 1987, there were 297 farms within this size range, and by 2017, there were 341 farms, representing an increase of 44 farms. Farms in the 50 to 499 acres category experienced a continuous decrease since 1987, when there was a total of 126 farms. As of 2017, there were only 73 farms remaining within this size range, representing an overall decrease of 53 farms. Large farms greater than 500 acres have remained low, ranging from as many as nine in 1992 to as little as three in 2002 and 2012.

Morris County Farms by Farm Size						
Year	1-49 acres		50-499 acres		500+ acres	
	Number	% Change	Number	% Change	Number	% Change
1987	297	-	126	-	7	-
1992	293	-1.35%	93	-26.19%	9	28.57%
1997	282	-3.75%	94	1.08%	7	-22.22%
2002	314	11.35%	90	-4.26%	3	-57.14%
2007	346	10.19%	69	-23.33%	7	133.33%
2012	289	-16.47%	74	7.25%	3	-57.14%
2017	341	17.99%	73	-1.35%	4	33.33%

Source: U.S. Census of Agriculture

Average & Median Farm Size

Morris County farm sizes have been on a downward trend since their peak in 1987, when the average farm size was 63 acres. Farm size decreased over the past 30 years to 35 acres in 2017, representing a 55 percent drop. Median farm size was not collected until 1997, but its patterns mirror that of the average size, representing a loss of 71 percent.

Average and Median Farm Size in Morris County				
Year	Average Farm Size		Median Farm Size	
	Acres	% Change	Acres	% Change
1987	63	-	-	-
1992	61	-3.17%	-	-
1997	58	-4.92%	17	-
2002	42	-27.59%	16	-5.88%
2007	40	-4.76%	13	-18.75%
2012	40	0.00%	13	0.00%
2017	35	-12.50%	12	-7.69%

Source: U.S. Census of Agriculture

## CHAPTER II: MORRIS COUNTY'S AGRICULTURAL INDUSTRY- OVERVIEW

Most products grown in the County are sold via direct marketing to consumers. Local grocery stores market “farm fresh corn” from Sussex County. However, in Morris County many farms and farmers use direct marketing and direct retail sales, rather than wholesale to supermarkets. Certain grocery store chains require a certain type of packaging and have regulations on how the product should be delivered, which deters some Morris County farmers from selling to those industries.

Most farmers use direct marketing within Morris County, where the farmers sell their products directly to the consumer either on site or at farmers markets. Farmers markets provide a forum and location for farmers to sell their products to more people in urbanized areas, such as in Morristown and Madison within Morris County, as well as outside of Morris County in the New York City metropolitan area. Some farms primarily sell their products out of the County, while other farms primarily sell their products on site and at farmers markets within the County.

As part of the planning process for the update of this Farmland Preservation Plan, a public survey was advertised online through the County's website, included in the County's weekly e-mail newsletter, and received publicity due to radio interviews. As reflected in the results of the survey, nearly all the respondents feel that is important to preserve farmland in Morris County. In addition, most of the respondents purchase produce and nursery items from local farm stands, as well as attend local farmers markets. In an open-ended question included at the end of the survey, many comments were received from the public having to do with supporting local farms and farmers, visiting farms for family-friendly activities, having access to local and organic food, farmland being converted to other uses, using farmland to promote biodiversity and being good stewards of the land, and using farms as educational opportunities for their communities. Many comments were received regarding the importance of maintaining a local food system. Additional information pertaining to the public survey is found in *Appendix A*.

Due to higher production costs related to land values, property taxes and labor costs, New Jersey farmers are at a disadvantage compared to farmers in other areas of the country. However, Morris County benefits from its central geographic location within New Jersey and by its proximity to New York City and the urbanized municipalities and counties in New Jersey.

In addition, Morris County's agricultural and farming community benefit from the increasing attractiveness to consumers of buying local, nursery and floriculture, pick-your-own, farmers markets, value-added products and meals, access to organic products, and backyard/hobby farming operations.

### **Trends in Market Value of Agricultural Products Sold**

The U.S. Census of Agriculture has divided agricultural activities into two distinct categories:

- Crops, including nursery and greenhouse products; and
- Livestock, poultry and their products.

As outlined in the following table and throughout this section, the crop sector has historically been Morris County's most productive, and it continues to bring significantly more sales than livestock and poultry. Despite the consistently low market-share overall, the County still ranks second-place in the state for sheep, goats, wool, mohair, and milk and fifth-place for horses, ponies, mules, burros, and donkeys. In terms of crops at the state level, the county ranks eighth-place for other crops and hay and ninth-place for fruits, tree nuts and berries. On the national scale, Morris County ranks 193<sup>rd</sup>-place for nursery, greenhouse, floriculture, and sod and 240<sup>th</sup>-place for cultivated Christmas trees and short rotation woody crops. The local trends for the farm commodities are addressed in the following section of this plan.

<b>Morris County's Agricultural Industry in a State and National Context</b>			
<b>Commodity</b>	<b>Sales</b>	<b>Rank in State</b>	<b>Rank in US</b>
<b>Crops</b>	<b>\$23,117,000</b>	<b>10</b>	<b>1,562</b>
Grains, oilseeds, dry beans, dry peas	\$459,000	13	2,275
Tobacco	-	-	-
Cotton and cottonseed	-	-	-
Vegetables, melons, potatoes, sweet potatoes	\$4,809,000	11	354
Fruits, tree nuts, berries	\$2,928,000	9	273
Nursery, greenhouse, floriculture, sod	\$13,843,000	10	193
Cultivated Christmas trees, short rotation woody crops	\$122,000	10	240
Other crops and hay	\$957,000	8	1,916
<b>Livestock, poultry, and products</b>	<b>\$1,707,000</b>	<b>12</b>	<b>2,757</b>
Poultry and eggs	\$395,000	10	814
Cattle and calves	\$207,000	11	2,633
Milk from cows	(D)	11	(D)
Hogs and pigs	\$18,000	13	1,395
Sheep, goats, wool, mohair, milk	\$238,000	2	670
Horses, ponies, mules, burros, donkeys	\$717,000	5	286
Aquaculture	-	-	-
Other animals and animal products	(D)	13	(D)
<b>TOTAL</b>	<b>\$24,824,000</b>	<b>11</b>	<b>2,256</b>

*D = Withheld to avoid disclosing data for individual operations.  
Source: U.S. Census of Agriculture 2017*

An analysis of U.S. Agricultural Census data provides insight on the trends in the market value of agricultural products produced by Morris County farms. Overall, total sales of agricultural products from Morris County have increased by more than 50 percent since 1987. The County experienced the most accelerated growth in agricultural sales from 1992 to 2002, increasing an average of \$30 million each Agricultural Census year. However, in 2007 Morris County saw its steepest decline, of roughly \$14.5 million or 53 percent of agricultural sales. Average sales per farm essentially mirrored this decline with a loss of 60 percent. The County rebounded in 2012 with slight increases in both the total sales and averages per farm; however, in 2017 both continued to drop by roughly 14 and 31 percent respectively.

<b>Market Value Agricultural of Products Sold in Morris County 1987-2017</b>				
<b>Year</b>	<b>Total Sales</b>	<b>% Change</b>	<b>Average Per Farm</b>	<b>% Change</b>
1987	\$13,016,000	-	\$30,270	-
1992	\$17,660,000	26.3%	\$44,709	32.3%
1997	\$29,956,000	41.0%	\$78,215	42.8%
2002	\$41,879,000	28.5%	\$102,897	24.0%
2007	\$27,312,000	-53.3%	\$64,720	-59.0%
2012	\$28,387,000	3.8%	\$77,560	16.6%
2017	\$24,824,000	-14.4%	\$59,389	-30.6%

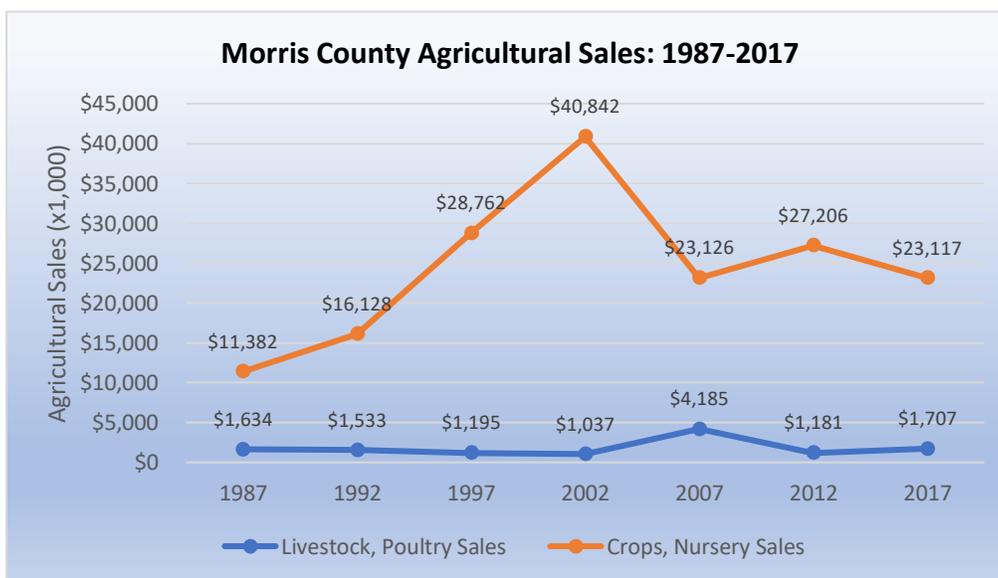
*Source: U.S. Census of Agriculture*

As shown in the following chart, Morris County has almost doubled its agricultural sales over the last 30 years, driven primarily by its crops and nursery sales. This sector experienced the greatest shifts from 1992 to 2007, rising from \$16 million to more than \$40 million in 2002, only to drop by more than 75 percent in 2007. Livestock and poultry sales experienced the most dramatic ebbs and flows from 2002 to 2012, with 2007 bringing in uncharacteristically high sales for the sector. The most significant increase for Morris County agricultural sales overall occurred from 1992 to 1997, where both sectors jumped by more than 40 percent. Although both sectors have been experiencing slight declines as of late, crops and nursery sales account for 93 percent of all Morris County agricultural sales, bringing in \$23 million in 2017.

Field Crop & Livestock Sales in Morris County 1987-2017						
Year	Total Sales	% Change	Livestock, Poultry Sales	% Change	Crops, Nursery Sales	% Change
1987	\$13,016,000	-	\$1,634,000	-	\$11,382,000	-
1992	\$17,661,000	26.3%	\$1,533,000	-6.6%	\$16,128,000	29.4%
1997	\$29,957,000	41.0%	\$1,195,000	-28.3%	\$28,762,000	43.9%
2002	\$41,879,000	28.5%	\$1,037,000	-15.2%	\$40,842,000	29.6%
2007	\$27,311,000	-53.3%	\$4,185,000	75.2%	\$23,126,000	-76.6%
2012	\$28,387,000	3.8%	\$1,181,000	-254.4%	\$27,206,000	15.0%
2017	\$24,824,000	-14.4%	\$1,707,000	30.8%	\$23,117,000	-17.7%

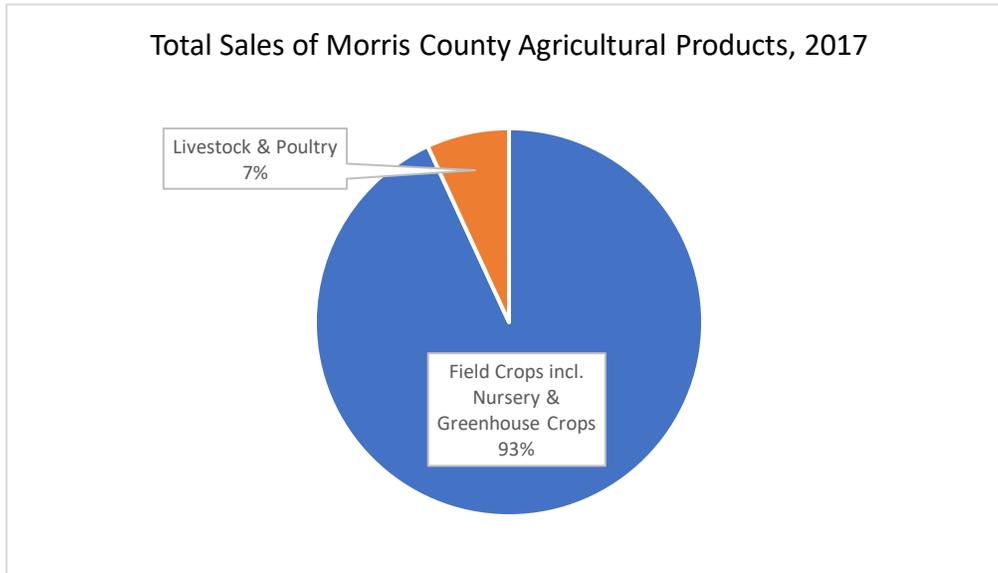
Source: U.S. Census of Agriculture

The following graph illustrates the sales of agricultural products in Morris County from 1987 to 2017. The sale of crops, which includes field, nursery and greenhouse crops, far out-paced that of livestock and poultry consistently over the last 30 years, by an average of \$22.5 million per year. Crops and nursery sales swelled in 2002 but dropped in 2007, when livestock and poultry sales were at their peak.



Source: U.S. Census of Agriculture

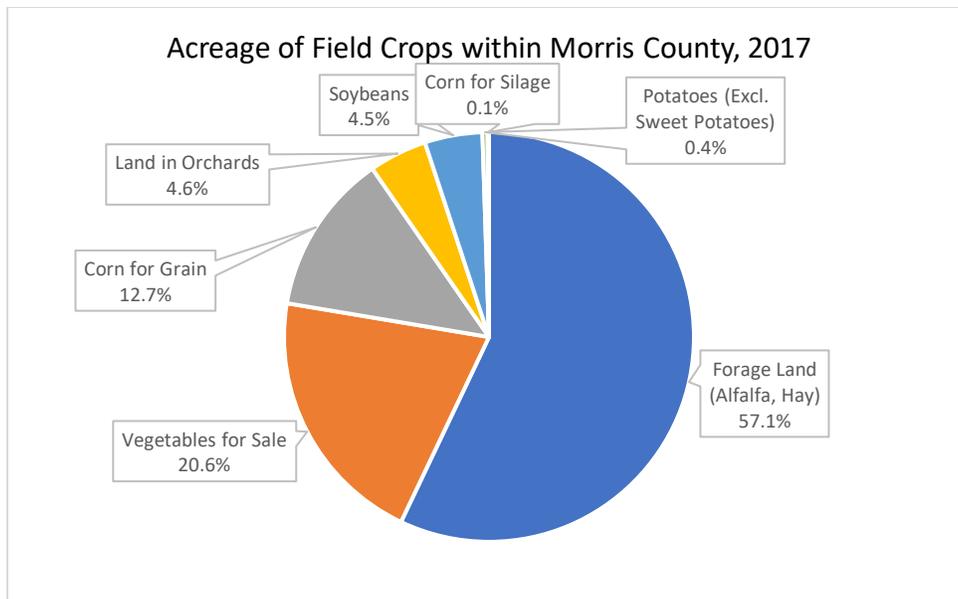
As illustrated in the following chart, Morris County farmers earn the most from the sale of field, nursery and greenhouse crops. According to the U.S. Agricultural Census, livestock, and poultry sales account for less than 10 percent of total agricultural sales as of 2017.



Source: U.S. Census of Agriculture

### Crop Production Trends Over 30 Years

Harvested cropland includes land from which crops were harvested and hay was cut, land used to grow short rotation woody crops and cultivated Christmas trees, land in orchards, groves, vineyards, berries, nurseries, and greenhouses. As illustrated by the following pie chart, more than half of Morris County's harvested cropland consists of forage land, such as alfalfa and hay (57.1%). Other notable field crops include vegetables for sale (20.6%) and corn for grain (12.7%). The combined acreage of land devoted to orchards, soybeans, potatoes and corn for silage comprises less than 10 percent of Morris County's agricultural land base.



Source: U.S. Census of Agriculture

Field Crops Production

As of 2017, 57 percent of the county’s harvested cropland is devoted to forage land, which consists of all types of hay and haylage, grass silage, and greenchop. The second-most harvested crop in 2017 was vegetables for sale with 1,082 acres, or 20 percent of harvested cropland.

<b>Acreage of Field Crops Within Morris County, 2017</b>		
<b>Field Crop</b>	<b>Acreage</b>	<b>Percentage</b>
Forage Land (Alfalfa, Hay)	3,001	57.1%
Vegetables for Sale	1,082	20.6%
Corn for Grain	669	12.7%
Land in Orchards	241	4.6%
Soybeans	239	4.5%
Potatoes (excl. Sweet Potatoes)	21	0.4%
Corn for Silage	6	0.1%
<b>TOTAL</b>	<b>5,259</b>	<b>100.0%</b>

Source: U.S. Census of Agriculture

The following table shows trends in Morris County’s field crop production from 1987 to 2017. The top three most common types of cropland in Morris County are forage land (alfalfa, hay), vegetables for sale, and corn for grain. Forage land has been harvested from an average of 4,262 acres over the last 30 years. The next most common cropland is that which produces vegetables for sale, accounting for an average of 1,108 acres over the last three decades. Corn for grain reached a high point in 1997 but has not been able to recover from a sharp decline in 2002 which, as demonstrated by the table below, impacted all types of harvested cropland. Although forage land experienced the sharpest loss of more than 90 percent from 1987 levels, this type of cropland remains the county’s most common.

<b>Field Crop Acreage in Morris County 1987-2017</b>							
<b>Commodity</b>	<b>1987</b>	<b>1992</b>	<b>1997</b>	<b>2002</b>	<b>2007</b>	<b>2012</b>	<b>2017</b>
Forage Land (Alfalfa, Hay)	5,849	4,887	4,440	3,770	4,294	3,596	3,001
Vegetables for Sale	1,066	1,388	1,491	896	920	913	1,082
Corn for Grain	1,787	2,240	2,291	876	565	406	669
Land in Orchards	227	247	237	213	171	202	241
Soybeans	(D)	115	(D)	(D)	(D)	(D)	239
Potatoes (Excl. Sweet Potatoes)	N/D	N/D	N/D	11	14	24	21
Corn for Silage	169	193	109	36	(D)	-	6

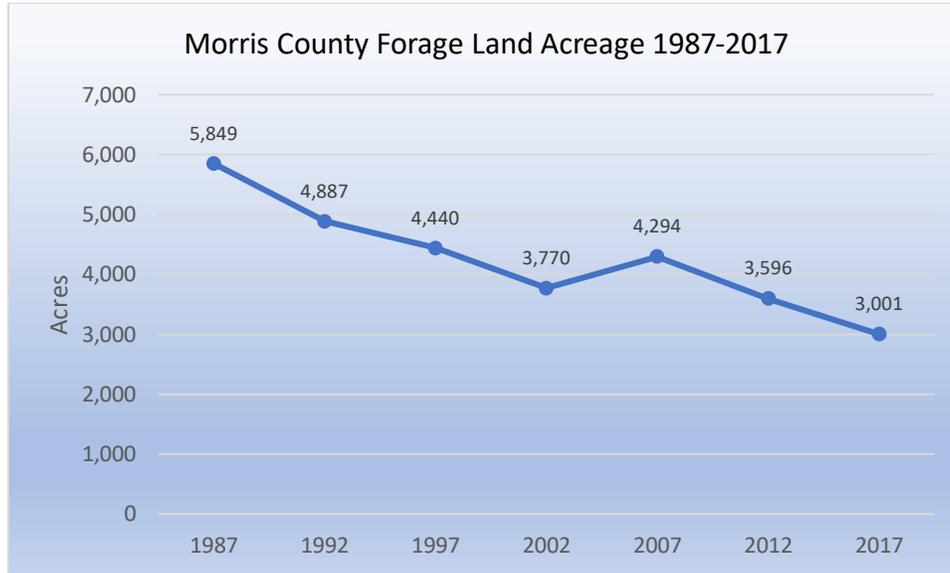
(D) = data withheld to avoid disclosing data for individual farms.

N/D = no data available

Source: U.S. Census of Agriculture

*Forage Land (Alfalfa, Hay)*

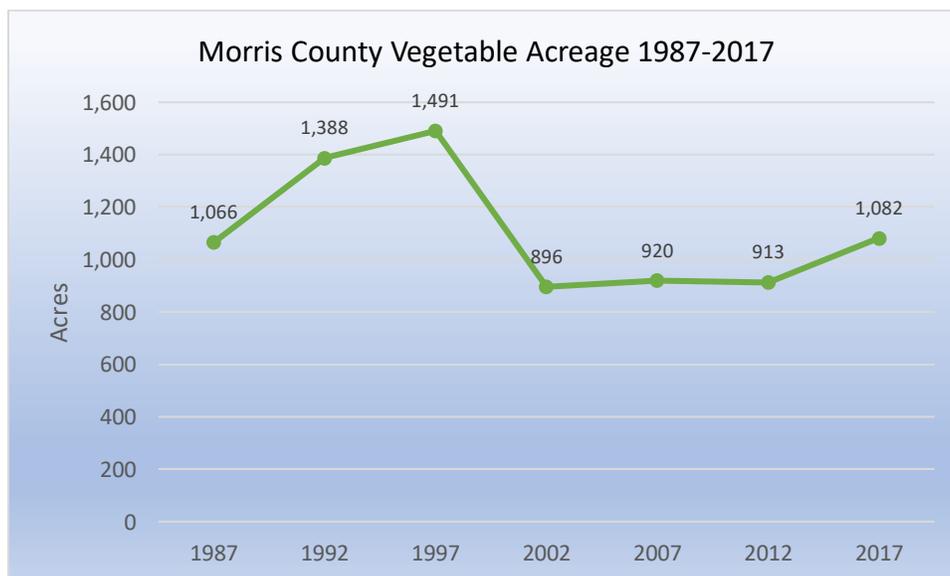
Forage land consists of all types of hay and haylage, grass silage, and greenchop. As shown in the following table, the production of alfalfa and hay has been on a steady decline since 1987, ranging from 5,849 acres of land in production in 1987 to its lowest point at 3,001 acres in 2017. Despite the overall high ranking in comparison to other field crops, forage land has seen a 94 percent decline over the last three decades.



Source: U.S. Census of Agriculture

*Vegetables for Sale*

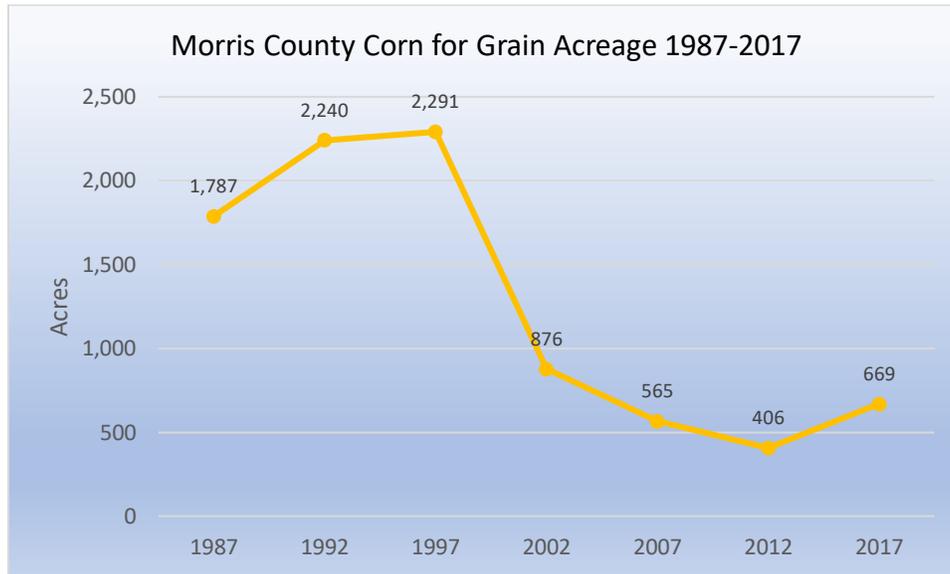
Vegetables are another sector of crop production that has been consistently reliable for Morris County since 1987. This sector has accounted for an average of 1,108 acres of Morris County's harvested cropland over the last 30 years. The busiest year for vegetables was 1997, with 1,491 acres of cropland; however, in 2002, this sector experienced its sharpest decline. Land producing vegetables for sale has increased by 1.5 percent overall between 1987 and 2017.



Source: U.S. Census of Agriculture

*Corn for Grain*

In 1987, there were 1,787 acres of corn in production for grain and seed. From 1992 to 1997, acreage devoted to the crop was on a steady rise, reaching as high as 2,291 acres in 1992. In 2002, the crop experienced a dramatic decline with a loss of almost 1,500 acres. and continued to drop to a low of 406 acres in 2012. As of 2017, acreage has begun to rebound, reaching as high as 669 acres, which represents just 37% of its 1987 acreage.



Source: U.S. Census of Agriculture

Livestock & Poultry Production

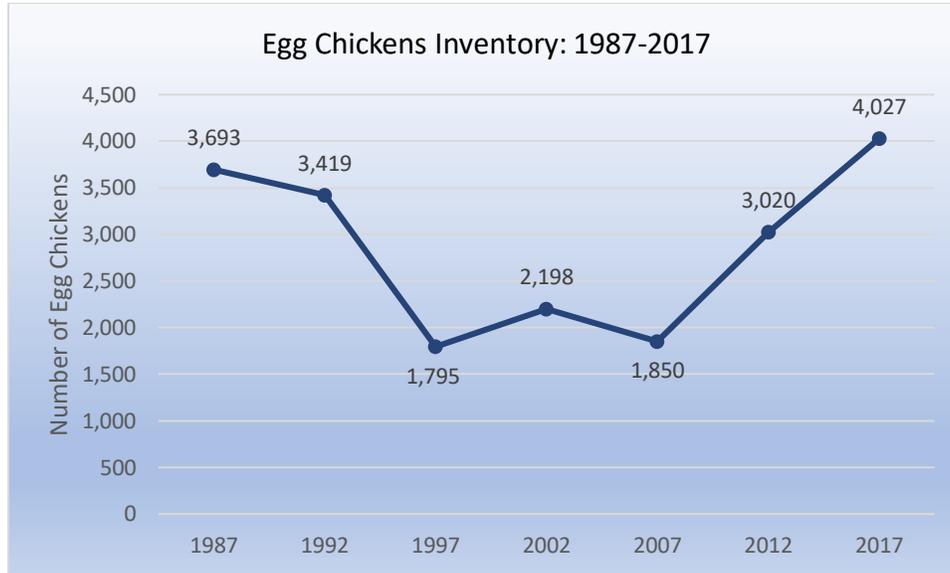
The most common form of livestock inventory for Morris County is that of egg chickens, which has remained consistently high over the last 30 years. The next most common forms of livestock are the “cattle & calves” and “sheep & lambs” inventory, which have fluctuated over the last 30 years but remain significantly higher in 2017 than other sectors. As of 2017, there were 4,027 egg or “layer” chickens in inventory, followed by 1,578 sheep and lambs and 602 calves and cattle.

Morris County Livestock 1987-2017							
	1987	1992	1997	2002	2007	2012	2017
Beef Cattle	567	293	313	(D)	193	(D)	439
Dairy Cattle	312	143	164	(D)	18	(D)	29
Cattle & Calves	840	1,171	773	430	387	289	602
Hogs & Pigs	842	617	43	66	66	231	165
Sheep & Lambs	455	563	492	550	1,184	1,314	1,578
Meat Chickens	56	39	N/D	(D)	(D)	135	(D)
Egg Chickens	3,693	3,419	1,795	2,198	1,850	3,020	4,027
<b>TOTAL</b>	<b>6,765</b>	<b>6,245</b>	<b>3,580</b>	<b>3,244</b>	<b>3,698</b>	<b>4,989</b>	<b>6,840</b>

Source: U.S. Census of Agriculture

*Egg Chickens*

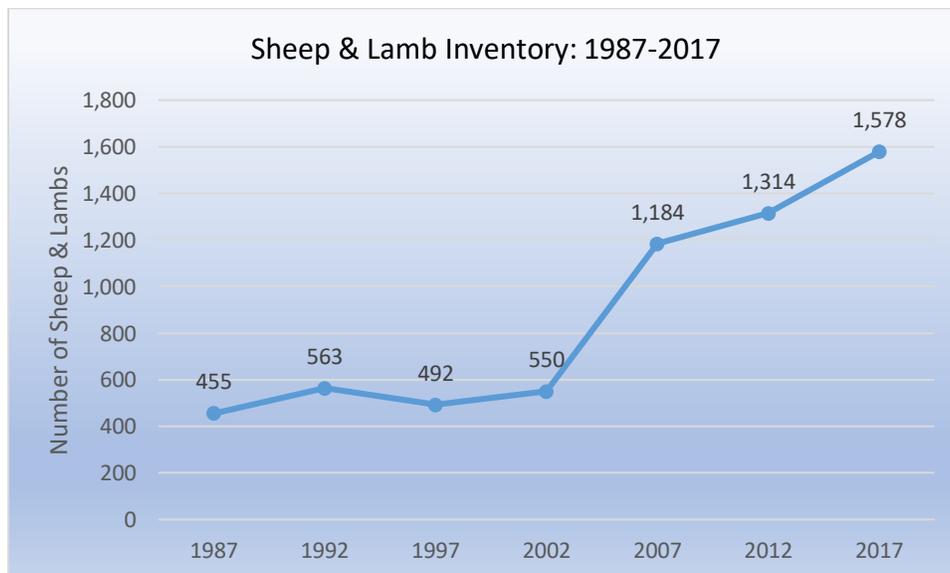
Overall, Morris County has historically relied more on egg chickens than meat or “broiler” chickens. In 1987, Morris County had an inventory 3,693 units of egg chickens. Between 1992 and 2007, the sector began to decline significantly to just 1,850 in 2007. However, after 2007, the inventory began to rebound, reaching a 30-year high of 4,027 as of 2017.



Source: U.S. Census of Agriculture

*Sheep & Lambs*

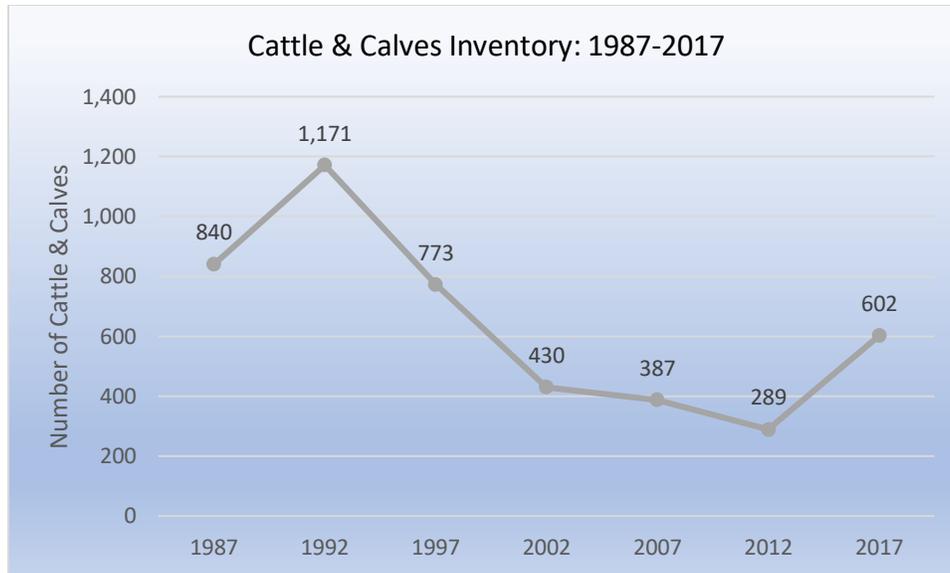
Another top sector for Morris County is that of sheep and lamb production. Sheep and lamb inventory was relatively low from 1987 to 2002, reaching a high of 563 in 1992. However, inventory began to rise more rapidly after 2002 with an increase of 46 percent to 1,184 units in 2007. As of 2017, there were 1,578 sheep and lamb units in inventory across Morris County farms.



Source: U.S. Census of Agriculture

### Cattle & Calves

As shown in the following graph, Morris County's inventory of cattle and calves has been dropping since 1992. In 1987, the County had an inventory of 840 cattle and calves, which rose 71 percent by 1992 to 1,171 units. However, after 1992, the inventory began to dramatically decline, reaching a low of 289 in 2012. As of 2017, there were 602 units of cattle and calves in inventory in Morris County farms, representing roughly half of its peak inventory.



Source: U.S. Census of Agriculture

### Support Services Within Market Region

Most farmers rely on agricultural services located outside of the County and outside of the state, often relying on service providers in Pennsylvania.

Other notable agriculture-related support services in Morris County include the following:

- *Morris Soil Conservation District* serves the agriculture community through a variety of programs offering assistance to farmers and municipalities alike. The Soil Conservation District also serves a regulatory role by helping to implement the State's soil erosion control laws. In addition to this role, the Soil Conservation District offers educational programs for schools and civic groups.
- *Rutgers New Jersey Agricultural Experiment Station (NJAES) - Cooperative Extension of Morris County* is actively involved in the administration of commercial agriculture in the County. The Cooperative Extension of Morris County provides a plethora of educational programs to farmers and home gardeners as well as nursery and landscape professionals. NJAES implements policies to assist with marketing for local farmers and administers the local 4-H Youth Development Programs as discussed below.
- *Morris County 4-H Youth Development Program* is part of Rutgers New Jersey Agricultural Experiment Station (NJAES) Cooperative Extension of Morris County. The 4-H Program focuses on community and character development for children in kindergarten as well as young adults one year out of high school. In addition to the Lindley G. Cook 4-H Camp and teen programs, the 4-H Program offers a number of clubs for narrower interests, such as environmental conservation and wildlife.
- *New Jersey State Board of Agriculture* is an eight-member body established by the New Jersey Legislature to set the broad agricultural policies of the Department of Agriculture. The State Board operates in accordance with the agricultural laws of New Jersey to promote the agricultural interests of the State and to protect and serve the citizens of New Jersey by providing information and unbiased enforcement of laws and regulations ensuring quality products and services. Products and services such as seed, feed, fertilizer, conservation of soil and water resources; control, suppression, and eradication of livestock and poultry

diseases and plant pests; and many others are regulated by the State Board, as well as, feeding schoolchildren and the distribution of surplus federal foods to soup kitchens and pantries that serve our needy citizens.

Although these organizations exist to support local farmers, the Morris County Agricultural Development Board (CADB) notes that the farming community within Morris County typically rely on one another for assistance.

#### Processing

Much of the processing of farm products is done on-site since it is difficult to use other places and businesses for small scale operations. Many services used by farmers are located outside of the County. There are services located within the state, but some types of services, such as a USDA butcher/facility for processing meat, are located out of the state and in Pennsylvania. There are issues with scheduling appointments at these facilities and slaughterhouses and farmers often need to schedule an appointment up to a year in advance.

In addition, with the recent changes at the federal level, largely due in part to the FDA Food Safety Modernization Act (FSMA)<sup>3</sup>, packaging of produce is required to be done on site, which can be a significant cost to Morris County farmers.

#### Equipment Purchase and Repair

Many larger companies, such as John Deere, have reduced the number of their dealerships, which require commuting to purchase equipment and having a mechanic repair equipment. However, some dealerships, such as Lehigh Valley Ag in Pennsylvania, deliver daily to Morris County.

Most of the products, replacement parts, irrigation supplies, etc. come from Pennsylvania; apparently there are not enough farms in the area to support standalone brick and mortar stores that would provide the machinery and replacement parts locally. Since most of the products come from Pennsylvania, the prices are reduced as those stores experience more volume, have more inventory, and can afford to sell it for less. There are dealers located within New Jersey, but several CADB members feel as though the dealers in Pennsylvania have more experience fixing equipment.

It is likely that farm technology will evolve to become more advanced and sustainable, i.e. the use of autonomous and electric powered farm vehicles and/or autonomous farm machinery. Although smaller electric equipment, such as cultivators, are in beta mode and are being tested, electric and autonomous equipment are not currently on the market.

A full list of local and regional service providers, compiled by the State Agriculture Development Committee is available in *Appendix B*.

#### **Other Agriculture-Related Industries**

Morris County's agricultural industry continues to evolve in response to market demands, shifts in its support system and changes in its economic base; innovation is a key factor to remaining competitive in today's agricultural market. Many of the County's farming operations have already diversified and stabilized their products in response to changing industry and market conditions. The growth in agritourism activities such as hayrides, corn mazes, pick-your-own, direct marketing, agricultural festivals, educational events, and special events are available on many local farms. These activities appeal to the growing residential population in the region and provide farmers with an opportunity to generate additional farm income. There are, however, concerns among several municipalities and the public regarding large-scale events and using farms for other uses that create nuisances for the surrounding area. Often times, large-scale events as well as other commodity-based uses under the umbrella of "agritourism"

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<sup>3</sup> <https://www.fda.gov/food/guidance-documents-regulatory-information-topic-food-and-dietary-supplements/produce-plant-products-guidance-documents-regulatory-information>

can create unwanted traffic on local roadways and create problems with parking, especially if parking is limited on the site.

Other trends that are creating financial opportunities for Morris County farmers to diversify include the growth of renewable fuels, emerging crop breeds developed at Rutgers, and organic products. Due to an emerging market for renewable fuel sources, there is an increasing demand for corn production for ethanol and for soybean production for bio-diesel fuel. The prices for these commodities have increased as the demand has increased. The market should continue to be strong, particularly if an ethanol or bio-fuel production facility is built within the region.

The New Jersey Department of Agriculture produced its most recent Economic Development Strategies in 2011, wherein they indicated that the nationwide consumer demand for organically grown food continues to increase annually. Consumers are seeking a greater variety of organic products and have demonstrated a willingness to pay more for these products. As organic items represent a growing proportion of their sales, restaurants are responding to these consumer demands by seeking out organic suppliers. It is expected that the trend of local organic farms emerging in the County will continue to grow in the future.

#### Organic Farming

As of August 26, 2021, the USDA Organic Integrity database lists five (5) Morris County USDA-certified organic farms:

- Alstede Farms in Chester Township, which produces beans, herbs and vegetables
- Ethos Farm Project, Inc., in Long Valley (Washington Township), which produces vegetables, flowers, fruit, herbs and seedlings
- School Lunch Organic Farm (also a CSA) in Mount Olive, which produces beans, berries, fallow, fruit, herbs, and vegetables
- Stony Hill Gardens in Chester Township, which produces vegetables, berries, hay/straw
- The Naked Botanical LLC in Mendham Borough, which produces vegetables, fruits, herbs, and flowers

According to the U.S. Census of Agriculture, in 2017 there were four USDA National Organic Program-certified farms existing in Morris County, up from one farm in 2012. Likewise, total sales of organic products went from just \$30,000 in 2012 to \$178,000 in 2017.

#### Farmers Markets

The Morris County Tourism Bureau maintains a list of farmers markets in Morris County municipalities, most of which are located in the southerly portion of the County. Whether a permanent fixture located on a farm or seasonal off-site events, these farmers markets provide a place for farmers to sell products directly to the consumer, as well as providing family-friendly leisurely activities for residents and visitors. Additional information can be found at: <https://www.morristourism.org/farmers-market-directory/>

The following farmers markets are located within Morris County:

- Town of Boonton - Upper Plane Street Parking Lot
- Chatham Borough - Railroad Plaza South off Fairmont Avenue Train Station
- Denville – Bloomfield Avenue Lot
- East Hanover - Lurker Park, 609 Ridgedale Avenue
- Madison - Center Avenue between Main Street and Cook Avenue
- Morris Plains - Speedwell Avenue., Merchant Block
- Morristown - Spring and Morris Streets Lot 10
- Netcong - Main Street and Route 46
- Riverdale - Glenburn Estate, 211 Hamburg Turnpike
- Rockaway Township- Rockaway Mall Farmers Market- Rockaway Townsquare

### Pick-Your-Own Farms

Pick-your-own farm stands are another way to attract customers, allowing the farmers to receive maximum profit. The Jersey Fresh website lists the following pick-your-own farms within five miles of Morris County:

- *Miller's Hill Farm* located at 10 Combs Avenue in Mendham Township has an on-site farmers market and offers pick-your-own produce. The farm primarily grows vegetables, tomatoes, summer squash, peppers, eggplant, salad greens, herbs, fall/winter squash and pumpkins, as well as specialty items such as eggs, cut flowers, fall mums and spring potted plants.
- *Knothe's Farm* at 645 Millbrook Avenue in Randolph Township features an on-site farmers market and has pick-your-own produce. The farm grows a plethora of fruits and vegetables and offers a number of value-added products such as honey, jams & jellies and pies.
- *Union Hill Farms* at 25 Cooper Road in Denville also offers both an on-farm market as well as pick-your-own produce, mostly consisting of assorted vegetables. The farm also offers specialty items such as Easter flowers, greenhouse plants, jams & jellies, honey, maple syrup, pies, apples and cider, as well as Christmas trees.
- *Cedar Gate Farms* located at 102-104 Parks Road in Denville is a farm which specializes in eggs and offers an on-farm market as well as home deliveries by appointment.

### Community Supported Agriculture (CSAs)

Community Supported Agriculture (CSA) operations are an increasingly popular means for consumers to buy local, seasonal food directly from a farmer. CSAs function similarly to a cooperative, wherein a farmer offers a certain number of memberships to the public prior to the start of the growing season. The memberships are generally paid up-front, which serves to facilitate cash flow for the farmer. Each week, the farmers prepare a package of that week's harvest for each member household for the length of the farming season. Some CSAs opt to deliver each share weekly. The memberships share the farmer's risks and benefits of food production with the community. As the "think globally, act locally" way of life continues to gain traction, CSAs will continue to gain popularity as consumers want to know whom it is growing their food. Through CSAs, members of the community are afforded the opportunity to not only meet the farmer and see where their food is grown, but also receive fresh produce on a weekly basis and feel a sense of ownership knowing that they help to make it possible.

According to the [morrismorism.org](http://morrismorism.org) website, the following CSAs are in Morris County:

- Alstede Farms, Chester Township NJ
- Backer Farm, Mendham Township
- Cerbo's Garden Center, Parsippany
- Grow It Green Morristown, Morristown
- Ort Farms, Washington
- Stony Hill Farms, Chester Township
- Totten Family Farm, Washington
- Wightman's Farm, Harding

The USDA Organic Integrity database identifies the School Lunch Organic Farm in Mount Olive as an existing USDA-certified CSA operation growing such products as beans, berries, fallow, fruit, herbs, and assorted vegetables. At present, there is one pending application for a CSA that has a large exception area specifically for events to bring customers to the farm. It is anticipated that exception areas will become more common and will occupy more space on farms to support this notion of "experience" farming and to provide an entertainment related aspect to visiting the farm.

### Beekeeping

Beekeeping, also known as apiculture, is a growing trend in New Jersey. Bees can be raised for their honey and other products that the hive produces including beeswax, propolis, flower pollen, bee pollen, and royal jelly, as well as to pollinate crops or to produce bees to sell to other beekeepers. Morris County apiaries include Gooserock Farm of Montville, Tanis Apiaries of Pequannock, and Eco Bee Supply of Morristown.

### Distilleries, Breweries, and Wineries

Throughout New Jersey, distilleries, breweries and wineries continue to grow in popularity, offering a unique local experience in a picturesque setting. Often, the wineries use grapes grown on the farm, and may also import grapes from other wineries located throughout the state and country. Distilleries and breweries have also been known to use locally grown ingredients to create their product. Currently, there are no on-farm distilleries, wineries, or breweries located in Morris County according to the Jersey Fresh Directory. However, it is likely that these uses may become more popular in the coming years.

### Equine

The equine business is a popular industry in Morris County. The 2017 U.S. Agricultural Census notes that Morris County ranked 5<sup>th</sup> in the state for the sale of horses, ponies, mules, burros and donkeys, with sales reaching \$717,000 in 2017.

The Jersey Equine Advisory Board Directory of Facilities for 2020, lists six equine related facilities in Morris County including:

- All-D-Reiterhof Farms in Washington, NJ
- Blazes Acres in Rockaway Township, NJ
- Centenary University Equestrian Center in Washington, NJ
- Karl Bauer Training Center Inc in Pequannock, NJ
- North Jersey Equestrian Center LLC in Pequannock, NJ
- Seaton Hackney Stables in Morristown, NJ

There are numerous other equine facilities in Morris County not listed in the Directory.

Equine facilities offer a variety of services that may include racing, breeding, training, driving, sales, rehabilitation, lessons/instructions, boarding, shows, rental, etc. as services. For additional information pertaining to each of these facilities, visit: <https://www.jerseyequine.nj.gov/agriculture/njequine/documents/equinefacilities.pdf>

In addition, New Jersey established a “Jersey Bred” program that allows farmers who raise and breed horses to use the logo when marketing their animals. Further, the state also has a Horse Breeding and Development Program that provides extensive youth education programs and provides equine related activities for children. For more information regarding Jersey Equine and its programs, visit: <https://www.jerseyequine.nj.gov/agriculture/njequine/>

## CHAPTER III: LAND USE CONTEXT

### State Development and Redevelopment Plan

The State Development and Redevelopment Plan of 2001 (State Plan) remains the official plan for the State of New Jersey. The State Planning Act requires that the State Planning Commission update and readopt the State Plan every three years, however, the 2001 State Plan has not been updated. A Preliminary Draft State Plan update was released in 2004 and, while New Jersey municipalities and counties participated in an extensive and protracted “Cross-Acceptance” process, the resulting draft document was never adopted.

In 2011, the State decided to abandon the 2004 Draft State Plan revision and develop an entirely new State Plan, known as the State Strategic Plan (SSP). A revised draft of this document was released in November 2012, but a final plan was never adopted. Until a new plan is developed and adopted, the 2001 State Plan remains in effect. All following reference to State Plan refers to the 2001 State Development and Redevelopment Plan.

The State Plan contains over 300 policies concerning “Planning Areas” and “Centers” to implement the General Plan strategy. Major goals, planning area and center policies are summarized below. As pertains to farmland preservation and support for agriculture, the State Plan includes 23 specific policies related to agriculture and these are identified in Appendix J. Morris County continues to support these agricultural policies.

### *2001 State Development and Redevelopment Plan Summary of Policies, Planning Areas and Centers related to Morris County*

As defined in the State Planning Act, the purpose of the State Development and Redevelopment Plan is to:

*“Coordinate planning activities and establish Statewide planning objectives in the following areas: land use, housing, economic development, transportation, natural resource conservation, agriculture and farmland retention, recreation, urban and suburban redevelopment, historic preservation, public facilities and services, and intergovernmental coordination.”*<sup>4</sup>

This purpose is to be accomplished by pursuing eight major State Planning Goals<sup>5</sup> and associated policies derived from the State Planning Act. These eight goals are:

- Goal #1: Revitalize the State’s Cities and Towns
- Goal #2: Conserve the State’s Natural Resources and Systems
- Goal #3: Promote Beneficial Economic Growth, Development and Renewal for All Residents of New Jersey
- Goal #4: Protect the Environment, Prevent and Clean Up Pollution
- Goal #5: Provide Adequate Public Facilities and Services at a Reasonable Cost
- Goal #6: Provide Adequate Housing at a Reasonable Cost
- Goal #7: Preserve and Enhance Areas with Historic, Cultural, Scenic, Open Space and Recreational Value
- Goal #8: Ensure Sound and Integrated Planning and Implementation Statewide

The eight goals are coordinated by the General Plan Strategy:

*“Achieve all the State Planning Goals by coordinating public and private actions to guide future growth into compact, ecologically designed forms of development and redevelopment and to protect the Environs, consistent with the Statewide Policies and the State Plan Policy Map.”*<sup>6</sup>

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<sup>4</sup> N.J.S.A. 52:18A-200(f)

<sup>5</sup> The New Jersey State Development and Redevelopment Plan, Adopted March 1, 2001, page 7

<sup>6</sup> Ibid.

Planning Areas

The State Plan Policy Map designates Planning Areas, as “*areas for growth, limited growth, agriculture, open space, conservation and other appropriated designations.*”<sup>7</sup> Planning Areas consist of regions that are over one square mile in size and share similar characteristics and policy intent. In each case, the *Delineation Criteria* is intended as a general guide for delineating the specific Planning Area. Local conditions may require flexible application of the criteria to achieve the Policy Objectives of this Planning Area. The seven Planning Areas are:

*Metropolitan Planning Area (PA 1)*

*Intent of the Metropolitan Planning Area:*

- Provide for much of the state’s future redevelopment.
- Revitalize cities and towns.
- Promote growth in compact forms.
- Stabilize older suburbs.
- Redesign areas of sprawl.
- Protect the character of existing stable communities.

*Delineation Criteria for the Metropolitan Planning Area:*

1. Density of more than 1,000 people per square mile.
2. Has existing public water and sewer systems, or physical accessibility to those systems, and access to public transit systems.
3. Land area greater than one square mile.
4. A population of not less than 25,000 people.
5. Areas that are totally surrounded by land areas that meet the criteria of a Metropolitan Planning Area, are geographically interrelated with the Metropolitan Planning Area, and meet the intent of this Planning Area.

*Suburban Planning Area (PA 2)*

*Intent of the Suburban Planning Area:*

- Provide for much of the state’s future development.
- Promote growth in Centers and other compact forms.
- Protect the character of existing stable communities.
- Protect natural resources.
- Redesign areas of sprawl.
- Reverse the current trend toward further sprawl.
- Revitalize cities and towns.

*Delineation Criteria for the Suburban Planning Area:*

1. Population density of less than 1,000 people per square mile.
2. Natural systems and infrastructure systems reasonably anticipated to be in place by 2020 that have the capacity to support development that meets the Policy Objectives of this Planning Area. These systems include public water supply, sewage collection and treatment facilities, stormwater management, transportation, public schools and parks.
3. A land area contiguous to the Metropolitan Planning Area.
4. Land area greater than one square mile.

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<sup>7</sup> Ibid., page 2

*Fringe Planning Area (PA 3)*

*Intent of the Fringe Planning Area:*

- Accommodate growth in Centers.
- Protect the Environs primarily as open lands.
- Revitalize cities and towns.
- Protect the character of existing stable communities.
- Protect natural resources.
- Provide a buffer between more developed Metropolitan and Suburban Planning Areas and less developed Rural and Environmentally Sensitive Planning Areas.
- Confine programmed sewers and public water services to Centers.

*Delineation Criteria for the Fringe Planning Area:*

1. Population density of less than 1,000 people per square mile.
2. Generally lacking in major infrastructure investments:
  - a. The circulation system is mainly provided by state and county roadways with a major emphasis on moving traffic through the area.
  - b. Some Centers are served by public water and sewer.
3. Land area greater than one square mile.
4. Does not include land that meets the criteria of Rural or Environmentally Sensitive Planning Areas.
5. Area is adjacent to Metropolitan or Suburban Planning Areas.

*Rural Planning Area (PA 4)*

*Intent of the Rural Planning Area:*

- Maintain the Environs as large contiguous areas of farmland and other lands.
- Revitalize cities and towns.
- Accommodate growth in Centers.
- Promote a viable agricultural industry.
- Protect the character of existing, stable communities.
- Confine programmed sewers and public water services to Centers.

*Delineation Criteria for the Rural Planning Area:*

This Planning Area includes land that satisfies criteria for *Environmentally Sensitive Planning Area (PA5)*, as well as the criteria below:

1. Population density of less than 1,000 people per square mile.
2. Area greater than one square mile.
3. Land currently in agricultural or natural resource production or having a strong potential for production
  - a. Soils of local importance as determined by the County Agriculture Development Board.
  - b. Prime and unique soils as determined by the U.S. Department of Agriculture Natural Resources Conservation Service.
  - c. Soils of statewide importance as determined by the New Jersey Department of Agriculture State Soil Conservation Committee.
4. Undeveloped wooded tracts; vacant lands; large, contiguous tracts of agricultural lands; and other areas outside Centers predominantly served by rural two-lane roads and individual wells and septic systems, with some Centers served by sewers and public water.

*Rural/Environmentally Sensitive Planning Area (PA 4B)*

*Intent of Rural/Environmentally Sensitive Planning Area:*

- Maintain the Environs as large contiguous areas of farmland and other lands.
- Revitalize cities and towns.
- Accommodate growth in Centers.
- Promote a viable agricultural industry.
- Protect the character of existing, stable communities.
- Confine programmed sewers and public water services to Centers.

*Delineation Criteria for the Rural/Environmentally Sensitive Planning Area:*

This Planning Area is a combination of both *Rural (PA4)* and *Environmentally Sensitive (PA5) Planning Areas*

*Environmentally Sensitive Planning Area (PA 5)*

*Intent of Environmentally Sensitive Planning Area:*

- Protect environmental resources through the protection of large contiguous areas of land.
- Accommodate growth in Centers.
- Protect the character of existing stable communities.
- Confine programmed sewers and public water services to Centers.
- Revitalize cities and towns.

*Delineation Criteria Environmentally Sensitive Planning Area:*

1. Population density of less than 1,000 people per square mile.
2. Land area greater than one square mile.
3. One or more of the following features outside Centers:
  - a) Trout production waters and trout maintenance waters and their watersheds.
  - b) Pristine non-tidal Category I waters and their watersheds upstream of the lowest Category I stream segment.
  - c) Watersheds of existing or planned potable water supply sources.
  - d) Prime aquifer recharge areas of potable water supply sources and carbonate formations associated with recharge areas or aquifers.
  - e) Habitats of populations of endangered or threatened plant or animal species.
  - f) Coastal wetlands.
  - g) Contiguous freshwater wetlands systems.
  - h) Significant natural features or landscapes such as beaches, coastal spits, barrier islands, critical slope areas, ridge lines, gorges and ravines, and important geological features (including those associated with karst topography) or unique ecosystems.
  - i) Prime forested areas, including mature stands of native species.

*Environmentally Sensitive/Barrier Islands Planning Area (PA 5B)*

*Intent of the Environmentally Sensitive/Barrier Islands Planning Area:*

- Accommodate growth in Centers.
- Protect and enhance the existing character of barrier island communities.
- Minimize the risks from natural hazards.
- Provide access to coastal resources for public use and enjoyment.
- Maintain and improve coastal resource quality.
- Revitalize cities and towns.

*Delineation Criteria for the Environmentally Sensitive/Barrier Islands Planning Area:*

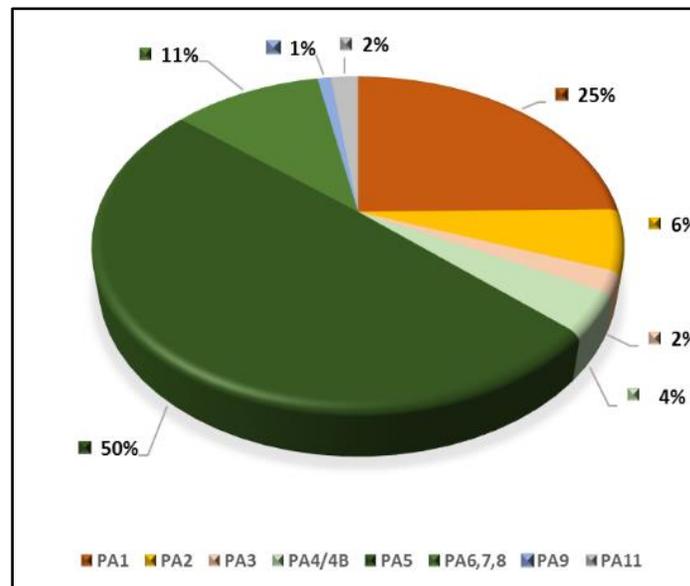
Barrier islands and spits are coastal land forms caused by the periodic deposition and movement of sediment by ocean currents and wind. During storms they function as the mainland's barriers, a first line of natural defense, protecting offshore communities and sensitive bay habitats from the destructive forces of coastal storms.

For discussion and planning purposes, the State Plan classifies these geologic features as barrier islands since they share many common elements, most notable of which are a separation from the mainland by water and an infrastructure connection to the mainland, primarily for access, but occasionally for other services. New Jersey's coastal barrier chain extends from Monmouth to Cape May County.

Specific State Planning Areas in Morris County

Based on the 2001 State Plan Map, Morris County contains all of the State's Planning Area (PA) designations except for the Environmentally Sensitive/Barrier Islands Planning Area (PA5B).

Distribution of Planning Areas in Morris County

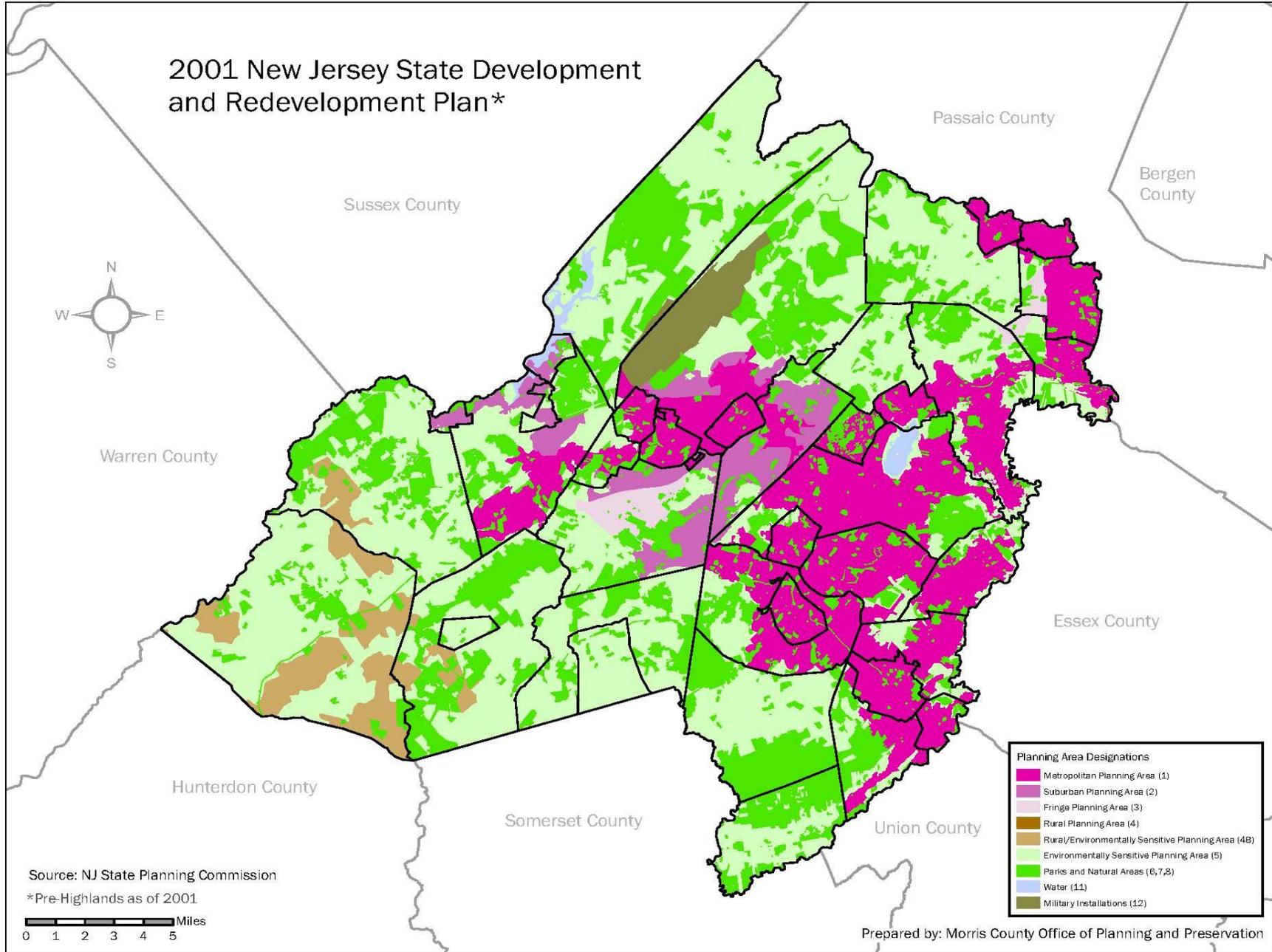


Fifty-four percent of Morris County is located in PA 4 and 5. Most preserved and targeted farms in Morris County are located in PA5, which covers 50% of the County. The reason that most of farms are not in PA 4 or 4B is that State Plan mapping criteria requires a contiguous area of at least one square mile for a planning area to be so delineated. With the exception of Long Valley, most farms and prime agricultural soils are not contiguous and therefore do not meet the one square mile threshold for PA4 designation. However, the existence and preservation of farms in PA5 is consistent with the Intent and Policies of the Environmentally Sensitive Planning area in that they maintain the Environs as open land, while providing economic benefit to the region. The protection of County agriculture as a land use is supported by its location in Planning Areas 4 and 5 since the State Plan directs new development, which is typically detrimental to agricultural areas, to Planning Areas 1, 2 and 3. Pursuant to the State Plan, the location of new development should be planned to avoid negative impacts on agriculture.<sup>8</sup>

*State Plan Policy Map for Morris County*

Following is the 2001 State Plan Policy Map that in effect for Morris County including Planning Areas, and Centers.

<sup>8</sup> New Jersey State Development and Redevelopment Plan, pg. 160, Policy 4 "New Development."



### *Critical Environmental Sites, Cultural and Historic Sites*

The State Plan also allows for the designation of Critical Environmental Sites (CES), and Cultural and Historic Sites (CHS).

- CES: areas less than one square mile in size that contain one or more of the environmental features that are the criteria for the Environmentally Sensitive Planning Area (PA 5).
- CHS: sites of significant historic, cultural, or scenic value. Can include greenways, trails, dedicated open space, historic sites and districts, archeological sites, scenic vistas and corridors, and natural landscapes of exceptional aesthetic or cultural value. These areas are protected from the impacts of development and can be enhanced and/or restored to their natural and original manmade condition.

### *Parks, Natural Areas, and Military Installations*

Because of their significant size and bearing on the landscape of New Jersey, the State Plan also recognizes Parks, Natural Areas (permanently preserved open space) and Military Installations. The delineation of Parks and Natural Areas is intended to provide for the continued maintenance and protection of these areas, and to help plan for and encourage interconnectivity of large swaths of contiguous open spaces. Picatinny Arsenal is the only mapped Military Installation, which is not subject to the State Plan as it is under federal jurisdiction.

### Designated Centers

The State Plan identifies five different types of Centers, which are the preferred location for directing future growth. Centers are compact forms of mixed-use development that are generally transit-oriented and pedestrian friendly, offering a variety of housing units, services, and employment. Centers are to be surrounded by Environs, where such uses as open space, agriculture and appropriate low intensity development are to take place as defined by the Planning Area. The five types of Centers are as follows.<sup>9</sup>

Urban Centers: Urban Centers are generally the largest Centers, offering the most diverse mix of industry, commerce, services, residences and cultural facilities. There have been eight Urban Centers identified by the State Planning Commission, but none in Morris County.

#### *Designation Criteria for Urban Centers:*

1. Fully developed, with an infrastructure network serving its region.
2. Population of more than 40,000.
3. Population density exceeding 7,500 persons per square mile.
4. Employment base of more than 40,000 jobs.
5. Job-to-dwelling ratio of 1:1 or higher.
6. Serves as the primary focus for commercial, industrial, office and residential uses in the Metropolitan Area, providing the widest range of jobs, housing, governmental, educational and cultural facilities in the region and providing the most intense level of transportation infrastructure in the state.
7. In lieu of all the above, a history of population and employment levels that are consistent with the above six criteria.
8. In conjunction with either of the above two options (criteria 1-6 or 7), the municipal boundary of the Urban Center is used in the application of the criteria and serves as the boundary of the Urban Center.

Regional Centers: Regional Centers are defined as a compact mix of residential, commercial and public uses, serving a large surrounding area and developed at an intensity that makes public transportation feasible.

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<sup>9</sup> The New Jersey State Development and Redevelopment Plan, Adopted March 1, 2001 pages 238-248.

*Designation Criteria for Regional Centers:*

1. Functions/plans to function as the focal point for the economic, social and cultural activities of its region, with a compact, mixed-use (i.e., commercial, office, industrial, public) Core and neighborhoods offering a wide variety of housing types.
2. Access to existing or planned infrastructure sufficient to serve projected growth.
3. Has, within the Center Boundary, an existing (or planned) population of more than 10,000 people in Metropolitan and Suburban Planning Areas and more than 5,000 people in Fringe, Rural and Environmentally Sensitive Planning Areas.
4. A gross population density of approximately 5,000 persons per square mile (or approximately three dwelling units per acre) excluding water bodies or more within the Center Boundary.
5. Has or plans to have (within the Center Boundary) an employment base of more than 10,000 jobs in Metropolitan and Suburban Planning Areas and more than 5,000 jobs in Fringe, Rural and Environmentally Sensitive Planning Areas.
6. Near a major public transportation terminal, arterial intersection or interstate interchange capable of serving as the hub for two or more modes of transportation.
7. Land area of one to ten square miles.

In addition, the following criteria apply specifically to *new* Regional Centers:

- In a market area supporting high-intensity development and redevelopment and reflects characteristics similar to existing Regional Centers regarding employment and residential uses.
- Is a single- or limited-purpose employment complex that can be retrofitted to form the Core of a full service, mixed-use community, as described above.
- Has a jobs-to-housing ratio of 2:1 to 5:1. Identified as a result of a strategic planning effort conducted on a regional basis, which includes participation by the private sector, municipalities, counties and state agencies that represent the major actors in the development of the region and is identified in county and municipal master plans.
- It is located, scaled and designed so as not to adversely affect the economic growth potential of Urban Centers.

Town Centers: Town Centers are defined as traditional centers of commerce or government throughout New Jersey, with diverse residential neighborhoods served by a mixed-use Core offering locally oriented goods and services.

*Designation Criteria for Town Centers:*

1. While smaller than an Urban or Regional Center, it has a traditional, compact, mixed-use Core of development providing most of the commercial, industrial, office, cultural and governmental functions commonly needed on a daily basis by the residents of the Town and its economic region; it has neighborhoods providing a mix of residential housing types, with infrastructure serving both the Core and the neighborhoods.
2. Has or plans to have, a population between 1,000 - 10,000 persons within the Center Boundary.
3. Has or plans to have, a gross population density of more than 5,000 persons per square mile excluding water bodies.
4. Has or plans to have a minimum gross housing density of three dwelling units per acre excluding water bodies.
5. Land area of less than two square miles.
6. Has or plans to have a jobs-to-housing ratio of 1:1 to 4:1.
7. Served by an arterial highway and/or public transit.

In addition, *new* Town Centers should meet the following criteria:

- Access to existing or planned infrastructure sufficient to serve projected growth throughout the Center.
- Identified through a strategic planning effort involving the private sector, municipalities, the county and relevant state agencies; and is identified in local master plans.

Village Center: Village Centers are primarily residential places that offer a small Core with limited public facilities, consumer services and community activities.

*Designation Criteria for Village Centers:*

1. Is or plans to be a primarily mixed-residential community with a compact Core of mixed-uses (for example, commercial, resource-based industrial, office, cultural) offering employment, basic personal and shopping services and community activities for residents of the Village and its Environs.
2. Land area of less than one square mile.
3. Has or plans to have a minimum gross population density of 5,000 people per square mile (excluding water bodies) and a minimum gross housing density of three dwelling units per acre.
4. Existing and 2020 population should not exceed 4,500 people.
5. Reasonable proximity to an arterial highway.

In addition, new Village Centers should meet the following criteria:

- Identified in municipal and county master plans.
- Capable of being served by a wastewater treatment system to meet applicable standards.
- Identified as a result of a strategic planning effort with participation by the private sector, municipalities, the county and relevant state agencies and is identified in local master plans.

Hamlet Centers: Hamlet Centers are small-scale, compact residential settlements organized around a community focal point, such as a house of worship, luncheonette, small park, or a civic building.

*Designation Criteria for Hamlet Centers:*

Functions or plans to function primarily as a small-scale, compact residential settlement with community functions (including, for example, a commons or community activity building or place) that clearly distinguishes it from the standard, single-use, residential subdivision.

1. Has or plans to have a population of at least 25 people and not more than 250 people.
2. Has or plans to have a minimum gross housing density of two dwelling units per acre.
3. An area that encompasses, generally, 10 to 50 acres, unless wastewater systems are not reasonably feasible, in which case the boundary may encompass as much as 100 acres (wastewater systems are preferred and should be installed to assure compact development, unless there are mitigating environmental factors that make septic systems, and the resulting larger lot sizes, preferable).
4. Has or plans to have up to 100 dwelling units and a range of housing types within the Center.

In addition, a new Hamlet Center should meet the following criteria:

- Identified as a result of a municipal planning effort conducted with the participation of the county and reflected in municipal and county master plans.
- A small, compact, primarily residential settlement. It should be planned to absorb the development that would otherwise occur on tracts of land in the Environs. A new Hamlet may require a small-scale public water, wastewater treatment, or potable water system. The total amount or level of development within both the Hamlet and the Environs should conform to the Policy Objectives of the Planning Area and to the capacities of natural resource and infrastructure systems that would exist in the Planning Area in the absence of the water and wastewater facilities.
- Planned to be integrated into a regional network of communities with appropriate transportation linkages.

- Planned and designed to preserve farmlands or environmentally sensitive areas.

#### Designated Centers in Morris County

Centers in Morris County:<sup>10</sup>

- Dover (Regional Center)
- Morristown (Regional Center)
- Mount Arlington (Village Center)
- Netcong (Town Center)

With the exception of Lincoln Park, all of the Centers are located within the Highlands Region. While the Highlands Council originally encouraged Centers to become receiving areas for Transfer of Development Rights, to date, no Morris County municipality has found this to be a viable option.

Centers are important to the farming community as they often host farmers' markets from which produce and other goods from local farms are sold for additional income. The farmers' markets support the local economy focused in these Centers by attracting visitors to these downtown areas. A list of farmers' markets is identified in Chapter Six of this Plan.

#### Endorsed Plans

State Plan Endorsement is a voluntary review process that is designed to assist government agencies at all levels to develop and implement plans that will achieve the goals, policies and strategies of the State Plan. Endorsed plans are entitled to scoring preference and expedited review related to various State grant, loan, and regulatory programs. At present, there are no endorsed plans approved in Morris County.<sup>11</sup>

#### State Planning Endorsement and the New Jersey Highlands Water Protection and Planning Act

The adoption of the New Jersey Highlands Water Protection and Planning Act (Highlands Act) in 2004 (discussed in Section B below) altered endorsement policies for areas identified as "Planning" and "Preservation Areas" as per the Highlands Act. The Highlands Act provides that any portion of a county located in the Highlands Preservation Area is exempt from the State Planning Commission (SPC) Plan Endorsement process. It further provides that once the Highlands Regional Master Plan (RMP), created in conformance with the Highlands Act, has attained Plan Endorsement from the SPC for the Planning Area, Highlands Council approval of Plan Conformance with respect to lands in the Planning Area shall be deemed the equivalent of State Plan Endorsement. In the Preservation Area, local governments conforming to the RMP qualify for any benefits that would be received as part of Plan Endorsement under the State Planning Act; municipalities are exempt from the State Plan Endorsement process.

#### Draft State Strategic Plan (2011)

In 2011, the State released a final draft of the State Strategic Plan intended as an update to the 2001 SDRP. The State Strategic Plan was never adopted; the 2001 Development and Redevelopment Plan is still the official State Plan.

#### Special Resource Areas

The New Jersey Highlands Region is identified in the 2001 State Development and Redevelopment Plan as a Special Resource Area. Special Resource Areas are defined as "*an area or region with unique characteristics or resources of statewide importance which are essential to the sustained well-being and function of its own region and other regions or systems- environmental, economic, and social – and to the quality of life for future generations.*"<sup>12</sup> Following this

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<sup>10</sup> As of August 2022. Lincoln Park and Mendham Boro were also previously designated as centers, but did not seek center renewal.

<sup>11</sup> Ibid.

<sup>12</sup> 2001 State Development and Redevelopment Plan, page 171.

designation in the 2001 State Plan, the Highlands Water Protection and Planning Act was signed into law in August of 2004.<sup>13</sup>

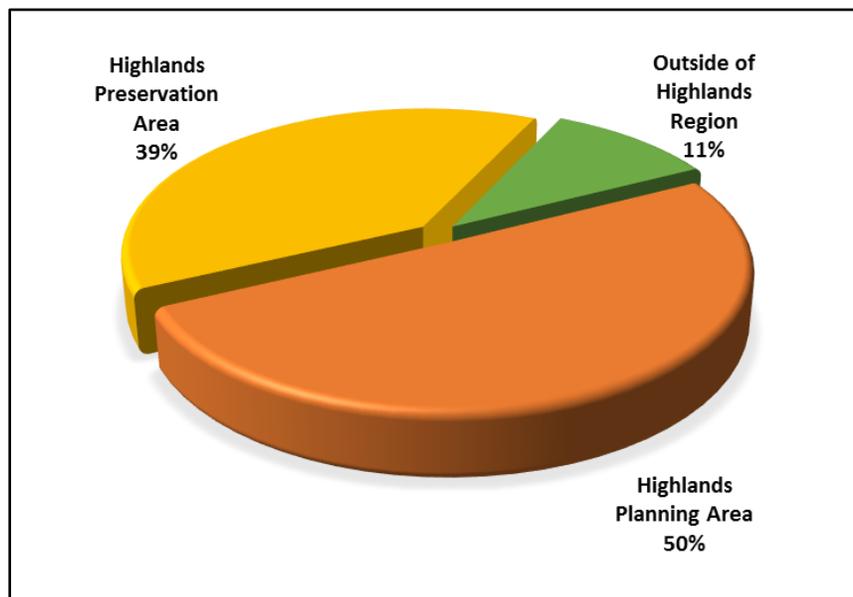
Highlands Water Protection and Planning Act and the Highlands Regional Master Plan

It is the intent of the New Jersey Highlands Water Protection and Planning Act (Highlands Act) to protect the drinking water supply generated within the over 800,000 acre New Jersey Highlands Region by limiting development in the region. As defined by the Act, the Highlands Region includes 88 municipalities and portions of seven New Jersey counties. The Highlands Act divides the Highlands Region into the Preservation Area and the Planning Area. In the Preservation Area, future development is limited by enhanced environmental considerations, constraints on allowable septic density and on the extension of sewer, water and transportation infrastructure. In the Planning Area, growth is encouraged where water and sewer capacity are available, but is generally discouraged outside of these areas.

Highlands Act and Morris County

- 32 of the county's 39 municipalities are within the Highlands Region.
- 13 municipalities are included, in whole or in part, within the Highlands Preservation Area.
- The Highlands Preservation Area covers 188 square miles (39%) of Morris County's total area.
- The Highlands Preservation Area contains most of Morris County's remaining vacant land and unpreserved farmland.

Morris County and the Highlands Region



<sup>13</sup> Highlands Water Protection and Planning Act, P.L. 2004, c. 120.

As demonstrated in the chart below, the majority of farmland in Morris County is located in the Highlands Preservation Area. This land is substantially restricted in terms of allowable *non-agricultural* development. Agricultural and Horticultural development, however, as defined in the Highlands Act,<sup>14</sup> is conditionally exempt from Highlands Act and associated NJDEP Highlands Rules.<sup>15</sup>

**Acreeage of Farm Assessed Areas in Highlands Planning/Preservation Area<sup>16</sup>**

Acreeage of Preserved/ Not Preserved Farm Assessed Areas		
Farm Assessed Areas	Highlands Planning Area	Highlands Preservation Area
Preserved	1,817	6,425
Not Preserved	9,464	11,115
	11,281	17,540

Source: Morris County Office of Planning and Preservation / Morris County Board of Taxation

Although the Highlands Act defines Agricultural/Horticultural development or use as “exempt,” there are provisions in both the Act and the NJDEP Highlands Rules that will impact agricultural and horticultural operations in the Highlands Preservation Area.

- Impervious Coverage - Whenever there is an increase of agricultural impervious cover by 3% or more, the Highlands Act<sup>17</sup> requires the creation and implementation of a farm conservation plan. A similar increase in agricultural impervious cover by 9% triggers a Highlands Act requirement for the creation and implementation of a resource management systems plan. Both of these required plans are subject to the review and approval of the local soil conservation district. Violation of these requirements or the terms of the farm conservation or resource management systems plans can result in civil actions and/or penalties.
- Landowner Incentives - The Highlands Act authorizes the Highlands Council to work with the State Agricultural Development Committee (SADC) and the Garden State Preservation Trust to establish incentives for landowners in the Highlands Region to preserve land under the farmland preservation program, in exchange for landowner agreement to permanently restrict impervious surface and agricultural impervious cover on the farm to a maximum of five percent of the total land area of the farm.<sup>18</sup> As concerns the NJDEP Highlands-related regulations (N.J.A.C. 7-38 et seq.), the NJDEP has concluded that these regulations have no direct impact on Agriculture/Horticulture use or development in New Jersey and, in fact, may have an indirect positive impact on the agricultural industry by reducing the amount of land taken out of agricultural/horticultural use.<sup>19</sup>
- NJDEP Highlands rules address only “major” Highlands development. Agricultural/ Horticultural development and use is specifically excluded from this definition under N.J.A.C. 7:38-2.2(c).
- NJDEP Highlands rules state that a Highlands Applicability Determination (HAD) is not required for Agricultural/Horticultural use or activity. A HAD is also not required for any activity conducted by a landowner with an approved woodland management plan for the normal harvesting of forest products in accordance with a state approved forest management plan.<sup>20</sup>

<sup>14</sup> Agricultural and Horticultural development are defined at N.J.S.A 13:20-3.

<sup>15</sup> N.J.S.A 13:20-3 and N.J.A.C. 7:38-1.4

<sup>16</sup> Farm assessed includes Tax Code 3a and 3b parcels in this analysis. Preserved Farmland that is not farm assessed is not included in this chart. June 2020.

<sup>17</sup> N.J.S.A. 13:20-29.

<sup>18</sup> N.J.S.A. 13:20-6(w).

<sup>19</sup> Highlands Water Protection and Planning Act Rules Proposed Readoption with Amendments: N.J.A.C. 7:38, page 261.

<sup>20</sup> N.J.A.C. 7:38-2.4(b)6-7.

*Highlands Regional Master Plan*

The Highlands Act established the Highlands Council and tasked it with the responsibility of developing a regional master plan for the entire Highlands Region. The Council adopted the Highlands Regional Master Plan (RMP) in 2008, which includes additional standards for the regulation of land development in the Highlands Region.

In the Preservation Area, the enhanced environmental and land use restrictions contained in the Highlands Act and reflected in the RMP regulate the intensity and location of new development and redevelopment that might otherwise be permitted under local zoning and statewide environmental regulations. In the Preservation Area, local governments are required to conform their plans and regulations to achieve consistency with the Highlands Regional Master Plan. In the Planning Area, conformance to the Highlands Regional Master Plan is voluntary<sup>21</sup> and the related NJDEP Highlands rules for the Preservation Area do not apply.<sup>22</sup> Since the majority of farmland in Morris County is located in the Highlands Preservation Area, it is severely restricted in terms of non-agricultural development.

*Municipalities with Land in the Highlands Preservation and Planning Area*

- Boonton Township
- Chester Township
- Denville Township
- Jefferson Township
- Kinnelon Borough
- Montville Township
- Mount Arlington Borough
- Mount Olive Township
- Pequannock Township
- Randolph Township
- Rockaway Township
- Roxbury Township
- Washington Township

*Municipalities with Land in the Planning Area Only:*

- Town of Boonton
- Butler Borough
- Chester Borough
- Town of Dover
- Hanover Township
- Harding Township
- Mendham Borough
- Mendham Township
- Mine Hill Township
- Morris Plains Borough
- Morris Township
- Morristown
- Mountain Lakes Borough
- Netcong Borough
- Parsippany-Troy Hills Township
- Riverdale Borough
- Rockaway Borough
- Victory Gardens Borough
- Wharton Borough

*Municipalities Outside the Highlands Region:*

- Lincoln Park Borough
- E. Hanover Township
- Florham Park Borough
- Madison Borough
- Chatham Borough
- Chatham Township
- Long Hill Township

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<sup>21</sup> Except in accordance with NJ Executive Order 114, which permits the NJDEP to use enhanced standards to determine whether to issue water allocation permits, approve Water Quality Management Plans, and/or approve other permits related to projects located in the Highlands RMP Land Use Capability Protection, Conservation or Environmentally constrained sub-zones.

<sup>22</sup> NJDEP [Highlands Water Protection and Planning Act Rules, N.J.A.C.7:38.](#)

All Morris County municipalities with land in the Preservation Area also have some land in the Planning Area. Municipalities with lands in both the Preservation Area and Planning Area must petition the Highlands Council for conformance for lands in the Preservation Area and may also petition for conformance for lands in the Planning Area. Of the 13 municipalities with lands located in both the Highlands Preservation Area and the Highlands Planning Area, Chester Township, Kinnelon Borough, Randolph Township, Rockaway Township and Washington Township have also chosen to include those portions of their municipalities in the Highlands Planning Area in their conformance petitions to the Highlands Council.<sup>23</sup>

Of the Morris County Planning Area-only municipalities, only Parsippany-Troy Hills Township, Chester Borough and Wharton Borough have petitioned the Highlands Council for conformance and agreed to amend their master plans and development regulations accordingly. As conformance in the Planning Area is voluntary, any municipality may withdraw its Planning Area lands from conformance at any time.

In total, eight municipalities within Morris County have petitioned for conformance for their entire municipality.<sup>24</sup> Conforming municipalities are required to adopt amendments to their master plans and land development ordinances implementing the policies of the Highland Regional Master Plan, including those related to agriculture where appropriate.

#### *Highlands Agricultural Resource Areas and Agricultural Priority Areas*

The Highlands Council utilized unique resource assessment criteria to conduct an agricultural resource assessment for the Highlands Region. This assessment was used to determine Highland priority areas for farmland preservation, which are incorporated into the Highlands RMP, which identifies Agricultural Resource Areas (ARAs) and Agricultural Priority Areas (APAs), which are a subset of ARAs. Despite differences in assessment criteria used by the SADC, and in turn the Morris County Agricultural Development Board (CADB), to define Agricultural Development Areas (ADAs), there is substantial overlap in the ADAs identified in the Morris County Farmland Preservation Plan, and the ARAs identified in the Highlands Regional Master Plan.

There are various provisions in the Highlands RMP that must be adopted by Preservation Area and conforming Planning Area municipalities for the protection and preservation of ARAs and APAs. Implementation of these provisions is achieved through the local adoption of related Highlands Ordinances.<sup>25</sup> For example:

- “In an ARA, where other land preservation techniques are not feasible, clustering is mandatory for residential development through Municipal Plan Conformance, local development review, and Highlands Project Review. The use of clustering must preserve at least 80% of the total cluster project area in perpetuity in agricultural use or for environmental protection. A set aside of 80% for preservation will prevent the fragmentation of agricultural land allowing for contiguous areas of agriculture to sustain and enhance agricultural resources. Preservation of up to 90% of the cluster project area will be achieved where feasible. The agricultural land set aside in the cluster project area must be preserved in perpetuity for agricultural use through a deed of easement enforceable by the Highlands Council and the municipality, the CADB, or the SADC.”<sup>26</sup>

#### *Agricultural Priority Areas*

Agricultural Priority Areas are marked for priority consideration based on the relative value of these agricultural resources, providing a prioritization mechanism for future farmland preservation activities in the Highlands Region. Based on this information, the Highlands Council maintains a confidential inventory of agricultural lands in the

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<sup>23</sup> Conformance status as of May 2019.

<sup>24</sup> Chester Twp., Chester Borough, Kinnelon, Parsippany-Troy Hills, Randolph, Rockaway Twp., Washington and Wharton.

<sup>25</sup> Section 6 of the Highlands Model Ordinance.

<sup>26</sup> New Jersey Highlands Regional Master Plan, 2008, pg. 285.

Agricultural Priority Area which identifies farmland (and open space lands) that should not be developed due to their importance for water resource and ecological protection.<sup>27</sup>

Agriculture Priority Areas are defined in three categories: Low-, Medium- and High-Priority. All together, there are about 16,149 acres identified as APA's in Morris County. Land is distributed between these three APA designations as follows: Low: 44%, Medium: 37%, and High: 18%; please see the chart below.<sup>28</sup>

<b>Acreage of Agricultural Priority Area (APA) by Municipality</b>			
<b>District</b>	<b>Low</b>	<b>Medium</b>	<b>High</b>
Chester Borough	25	22	0
Chester Township	1,610	681	455
Harding Township	628	1,243	324
Mendham Borough	555	768	67
Mendham Township	145	354	13
Morris Township	5	3	0
Mount Olive Township	279	579	503
Washington Township	3,931	2,366	1,594
<b>Total</b>	<b>7,178</b>	<b>6,015</b>	<b>2,955</b>

Source: Morris County Office of Planning and Preservation / NJ Highlands Council datasets - 8/2020

About 65% of all Morris County APA lands are located in the Highlands Preservation Area.

<b>Acreage of Agricultural Priority Areas by Highlands Planning/Preservation Area</b>		
<b>APA Designation</b>	<b>Highlands Planning Area</b>	<b>Highlands Preservation Area</b>
Low	2,071	5,107
Medium	3,003	3,012
High	631	2,324
<b>Total</b>	<b>5,705</b>	<b>10,444</b>

Source: Morris County Office of Planning and Preservation / NJ Highlands Council datasets - 8/2020

Farm assessed lands in Morris County located in the Agricultural Priority Area totals 6,858 acres (Planning and Preservation Areas). Approximately 832, or 14%, of these acres are permanently preserved as farmland. A breakdown of this acreage is provided below.<sup>29</sup>

<b>Farm Assessed Acreage within Agricultural Priority Areas by Municipality (Acres) - PRESERVED</b>				
<b>District</b>	<b>Low</b>	<b>Medium</b>	<b>High</b>	<b>Municipal Total Acres</b>
Chester Borough	0	0	0	0
Chester Township	7	122	254	383
Harding Township	0	8	0	8
Mendham Borough	0	0	0	0
Mendham Township	0	11	9	20
Morris Township	0	0	0	0
Mount Olive Township	1	28	26	55
Washington Township	20	108	238	366
<b>Total</b>	<b>29</b>	<b>276</b>	<b>528</b>	<b>832</b>

Source: Morris County Office of Planning and Preservation / NJ Highlands Council datasets - 8/2020

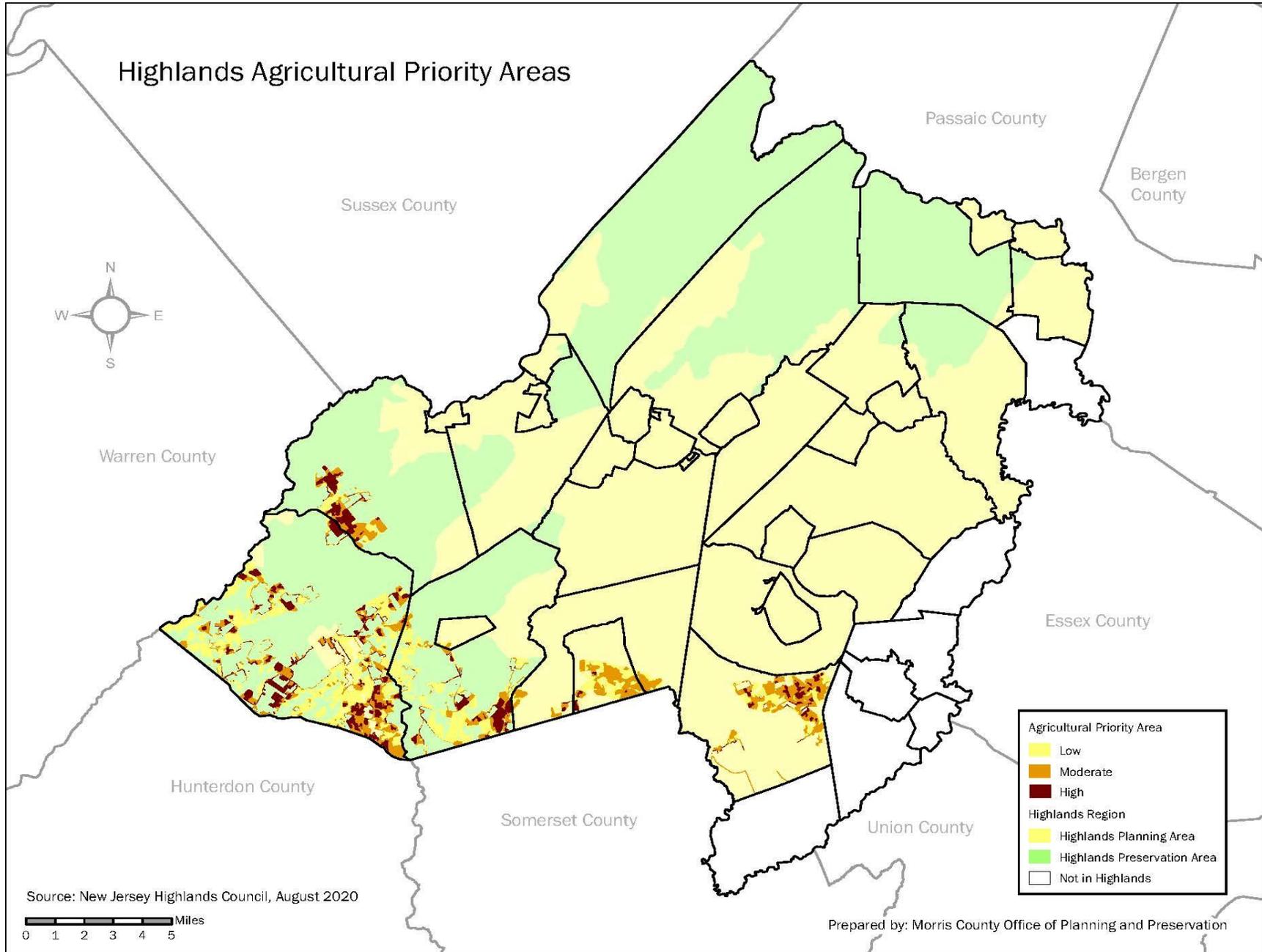
<sup>27</sup> New Jersey Highlands Regional Master Plan, 2008, pg. 230.

<sup>28</sup> <http://highlands-data-njhighlands.opendata.arcgis.com/datasets/agricultural-priority-areas>

<sup>29</sup> Figures may not total due to rounding.

<b>Farm Assessed Acreage within Agricultural Priority Areas by Municipality (Acres) - UNPRESERVED</b>				
<b>District</b>	<b>Low</b>	<b>Medium</b>	<b>High</b>	<b>Municipal Total Acres</b>
Chester Borough	0	0	0	0
Chester Township	282	226	175	684
Harding Township	147	487	251	885
Mendham Borough	210	423	66	698
Mendham Township	45	200	3	247
Morris Township	0	0	0	0
Mount Olive Township	70	378	434	883
Washington Township	626	957	1,045	2,628
<b>Total</b>	<b>1,380</b>	<b>2,671</b>	<b>1,974</b>	<b>6,026</b>

Source: Morris County Office of Planning and Preservation / NJ Highlands Council datasets - 8/2020



*Highlands Regional Master Plan (RMP) Land Use Capability Zones*

The RMP identifies six *Land Use Capability Zones* for the lands within the Highlands Region and defines a series of goals, policies and objectives linked to each zone. These six zones include three major zones, (the Protection Zone, the Conservation Zone and the Existing Community Zone) and three sub-zones (the Lake Community Zone, the Environmentally Constrained Conservation Zone and the Environmentally Constrained Existing Community Zone).<sup>30</sup> These zones and subzones are used to define the land use capability of the various parts of the Highlands Region, as determined by the Highlands Council. The RMP policies for these zones are applied through the conformance process, which requires the adoption of regulations applicable to these areas for lands in the Preservation Area and in conforming municipalities for lands in the Planning Area. These land use capability zones are treated as “overlay zones” at the local level, and impose supplemental regulations to the underlying zoning of a conforming municipality.

Among these zones, the majority of farm-assessed properties are located in the Conservation Zone, the Conservation Zone - Environmentally Constrained Subzone and in the Protection Zone. The planning objectives included for these zones and the associated regulations adopted by conforming municipalities reinforce the agricultural protection policies, particularly in designated Agricultural Resource and Agriculture Priority Areas.

- The Conservation Zone consists of areas with significant agricultural lands interspersed with associated woodlands and environmental features that should be preserved when possible. The Conservation Zone is intended primarily for agricultural use and development, including ancillary and supporting uses and activities. Nonagricultural development activities will be limited in area and intensity due to infrastructure constraints and resource protection goals. Where nonagricultural development does occur it must be compatible with agricultural uses
- The Conservation Zone-Environmentally Constrained Sub-Zone consists of lands containing significant environmental features within the Conservation Zone that should be preserved and protected from nonagricultural development. Development activities will be limited and subject to stringent limitations on consumptive and depletive water use, degradation of water quality, and impacts to environmentally sensitive lands.
- The Protection Zone contains the highest quality natural resource value lands of the Highlands Area. Lands in the Protection Zone are essential to maintaining water quality, water quantity and sensitive ecological resources and processes and have limited or no capacity to support human development without adversely affecting overall ecological function. Land acquisition is a high priority for lands in the Protection Zone and development activities will be extremely limited. Any development will be subject to stringent limitations on consumptive and depletive water use, degradation of water quality, and impacts to environmentally sensitive lands and natural resources.

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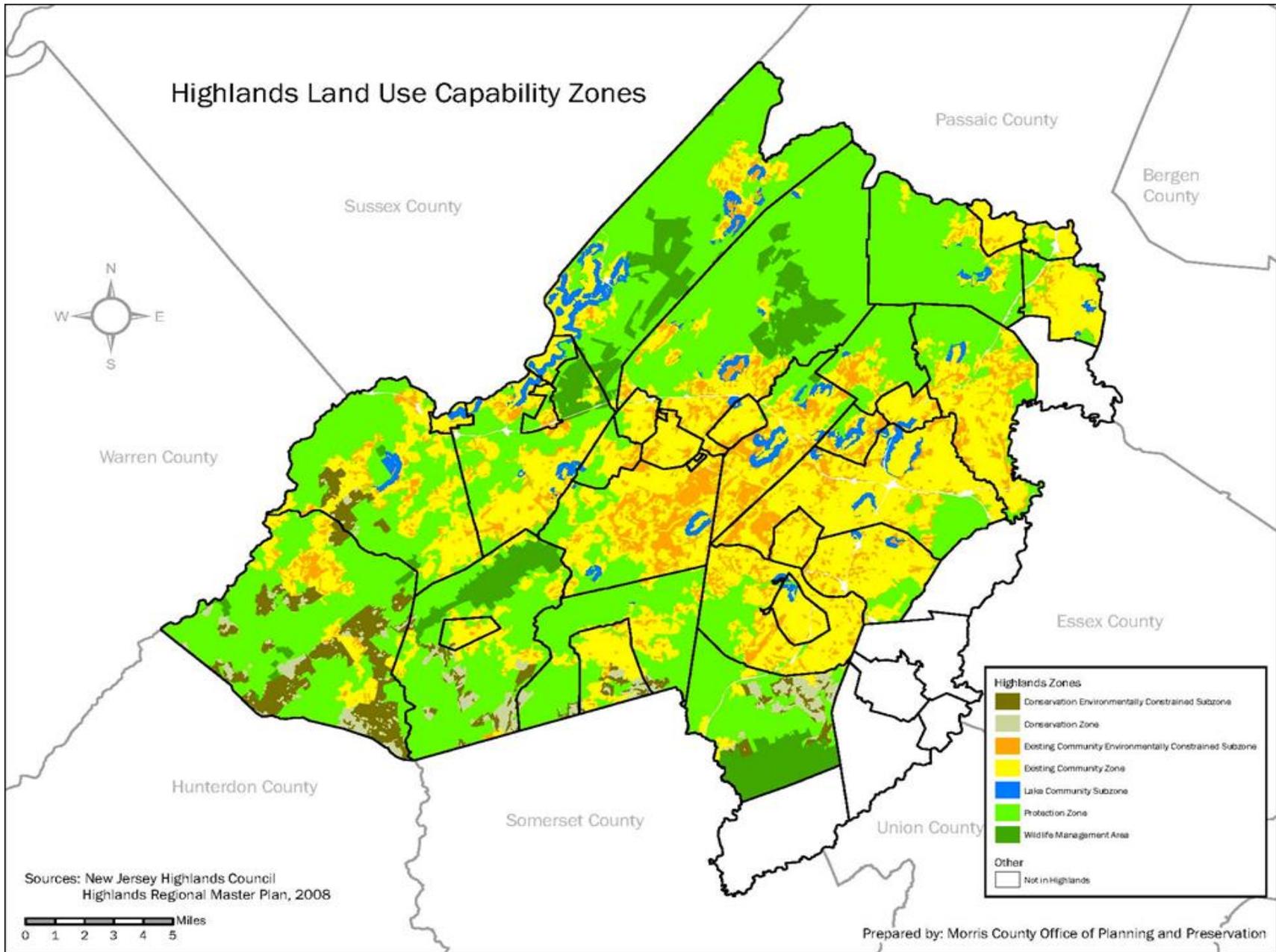
<sup>30</sup> Highlands Regional Master Plan, 2008.

<b>Farm Assessed Property by Highlands Capability Zone - <u>PRESERVED</u></b>		
<b>Highlands Land Use Capability Zone</b>	<b>Acres in Highlands Planning Area</b>	<b>Acres in Highlands Preservation Area</b>
Conservation Environmentally Constrained Subzone	659	2,856
Conservation Zone	227	1,458
Existing Community Environmentally Constrained Subzone	140	11
Protection Zone	659	2,066
Existing Community Zone	132	25
Lake Community Subzone	0	0
Wildlife Management Area	0	8
<b>Total Acres</b>	<b>1,817</b>	<b>6,425</b>

Source: Morris County Office of Planning and Preservation / NJ Highlands Council datasets - 8/2020

<b>Farm Assessed Property in by Highlands Capability Zone - <u>UNPRESERVED</u></b>		
<b>Highlands Land Use Capability Zone</b>	<b>Acres in Highlands Planning Area</b>	<b>Acres in Highlands Preservation Area</b>
Conservation Environmentally Constrained Subzone	1,141	1,693
Conservation Zone	1,023	518
Protection Zone	5,192	8,362
Existing Community Environmentally Constrained Subzone	723	187
Existing Community Zone	1,200	267
Lake Community Subzone	174	47
Wildlife Management Area	0	37
<b>Total Acres</b>	<b>9,453</b>	<b>11,112</b>

Source: Morris County Office of Planning and Preservation / NJ Highlands Council datasets - 8/2020



## County Master Plan and Development Regulations

### Master Plan

The 2022 Comprehensive Farmland Preservation Element of the Morris County Master Plan is an integral part of the overall Morris County Master Plan, which consists of several subcomponents. The 2022 Comprehensive Farmland Preservation Plan Element of the Morris County Master Plan continues Morris County's support for the preservation and maintenance of a strong agricultural economy in the County.

This Plan is also consistent with the 2020 Land Use Element of the Morris County Master Plan. While the Land Use Plan Element does not address specific farmland preservation or agricultural goals (as this is reserved for the Farmland Preservation Element of the Master Plan), it identifies trends, goals, policies, and recommendations consistent with the protection of farmland, agricultural resource areas and the agricultural economy. It also describes the Morris County Farmland Preservation Program and includes a map identifying the general location of preserved, pending and targeted farms for preservation.

Related excerpts from the 2020 Land Use Element of the Morris County Master Plan include:

### *Description of the Farmland Preservation Plan*

Farmland Preservation Program /County Agricultural Development Board: The Morris County Farmland Preservation Program began with the permanent preservation of a fourteen-acre parcel in Washington Township in 1987. Since 1994, Morris County's contribution to farmland preservation activity has been funded through the Morris County Preservation Trust Program. The allocation of the funding is overseen by the Morris County Agriculture Development Board (CADB), which was created by the Morris County Board of Chosen Freeholders in 1983.<sup>31</sup>

The CADB oversees the preservation of farmland in accordance with the New Jersey Agriculture Retention and Development Act<sup>32</sup> and administers the Right-to-Farm program.<sup>33</sup> County funding is combined with state and local funds to preserve existing farmland throughout Morris County's agricultural areas. As of June 20, 2020, the Farmland Preservation Program had permanently preserved 137 farms totaling 8,066 acres, with six additional farms totaling 238 acres in the preservation pipeline and another three farms totaling about 50 acres in the eight-year term preservation program of farmland in Morris County.<sup>34</sup> There are approximately 20,000 acres of additional farm assessed land in the County, of which about 3,100 have been targeted for potential acquisition as part of this voluntary preservation program.

### *Land Use Element Goals*

- The efficient use of land and resources: Encourage the focus of housing and economic growth in areas with existing or planned infrastructure (sewer/water/transportation) and in existing or planned population and employment centers consistent with environmental protection limitations and environmental protection goals. Encourage less intense growth, and focus major land conservation and preservation activities in areas that do not contain existing or planned infrastructure.
- The protection of natural, historic, agricultural and scenic resources: Encourage the protection and preservation of environmental resources, unique natural features, open space, historic assets and farmland throughout Morris County, focusing major conservation, preservation and protection activities in areas without existing or planned infrastructure, in which the majority of these resources are located.
- Development that proceeds only after careful analysis of environmental conditions: Support desired development that proceeds only after careful analysis of environmental conditions and within the

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<sup>31</sup> The Board of Chosen Freeholders was renamed the Board of County Commissioners in 2021.

<sup>32</sup> N.J.S.A. 4:1C-11 et seq. 1981.

<sup>33</sup> N.J.S.A. 4:1C et seq. 1983.

<sup>34</sup> Morris County Preservation Trust, June 2020.

limitations imposed by such analysis, with emphasis on the mitigation of associated environmental impacts and potential hazards to life and property.

#### *Trends*

- Continued preservation of farmland is anticipated: Participation in the Trust’s Farmland Preservation Program has grown steadily and there are currently 137 farms and 8,066 acres permanently preserved for agriculture.<sup>35</sup> Most of the roughly 20,000 acres of still unpreserved farm-assessed lands are located in areas without infrastructure and with regulatory restrictions limiting substantial development. Therefore, opportunities remain for additional farmland to be permanently preserved under the County’s voluntary farmland preservation program.

#### *Recommendations*

- Work with the Morris County Agriculture Development Board to update the Morris County Farmland Preservation Plan.
- Continue to support, oversee and staff the Morris County Open Space Program, Farmland Preservation Program, Historic Preservation Program, and Flood Mitigation Program.

#### *Circulation Plan Element, 2018*

The Morris County Circulation Element was adopted on October 18, 2018. The Circulation Element was developed as a result of an examination of the patterns in existing demographics and transportation networks. The plan identifies trends in infrastructure, development and technology that have bearing on the County’s roads and bridges, public transportation, bicycle and pedestrian, freight and aviation networks. The Circulation Element discusses emerging transportation trends in Morris County, such as the rise of transit-oriented development (TOD) and walkable community design. The County has established a Trail Construction Grant Program to provide support for local walkable community policies. Morris Township was recently awarded funding for the “Blue Gate Farm Preserve Connector Trail,” which will provide a pedestrian and bicycle connection between two neighborhoods and to Township parkland.

#### *Natural Resource Management Guide, 2000*

Morris County’s Natural Resource Management Guide was adopted by the Board of Chosen Freeholders in 2000. The Plan examines factors relating to geology, topography, hydrology, vegetation, wildlife and climatology that make Morris County unique. With this in-depth analysis of these environmental factors, the Plan offers best management practices that its municipalities can utilize in their efforts to become better environmental stewards.

#### *Bicycle and Pedestrian Element, 1998*

The Morris County Board of Chosen Freeholders adopted the County’s Bicycle and Pedestrian Element on December 3, 1998 via Resolution #98-4. The purpose of this plan was to set standards and offer guidance to Morris County municipalities in facilitating the development, expansion and interconnectedness of bicycle and pedestrian networks. The Plan examines the history behind existing networks and facilities and the regulations controlling them. The Plan characterizes the most common types of bicycle and pedestrian travel and related facilities, outlines trends and challenges such as those related to children and accidents, and offers design guidelines for municipalities to employ.

#### *Water Supply Element, 1994*

The Board of Chosen Freeholders adopted Morris County’s Water Supply Element on April 7, 1994. The Water Supply Element examines the existing water resources available to Morris County as well as the inventory of municipal water supply facilities. The Plan then analyzes the patterns and projections for demand and use as well as how

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<sup>35</sup> As of June 2020, excluding three farms and approximate 50 acres in the term (non-permanent) preservation program.

regulatory requirements impact water supply in order to make recommendations tailored to the County's unique environmental characteristics. The recommendations cover such topics as distribution of water resources, ground water management, water quality, water supply and distribution, as well as potential actions that could be taken at the County level. The Plan incorporated projections through 2010, and did not include any information or demand statistics post-2010.

Morris County Multi-Jurisdictional Hazard Mitigation Plan (2020)

The County updated its Multi-Jurisdictional Hazard Mitigation Plan in June 2020. The Plan identified the following Hazards of Concern:

- Dam Failure
- Disease Outbreak (mosquito-borne diseases, tick-borne diseases, campylobacteriosis, influenza, mumps, Ebola, Coronavirus)
- Drought
- Earthquake
- Extreme Temperature (heat and cold)
- Flood (including urban flooding)
- Geological Hazards (landslide, subsidence, and sinkholes)
- Harmful Algal Blooms
- Infestation (Insects [e.g. gypsy moth, mosquitoes, spotted lanternfly, emerald ash borer], white-tailed deer, rodents)
- Severe Weather (hurricanes, tropical storms, high winds, tornadoes, thunderstorms, hail, lightning)
- Severe Winter Storm (heavy snow, blizzards, ice storms)
- Wildfire
- Hazardous Materials (fixed sites and in transit)

Several of these identified hazards have implications on the agricultural community. A summary of these issues is provided below:

*Drought:* The document notes that agriculture-related drought disasters are common. In 2015 Morris County was included in declaration S3930 for excessive heat and drought and in 2016, included in declaration S4071 for combined effects of freeze, excessive heat and drought. The document further states that due to climate change, the State is projected to experience more frequent droughts which may affect the availability of water supplies and increasing the agricultural need. However, if precipitation increases and more efficient irrigation techniques are adopted broadly, the agricultural community may decrease its dependency on water supplies.

*Flood:* Morris County is most susceptible to riverine (inland) flooding, urban flooding as a result of precipitation and insufficient drainage, and flooding as a result of dam failure. The US Secretary of Agriculture is authorized to designate counties as disaster areas to make emergency loans to producers suffering crop losses, which have a significant impact on the economy by reducing produce sales. Between 2015 and 2019, Morris County was not included in any USDA declarations involving flooding, nor were any crop losses reported as a result of flooding.

*Infestation:* Morris County agriculture operations deal with the threat of infestation from gypsy moths, mosquitoes, emerald ash borers, spotted lanternflies, and white-tailed deer, as well as rodents and invasive plants. Overpopulation of white-tailed deer is a byproduct of agriculture and a prevalence of greenways and large building lot sizes, which also causes severe reductions in the diversity of native forest plants. Crop losses spurred by infestation have the capability of stunting economic growth. In 2017, there were 6,659 acres of cropland in Morris County, and 5,904 acres that was harvested (USDA 2017). Therefore, it is reasonable to believe that Morris County farmers have experienced monetary losses from infestations.

*Severe Weather:* As stated above, agriculture-related drought disasters are one of the more common forms of severe weather which threaten Morris County farmers. In 2018, Morris County was included in declaration S4454 for excessive rain and moisture, and declaration S4455 for the combined effects of excessive rainfall, moisture, and storm-force winds from Hurricane Florence. From June 2017 to August 2018, the County declared roughly \$30,040 in indemnities for excessive moisture for all other crops due to severe weather events.

*Wildfire:* Wildfires can dramatically alter the terrain and ground conditions, thereby increasing the probability of other natural disasters such as flood and mudflows. Based on historical records and input from the Steering Committee and Planning Committee, the probability of occurrence for wildfire in the County is considered 'frequent' with little impacts due to scale of events and great capabilities in the County, region and State. Based on temperature projections for Northern New Jersey, Morris County can expect warmer and drier conditions, which may contribute to an increase in the frequency and intensity of wildfires.

#### Strategic Plan, 2018

Morris County's Strategic Plan was adopted by the Board of Chosen Freeholders on August 22, 2018. The aim of the Strategic Plan is to develop a unified vision and mission for the County with a clear set of guiding principles for the County government to employ in working to meet the vision and mission. The County's mission is as follows:

*"Morris County will protect and preserve the quality of life for all of Morris County, and ensure the effective, efficient, and ethical stewardship of tax dollars."*

The Strategic Plan offers a set of seven guiding principles for the County government. These broad principles focus on the ways to take advantage of the County's unique resources to optimize the quality of life for residents while minimizing burdens. The principles of the Strategic Plan encourage the County's 39 municipalities to coordinate with each other for cohesion in both short- and long-term planning.

#### State of the County Report, 2013

The Morris County Planning Board released the State of the County Report in 2013 as a complement to the County Master Plan. Because the elements of the County Master Plan cover different timeframes, the aim of the State of the County Report is to provide a snapshot of existing and various planning conditions and trends into a single comprehensive document.

The Open Space and Farmland Preservation section discusses how the Morris County Open Space and Farmland Preservation Trust Fund has been utilized for various projects across the County related to open space, agriculture and historic preservation, as well as flood mitigation and trail construction.

#### Floodplain Mitigation Program

In response to Hurricane Irene in 2011, the County Commissioners expanded floodplain mitigation efforts, creating the Floodplain Mitigation Program. This program is a grant program that buys flood-prone residential properties from willing sellers, working with funding partners at the local, state, and federal levels. Generally, the structures on land purchased under this voluntary program are demolished, and the land is permanently preserved, helping to create open space that will help to absorb and contain future flooding. The program received the NJ Association of Floodplain Managers Outstanding Floodplain Management Award in 2013 and the 2014 Governor's Environmental Excellence Award in Land Conservation. County funds used for this program are generated through the County's Open Space Trust Fund.

### Development Regulations

The Morris County Land Development Standards ensure that land development within the County proceeds in coordination with the County Master Plan, of which this Farmland Preservation Plan is a part, and with the Morris County Farmland Preservation Program.<sup>36</sup> Sections 701 and 703 of the standards apply as follows:

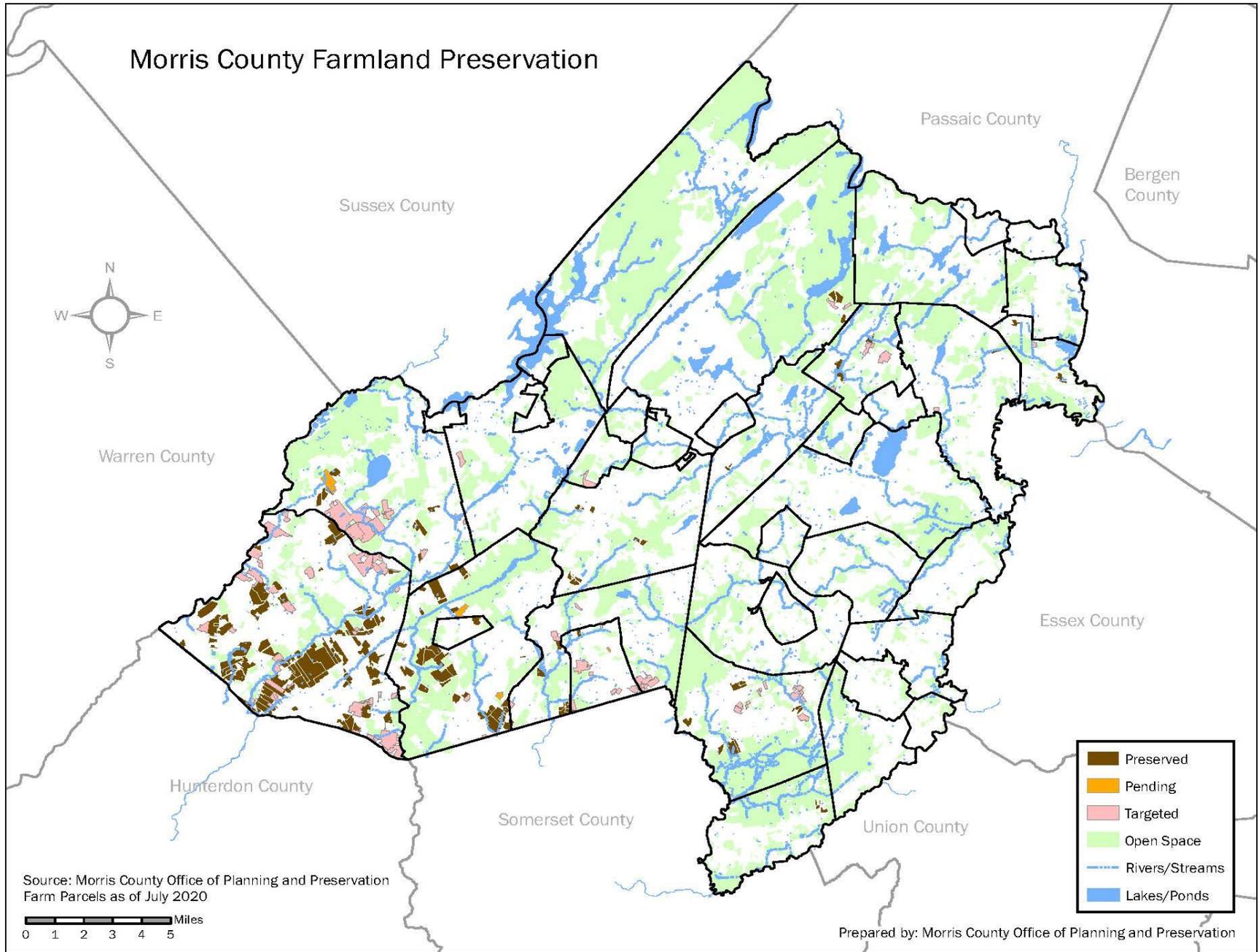
Section 701-F. Morris County Farmland Preservation Program -The Morris County Board of Chosen Freeholders has established the County Agriculture Development Board (CADB) for the purpose of implementing the State Agriculture Retention and Development Act (N.J.S.A. 4:1C-11). The CADB identifies areas of the County where agricultural uses should be retained and enhanced. Specific farm sites are also identified by the CADB for voluntary inclusion in Eight Year Farmland Preservation Programs and\or Permanently Preserved Easement Purchase Programs. Land development applications shall be reviewed for the consistency and compatibility with the Farmland Preservation Programs in accordance with the following provisions:

1. The CADB shall be notified of any land development application on a farmland site for which an application has been made to the CADB for participation in a Program.
2. Development applications on land adjacent to or within the general area of deed restricted farms will be reviewed to determine if any impacts will be caused by the proposed development which would be incompatible with existing and future agricultural operations and practices.
3. When necessary, the Planning Board shall consult with the CADB and shall identify, in its report, any conflicts between the proposed development and the County Farmland Preservation Program. Where conflicts seem to exist, the Planning Board will offer recommendations to the applicant and municipality with regard to their resolution.

Section 703 Relationship to Future County Plans and Regulatory Requirements - Any plan adopted by Morris County pursuant to state or federal law subsequent to the adoption of this Resolution assigning to the Planning Board implementation or review coordination responsibilities will be implemented through the applicable provisions of Sections 103, 701 or 702 of these Standards.

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<sup>36</sup> Morris County Land Development Standards, September 23, 1998, as Amended May 12, 2004, Sections 701 and 703, pg. 77-78.



### Current Land Use and Trends

The boundaries of Morris County encompass roughly 308,000 acres and over the past 40 years, the use of this land has undergone major changes.<sup>37</sup> In 1970, only 37% of the County was considered developed.<sup>38</sup> Presently, 85.3% of the County is either developed or preserved as open space. The remainder is either vacant land (5.1%) or farmland (9.6%). These figures do not accurately reflect remaining “developable” land, however, as remaining vacant land is often constrained by environmental and other factors. In addition, nearly one third of remaining farmland is permanently preserved.

Existing Land Use 1970 and 2019		
Category	Percent 1970	Percent 2019
Vacant	62.3%	5.1%
Residential	16.4%	34.5%
Farm	8.3% <sup>39</sup>	9.6%
Commercial	0.8%	4.7%
Industrial	1.3%	2.4%
Public / Quasi Public	4.3%	11.9%
Parks & Open Space	2.7%	25.4%
Transportation	3.9%	6.4%

*Morris County Office of Planning and Preservation. All figures rounded.*

#### Residential Land

At about 34.5%, residential land use represents the largest category of developed land in Morris County.<sup>40</sup> In 1970, residential use accounted for about 16% of land use in the County. Much of this change came as previously rural and lower density areas located outside of more traditional centers were suburbanized. The highest concentrations of housing (and population) are generally located in the central and eastern portions of the County, which also include the majority of higher density development and the infrastructure necessary to support more intense land use of all types. In 1970, there were 113,033 housing units of all types in the County, resulting in a housing density of 246 units per square mile.<sup>41</sup> By 2020, the number of housing units in the County rose to 197,722 and overall housing density was 411 units per square mile.<sup>42</sup>

#### Vacant Land

In 1970, 63% of Morris County was considered vacant, a category of land that has now been reduced to just 5.1%, generally scattered in relatively small parcels throughout the County. For the purposes of this report, vacant land is defined as undeveloped properties in private ownership listed as vacant in County tax records.<sup>43</sup> In this analysis, vacant land does not include lands reserved for watershed protection or devoted to wellhead protection; such lands are classified as public /quasi-public. Agricultural lands are also not considered vacant and are identified separately herein.

<sup>37</sup> Total Acres in GIS Morris County File 308,125.

<sup>38</sup> Morris County Master Plan, Future Land Use Element, 1975.

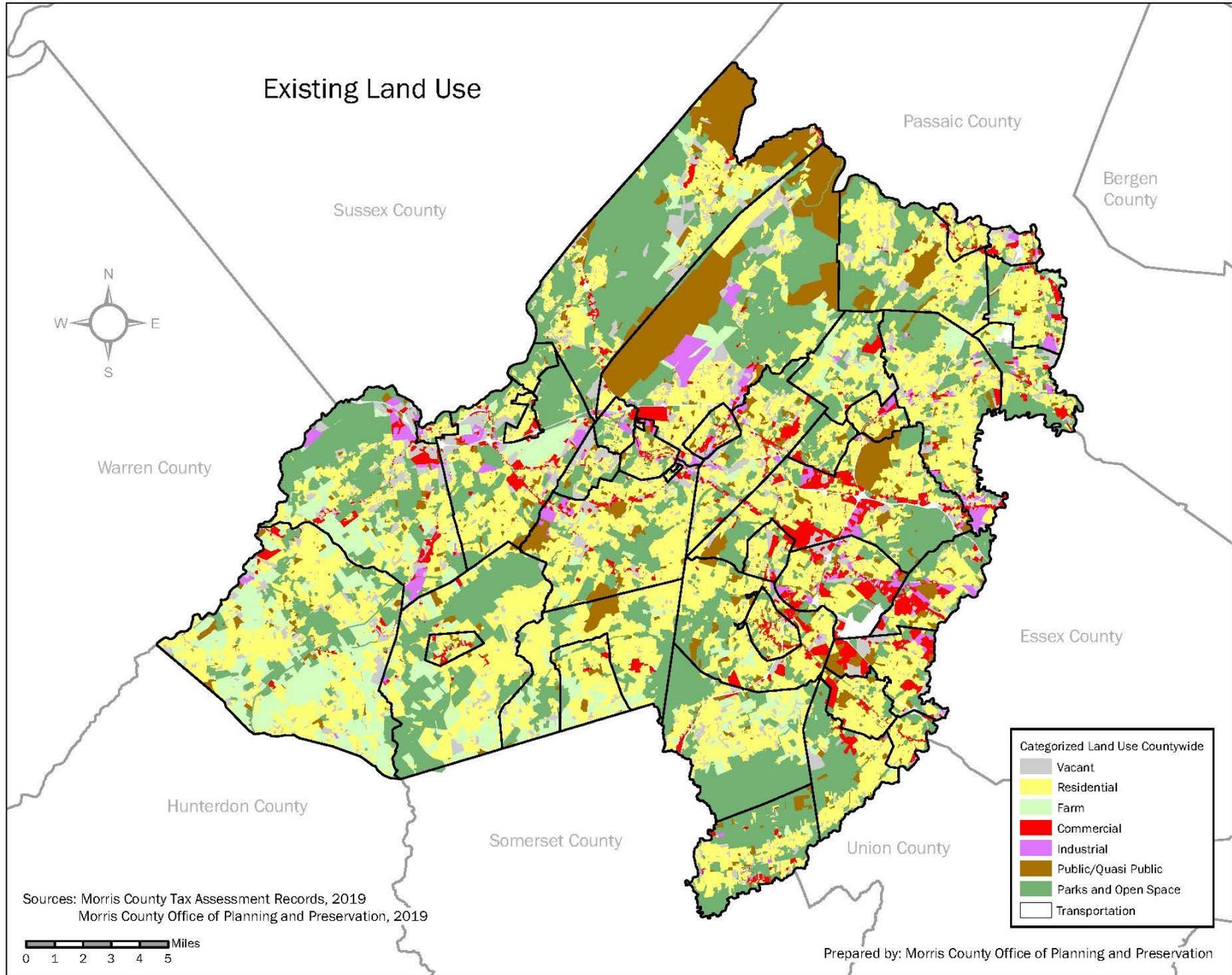
<sup>39</sup> Land devoted to farmland for the dates 1970 to 2019 not directly comparable due to differences in review methodology.

<sup>40</sup> Excludes farm residence acreage coded (3A), which are included with farmlands calculations. This accounts for approximately 138 acres as per MODIV records May 2019.

<sup>41</sup> Morris County Census Trends 1970-1980, State Data Center, pg. 34, US Census of Population and Housing.

<sup>42</sup> U.S. Census, 2020 Decennial Census. 481.44 square miles total area

<sup>43</sup> Vacant land figures from County tax records are reviewed and revised by staff to adjust for variations in identification, e.g. common area associated with multifamily development is sometimes identified as vacant as per MODIV, but is adjusted in this analysis as part of residential land area.



### Industrial Land

About 2.4% of the County is devoted to industrial use compared to 1.3% identified in 1970. Historically, industrial and warehouse uses were primarily located along rail corridors and major waterways (e.g. Whippany or Rockaway Rivers). Some of these uses remain, while others moved out of the region and/or have been replaced by mixed-use and multifamily housing through redevelopment projects. More recent industrial, manufacturing and/or warehouse use has typically located along or near major highway corridors. Smaller scale industrial/manufacturing use can be found in downtown areas, often near existing rail facilities. While traditional heavy manufacturing use has declined, current “industrial” development is focusing on advanced manufacturing (e.g. drugs and chemicals, medical equipment, computer/electronic), smaller specialty manufacturing, assembly operations, warehousing and distribution centers. Larger, stand-alone warehouse development has been particularly strong in recent years, as the growth in online shopping has intensified, creating demand for large distribution or “fulfillment” centers for storage and management of goods and direct delivery to consumers based on internet sales.

Between 1995 and 2018, approximately 59.4 million square feet of new nonresidential square footage was authorized by building permit in Morris County. Of this, about 21.3 million was designated as office, 6.2 million as retail and 31.8 million as “Other” nonresidential, a category that includes industrial and warehouse use, as well as other miscellaneous nonresidential uses.<sup>44</sup> While not all approved development was constructed, these figures demonstrate the pace of general commercial, industrial and other nonresidential use over this review period. The Great Recession (Dec.2007 - June 2009) marked a turning point in activity, with figures in more recent years totaling well below that authorized prior to 2007.

### Public /Quasi-Public Land

Public / Quasi-Public lands comprised about 11.9% of the County in 2019, compared to approximately 4.3% in 1970. This broad land use category encompasses a variety of public and other semi-public uses including schools, libraries, municipal, county, state and federal non-park facilities and properties, communications facilities, churches, correctional facilities and cemeteries.<sup>45</sup> This category also includes all utility authority properties, including lands used for watershed and wellhead protection. The federally owned Picatinny Arsenal, which covers nearly 6,300 acres, is also classified in this study as Public/Quasi-Public lands.

### Agricultural Lands

Lands assessed for agricultural purposes made up approximately 9.6% of Morris County in 2019. For this study, “agricultural land” was defined as farm-assessed property, which includes both lands devoted to active farming and related residential dwellings.<sup>46</sup> The majority of these farm-assessed properties are located in the northern and southwestern areas of the County. The 2019 figure exceeds but is not directly comparable to 1970, as the 8.3% of the County identified as agricultural land reported at that time was defined using aerial interpretation, not farmland assessment/tax records.

### Parks and Open Space

Lands dedicated to parks and open space comprised approximately 25.4% of the County in 2019.<sup>47</sup> Municipal and County government have long been active in open space preservation, initiating open space funding initiatives and aggressively pursuing open space acquisition. As a result, Morris County has more acres in county parks and more

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<sup>44</sup>New Jersey Department of Community Affairs Construction Reports. “Other Nonresidential” uses also includes but are not limited to hotels/motels, education, assembly (e.g. churches, arenas, theaters,) parking garages, institutional (e.g. jails, nursing care), and utilities. This category also includes multi-family housing development, however, that square footage was removed from this calculation for the purposes of this report.

<sup>45</sup> Semi-public uses are often tax exempt, provide a specific public benefit and may be publicly or privately owned.

<sup>46</sup> New Jersey Farmland Assessment Act of 1964, P.L. 1964, c.48 Based on tax assessment of farm qualified (3B) lands - Morris County GIS Database – January 2019. Includes related farmhouse “exception” (3A) properties.

<sup>47</sup>Excludes farmland, water authority, MUA watershed properties, private recreation. Approx. 78,270 ac.

acres in municipal parks than any other county in New Jersey.<sup>48</sup> There are also sizeable federal and state open space land holdings within the County, including national parks and wildlife management areas.

Examples of federal open space holdings include the Great Swamp National Wildlife Refuge and the Morristown National Historic Park. Examples of State Parks include Farny State Park in Rockaway Township and Hacklebarney State Park located in Chester and Washington Townships. Examples of State wildlife management areas include the Black River Fish and Wildlife Management Area (Chester Township), Berkshire Valley Wildlife Management Area (Roxbury Township) and the Wildcat Ridge Wildlife Management Area (Rockaway Township). Federal and state open space lands combined account for about 47.6% of all parks and open space lands in the County. Local and County parks are dispersed throughout the County.

#### Transportation

As defined in this report, transportation properties include road rights-of-way, railroads and airports. Approximately 6.4% of the County is devoted to transportation purposes. Due to the relatively developed state of the County coupled with the fiscal, regulatory and political difficulties associated with new highway construction, significant additions to this land use category are unlikely.

#### **Sewer Service Areas / Public Water Supply Service Areas**

##### Public Wastewater Treatment

The type of wastewater infrastructure available largely dictates the intensity and density of potential growth and development. The ability to adequately treat wastewater is critical to development and redevelopment. The location and particularly, the intensity of new development has been and will continue to be guided by sewer service availability, treatment plant capacities and septic systems standards. In non-sewered areas, concerns over groundwater contamination from individual on-site septic systems have resulted in increasing minimum required lot sizes for new lots.

Wastewater treatment is generally accomplished through one of three main systems: municipal/regional systems, package plants and septic systems. The limits of treatment and disposal are governed by NJDEP permitting criteria, by wastewater treatment technologies and by the capacity of land and waterways to assimilate treated waste within parameters necessary to maintain public health and natural ecosystems.

##### Municipal and Regional Systems

Municipal/regional systems include a sanitary sewer conveyance system, i.e., the pipelines that run under the streets, and the sewage treatment plants where sewage is treated and later discharged. A “sewer service area” (SSA) includes areas that are sewerred or are sewerable as per a NJDEP approved Wastewater Management Plan (WMP).

During the late 1960’s and early 1970’s, Morris County was served by 15 major municipal/regional sanitary sewer facilities, providing approximately 25 million gallons of wastewater treatment per day.<sup>49</sup> These major systems served about 20% of the County.<sup>50</sup> Morris County also contained many smaller “package” plants that served individual industries, schools and medical institutions and residential developments. The Clean Water Act, also known as the Federal Water Pollution Control Act of 1972, provided both the financial and the regulatory support for the expansion and upgrade of many public sewer treatment facilities and the expansion of sewer service areas. Following passage of this Act and subsequent amendments, on-going facility upgrade and expansion allowed sewer service to areas not previously served. These changes allowed the elimination of many small package treatment plants as the users of these systems began connecting to the new or expanded municipal and regional sewage treatment systems.

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<sup>48</sup> 2018-2022 New Jersey Statewide Comprehensive Outdoor Recreation Plan, NJDEP, Green Acres Program, April 2018, pg. 12.

<sup>49</sup> 1971 Morris County Master Plan – Sanitary Sewerage Facilities Element, Table 1.

<sup>50</sup> 1971 Ibid pg. 3.

It also allowed many homes with individual septic systems to connect to public sewage treatment and facilitated additional residential and nonresidential development in these newly served areas.

Current Sewer Service Areas and Facilities

Approximately 36% of the area within Morris County is currently in a sewer service area, i.e. an area that is or can be sewer as per current NJDEP regulations. There are 24 regional and municipal sewage treatment plants (STPs) providing service in Morris County.<sup>51</sup> These plants may serve a single municipality or multiple municipalities, and, in some instances, a single municipality may be served by multiple STPs.

**Current Sewer Service Facilities and Municipalities Served**

<b>Wastewater Utility</b>	<b>Municipalities Served in Morris County</b>
Ajax Terrace Water Pollution Control Plant	Roxbury Twp.
Butterworth Sewage Treatment Plant	Morris Plains Boro., Parsippany-Troy Hills Twp., Randolph Twp.
Chatham Twp. WPCP #1 (Chatham Main)	Chatham Twp.
Chester Boro. Wastewater Treatment Plant	Chester Boro.
Clover Hill Sewage Treatment Plant	Mount Olive Twp.
Florham Park Sewerage Utility	Florham Park Boro., East Hanover Twp., Morris Twp.
Greystone Park Psychiatric Hospital	Parsippany-Troy Hills Twp.
Hackettstown Municipal Utilities Authority Sewage Treatment Plant	Mount Olive Twp., Washington Twp.
Hanover Municipal Utilities Authority Sewage Treatment Plant	East Hanover Twp., Hanover Twp., Morris Plains Boro., Morris Twp., Parsippany-Troy Hills Twp.
Hercules Company WPCP	Roxbury Twp.
Long Hill Twp. Sewage Treatment Plant	Long Hill Twp.
Long Valley Wastewater Treatment Plant	Washington Twp.
Mendham Boro. Sewage Treatment Plant	Mendham Boro.
Molitor Water Pollution Control Facility (Madison-Chatham Joint Meeting)	Chatham Boro., Chatham Twp., Madison Boro.
Morristown Sewer Utility Sewage Treatment Plant	Hanover Twp., Morris Twp., Morristown
Mount Olive Villages Sewer Company Sewage Treatment Plant	Mount Olive Twp.
Musconetcong Sewerage Authority Sewage Treatment Plant (MSA)	Mount Arlington Boro., Mount Olive Twp., Netcong Boro., Roxbury Twp., Jefferson Twp.
Parsippany-Troy Hills Sewage Treatment Plant	Denville Twp., East Hanover Twp., Montville Twp., Mountain Lakes Boro., Parsippany-Troy Hills Twp.
Rockaway Valley Regional Sewerage Authority Sewage Treatment Plan (RVRSA)	Boonton Town, Boonton Twp., Denville Twp., Dover Town, Mine Hill Twp., Montville Twp., Parsippany-Troy Hills Twp., Randolph Twp., Rockaway Boro., Rockaway Twp., Victory Gardens Boro., Wharton Boro.
Two Bridges Wastewater Treatment Plant	Butler Boro., Kinnelon Boro., Lincoln Park Boro., Pequannock Twp., Riverdale Boro.
United Water (Suez) Mid-Atlantic (Arlington Hills) Sewage Treatment Plant	Mount Arlington Boro., Roxbury Twp.
Schooley's Mountain Wastewater Treatment Plant	Washington Twp.
White Rock Lake Sewage Treatment Plant	Jefferson Twp.
Woodland Sewage Treatment Plant	Florham Park Boro., Madison Boro., Harding Twp., Morris Twp., Morristown Town.

Source: NJDEP Office of Water Resource Management Coordination

<sup>51</sup>Based on assessment of the approved Morris County Future Wastewater Service Area Map, May 2019.

### Package Plants

Despite the existence of regional facilities, many areas of the County remain outside sewer service areas. As a result, many commercial and housing developments are served by small on-site discharge to groundwater (DGWs) and discharge to surface water (DSWs) systems that provide treatment for individual or small sites. Typically identified as “package plants,” these small, dedicated treatment systems are designed to serve specific users that typically generate over 2,000 gallons per day (gpd); they are not part of a regional system capable of addressing multiple users.<sup>52</sup> These facilities provide a level of sewage treatment, which may be less rigorous than the treatment provided by the regional systems, but more effective than that provided by individual septic systems. There are approximately 110 of these sites located throughout the County.<sup>53</sup>

### On-Site Disposal – Septic Systems

Uses not served by municipal and regional sewage treatment plants or package plants are served by on-site individual subsurface sewage disposal systems (ISSDS).<sup>54</sup> Septic systems are the most common ISSDS used outside sewer service areas.<sup>55</sup> Septic systems are absorption systems that transport wastewater effluent to groundwater by means of subsurface percolation, filtration, and bacterial degradation. Septic system design, construction, and operation are governed by the New Jersey Standards for Individual Subsurface Sewage Disposal Systems.<sup>56</sup> Maintenance (and the subsequent efficacy) of these systems is the responsibility of individual homeowners or others with such systems, as overseen by local health departments.

The allowable density of septic systems often serves as the basis for minimum lot size requirements associated with subdivisions and new construction. The NJDEP Water Quality Management Planning (WQMP) rules state that nitrates cannot exceed two milligrams per liter (2mg/L) and has developed a Nitrate Dilution model to calculate the maximum number of septic systems that will be allowed in a watershed.<sup>57</sup>

### Wastewater Management Planning

The NJDEP issues Water Quality Management Planning (WQMP) Rules,<sup>58</sup> which establish the requirements for wastewater management planning in New Jersey in accordance with the Water Quality Planning Act.<sup>59</sup> Prior to the adoption of the 2008 revisions to the rules, each municipality and regional sewage authority were responsible for developing their own wastewater management plans (WMP). With the adoption of the 2008 Rules, the County of Morris became a “WMP entity” and assumed the responsibility for developing the plans for participating municipalities and sewer authorities in Morris County, providing substantial cost savings to local municipalities.<sup>60</sup> The Morris County Office of Planning and Preservation (Office of Planning and Preservation) is responsible for the development of the Morris County WMP in cooperation with participating municipalities and the NJDEP.

Under certain circumstances, municipalities may develop individual WMPs. In Morris County, Florham Park Borough and Washington Township have each developed their own WMPs that have been adopted by the NJDEP.<sup>61</sup> In the Highlands Region, the Highlands Council is responsible for developing WMP chapters for municipalities conforming

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<sup>52</sup> Some older package treatment systems may treat less than 2,000 gpd.

<sup>53</sup> Morris County Office of Planning and Preservation Analysis, 10/2019.

<sup>54</sup> ISSDS must have a flow of less than 2,000 gpd.

<sup>55</sup> NJDEP classifies areas outside of sewer service areas as General Service Areas.

<sup>56</sup> [N.J.A.C. 7:9A](#).

<sup>57</sup> N.J.A.C.7:15. July 7, 2008.

<sup>58</sup> *Ibid*.

<sup>59</sup> N.J.S.A. 58:11A-1 et seq.

<sup>60</sup> Several municipalities have undertaken their own Wastewater Management Planning efforts and are working or have worked with the NJDEP directly for approval of their plans. Other municipalities are working with the Highlands Council to develop their plans as the Highlands Council is responsible for wastewater management planning for conforming municipalities in the Highlands Region.

<sup>61</sup> Washington Township requested to be its own WMP entity and Florham Park Borough completed its chapter before the 2008 Rules assigned WMP responsibility to the County.

to the Highlands Regional Master Plan (RMP). The chapters and maps for municipalities conforming to the RMP will eventually be incorporated into the overall Morris County WMP.<sup>62</sup>

The Office of Planning and Preservation is currently developing individual municipal WMP chapters for eventual incorporation into an overall Morris County Wastewater Management Plan. It has completed various aspects of mapping and municipal chapter development and continues to engage in the ongoing process of completing the sections of the WMP with participating municipalities. It is important to note, however, that the County does not have the authority to approve the WMP chapters or any amendments; this power is reserved by the NJDEP.

The following map of Morris County Sewer Service Areas (SSA) identifies all areas where there is existing sewer treatment infrastructure and/or areas approved for future sewer service by the NJDEP. Included are the service areas of regional and package treatment systems. It should be noted that not all areas in the service area have existing sewer infrastructure, but in this area, new connections to regional facilities can be made and new package treatment systems may be installed. Locations outside of this area are not approved for regional or package system treatment and may only be served by individual septic systems unless an amendment to the sewer service area is approved by the NJDEP.

#### Water Supply

Continued development and redevelopment requires the availability of potable water, which is obtained from either surface water sources (reservoirs, lakes, rivers, etc.) or ground water sources (public or private wells). Morris County's water supply is almost entirely from public or private wells. Several large water supply reservoirs are located in the County, but these are owned by the cities of Newark and Jersey City and most of this water is transferred out of the County.<sup>63</sup> In fact, the majority of all water generated in Morris County is exported out of the County. In 2015, 102.5 million gallons of water per day (MGD) were withdrawn from Morris County's surface and groundwater resources and of this amount, only 40.1 MGD were used in Morris County. The remaining 62.4 MGD was exported out of the County eastward to support major urban areas.<sup>64</sup>

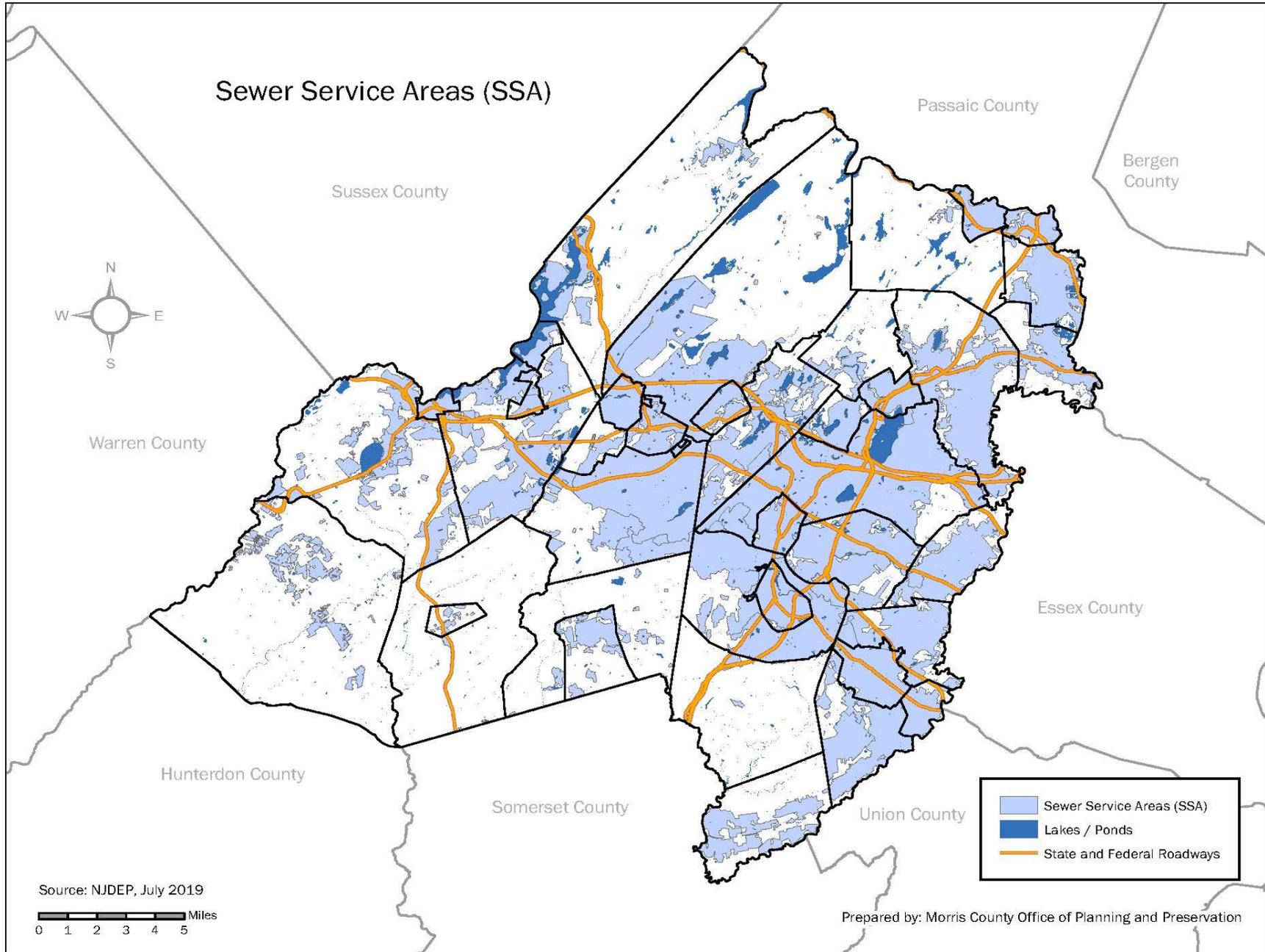
Based on current figures, the highest recorded Morris County water use over the last 25 years was 59.4 MGD in 2011, accounting for only 59.8% of the total water withdrawal from Morris County that year. The lowest County water use was in 1990 at 34.2 MGD, which was only 30.7% of the water withdrawn for that year. Between 1990 and 2015, Morris County used an annual average of just 43% of the total water withdrawn from Morris County's surface and groundwater resources.

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<sup>62</sup> Municipalities conforming to the Highlands Regional Master Plan for both the Planning and Preservation areas include Chester Borough, Chester Township, Kinnelon Borough, Parsippany-Troy Hills Township, Randolph Township, Rockaway Township, Washington Township and Wharton Borough.

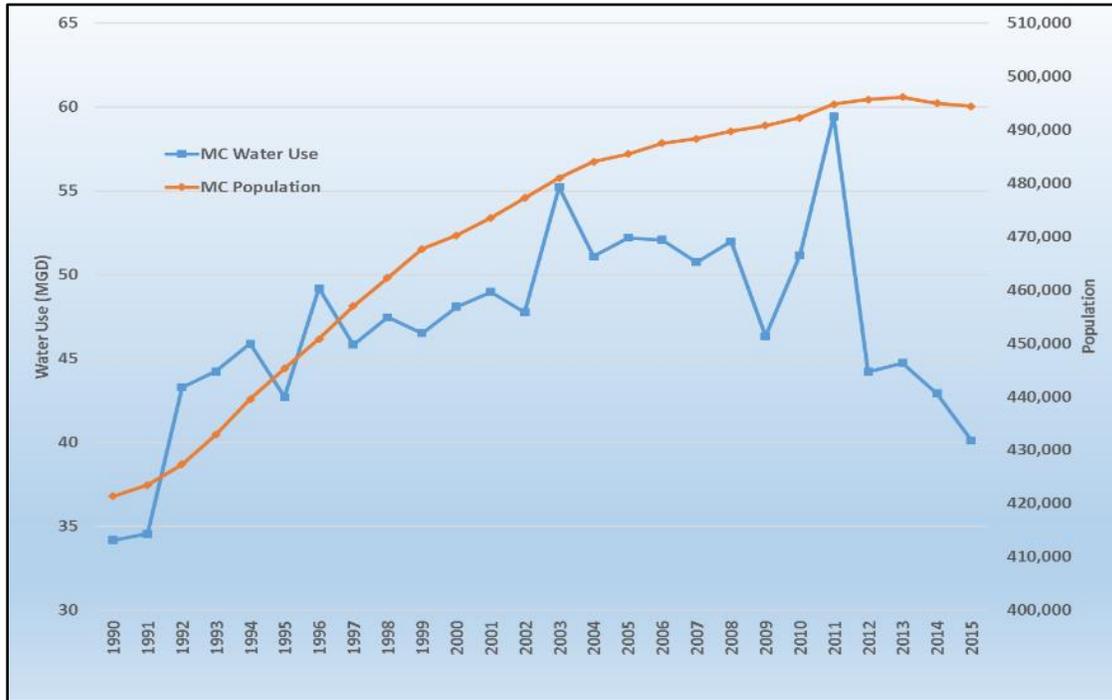
<sup>63</sup> In 1992, the MCMUA signed a purchase agreement with Jersey City to divert 7.5 MPG from the Boonton Reservoir for 40 years. Morris County Water Supply Element, 1994 pg. vi.

<sup>64</sup> New Jersey Geological Survey Water Transfer Model, Withdrawal, Use and Return Data Summaries as calculated by the NJDEP on 9/10/2019.



During the 1990s, increases in water use loosely tracked increases in Morris County’s population, however more recent years have seen a general drop in overall water use, even as the population increased.<sup>65</sup> Variations in demand are caused by several factors. Population growth is one factor, but rainfall amounts, temperature, economic changes, technological improvements and improved water conservation are also factors.

### Morris County Water Use and Morris County Population Growth



Source: NJGS, NJ Water Transfer Model, Withdrawal, Use and Return Data Summaries

From a land use perspective, economic changes impacting water supply in Morris County have included the decline in heavy industry and declines in office use. While housing growth and population growth are directly linked, the reduction in persons per household means that fewer persons are being added per new housing unit created. Housing type also influences related water use. For example, multi-family and attached housing uses much less water on a per unit basis when compared to single-family detached homes; there is much less water used for lawn or garden watering or pools on a per unit basis. Technological changes such as the introduction and widespread use of more water efficient appliances (e.g., washing machines, dishwashers, low flow toilets) in both residential and nonresidential uses has also reduced per capita water consumption.<sup>66</sup> Further improvements in water conservation and stormwater management by municipalities will also improve water availability.

<sup>65</sup>The reasons for the spike in water use in 2011 are not identified.

<sup>66</sup> Decreasing per capita water use is occurring statewide. The NJ Water Supply Master Plan 2017-2022 reports a statewide drop from 155 gpd to 125 gpd between 1990 and 2015, due in part to diminished indoor usage associated with more efficient plumbing fixtures (page vii). The Energy Policy Act of 1992, set minimum efficiency standards for all toilets, showers, urinals and faucets manufactured in the United States. In 2006, the USEPA created the WaterSense Program, a voluntary labeling program which defines water efficient products that use at least 20% less water than a regular model, operating similar to the energy star consumer-targeted rating system.

**Morris County Water Use v. Water Withdrawal**

Year	Water Used in Morris County (MGD)	Water Withdrawn from Morris County (MGD)	Percent Water Used by Morris County
1990	34.2	111.4	30.70%
1991	34.6	112.4	30.70%
1992	43.3	109.9	39.40%
1993	44.2	113.1	39.10%
1994	45.9	110.3	41.60%
1995	42.7	108.9	39.20%
1996	49.2	112.6	43.70%
1997	45.8	121	37.90%
1998	47.5	121.7	30.00%
1999	46.5	125	37.20%
2000	48.1	124.6	38.60%
2001	49	125.6	39.00%
2002	47.8	105.4	45.30%
2003	55.2	111	49.80%
2004	51.1	112.5	45.40%
2005	52.2	114.3	45.70%
2006	52.1	109.6	47.50%
2007	50.7	107.7	47.10%
2008	52	109.3	47.50%
2009	46.3	102.6	45.10%
2010	51.2	103.7	49.30%
2011	59.4	99.4	59.80%
2012	44.2	97.7	45.30%
2013	44.7	88.1	50.80%
2014	42.9	95.3	45.10%
2015	40.1	102.5	39.20%

Source: NJGS, NJ Water Transfer Model, Withdrawal, Use and Return Data Summaries

Public Water vs. Private Wells

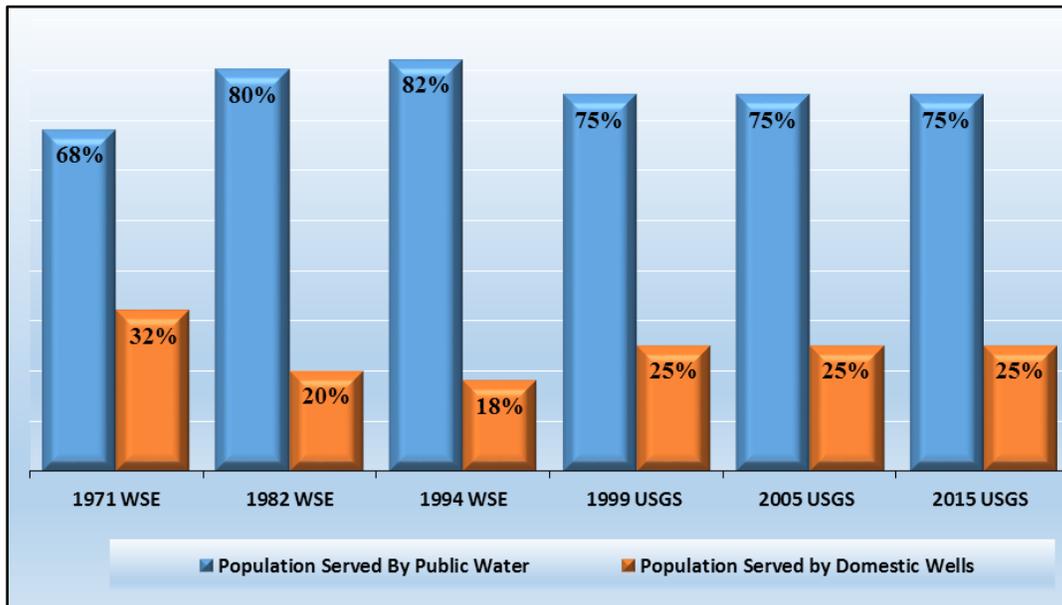
In the early 1970's, about 68% of Morris County's population received its water from a public water supply provider. The remainder relied on individual onsite wells.<sup>67</sup> Over the next two decades, the population served by domestic wells decreased as opportunities to connect to a public water supply system increased. This trend reversed itself during the late 1990's, as development continued into areas where public water supply was unavailable.

The percentage of development served by public vs. domestic water supply (on-site wells) has remained stable in recent years. However, the decline in available "greenfield" land<sup>68</sup> for new development and subsequent increase in redevelopment in areas with existing public water supply will eventually result in an increase in the percentage of County residents relying on public water.

<sup>67</sup> 1971 Morris County Master Plan – Water Supply Element, Elson T. Killam Associates, Inc. May 1969, May 1970, reprinted Oct. 1971.

<sup>68</sup> Greenfield: land that has not experienced previous development, e.g., forest, meadow, also including agricultural lands.

### Public vs. Domestic Water Supply



Sources: Morris County Master Plan – Water Supply Element(s) 1971, 1982, 1994

United States Geological and Water Survey 1999, 2005, 2015

#### Public Water Supply Systems

Public water systems serving Morris County include municipal water departments (WD), wholesalers, and systems that serve specific developments or sections of municipalities. These water systems may obtain their supplies from sources located inside and/or outside of the County.

#### Public Water Supply Systems

Municipality	Major Water Systems <sup>69 70</sup>
Boonton Town	Boonton WD
Boonton Twp.	Denville WD, Boonton Twp. WD, Mt. Lakes WD
Butler Boro.	Butler WD
Chatham Boro.	Southeast Morris County MUA, Chatham Boro. WD
Chatham Twp.	NJ American Water Co. (Passaic Basin), Southeast Morris County MUA
Chester Boro.	NJ American Water Co. (Raritan and Passaic Basin), Washington Twp. MUA-Hager
Chester Twp.	NJ American Water Co. (Passaic Basin), AWM Four Seasons at Chester
Denville Twp.	Denville WD, Mt. Lakes WD, Rockaway Boro. WD
Dover Town	Dover Water Commission
East Hanover Twp.	East Hanover WD
Florham Park Boro.	NJ American Water Co. (Passaic Basin), Florham Park WD
Hanover Twp.	Southeast Morris County MUA
Harding Twp.	Southeast Morris County MUA, NJ American Water Co. (Passaic Basin), Lake Shore Water Co.
Jefferson Twp.	Sparta Twp. Water Utility, Jefferson Twp. Water Utility (Lake Hopatcong, Milton & Vassar Road), Sun Valley Park
Kinnelon Boro.	Kinnelon WD, Butler WD, Fayson Lakes Water Co.

<sup>69</sup> NJDEP Data Miner, [http://datamine2.state.nj.us/DEP\\_Opra/OpraMain/categories?category=Safe+Drinking+Water](http://datamine2.state.nj.us/DEP_Opra/OpraMain/categories?category=Safe+Drinking+Water), last accessed on September 24, 2019.

<sup>70</sup> Mobile Home Parks excluded.

Municipality	Major Water Systems <sup>69 70</sup>
Lincoln Park Boro.	Lincoln Park WD, Lincoln Park Jacksonville System, Pequannock WD, Pequannock Twp. WD-Cedar Crest
Madison Boro.	Madison WD
Mendham Boro.	NJ American Water Co. (Passaic Basin)
Mendham Twp.	Southeast Morris County MUA, NJ American Water Co. (Passaic Basin)
Mine Hill Twp.	Mine Hill WD, Dover Water Commission, Wharton WD
Montville Twp.	Montville MUA, Jersey City MUA, Green Briar Res Health, Signature Care Home@Montville
Morris Twp.	Southeast Morris County MUA, Sisters of Charity South Elizabeth
Morris Plains Boro.	Southeast Morris County MUA
Morristown Town	Southeast Morris County MUA
Mt. Lakes Boro.	Mt. Lakes WD, Denville WD, Parsippany-Troy Hills WD
Mt. Arlington Boro.	Mt. Arlington WD (Kadel & Main System), Roxbury WD (Shore), Suez Water (Arlington Hills)
Mount Olive Twp.	Mt. Olive WD (Goldmine, Sand, Pinecrest, Lynwood, Tinc Farm, Carlton Hills, Village and Main Systems Flanders), AWM Country Oaks, Mt. Olive Villages WD, NJ American Water Co. (West Jersey, Passaic Basin and ITC) NJ Vasa Home Water, Hackettstown MUA, Morris Chase/Morris Hunt Water System, Netcong WD, Mount Olive Twp.-Flanders, NJ American Water-Mount Olive/West Jersey
Netcong Boro.	Netcong WD
Parsippany Troy Hills Twp.	Parsippany Troy Hills WD, Denville WD, Mt. Lakes WD,
Long Hill Twp.	NJ American Water Co. (Passaic Basin)
Pequannock Twp.	Pequannock WD (Main and Cedar Crest)
Randolph Twp.	Randolph WD, Denville WD, Morris County MUA, Dover Water Commission
Riverdale Boro.	Riverdale WD
Rockaway Boro.	Rockaway Boro WD, Denville Twp. WD
Rockaway Twp.	Rockaway Twp. WD, Denville WD, Wharton WD, Picatinny Arsenal, Hoffman Homes Community LLC, Rockaway Boro WD, Dover WD
Roxbury Twp.	Roxbury WD (Evergreen, Sky View, Shore), Netcong WD, NJ American Water-Roxbury
Victory Gardens Boro.	Dover Water Commission
Washington Twp.	Washington MUA (Hager and Schooley's Mountain), Hackettstown MUA, Sherwood Village, Aqua, Cliffside Park Assoc. Inc.
Wharton Boro.	Dover Water Commission, Wharton WD

Source: NJDEP

#### Morris County Municipal Utilities Authority

The Morris County Board of Chosen Freeholders<sup>71</sup> created the Morris County Municipal Utilities Authority (MCMUA) in 1958 for the primary purpose of developing and distributing an adequate supply of water for the use of the County's inhabitants.<sup>72</sup> To this end, the MCMUA obtained control of various lands and developed a water distribution system enabling them to supply bulk water to the many water supply systems existing throughout Morris County.<sup>73</sup> At present, the MCMUA (Water Supply Division)<sup>74</sup> maintains a complex system of wells in the Townships of Mount Olive, Roxbury, Randolph and Chester, drawing on underground aquifers, with a maximum production capacity of approximately 11.3 million gallons of water per day, serving approximately 35,000 people or 8% of Morris County.

<sup>71</sup> Now County Board of Commissioners

<sup>72</sup> 1994 Morris County Master Plan Water Supply Element, pg. iv.

<sup>73</sup> The MCMUA also receives funding from the Preservation Trust, using such funding to preserve buffer areas to protect its wells and water supply facilities.

<sup>74</sup> The MCMUA also implements the County's solid waste, recycling and hazardous waste programs through its Solid Waste Division.

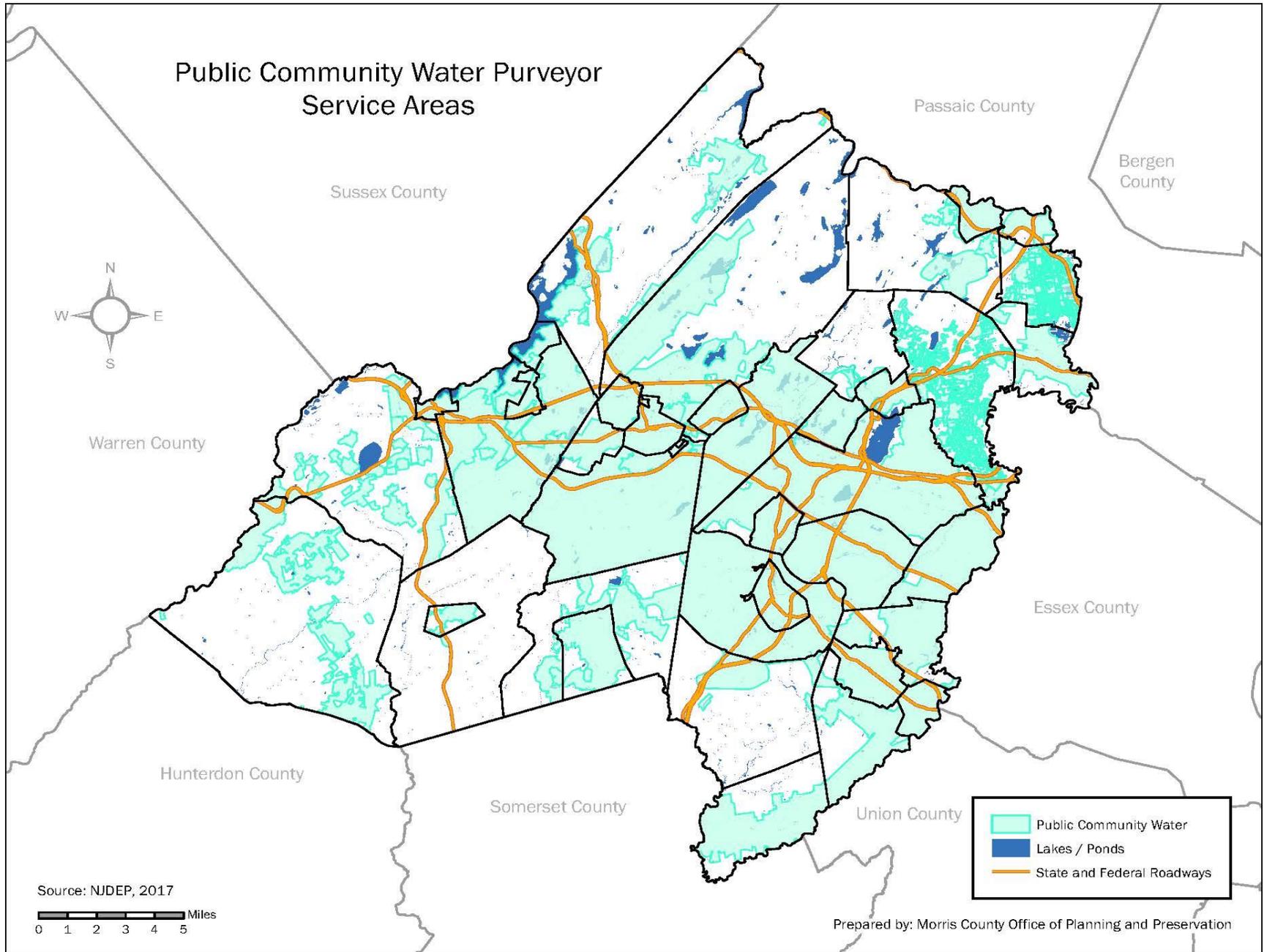
The MCMUA uses its system of wells, booster stations, pipelines and water storage tanks to transmit water to the following ten municipal and commercial water purveyors located in the MCMUA service area:<sup>75</sup>

**MCMUA Supported Water Purveyors**

Denville Township	Parsippany-Troy Hills Township
Jefferson Township	Randolph Township
Mine Hill Township	Roxbury Township
Mount Arlington Borough	Wharton Borough
N. J. American Water Company	Southeast Morris County MUA

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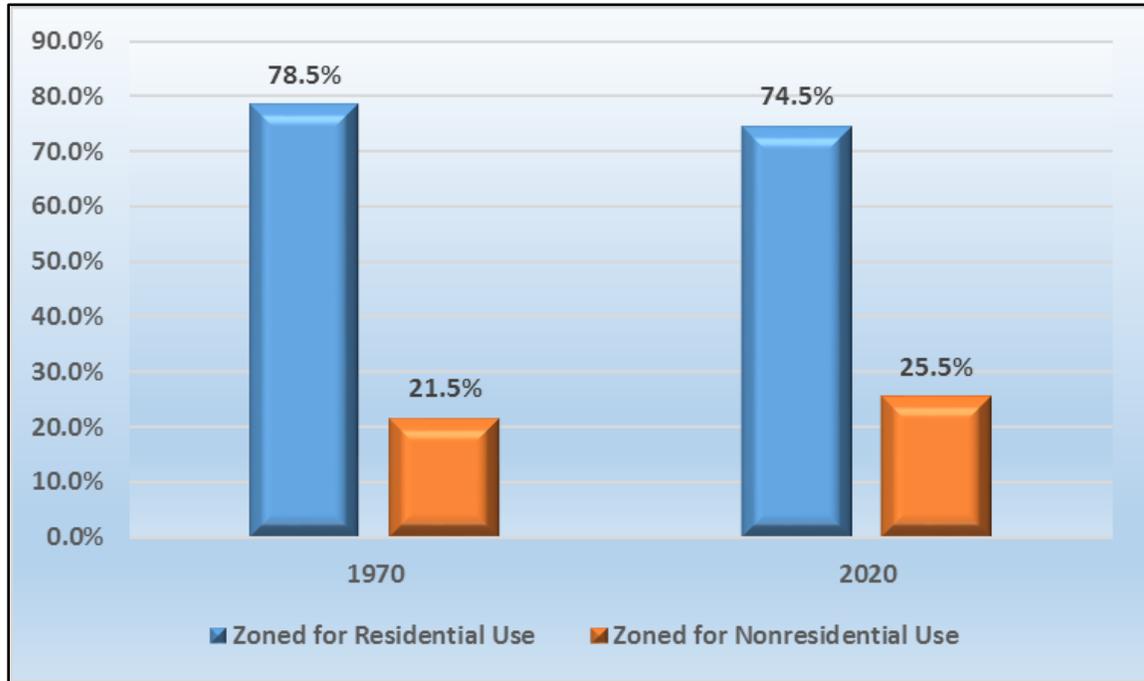
<sup>75</sup> Morris County MUA, 9/2019.



### Municipal Zoning – Overview

Most land in the County (74.5 %) is zoned for residential use. This percentage has varied by only 4.0% since 1970. This measure does not, however, relate the full range and complexity of zoning in Morris County.

**Residential and Nonresidential Zoning 1970 - 2020**



Source: 1975 Morris County Master Plan Future Land Use Element and 2020 Generalized Zoning Data 1/6/2020, Morris County Office of Planning and Preservation. Figures rounded

### General Use Types and Minimum Lot Size Categories

Over the years, zoning has become increasingly complex as municipalities have responded to continually evolving development needs and residential/nonresidential market demands. Municipalities make ongoing modifications to their zoning as they attempt to respond to these changes while protecting established residential neighborhoods and areas of commerce from potentially incompatible development. At the time of this writing, Morris County’s 39 municipalities have collectively created 759 distinct *primary* zoning districts.<sup>76</sup> There are also an additional 128 *overlay* zones in the County, i.e. zones that “overlay” the primary zoning designation, providing an optional development alternative.

For the purpose of relating overall zoning characteristics for the County, the overwhelming complexity and variation of these districts have been distilled into their most basic characteristics. As such, the primary districts have been compiled into eleven *generalized* zoning categories as noted below and on the following map.<sup>77</sup>

<sup>76</sup> As of January 2020.

<sup>77</sup> Optional overlay zoning categories are not included in the calculation of zoning by generalized category.

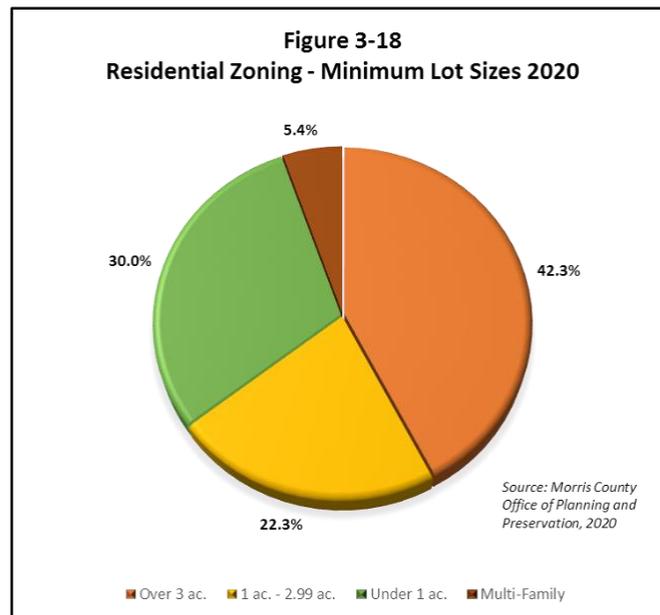
### Generalized Zoning

Generalized Zoning January 2020	Acres	Percentage
Large Lot Single-family (> = 3 acres)	95,922	31.5%
Medium Lot Single-family (1 acre to < 3 acres)	50,645	16.7%
Small Lot Single-family (< 1 acre)	67,863	22.3%
Low Density Multi-Family (< = 4 units/acre)	5,554	1.8%
Medium Density Multi-Family (> 4 units/acre to 10 units/acre)	4,083	1.3%
High Density Multi-Family (> 10 units/acre)	2,584	0.8%
Retail/Service	6,871	2.3%
Commercial/Private Recreation	2,304	0.8%
Commercial/Industrial	24,122	7.9%
Public/Institutional	41,213	13.6%
Mixed Use	2,995	1.0%
<b>TOTAL</b>	<b>304,156</b>	<b>100.0%</b>

Source: Morris County Office of Planning and Preservation, January 2020

#### Residentially Zoned Land

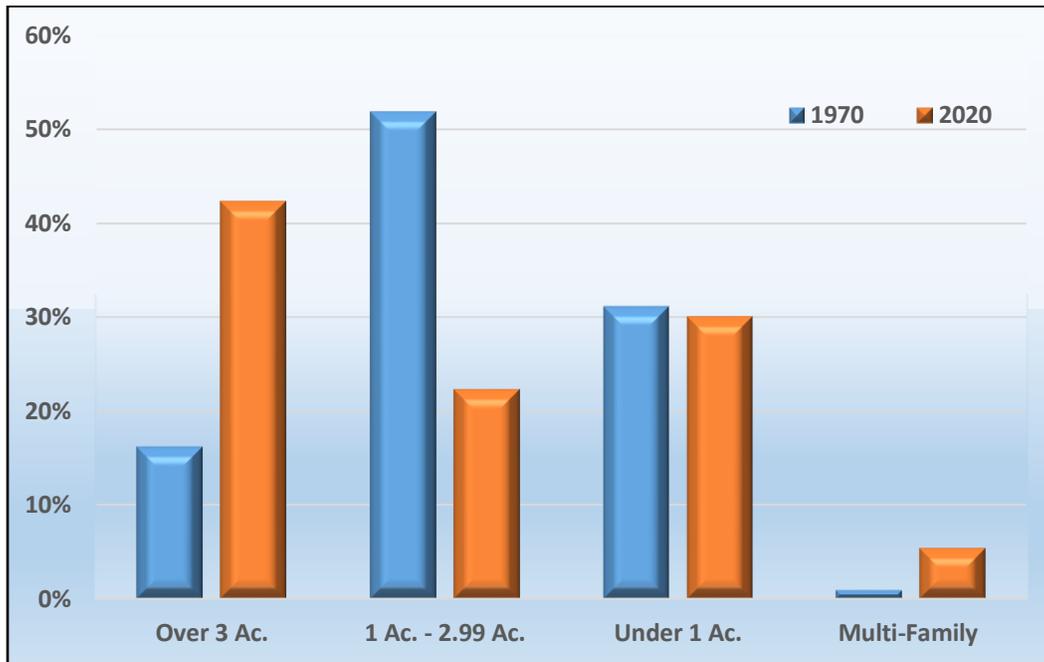
The amount of land zoned for residential use in Morris County has not changed significantly over the last 50 years but there have been substantial changes in minimum lot size requirements. Of the land in Morris County presently zoned primarily for residential use,<sup>78</sup> 42.3% requires a minimum lot size of three acres or greater, compared to just over 16.2% of land similarly zoned in 1970.<sup>79</sup> This rise in large lot zoning came through changes to residential land previously zoned for minimum lot sizes of one to 2.99 acres. In 1970, this category accounted for 51.8% of all residentially zoned land; presently it accounts for less than half that figure, coming in at 22.3%.



<sup>78</sup> Areas defined as mixed use not included. Other uses may also be permitted in residentially zoned areas, e.g. agriculture, utilities, houses of worship, etc.

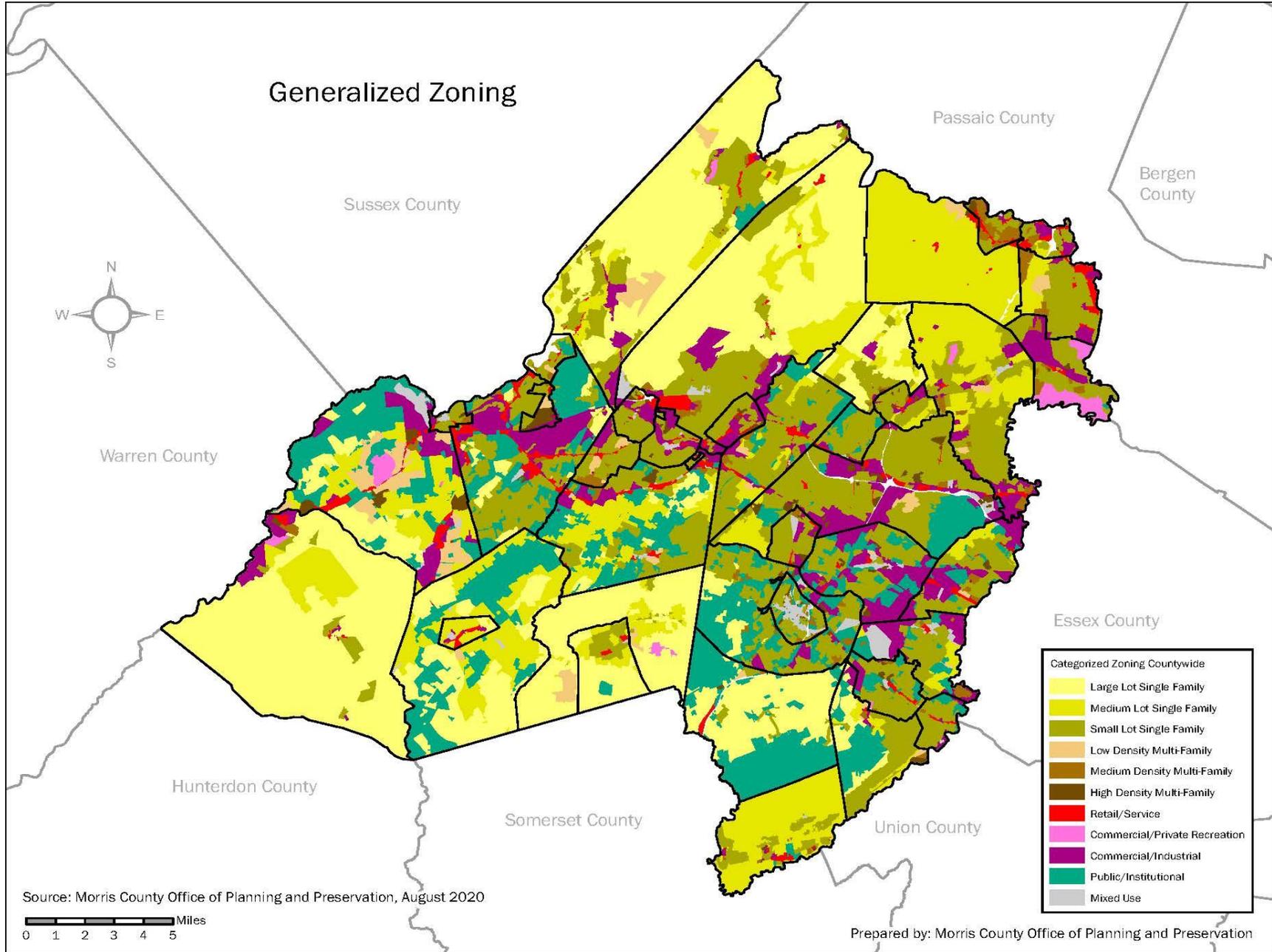
<sup>79</sup> Morris County Future Land Use Element, 1975.

### Residential Zoning - Minimum Required Lot Sizes/Multi-Family



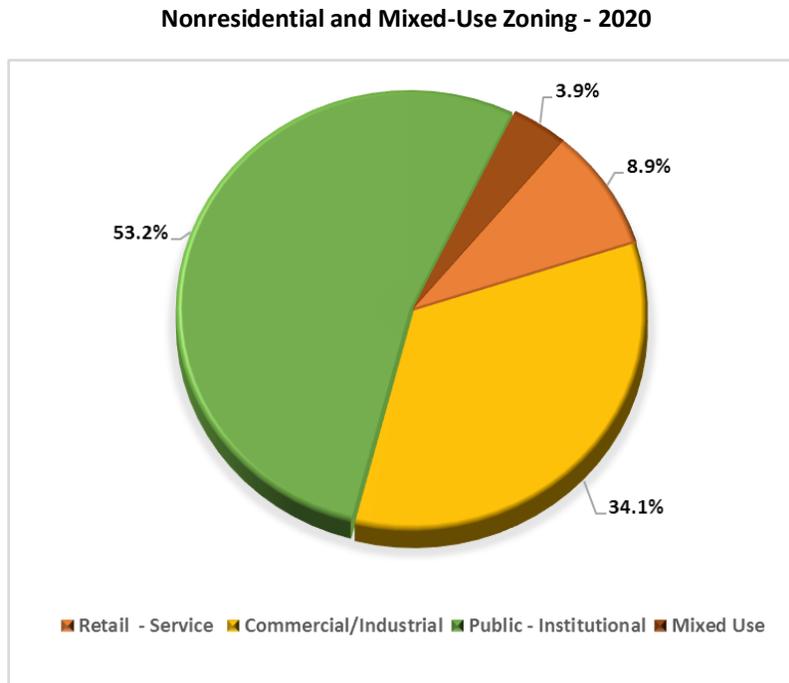
Source: Morris County 1975 Future Land Use Plan and Morris County Office of Planning and Preservation, January 2020

Zoning for single-family lots of less than one acre has changed little, dropping 1.1% overall (from 31.1% to 30.0%). It is likely that most of the housing built on these lots, found primarily in the more compact towns and boroughs, was already in place as of 1970. Residential land zoned exclusively for multi-family development rose from 0.9% in 1970 to 5.4% in 2020. This type of zoning is currently gaining ground as redevelopment becomes more important as a generator of new housing and other uses.



Nonresidential and Mixed-Use Zoned Land

The majority of non-residentially zoned lands (53.2%) are found in the “Public/Institutional” category, which includes lands zoned for government, public or institutional uses. Examples of lands in this category include the Great Swamp National Wildlife Refuge and Morristown National Historic Park, the Black River and Berkshire Valley Wildlife Management Areas, and various County-owned and non-profit owned lands. Commercial/Industrial zoning (e.g. office, research, manufacturing, warehousing, private recreation) accounts for 34.1% of all non-residentially zoned lands, followed by lands zoned for Retail/Service, accounting for about 8.9% of nonresidential zoning.<sup>80</sup> Mixed-Use zoning accounts for 3.9% and includes districts where both nonresidential and residential use is permitted or required.



Source: Morris County Office of Planning and Preservation, January 2020

Description of Innovative Planning Techniques Employed

*Cluster Subdivision, a.k.a. Conservation Subdivision*

Cluster ordinances allow or require houses to be grouped close together on small lots to protect open land. Typically, the cluster subdivisions permit reductions in required lot area and bulk requirements, focusing the original development potential of an entire tract on a specified portion of a parcel. The portion of the parcel that is not developed is restricted by a conservation easement. Cluster developments are also known as cluster subdivisions, conservation subdivisions open space or open land subdivisions.

Through clustering, the most environmentally sensitive lands can be preserved, while those areas that are more suitable for development can be developed at higher densities. The deed restricted land may be leased or sold to a farmer at a reduced cost because the development rights have been removed.

Cluster development can generate many positive benefits which may include: protection and less fragmentation of environmentally sensitive lands, open space and farmlands, reduction of infrastructure costs, reductions in road building and impervious cover, reduced cost of municipal services (e.g. snow removal), greater flexibility in the

<sup>80</sup> Zones permitting both industrial and retail are included in the Commercial/Industrial category.

placement of wastewater systems and types of wastewater systems that may be employed, and protection of scenic vistas. When individual site clustering is used in accordance with a town-wide clustering plan, it can result in patterns of development that increase the contiguity of protected lands, focusing housing into discrete areas and reducing overall development impacts. Disadvantages may include increased regulatory complexity and a more time consuming development review process, the potential for the creation of “orphan” open space parcels, potential failure of homeowners associations to maintain common preserved property, the increased expense and maintenance issues related to community septic systems (where applicable) and the negative public perception that cluster increases density of development. Additional concept plans may also be required to show that the number of lots being proposed is no greater than that which could be created with a conventional development layout.

The actual use of cluster development has waned in recent years, particularly as the amount of land available for development has been significantly reduced. However, as previously discussed, the majority of remaining vacant land is located in the Highlands Region and conforming municipalities are required to use clustering or some variation of technique in residential areas, where possible, in identified Agricultural Resource Areas.

#### *Non-Contiguous Cluster Zoning*

Whereas clustering may occur on a single parcel (or multiple contiguous parcels), noncontiguous clustering allows development on noncontiguous lands under common ownership. With noncontiguous clustering, the density of development that may be permitted on two or more noncontiguous parcels may be concentrated on one parcel while the other parcel(s) remains preserved as open space or farmland. In this manner, development may be transferred from one parcel to another, even if said parcels are on opposite ends of a community.

The benefits of noncontiguous clustering are similar to those associated with individual site clustering, except that preservation is not subject to the limitations of a single site. Larger environmentally sensitive or agricultural areas can be preserved since all development can be transferred to an “off-site” location. Development potential can be transferred to parts of a municipality where there are conditions better suited for development. Use of this option can provide for greater comprehensive community planning, growth management and implementation of wider preservation goals. Essentially, the benefits of traditional individual site clustering are provided on a community-wide basis. Substantial use of this technique can result in patterns of development in which larger areas can be preserved without significant fragmentation of resources. In terms of agricultural use, this can lead to more concentrated agricultural areas and less conflict with non-agricultural uses.

Noncontiguous clustering provides greater challenges as well. It generates a more difficult development and review process, introduces new and complex master plan and ordinance challenges, and can meet with local resistance from residents surrounding the “development receiving” parcel, which is now subject to greater development potential and associated development impacts. Its potential use is narrow, as the number of landowners that own more than one property in a municipality for which this technique is suitable is typically limited.

#### *Lot Size Averaging*

Lot size averaging is a subdivision technique that allows flexibility in the size and shape of lots to promote resource protection. Lot size averaging permits one or more lots in a subdivision to be undersized, provided the size of other lots is correspondingly increased. There is no change in the total number of lots permitted, only the lot dimensions. Unlike clustering, lot average subdivisions typically do not include areas of common open space/protected lands, but may include deed restrictions on oversized lots to prevent future subdivision.

Lot size averaging allows the placement of lots and structures in a manner that can avoid the disturbance of steep slopes, wetlands or other environmental constraints. The benefits of lot size averaging are similar to those achieved through individual site clustering, except that the larger areas of undisturbed land remain in private ownership. Like clustering, this design technique is more complex, requires greater input into the master plan and development regulation creation process, and results in a more involved and time consuming development review and approval process. Significant use of this technique can result in a subdivision pattern in which there is a lessened consistency in lot size which can impact neighborhood character.

The use of lot size averaging to avoid environmental constraints has great potential as it is less complicated in application and requires fewer unique conditions than cluster or noncontiguous clustering. Administration and monitoring is also simpler since there is no common area in need of development or preservation agreement or maintenance.

*Transfer of Development Rights (TDR)*

TDR programs offer an opportunity for the free market to generate the funds necessary to preserve farmland through the sale and purchase of development rights between designated sending areas (areas to be protected) and receiving areas (areas where development from sending areas is to occur). Transferable development “credits” are allocated to landowners in the sending area that can be sold on the private market. The credits are provided in exchange for the permanent protection of the farmland from further development. The purchaser of the development credits can apply them to develop at a higher density than otherwise allowed on property within the receiving area.

In concept, TDR offers many potential benefits. Severing the development rights for farmland preservation and assigning credits to the landowner for those rights can, in theory, protect lands at little cost to the public, allowing farming to continue, while providing a form of compensation for the loss in development value for the landowner through the sale of development rights (credits) on the open market. The land remains in private ownership, stays on the tax rolls and is permanently preserved for agriculture. The buyer of the credits benefits through the increased development permitted in the sending area, which has been specifically identified as appropriate for higher density development. Wide-spread use of TDR could concentrate development in areas where there is sufficient infrastructure and facilities to accommodate growth, reduce sprawl and protect agricultural and natural resources.

While simple in theory, the actual use of TDR is extraordinarily complex and requires a significant and lengthy commitment by local and regional government in terms of program planning, development, administration and maintenance. Assigning sending areas is relatively easy, but calculating appropriate development credit compensation and locating suitable receiving areas to accommodate the transfer of development can be particularly difficult. For one, most areas deemed suitable for higher density development are already zoned to accommodate that development. Down-zoning such areas to allow TDR to function is open to legal challenge. Locating areas with infrastructure capable of accommodating significant additional growth is also difficult.

Finally, the compensation for sending area landowners depends on a functioning and viable market for the TDR credit. The credits only have value if there is suitable demand. Lack of receiving areas, increased development costs and complexity of credit transfer, soft real estate markets and the ability of developers to develop in other unrestricted areas can negatively impact demand for credits, reducing or eliminating the value of any assigned credits.

*Use of Mandatory vs. Voluntary Options*

The majority of innovative planning techniques implemented at the local level to benefit/protect open space and/or farmland, (i.e. clustering, lot size averaging and others) are voluntary or optional in nature. Municipalities that are conforming their regulations to the Highlands Regional Master Plan (RMP) present one major exception. As previously described, such municipalities must adopt regulations ensuring consistency with the Highlands Regional Master Plan, which includes provisions requiring the use of residential clustering or other forms of “Open Space Subdivision Design,” to protect identified Agricultural Resource Areas (ARA) in any underlying zoning district that permits single-family residential development. This mandatory cluster provision applies only if other minimum threshold requirements for residential cluster development can be satisfied. If not permitted, principal residential uses shall remain as permitted by the underlying municipal zoning ordinance.

Conforming municipalities have adopted regulations in their land development ordinances deeming applications for development incomplete unless a determination of consistency with the Highlands Regional Master Plan is obtained from the Highlands Council, including consistency with ARA protection policies. Some conforming municipalities have adopted additional ordinance amendments consistent with RMP ARA policies. The inclusion of Highlands

Consistency regulations and/or Ordinances are noted in the list of Zoning and Subdivision Regulations: Techniques Supportive of Agriculture/Farmland Preservation.

Both State and Highlands TDR options are voluntary. At the time of this writing, no municipalities in Morris County have identified TDR sending or receiving areas as part of State or Highlands TDR programs.

**Zoning & Subdivision Regulations: Techniques Supportive of Agriculture/Farmland Preservation**<sup>81</sup>

**Boonton Town**

- Townhouse and multi-family residential clusters (mandatory in multiple zones).

**Boonton Township**

- Agriculture is permitted in multiple zones.

**Chatham Township**

- Residential cluster developments are a permitted option in multiple zones.
- Lot size averaging is a permitted option in multiple zones.
- Open Space Trust Fund to purchase development rights.

**Chester Borough**

- Neighborhood Cluster — Lot Averaging Overlay District.
- Agriculture is a permitted use in all zones.
- Farm stands are a permitted accessory use in all zones.
- Open Space Trust Fund to purchase development rights.
- Highlands Act Regulations - Consistency Review and/or Ordinance Amendments.

**Chester Township**

- Cluster developments are permitted as an option in multiple zones.
- An Open Space Development Option is permitted in multiple zones (a type of cluster zoning).
- Agriculture is permitted in all zones.
- Farm stands are permitted in multiple zones.
- Open Space Trust Fund to purchase development rights.
- Highlands Act Regulations - Consistency Review and/or Ordinance Amendments.

**Denville Township**

- Cluster development option is permitted in multiple zones.
- Agriculture is a permitted use in multiple zones.
- Farmer's Market Sales is a permitted use in multiple zones.

**Dover Town**

- Cluster development option is permitted in one zone.

**East Hanover Township**

- Cluster residential developments are a permitted option in multiple zones.
- Farms are a permitted use in three zones.

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<sup>81</sup> List includes only those Morris County municipalities with identified zoning and/or subdivision regulations related to agriculture/farmland preservation. Morris County Office of Planning and Preservation ordinance review, June 2020.

- Open Space Trust Fund to purchase development rights.

#### **Florham Park Borough**

- Cluster subdivisions are permitted as an option in multiple zones.

#### **Hanover Township**

- Intra-Municipal Transfer of Development Credits.<sup>82</sup>
- The keeping of agricultural animals is permitted in single-family districts.

#### **Harding Township**

- Residential clusters are permitted in one zone.
- Lot averaged subdivision permitted as an option in one zone.
- Farm stands and farm markets permitted as a conditional use in multiple residential zones.
- Farming is permitted use in all zones.

#### **Jefferson Township**

- Residential clusters permitted as an option multiple zones.
- Farm stands as an accessory use in one zone.
- Open Space Trust Fund to purchase development rights.
- Highlands Act Regulations - Consistency Review and/or Ordinance Amendments.

#### **Kinnelon Borough**

- Highlands Act Regulations - Consistency Review and/or Ordinance Amendments.

#### **Lincoln Park Borough**

- Residential lot cluster developments are a permitted option in multiple zones.
- Commercial farms are permitted in multiple zones.
- Farm markets are permitted in multiple zones.

#### **Long Hill Township**

- Density modification subdivisions (a type of cluster subdivision) are a permitted option in multiple zones.
- Agriculture is a permitted use in one zone.
- The keeping of horses, dairy animals, livestock and poultry are permitted as an accessory use to single-family residences in multiple zones.
- Farms stands are a permitted accessory use to an agricultural use.

#### **Madison Borough**

- Residential cluster developments are permitted as an option in one zone.
- Open Space Trust Fund to purchase development rights.

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<sup>82</sup> To add flexibility to development proposals, to preserve land for public purposes and to prevent development on environmentally sensitive areas, owners of noncontiguous tracts of land may increase the density of development on one tract in exchange for dedicating lands to the Township for either open space, recreational use or other limited public use. The preservation of farmland is not listed as a qualifying purpose.

#### **Mendham Borough**

- Village center cluster development option permitted on three specified tracts.
- Permits Density Zoning in multiple zones. i.e. “a permitted reduction in lot size and lot area requirements in major subdivisions in which the density requirements as per dwelling unit per acre are maintained and where all resulting undeveloped land within said subdivision is deeded to the Borough for public purposes, the Board of Education for school purposes or to a homeowners association owners of said subdivision.
- Open Space Trust Fund to purchase development rights.
- Agriculture permitted in all residential zones.

#### **Mendham Township**

- Lot size averaging is a permitted option in multiple zones
- Agriculture is a permitted use in multiple zones.

#### **Mine Hill Township**

- Cluster subdivisions are a conditional use in multiple zones.
- Commercial farms are a permitted use in one zone.
- Open Space Trust Fund to purchase development rights.

#### **Montville Township**

- Residential cluster developments are a permitted option in multiple zones.
- Agricultural uses are permitted in all zones.
- Highlands Act Regulations - Consistency Review and/or Ordinance Amendments.

#### **Morris Plains Borough**

- Residential cluster developments are a permitted option in one zone.

#### **Morris Township**

- Cluster Development Option permitted in multiple zones.
- Agricultural uses are permitted in all residential zones as well as the AOZ Agricultural Overlay Zone.
- Farm stands are permitted.
- Open Space Trust Fund to purchase development rights.

#### **Mountain Lakes Borough**

- Cluster developments are an optional conditional use in multiple zones.

#### **Mount Arlington Borough**

- Residential clusters are a permitted option in all residential zones.
- Agriculture is a permitted use in all residential zones.
- Highlands Act Regulations - Consistency Review and/or Ordinance Amendments.

### **Mount Olive Township**

- Intra-municipal Transfer of Development Credits.<sup>83</sup>
- Residential clusters are a permitted option in multiple zones.
- Lot size averaging is a permitted option in multiple non-residential zones. Lot coverage and floor area ratio averaging is a permitted option in one non-residential zone.
- Transfer of Development Credits.
- Farm stands are permitted accessory uses in multiple zones.
- Highlands Act Regulations - Consistency Review and/or Ordinance Amendments.

### **Parsippany-Troy Hills Township**

- Townhouse residential clusters are a permitted option in multiple zones (clusters are mandatory for all townhouse developments).
- A cluster option is permitted in one non-residential zone.
- Agricultural buildings are permitted in multiple zones.
- Open Space Trust Fund to purchase development rights.

### **Pequannock Township**

- Cluster developments are a permitted option in multiple zones.
- The keeping of various listed farm animals is a conditional use in residential zones.

### **Randolph Township**

- The cluster development option is a conditional use in multiple zones.
- The right to agriculture is established and is a permitted use in all zones.
- Open Space Trust Fund to purchase development rights.

### **Riverdale Borough**

- The cluster development option is permitted in one zone.

### **Rockaway Township**

- Cluster developments are an option in multiple zones.
- Agriculture is a permitted use in multiple zones.
- Farm markets are permitted in multiple zones.
- Highlands Act Regulations - Consistency Review and/or Ordinance Amendments.

### **Roxbury Township**

- The cluster residential development option is permitted in multiple zones.
- Lot averaging is permitted in multiple non-residential zones.
- Agriculture is a permitted use in multiple zones.
- Open Space, Recreation, Farmland, and Historic Preservation Trust Fund to purchase development rights.

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<sup>83</sup> 550-98A. Transfer of development credits. Purpose to add flexibility to development proposals, to preserve land for public **and agricultural purposes**, to prevent development on environmentally sensitive areas and to aid in reducing the cost of providing streets, utilities and services in residential development, this section permits the owner of lands in certain residential districts to increase the density of development on that tract in exchange for dedicating separate and properly subdivided lots for either open space or other public use.

### **Washington Township**

- Cluster and lot averaging subdivisions were added in November 2004 but were repealed in May 2005. They remain applicable to subdivision applications filed prior to May 1, 2005 (six zones listed cluster subdivisions as a conditional use).
- Open space and open lands guidelines require open space or open lands to be configured in such a manner as to facilitate agricultural use. Factors include proximity to adjacent farming operations, the ability to create contiguous tracts of farmland and desirability of maximizing separation between farming operations and residential units.
- An “Agricultural Use Overlay Zone” is an option permissible in all zones. The minimum lot size is 400,000 square feet (amongst other restrictions). Lots shall be deed restricted to prohibit further subdivisions and to prohibit more than one single-family dwelling unit.
- The right to engage in agriculture applies to all zones.
- Appropriate housing for farm labor may be provided on any operating farm (maximum units based on conventional residential build-out).
- The subdivision regulations specify private agricultural overlay zone road standards.
- Highlands Act Regulations - Consistency Review and/or Ordinance Amendments.

#### Development Pressures and Land Value Trends

##### *Development Pressure – Spatial / Temporal*

Spatial and temporal development patterns in the County can best be expressed through the following tables. The amount of residential single-family development has declined significantly in recent years, and is expected to continue to decline as the availability of vacant, developable land diminishes. Highlands Act restrictions placed on the extension of infrastructure, limitations on new septic systems and implementation of enhanced environmental regulations by the Highlands Council and New Jersey Department of Environmental Protection will continue to limit new residential and nonresidential construction throughout the Highlands Preservation Area and in conforming Highlands Planning Area municipalities. These areas also include the majority of the County’s vacant land so new development from vacant land will be very limited.

Redevelopment of the County’s established centers with multi-family and mixed-use projects has accounted for the majority of new housing in the County in recent years, revitalizing many of these areas, where infrastructure and services already exist to support increases in density. Much of this redevelopment has also included new nonresidential square footage, with concentrations occurring primarily in the eastern portion of the County and along certain commercial corridors.

While protecting farmland reflects both public and private commitments to maintain the industry of agriculture within a community, the protection of farmland can also help address a broad range of community planning goals such as the protection of water quality, environmental resources, prime agricultural soils, the promotion of economic development/tourism, traffic reduction, improved municipal finances and balanced land use. Protecting agricultural lands has a major impact on local land development patterns and is key to maintaining the long-standing rural character that helps define many of Morris County’s communities, contributing to livability, land values and the quality of life of community residents.

**Number of Single-Family House Lots from Major Subdivisions Recorded at the  
 Office of the Morris County Clerk.**

<b>Municipality*</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>5 Year Total</b>
Chester	-	-	2		-	2
Denville	5	-	-	-	-	5
Dover	4	-	-	-	-	4
East Hanover	-	-	6		-	6
Florham Park	-	-	114	110		224
Hanover	4	-	-	-	-	4
Jefferson	4	-	-	-	-	4
Madison	-	9	-	-	-	9
Mendham	-	-	3		-	3
Mendham Twp.	-	-	3		5	8
Mine Hill	-	-	4		-	4
Montville	3	15	-	7	8	33
Morris Twp.	-	-	3	4		7
Morris Plains	-	-	-	-	106	106
Mt. Olive	77	-	77	-	-	154
Netcong	-	-	-	8		8
Parsippany-Troy Hills	-	32	-	-	-	32
Riverdale	-	-	-	-	3	3
Rockaway Twp.	10	-	-	-	-	10
Roxbury	5	-	-	-	-	5
<b>Total</b>	<b>112</b>	<b>56</b>	<b>212</b>	<b>129</b>	<b>122</b>	<b>631</b>

*\*Municipalities not shown recorded no subject activity during reporting period.*

**Townhouse & Multi-Family Site Plans of 20 Units or More  
Reviewed by the Morris County Planning Board (Number/Total Units)\***

<b>Municipality**</b>	<b>2016</b>	<b>2017</b>	<b>2017</b>	<b>2019</b>	<b>2020</b>	<b>5 Year Total*</b>
Boonton	-	-	-	-	1/33	1/33
Boonton Twp.	1/38	-	-	-	-	1/38
Chatham Twp.	-	-	-	2/77	2/77*	4/144
Chester	-	-	-	2/77	1/20	3/97
Denville	-	-	-	2/171	-	2/171
Dover	1/214*	1/68	1/68*	-	-	3/350
East Hanover	2/485	-	-	-	-	2/485
Florham Park	-	2/224	3/437*	1/126	2/380	8/1,167
Hanover	1/25*	1/141	-	1/46	2/222*	5/434
Jefferson	-	-	-	-	2/67	2/67
Lincoln Park	1/24	1/24*	-	1/46*	1/175	4/269
Long Hill	-	-	1/30	-	1/30	2/60
Mine Hill	-	-	-	1/50	2/440*	3/490
Montville	-	1/26*	2/110	1/295	4/879*	8/1,310
Morris Plains	-	-	2/715	2/715*	1/434*	5/1,864
Morris Twp.	-	1/179	1/209*	-	-	2/388
Morristown	1/185*	1/38	1/38*	2/123*	-	5/384
Mountain Lakes	1/40	-	1/40*	1/90	-	3/170
Mt. Olive	1/269	-	1/126	-	-	2/395
Netcong	-	1/126	-	2/206*	1/80*	4/412
Parsippany-Troy Hills	2/130*	-	1/31*	1/325	3/1,153	7/1,639
Randolph	-	-	1/84	1/84*	1/84*	3/252
Rockaway Twp.	1/140*	-	1/345	2/1,091	-	4/1,576
Roxbury	-	-	-	1/230*	-	1/230
Washington	-	-	1/134	-	-	1/134
Wharton	1/49*	-	-	1/24	3/336	5/409
<b>Total*</b>	<b>13/1,599</b>	<b>9/826</b>	<b>17/1,237</b>	<b>22/3,653</b>	<b>27/4,410</b>	<b>88/11,725</b>

\*\*Municipalities not shown recorded no subject activity during reporting period.

\*Includes resubmission(s)

**Commercial, Industrial and Office Site Plans with 50,000 Square Feet or More of New Floor Area Reviewed by  
Morris County Planning Board (Number / Total Square Feet)**

<b>Municipality**</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>5 Year Total*</b>
Boonton Twp.	-	-	-	1/117,008	-	1/117,008
Denville	-	-	-	1/63,315	-	1/63,315
East Hanover	-	-	1/322,219	2/392,838*	-	3/715,057
Florham Park	1/129,741	2/189,741*	1/112,555	-	-	4/432,037
Hanover	2/222,131	1/117,620*	2/315,089*	3/340,525*	1/106,222	9/1,101,587
Montville	1/59,030*	2/152,030*	1/93,000*	-	-	4/304,060
Morris Plains	-	1/69,300	3/362,122*	2/709,940*	2/674,030*	8/1,815,392
Morris Twp.	-	1/120,000	1/120,000*	-	1/55,635*	3/295,635
Mt. Olive	-	-	1/228,755	3/349,240*	1/95,200	5/673,195
Parsippany-Troy Hills	2/353,510*	1/200,000*	-	1/80,167*	2/296,836	6/930,513
Randolph	-	1/118,272	2/198,272*	-	-	3/316,544
Roxbury	1/52,610*	-	2/380,593	1/470,044	-	4/903,247
<b>Total*</b>	<b>7/817,022</b>	<b>9/966,963</b>	<b>14/2,132,605</b>	<b>14/2,523,077</b>	<b>7/1,227,923</b>	<b>51/7,667,590</b>

\*\*Municipalities not shown recorded no subject activity during reporting period.

\*Includes resubmission(s)

**Land Value Trends – Morris County Vacant and Farm Assessed Property Assessed Values**

Morris County	1990	2000	2010	2020
Vacant (1)	\$942,015,581	\$1,042,911,835	\$1,218,511,451	\$1,032,813,400
Farm Regular (3A)	\$135,476,725	\$256,834,690	\$652,147,200	\$725,724,400
Farm Qualified (3B)	\$11,619,240	\$14,916,507	\$12,013,308	\$11,110,938
Total Vacant and Farm Assessed	\$1,089,111,546	\$1,314,663,032	\$1,882,671,959	\$1,769,648,738
<b>All Taxable Land (1, 2, 3A, 3B, 4A, 4B, 4C)</b>	<b>\$24,133,181,860</b>	<b>\$40,734,495,994</b>	<b>\$76,116,569,640</b>	<b>\$87,744,672,115</b>

Source: Morris County Board of Taxation

The following chart illustrates the value of farmland real estate in New Jersey over the last ten years as reported by the USDA annual land value statistics.

**Farm Real Estate: Average Value Per Acre for New Jersey 2009 - 2019**

Year	NJ Average Value Per Acre
2009	\$13,800
2010	\$13,100
2011	\$12,800
2012	\$12,300
2013	\$12,800
2014	\$12,800
2015	\$13,300
2016	\$13,300
2017	\$13,400
2018	\$13,500
2019	\$13,500

Source: USDA, National Agriculture Statistics Survey Land Value Summaries, August 2013, 2014 and 2019.<sup>84</sup>

The Morris CADB keeps statistics for farm easements purchased in Morris County. The numbers presented below represent the per acre purchase price.<sup>85</sup>

**Average per Acre Easement Values – by Municipality**

Municipality	Average per acre easement value	Number of preserved farms	Preserved Acres
Boonton Twp.	\$15,052	3	141
Chester Boro.	\$31,500	1	53
Chester Twp.	\$29,491	22	1,354
Chester Twp. & Chester Boro.	\$33,000	1	90
Chester Twp. & Mendham Twp.	\$27,536	2	123
Chester Twp. & Mt. Olive	\$29,000	1	88
Denville Twp.	\$54,000	1	20
Harding Twp.	\$87,905	8	276
Lincoln Park Boro.	\$64,276	2	77
Long Hill Twp.	\$13,657	1	54
Mendham Boro.	\$12,581	1	29

<sup>84</sup> <https://usda.library.cornell.edu/concern/publications/pn89d6567?locale=en>

<sup>85</sup> Data as of July, 2020. The per acre purchase price is not always reflective of appraised value.

Municipality	Average per acre easement value	Number of preserved farms	Preserved Acres
Mendham Twp.	\$26,948	5	174
Mendham Twp. & Mendham Boro.	\$50,000	1	30
Montville Twp.	\$11,320	1	27
Mt. Olive Twp.	\$20,997	7	313
Randolph Twp.	\$27,761	4	147
Rockaway Twp.	\$26,665	2	123
Washington Twp.	\$11,606	75	4,947
<b>County-wide</b>	<b>\$20,069</b>	<b>138</b>	<b>8,066</b>

### Municipal and Regional TDR Opportunities

In New Jersey, TDR has only been used in connection with special legislation directed at the NJ Pinelands and through a pilot program allowing its use in Burlington County.

In 2004, the NJ Legislature passed the State Transfer of Development Rights Act, allowing the use of TDR statewide.<sup>86</sup> The Act requires various and detailed conditions for the use of TDR, which includes creation of a Development Transfer Plan Element, Utility Service Plan Element, a Capital Improvement Program, preparation of a Real Estate Market Analysis, creation of a TDR ordinance, county approval and receipt of local plan endorsement by the State Planning Commission. So far, the administrative commitment, complexity and costs of creating a successful TDR program have prevented use of this TDR program in Morris County.

The Highlands Water Protection and Planning Act includes a requirement for establishment of a TDR program, consistent with the State TDR program. A requirement of the Highlands Act is that the Highlands Council establish TDR opportunity areas within the “Planning Area” portion of the Highlands Region and the Highlands Council adopted a TDR program as part of the Highlands Regional Master Plan in 2008.

As part of this program, the Highlands Council established a Highlands Development Credit Bank for the purpose of assigning Highlands Development Credits (HDC), and buying such credits from willing sellers for the eventual transfer to receiving areas that may be established by municipalities. The nine member HDC Bank works in conjunction with the Highlands Council to implement the Highlands Transfer of Development Rights (TDR) Program. In theory, HDCs may be sold to developers for use in appropriate voluntary receiving zones that would permit developers to increase the density or intensity of proposed projects in those zones

Despite numerous feasibility studies financed by the Highlands Council and conducted by various municipalities, both inside and outside the Highlands Region, no municipalities have designated receiving areas as part of the Highlands TDR program. Until such time as appropriate receiving areas are identified, the Highlands TDR program, through the Highlands Development Credit Bank, remains essentially restricted to buying voluntarily offered credits and holding them inactive.

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<sup>86</sup> N.J.S.A. 40:55D-13.7 et. seq.

## CHAPTER IV: MORRIS COUNTY'S FARMLAND PRESERVATION PROGRAM

### Agricultural Development Areas

The Morris County Agriculture Development Board (CADB) developed the Morris County Agriculture Development Area (ADA) based upon both statutory and County criteria. The ADA designates land that has the potential for long-term agricultural viability. This agricultural use would be the preferred, but not exclusive, use within the ADA boundary.

The statutory criteria for determining the ADA are as follows:

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

Morris County initially established their ADA in 1984. The original ADA was not specific to parcels, which left the map open to interpretation on its specific boundaries. As part of the 2007 update of the Comprehensive Farmland Preservation Plan, the Morris CADB decided it would be in the best interest of the program to have a parcel-specific delineation of its ADA.

Consequently, the ADA was updated and Morris CADB policy was amended to reflect this approach in the 2007 Comprehensive Farmland Preservation Plan, which was subsequently approved by the SADC. As part of this current update to the County's Farmland Preservation Plan, the parcel-based ADA is updated to incorporate additional farmland that would be eligible for preservation through the County Planning Incentive Grant based upon the existing CADB policies. The current ADA is parcel based and consists of targeted and preserved farms, as illustrated on the Farmland Inventory Map.

The criteria for lands to be included in the Morris County Agricultural Development Area are the following:

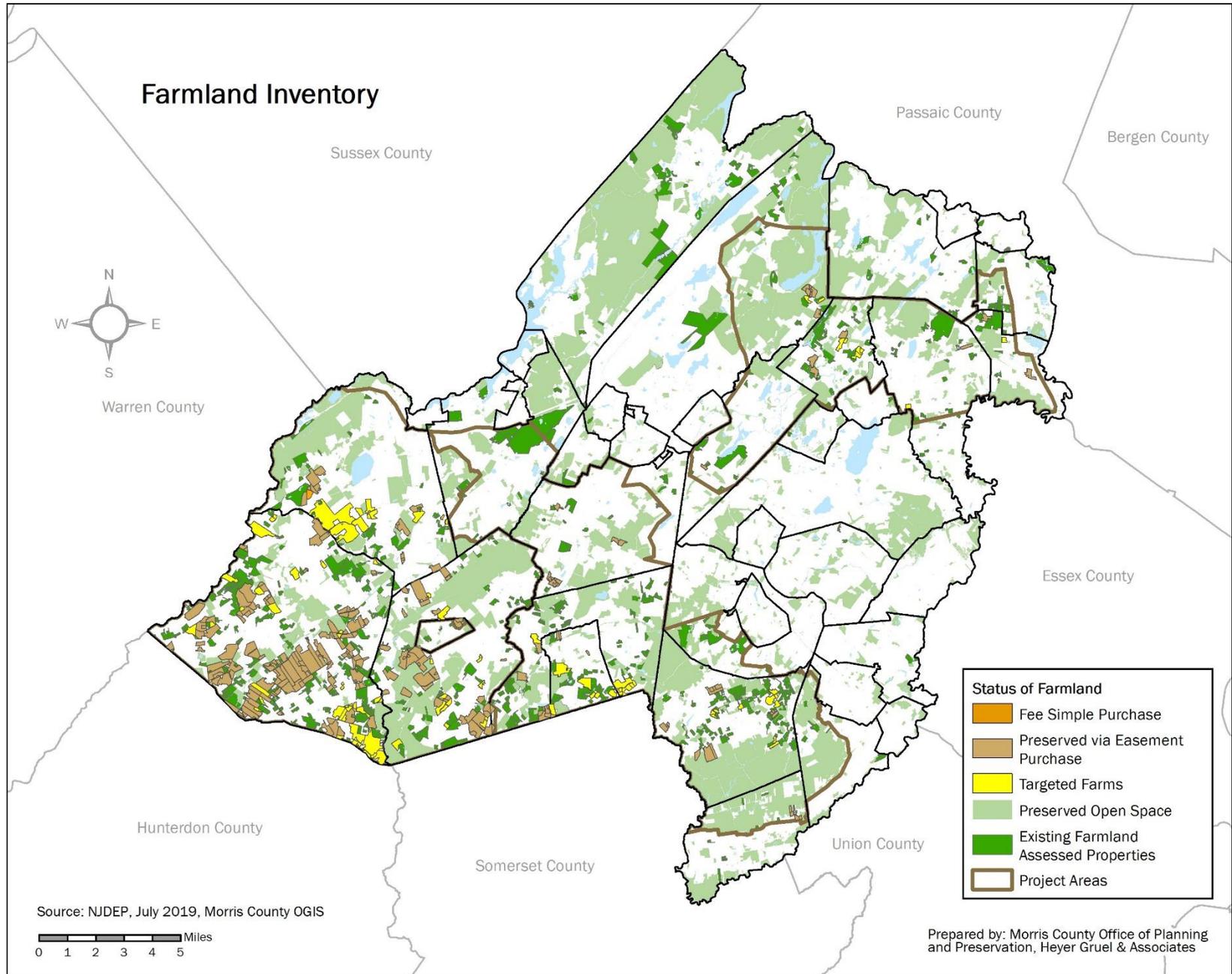
#### Permanently Preserved Farmlands.

- Lands in Eight Year Farmland Preservation Programs (Term Preservation Program)
- Lands pending permanent farmland preservation by a non-profit, Morris County or the State Agriculture Development Committee.

If none of the above has been fulfilled, then the following criteria must be met:

- Land that is at least 10 acres.
- Land that receives farmland assessment.
- Lands comprising the premises are adjoining and have common ownership.
- The land must be at least 50% tillable, or have at least 25 tillable acres.
- Lands less than 25 acres in size shall not contain more than 80 percent soils with slopes in excess of 15 percent as identified on a USDA, Natural Resource Conservation Service SSURGO version 2.2 or newer soils map.
- The land is located in a municipality that has adopted a Right-to-Farm Ordinance.

The ADA encompasses approximately 14,000 acres of the County's total area and is home to the majority of the County's agricultural landscape.



### Farmland Preserved to Date by Program and Municipality

Over the past decade, the County has deviated from the State criteria as well as the County’s criteria, which allows the state/county cost-share for farmland preservation projects. As interested landowners seek to preserve their farm, the land is not always eligible for the Planning Incentive Grant. However, Morris County has a well-funded farmland preservation program, and in several instances, has preserved farms that do not meet the eligibility criteria. It is important to acknowledge existing farms to target, even those that do not meet the SADC minimum criteria. The list of targeted farms list is checked annually to determine any changes in ownership.

The Morris County Farmland Preservation program began with the permanent preservation of the Cupo Farm, a 14-acre farm in Washington Township, on December 28, 1987. As of June 2020, an additional 136 farms have been permanently preserved for a total of 137 farms and 8,066 acres permanently preserved. Another five farms (totaling 199 acres) are in various stages of the easement purchase program, which, when completed, will raise the total permanently preserved acreage to over 8,264 acres in 14 municipalities.

Towns with permanently preserved farms include Boonton Township, Chester Borough, Chester Township, Denville Township, Harding Township, Lincoln Park Borough, Long Hill Township, Mendham Borough, Mendham Township, Montville Township, Mt. Olive Township, Randolph Township, and Washington Township. Washington Township leads in the number of preserved acres in the County. This is not surprising since Washington Township ranks first-place in the County in terms of total farmland acreage with 10,687 acres and has over 4,900 acres preserved, as illustrated in the following table. Chester Township is second in the county for the number of preserved acres (1,569 acres preserved) and ranks second in terms of farmland acreage with 3,309 acres.

Preserved Farmland by Municipality in Morris County <sup>87</sup>					
Municipality	Town Size	Acres Farmland	Preserved Farmland Acres	Percent of Town in Farmland	Percent of Farmland Preserved
Boonton Twp.	5,437	1,085	141	20.0%	13.0%
Chester Boro	1,020	113	59	11.1%	52.4%
Chester Twp.	18,695	3,309	1,569	17.7%	47.4%
Denville Twp.	8,152	440	20	5.4%	4.5%
Harding Twp.	13,162	2,014	276	15.3%	13.7%
Lincoln Park Boro	4,427	412	77	9.3%	18.6%
Long Hill Twp.	7,714	187	54	2.4%	28.7%
Mendham Boro	3,826	1,153	41	30.1%	3.6%
Mendham Twp.	11,527	1,922	229	16.7%	11.9%
Montville Twp.	12,232	694	27	5.7%	3.9%
Mount Olive Twp.	19,992	2,741	356	13.7%	13.0%
Randolph Twp.	13,542	468	147	3.5%	31.3%
Rockaway Twp.	29,367	1,192	123	4.1%	10.3%
Washington Twp.	28,727	10,687	4,947	37.2%	46.3%
<b>Total Preserved Farmland Acres: 8,066</b>					

A complete inventory of all preserved farms is included in *Appendix C*.

The Farmland Preservation Program is administered on a statewide basis by the State Agriculture Development Committee (SADC). The SADC provides grants for local government units and counties to pay up to 80 percent of costs of acquisition of development easements or fee simple titles. The SADC also directly acquires farms and development easements.

<sup>87</sup> Preserved farms and farmland as of June 2020. Farmland includes all 3A and 3B assessed parcels. Acreage as per Morris County GIS.

In 2007, the SADC adopted rules that streamlined the farmland preservation process to establish a new County Planning Incentive Grant (PIG) Program to enable participating counties to accept and approve applications from landowners year-round rather than once a year as was the case under the County Easement Purchase Program.

Since the writing of the previous plan, the County Easement Purchase Program has been phased out, and the County PIG Program is the most common program due to its advantages to counties and landowners. Among those advantages are shortening the timeframe from landowner application to closing, eliminating direct competition for funding among varied types of farms from different regions of New Jersey, encouraging a comprehensive farmland preservation planning approach at the county level, and eliminating duplication of work between the SADC and the counties.

In addition to the County Planning Incentive Grant Program, landowners interested in preserving their farmland can take advantage of other programs, namely, the SADC Direct Easement Program, SADC Fee Simple Program, the Term Preservation Program, and Non-Profit Programs.

#### *County Easement Purchase Program*

Using the County Easement Purchase Program, the landowner voluntarily agrees to sell the development rights of their farmland to the County and the land is deed restricted for agriculture in perpetuity. The landowner receives a payment equal in value to the right to develop, which is determined by calculating the difference between the market value of the land and the agricultural value of the land. The landowner retains the right to the preserved land with the new deed restriction ensuring that the land will not undergo non-farm development. The county and state share easement purchase costs, which represent the difference between a property's farm (or deed-restricted) value and its full market value.

The County Easement Purchase Program was extremely popular between 1987 and 2010, having preserved 73 farms totaling 5,269.2 acres. However, since the inception of the County Planning Incentive Grant (CPIG), this program has been phased out.

#### *County Planning Incentive Grant (PIG) Program*

The County PIG Program (CPIG) encourages a comprehensive planning process for farmland preservation at the county level that offers several advantages over the traditional easement program. The advantages include accepting and processing farmland preservation applications year-round, reducing the timeframe from landowner application to closing, and rewarding counties that complete transactions in a timely manner with the potential for additional funding.

Landowners apply to the County Agricultural Development Board (CADB) who reviews applications and forwards those approved to the SADC. Eligible farms must meet the minimum requirements as specified by the CADB and the SADC. The SADC prioritizes applications for preservation funding through a ranking system that assigns points. These quality scores establish the SADC's preliminary priority list for preservation. The CPIG funding is roughly split between the County and the SADC using a sliding scale based upon the SADC criteria. The cost share tends to be 45% for the County and 55% for the state. However, there have been several instances where the County exceeds the 40% cost share due to SADC's sliding scale mechanism and/or to meet the asking price of the landowner. As part of the program, the County is required to submit an Annual CPIG Report, which provides an update on the grant eligibility, project areas, targeted farms, and preserved farms.

As of January 2021, Morris County has preserved 44 farms totaling 1,983.6 acres between 2003 and 2020 using the CPIG program.

#### *Other County Preserved Farms*

Since 2010, the County has preserved seven farms totaling 172.8 acres on a case-by-case basis and without assistance from the State, municipal, or nonprofit partners. Many of these farms do not meet the required minimum eligibility criteria by the CPIG or the SADC programs, and the County therefor purchases the development easements of the land on its own. The land is deed restricted in perpetuity as preserved farmland. However, the CADB makes its decision on a case-by-case basis based upon the merits of each application.

Often times, these farms do not meet the minimum acreage requirement and/or the tillable land requirement. However, the CADB determines that the farm should be preserved as it provides an invaluable service and serves as an important landmark in its community.

#### Municipal Planning Incentive Grant (PIG) Programs

The Municipal Planning Incentive Grant Program is similar to the County-wide PIG Program. The SADC provides Municipal Planning Incentive Grants to municipalities for the purchase of development easements to permanently protect large blocks of contiguous farmland in project areas they have identified. The municipality must have an agricultural advisory committee, an approved application that contains a farmland preservation plan element of the master plan, a Right to Farm Ordinance, and must establish and maintain a dedicated source of funding.

The SADC established the municipal-level Planning Incentive Grant (PIG) Program in 1999. This program works in much the same fashion as the county-wide PIG program, but with a smaller area of concentration. There are no current municipal PIG programs in Morris County. Unlike other counties where municipal governments oversee the administration and acquisition of farms in their municipal-level PIG, Morris County serves in this capacity. Keeping applications at the county-level enables better communication with the SADC and concentrates the expertise within one office per county.

Only one farm was purchased through the Municipal PIG program in Washington Township, which consisted of 14.5 acres.

#### SADC Direct Easement Program

Under the Direct Easement Program, landowners sell the development rights of their farmland directly to the SADC. To participate in this program, farms must be priority farms that are strategically located. Priority farms are those that meet or exceed the county average in size and in score. In evaluating farms, the SADC considers factors such as soil quality, percentage of tillable acres, proximity to other preserved farms, and local support for agriculture. The SADC accepts applications year-round. The SADC negotiates a purchase price with the landowner based on two independent appraisals.

Through this program, two farms totaling 117.7 acres have been preserved in Morris County.

#### SADC Fee Simple Program

Under the Fee Simple Purchase Program, interested landowners sell their land in fee simple title, relinquishing all rights to the land. Land value is determined by appraisal. The county and state share purchase costs. The farm, with agricultural deed restrictions in place that ensure its permanent preservation, is sold at a public auction. The Fee Simple Program provides other farmers with opportunities to purchase land at reasonable prices that reflect only farmland values, not development potential. This program is administered by the SADC.

There have not been any SADC Fee Simple applications preserved in Morris County.

#### Non-Profit Programs

The SADC provides grants to nonprofit organizations to fund up to 50 percent of the fee simple or development easement values on farms to ensure their permanent preservation. Non-profit organizations may apply to the SADC. Notice of available funds is published in the *New Jersey Register*. Applications must be submitted within 90 days of that notice. As part of the application process, non-profit groups must publish a notice that an application has been filed and notify the municipality and CADB.

One farm in Morris County has been preserved through this program. The Morris Land Conservancy, in partnership with the County and the SADC preserved 124.3 acres.

#### Transfer of Development Rights

As previously discussed, Transfer of Development Rights (TDR) is a realty transfer mechanism that enables property owners within a designated preservation area (i.e., sending area) to sell the development rights of their land. Developers purchase the "development credits" and transfer that development potential to an area that is

designated for growth at densities higher than otherwise would be permitted (receiving area). Once the development rights of a property are sold, the land is permanently restricted from further development. No farms in Morris County have been preserved using this method.

#### Term Preservation Programs

Under the Term Preservation Program, landowners voluntarily restrict development on their land for a period of eight or sixteen years. There are two types of eight-year programs: municipally approved programs, which require a formal agreement between the landowner, county and municipality, and non-municipally approved programs, which require an agreement between only the landowner and county. Landowners apply to the CADB. Although they receive no direct compensation, landowners enrolled in both programs are eligible to receive grants for up to 50 percent of the cost of conservation projects such as irrigation systems, erosion control measures, underground or permanent open drainage systems, windbreak restoration, contour farming, terrace systems and more. The Morris CADB provides points for easement purchase applicants who are enrolled in eight-year programs as a means to incentivize the program. Unfortunately, the benefits of the Term Preservation Program have not attracted many farmland owners in Morris County.

The following is a summary of benefits for enrolling in the programs:

##### *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.
- Additional points towards an easement purchase application (See *Appendix D*).

##### *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.
- Additional points towards an easement purchase application (See *Appendix D*).

Currently, there are four farms enrolled in the Term Preservation Program with the County. There are two current municipally-approved term-preservation projects in the County. Morris County and its municipalities with qualifying farmland should coordinate to determine whether municipally-approved term-preservation programs would be appropriate. There are also two current non-municipally-approved term-preservation projects in the County.

#### Consistency with SADC Strategic Targeting Project

The SADC's Strategic Targeting Project, from 2003, establishes a methodology to prioritize farmland preservation investments based on specific criteria. The project has three primary goals:

- Coordinate farmland preservation/agricultural retention efforts with proactive planning initiatives;
- Update and create maps to target preservation efforts; and
- Coordinate with open space, recreation and historic preservation efforts.

The preparation of Morris County's Farmland Preservation Plan is the guiding document for implementing the SADC's strategic targeting goals. The farms and areas targeted for preservation focus on prime agricultural soils and

limited public growth-oriented infrastructure. Additionally, the mapping contained in this report will be utilized to illustrate the locations of future farmland preservation efforts. Coordination efforts with other preservation programs, such as open space and historic preservation are discussed in the *Coordination with Open Space Preservation Initiatives* section of this chapter.

#### Coordination with Open Space Preservation Initiatives

The Morris County Farmland Preservation Program actively coordinates its acquisition efforts with open space efforts. Structurally, the open space, historic and farmland preservation programs are coordinated within one office of county government. The Preservation Trust Division is within the Office of Planning and Preservation.

The Preservation Trust Division has administrative functions over the Morris County open space trust fund programs, which has the following main components:

- Farmland Preservation Program
- Historic Preservation Program
- Open Space - Grants to Municipalities and Non-Profits
- Trails Program
- Flood Mitigation Program
- Open Space - Acquisitions by County agencies

This consolidated division enables seamless information sharing among five of the six acquisition components of the open space trust fund. The sixth program, acquisitions by County agencies is also coordinated through the Preservation Trust Division. The funding for county open space acquisitions, by either the Morris County Municipal Utilities Authority or the Morris County Park Commission, is through the county open space trust fund. The project tracking and release of funds for any purchase are administered by the Preservation Trust Division.

In addition, Preservation Trust staff regularly attends the Morris County Park Commission's Land Acquisition Committee in order to share information and provide coordination of efforts. Similar communication is held with the MCMUA in a less formal manner.

The Preservation Trust Division director also serves as the Director of the Morris County Agriculture Development Board. This organization works extremely well to coordinate land acquisition efforts in Morris County.

Whenever a county agency or municipality is seeking to acquire open space lands that are currently farmed, communication is encouraged between the agencies involved and the Morris County Agriculture Development Board. Since most non-profit and municipal open space acquisitions utilize funds from the Morris County Open Space grant program, there is an open dialogue to evaluate the purchase and determine if the project would be better suited for farmland preservation. The Morris CADB has a representative serve on the County Open Space Trust Fund Committee to further ensure that projects are evaluated in the best interest of agriculture in Morris County.

Additionally, the Morris CADB continues to work with other agencies to incorporate open space and trail network connections. This coordination is strictly on a voluntary basis with the landowner's consent. As some public access projects can hinder agricultural pursuits, a landowner must agree to participate. There are several instances of this collaborative preservation effort occurring in Morris County:

- In 1997, a 165-acre farm in Washington Township, owned by the Maier Brothers was preserved. The farm adjoins the Musconetcong River. The Maier Brothers preserved 135 acres of the farm under a farmland preservation deed of easement. The landowners also agreed to sell in fee simple, 25 acres along the river to the State of New Jersey's Green Acres program. The Green Acres program was interested in adding fishing access to the trout production river. A fence separates the public fishing access from the fields that are in vegetable production.
- Morris County is currently working with Mount Olive Township on a project called "Charters Farm." This 66-acre farm, currently owned by Mount Olive Township, will incorporate a public access trail along one border of the farm. This piece is an important connector for a county-wide trail called "Patriot's Path." The

Morris County Park Commission will be the manager of the public trail. Once preserved through the New Jersey Farmland Preservation Program, the farm will be sold at auction.

- A similar arrangement to Charters Farm was concluded in Washington Township in 2002. In this case, the “Kramer” Farm was preserved by placing farmland agricultural deed restrictions on 64 acres of a 92-acre tract. The remaining acreage was set aside in a conservation easement held by Washington Township, which permits agricultural production. In addition, there was a public access/equestrian trail easement that was created along the perimeter of the property.

These are a few examples of how the Morris County farmland preservation program has coordinated with open space initiatives.

#### Farmland Preservation Program Funding Expended to Date by Source

The Morris County Open Space and Preservation Trust Fund was established in 1992. Since this time, the Trust Fund has since been renamed the Morris County Open Space, Farmland, Floodplain Protection and Historic Preservation Trust Fund.

Collection of funds for the Trust Fund commenced on July 1, 1993 with a tax equal to one-half cent per \$100 of total county equalized real property valuation. The Morris County Commissioners review the tax rate annually and may set the tax anywhere from \$0.00 to \$0.05. The levy for 2021 was 5/8 cent per \$100 valuation.

For 2021, the Trust Fund was divided into the following categories:

- 1/4 cent for the County Park Improvement Program
- 1/4 cent for the Historic Preservation Program
- 1/8 cent to municipal and/or qualified charitable conservancy projects

Previously, 25% of the total Trust Fund was allocated for farmland preservation projects. However, since the Farmland Preservation Program has a notable balance in its account, a dedicated funding source is no longer needed for the County’s Farmland Preservation Program. However, should the Program require additional funds, it would be likely the program would receive it.

As of May 2021, the County’s Farmland Preservation Program had a balance of \$17,755,383. There is also an Ancillary Account within the Trust Fund that had a balance of approximately \$12 million as of May 2021 that can be used at the discretion of the County Commissioners for overall Preservation Trust Fund projects.

As of May 2021, 8,071.9 acres of farmland have been preserved in Morris County through the County’s preservation programs at a total cost of \$162,682,812. Based upon County records, Morris County’s share of this total is \$77,147,254 and the SADC’s share of this total is \$83,959,801. No funds have been provided by non-profit organizations or by municipalities. Prior to the passage and implementation of the open space trust fund, Morris County funded farmland preservation through capital accounts (bonding). As the funding available through the Trust Fund increased, bonding for farmland preservation purposes lessened. The Board of Commissioners’ support for the program has been resolute. No request for funds for farmland preservation purposes has ever been denied.

Within the County Planning Incentive Grant rules of the SADC, there is a limitation placed on funds that any one county may receive each year. For State Fiscal Year 2021 (July 2020 thru June 2021), the SADC has placed a \$2 million limit for funds to any one county. This funding limit is established annually by the SADC, based on funding availability. This funding limit may hinder preservation efforts in Morris County given the extremely high per acre cost of acquisition as compared to other counties. However, pending the number of applications the CADB receives in any given year, the State’s limit on funds may not be an issue.

A complete inventory of all farms preserved through the County’s Farmland Preservation Program is included in *Appendix C*.

### Monitoring and Stewardship of Preserved Farmland

Annually, Morris CADB staff conducts its monitoring of all preserved farms. The SADC's Regulation N.J.A.C. 2:76-6.18A(d) requires the Morris CADB to perform annual onsite inspections of all permanently preserved farms. The purpose of the inspection is to ensure that each farm is in compliance with the terms of the Deed of Easement. Due to the growing number of preserved farms, the monitoring program entails more than sixteen weeks of staff's time to coordinate and conduct the onsite inspections. Further, there is a time commitment made by staff to remedy any issues or potential deed of easement violations as a result of the site inspections. The Morris CADB recognizes the importance of the "partnership" between the landowner and the County with the farmland preservation program and strives to maintain a positive working relationship. To that end, the Morris CADB developed a policy for addressing possible easement violations. See Policy P-10 in *Appendix E* for the approach taken to remedy possible violation issues.

As more farms become preserved, more staff time will be needed to complete the task each year.

Another commitment made by the Morris CADB is towards the review of proposed new uses on preserved farms and the interpretation of the deed restrictions. This is a very important role that has proven to be an important time investment. As more preserved farms are sold, new ideas and uses for preserved farms are being sought. In order to assist the public who may be seeking to purchase a preserved farm as well as providing a means for the Morris CADB to review proposals objectively, Policies P-11 and P-12 have been implemented (See *Appendix E*). These two policies enable the public to understand how the Morris CADB renders decisions as well as if a particular use is acceptable under the terms of the deed of easement.

With the maturity of the farmland preservation program, annual monitoring and stewardship issues have become the predominant activity for the Morris CADB. The conscientiousness of the Board and staff for this purpose is very important to ensure the protection of an investment of public funds in excess of \$162 million.

### Coordination with TDR Programs

A discussion of Transferable Development Rights programs can be found in Chapter III of this Plan, "Land Use Planning Context." As discussed in the referenced section, TDR Programs are currently not a viable option for preserving farmland in Morris County. If a TDR program does prove viable, the Morris CADB is willing to explore this as an option for the program.

## CHAPTER V: FUTURE FARMLAND PRESERVATION PROGRAM

A public meeting of the Morris CADB was held on July 1, 2021 to discuss the issues facing the Morris County farming community. During the meeting, conversations were had on a variety of topics, including agritourism, products sold, development pressures, the role of the CADB, the farmland preservation program, conflicts between residential and farming operations, road safety, Right to Farm, anticipated trends, support services, pests and invasive species, water supplies, and targeting farms.

Public outreach was also solicited from the general public. An online survey consisting of fifteen multiple choice and open ended questions was announced by the County and posted on the County's website on June 18, 2021 and was advertised in the County's weekly e-mail newsletter. The County's Farmland Preservation Director, Katherine Coyle, also participated in several interviews to promote the survey and to notify the public of the update to the County's Farmland Preservation Plan. Members of the public were invited to respond to the questions of the survey by July 9th. A total of 208 responses were received.

Generally speaking, the majority of the respondents are in favor of preserving the County's remaining farmland, and feel it is important to continue to preserve farmland. Many also purchase agricultural products from local farms at least twice a month during the season. Many comments were also received from members of the public. A summary of the online survey is available in *Appendix A*.

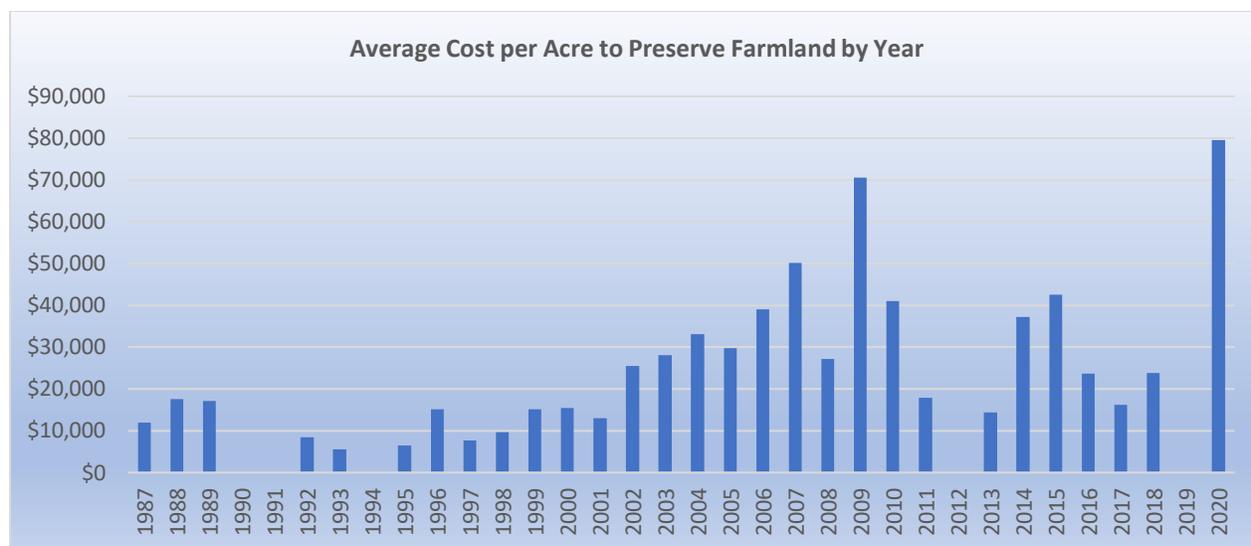
Each of the municipalities in the County were also notified of the Plan's update. An 11-question survey was sent to each municipality. Fourteen municipalities answered the survey, two meetings were held with two of the municipalities, thirteen municipalities indicated that farmland preservation is not applicable to their communities, and ten municipalities did not respond. A summary of the responses is provided in *Appendix A*.

### **Preservation Goals**

The average per acre easement cost for the five years from 2015 to 2020 in Morris County is \$34,100. The State Agriculture Development Committee (SADC) provides cost share grants to counties for purchase of development easements. Pursuant to N.J.A.C. 2:76-6.11, the SADC provides grants of up to 80% of the easement cost. Based on past preservation statistics, Morris County, on average, receives a 55% cost share grant from the SADC.

Morris County recently amended the rules for the County's Open Space, Farmland, Floodplain Protection and Historic Preservation Trust Fund. As indicated in Chapter 4, the Trust Fund previously allotted a specific percentage of the fund to farmland preservation projects. However, due to a surplus in the Farmland Preservation Program's account, the County Farmland Preservation Program is not currently receiving additional funds from the overall Trust Fund. However, should funding be needed for the program, the County Commissioners are likely to designate funds from the Trust Fund. It is important to note that the County's Farmland Preservation Program is well-funded.

There are other trends that will affect the preservation goals. First, the value of land in Morris County has been fluctuating over the past 10-15 years. As shown in the following chart, the average cost per acre increased to \$70,500 per acre in 2009, before decreasing to \$14,300 per acre in 2013. Since 2013, the easement price per acre has fluctuated significantly, increasing to \$42,600 per acre in 2015, before decreasing to \$16,200 in 2017. In 2020, the average cost per acre increased to \$79,600, the highest it has ever been in the history of the program.



Source: Morris County Office of Planning and Preservation

It is important to note that multiple applications are not necessarily always received and approved by the County within a given year. For example, between 2000 and 2009, the County preserved 72 farms totaling 4,100 acres, whereas between 2010 and 2019, only 28 farms were preserved totaling 1,024 acres.

Over the past decade, farmland preservation has occurred primarily within Chester Township and Washington Township. As detailed in the chart below, Washington Township preserved eleven farms totaling 419 acres and Chester Township preserved eight farms totaling 357 acres between 2010 and 2020. Within this time period the average easement cost per acre in Washington Township was \$23,500, and in Chester Township, the average easement cost per acre was \$32,500, representing a difference of approximately \$9,000 per acre. In addition, two farms were preserved in Mendham Borough, totaling 70 acres, with an average easement cost per acre of \$73,500, the highest amount paid over this ten year period. Although the County only targets farms within Morris County, the easement purchase price can vary significantly depending on location.

Summary of County Preserved Farms by Municipality between 2010 and 2020			
	# of Farms Preserved	Acres of Preserved Farms	Average Easement Cost per Acre
Chester Township	8	357	\$32,500
Mendham Borough	2	70	\$73,500
Mendham Township	2	59	\$31,600
Mount Olive Township	4	130	\$31,000
Rockaway Township	1	35	\$19,800
Washington Township	11	419	\$23,500
<b>Total</b>	<b>28</b>	<b>1,070</b>	<b>\$31,200</b>

Source: Morris County Office of Preservation

As land value continues to rise and development pressures continue to increase, the per acre easement values will likely follow a similar trajectory. Both trends will adversely affect Morris County's acreage goals over the next ten years. Based on the following factors, the Morris CADB can annually purchase development easements on approximately 100 acres annually:

- Average per acre easement cost in Morris County between 2015 and 2020 (\$34,100)
- Average Morris County share for easement purchase (45%)
- A limit of \$2 million of SADC funds per year

As a result, the Morris County Comprehensive Farmland Preservation Plan establishes the following one, five, and ten-year acreage goals for permanent farmland preservation:

- One Year Goal: 100 acres**
- Five Year Goal: 520 acres**
- Ten Year Goal: 1,080 acres**

**Project Area Summaries**

The County currently has three Project Areas. As part of this Plan’s update, an extensive GIS analysis was undertaken utilizing the most up-to-date data available. Parcels of land assessed as qualified farmland were reviewed for the entirety of Morris County. Parcels that were contiguous and under common ownership were grouped into “farms.” Each farm in Morris County was then analyzed based upon its tillable acreage and size. The tillable acreage was generally defined by the “Agriculture” classification of NJDEP’s 2015 Land Use Land Cover. Farms that were a minimum area of nine acres and had a minimum tillable acreage of 40% were included in the analysis. In addition, an inspection of the 2020 aerial imagery was also undertaken to determine whether there were additional farms that were likely to meet the criteria. The County’s existing targeted farms were also included in the revised inventory.

The Morris CADB does not give priority to one project area over another. An application for preservation from any part of Morris County will be given equal consideration. The following tables summarize the agricultural land characteristics of each of the County’s three project areas: the Northeast Project Area, West Project Area, and the Central Project Area.

The Northeast Project Area consists of all or a portion of Boonton Township, Denville Township, Lincoln Park Borough, Montville Township, Pequannock Township, and Rockaway Township.

The West Project Area consists of all or portion of Chester Borough, Chester Township, Mount Olive Township, Roxbury Township and Washington Township.

The Central Project Area consists of all or portion of Chatham Township, Harding Township, Long Hill Township, Mendham Borough, Mendham Township, Morris Township, Randolph Township and Roxbury Township.

The following charts detail the characteristics of each of the project areas, including total preserved farms, targeted farms, farms pending preservation, term preservation, and preserved open space.

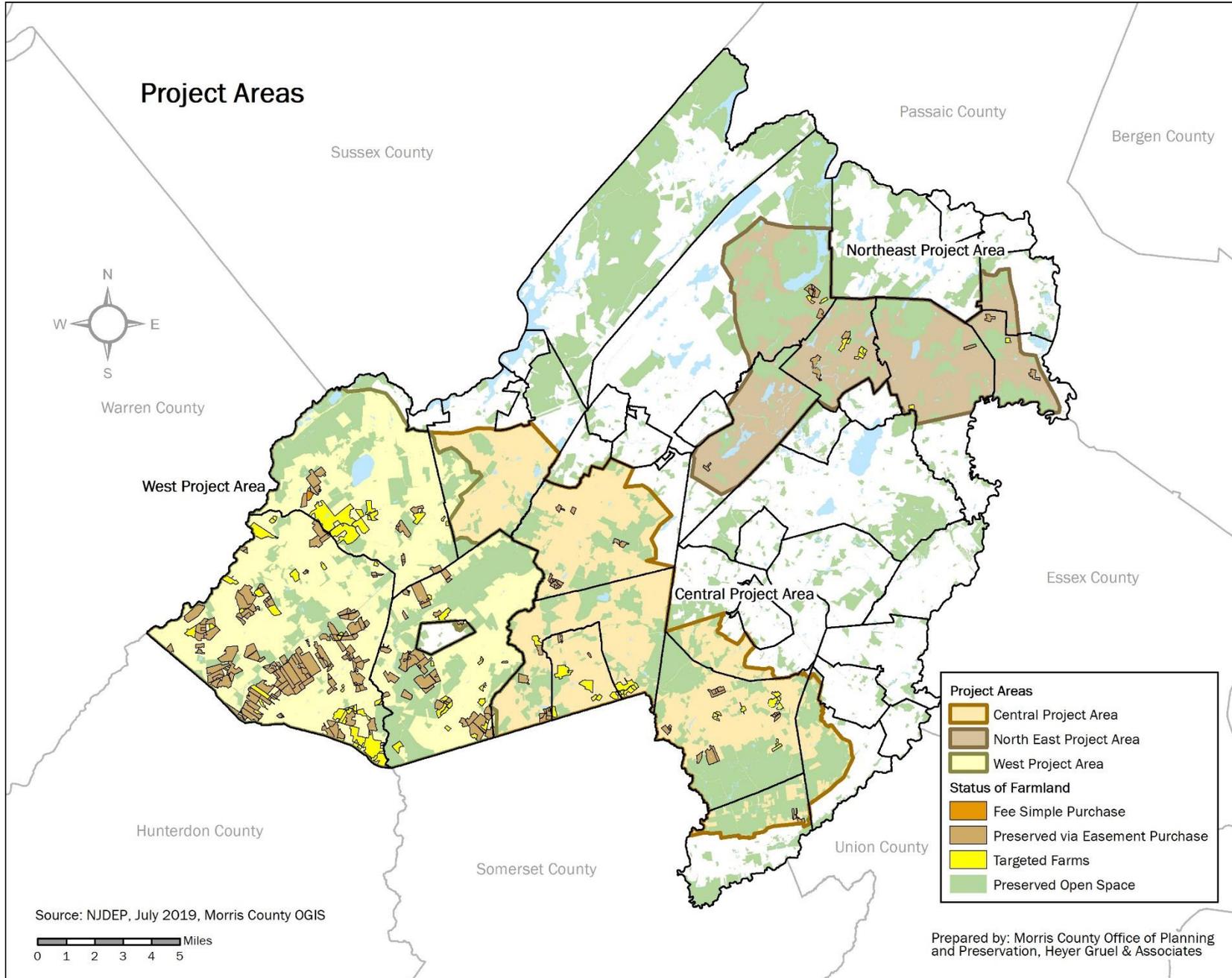
<b>Northeast Project Area</b>		
	<b>Acres</b>	<b>Percent of Project Area</b>
Total Preserved Farmland	390.7	1.1%
Compatible Open Space	13,057.2	37.7%
Term Preservation	0.0	0.0%
Pending	0.0	0.0%
Targeted Farms	182.0	0.5%
<b>Total</b>	<b>13,629.9</b>	<b>39.3%</b>
<b>Northeast Project Area</b>	<b>34,638.0</b>	<b>100.0%</b>

Central Project Area		
	Acres	Percent of Project Area
Total Preserved Farmland	780.0	1.4%
Compatible Open Space	19,448.0	35.3%
Term Preservation	0.0	0.0%
Pending	0.0	0.0%
Targeted Farms	712.6	1.3%
<b>Total</b>	<b>20,940.6</b>	<b>38.1%</b>
<b>Central Project Area</b>	<b>55,018.7</b>	<b>100.0%</b>

West Project Area		
	Acres	Percent of Project Area
Total Preserved Farmland	7,510.3	11.0%
Compatible Open Space	16,968.1	24.8%
Term Preservation	0.0	0.0%
Pending	0.0	0.0%
Targeted Farms	2,880.2	4.2%
<b>Total</b>	<b>27,358.6</b>	<b>40.0%</b>
<b>West Project Area</b>	<b>68,356.0</b>	<b>100.0%</b>

Note: All acreages calculated in GIS

The following map shows the Project Areas in relation to the existing farmland assessed land, targeted farms, and preserved farms.



### Minimum Eligibility Criteria

As outlined in Morris CADB Policy P-8, for a farm to be eligible for preservation through the “Easement Purchase Program Eligibility and Ranking System,” any application to the program must meet the following Morris CADB criteria:

- a. The land must be at least 10 acres.
- b. The land must be receiving farmland tax assessment.
- c. The land must be at least 50% tillable, or have at least 25 tillable acres.
- d. The application receives a minimum score of 25 based on the Morris CADB Ranking System, Policy: P-8.
- e. The land must exhibit development potential based on the following standards:
  - (1) The municipal zoning ordinance for the land as it is being appraised must allow additional development, and in the case of residential zoning, at least one additional residential site beyond that which will potentially exist on the premises.
  - (2) Where the purported development value of the land depends on the potential to provide access for additional development, the municipal zoning ordinances allowing further subdivision of the land must be verified. If access is only available pursuant to an easement, the easement must specify that further subdivision of the land is possible. To the extent that this potential access is subject to ordinances such as those governing allowable subdivisions, common driveways and shared access, these facts must be confirmed in writing by the municipal zoning officer or planner.
  - (3) If the land is 25 acres or less, the land shall not contain more than 80 percent soils classified as freshwater or modified agricultural wetlands according to the NJDEP wetlands maps. If the DEP wetlands maps are in dispute, further investigation and onsite analysis may be conducted by a certified licensed engineer or qualified wetlands consultant and/or a letter of interpretation issued by the NJDEP may be secured.
  - (4) If the land is 25 acres or less, the land shall not contain more than 80% soils with slopes in excess of 15% as identified on a USDA NRCS SSURGO version 2.2 or newer soils map.

Policy P-8 includes the Morris CADB Ranking System, which is utilized to rank easement purchase applications. The CADB has the discretion to approve or deny any eligible application. If an application fails to meet the criteria listed in Paragraph 1, the Morris CADB reserves the right to waive the minimum criteria and to accept and consider the application on a case-by case basis.

### County Ranking Criteria

The Morris CADB’s policy P-8 “Easement Purchase Program Eligibility and Ranking System” includes various ranking criteria employed to determine if a farm is eligible for preservation. The ranking criteria address farmland quality, stewardship, local commitment, special considerations and exceptions. However, meeting the minimum eligibility score does not guarantee a farm will be selected for preservation. The Morris CADB must assess the farm and determine if there is a high likelihood of future agricultural viability. This analysis is difficult to determine quantitatively. The Morris CADB conducts a site visit to each application received with the landowner or farm operator questioned about the operation and future plans for the farm. Policy P-8 ranking criteria are included as *Appendix B*.

### County Policies Related to Farmland Preservation Applications

The Morris CADB has taken the approach of adopting formal policies for a number of subjects related to the farmland preservation program and Board administration. This enables the public to understand Board decision-making and administrative processes. All Board policies are found on the website at:

<https://www.morriscountynj.gov/Departments/County-Agriculture-Development-Board/Farmland-Preservation-Program>

Several of the fifteen adopted policies relate directly to easement purchase applications. They include:

- P-1: Agricultural Labor Housing
- P-2: Residual Dwelling Site Opportunity
- P-3: Application Fee

- P-4: Imminence of Change
- P-5: Exceptions
- P-8: Easement Purchase Program Eligibility and Ranking System

All Morris CADB policies are contained in *Appendix B*.

The SADC's and Morris CADB's policies regarding housing are necessary to ensure compliance with the provisions of the Deed of Easement.

#### Agricultural Labor Housing

With regard to agricultural labor housing, pursuant to paragraph 14 of the Deed of Easement, "Grantor may construct any new buildings for agricultural purposes. The construction of any new buildings for residential use, regardless of its purpose, shall be prohibited except as follows:

*To provide structures for housing of agricultural labor employed on the Premises but only with the approval of the Grantee and the Committee. If Grantee and the Committee grant approval for the construction of agricultural labor housing, such housing shall not be used as a residence for Grantor, Grantor's spouse, Grantor's parents, Grantor's lineal descendants, adopted or natural, Grantor's spouse's parents, Grantor's spouse's lineal descendants, adopted or natural."*

*Morris CADB Policy: P-1: "Agricultural Labor Housing,"* was originally adopted on July 20, 2000, and revised on August 10, 2006. The policy mirrors the language of the Deed of Easement; it states who may live in an agricultural labor housing unit. The policy also states that agricultural labor housing units may be constructed only if approved by both the CADB and the SADC. During the decision-making process, the CADB and the SADC must review who will occupy the agricultural labor unit, how the occupants will be involved in the farming operation, and whether the agricultural operation justifies the construction and use of an agricultural labor unit.

#### House Replacement

With regard to house replacement, pursuant to paragraph 14 of the Deed of Easement, "Grantor may construct any new buildings for agricultural purposes." The construction of any new buildings for residential use, regardless of its purpose, shall be prohibited except as follows:

*To construct a single-family residential building anywhere on the Premises in order to replace any single-family residential building in existence at the time of conveyance of this Deed of Easement but only with the approval of the Grantee and Committee.*

*Morris CADB Policy: P-11: "Replacement of Residence on Preserved Farmland,"* was originally adopted on December 12, 2002. The Morris CADB policy outlines the procedure for requesting the replacement of a residence on preserved farmland and establishes guidelines for reviewing such requests. This policy does not apply to residences constructed on exception areas. The policy also states that any residence replacement must also be approved by the SADC.

#### Residual Dwelling Site Opportunities (RDSO)

The Morris CADB does not permit residual dwelling site opportunities. However, at the onset of the program, RDSOs were permitted. Accordingly, the Morris CADB adopted Policy: P-2, "Residual Dwelling Site Opportunity," on July 20, 2000. The policy was amended on January 10, 2008. The policy states that RDSOs shall not be permitted and that all requests for RDSOs shall be denied. However, farms, which were preserved with an RDSO, shall comply with State Agriculture Development Committee's Policy P-31, "Exercising a Residual Dwelling Site Opportunity." A copy of SADC's Policy P-31 is attached to Morris CADB's Policy: P-2 and may be found in *Appendix E*. The SADC's policy outlines the procedures for exercising RDSOs. The SADC considers several factors during its decision-making process, including, but not limited to: the present agricultural use of the farm, the impact of the RDSO on the agricultural use, who will reside in the residential unit, how will the occupants be involved in farm site activities, and how many residential buildings currently exist on the premises.

### Division of Preserved Farmland

With regard to the division of preserved farmland, the Deed of Easement states in paragraph 15 that “no division of the land shall be permitted without the joint approval in writing of the Grantee and the Committee.” In order for the Grantor to receive approval, the Grantee and Committee must find that the division shall be for an agricultural purpose and result in agriculturally viable parcels. Division means any division of the Premises, for any purpose, subsequent to the effective date of this Deed of Easement.

*For purposes of this Deed of Easement, "Agriculturally viable parcel" means that each parcel is capable of sustaining a variety of agricultural operations that yield a reasonable economic return under normal conditions, solely from each parcel's agricultural output.*

*Morris CADB Policy: P-7: "Division of Permanently Preserved Farmland,"* was adopted on May 11, 2000 and revised on August 10, 2006 and may be found in *Appendix E*. The policy states that it is the intent of the Morris CADB to discourage divisions of preserved farmland. The CADB's objective is to preserve large masses of viable agricultural land. The CADB recognizes that agricultural parcels may become less viable if reduced in size. However, the CADB finds it necessary to have a policy, which outlines the procedure for requesting a division of a preserved farm and provides guidelines for reviewing requests.

Although the SADC has such a policy, Policy P-30-A, which applies to farmland preserved with state funds, the CADB finds it necessary to have its own policy, which applies to farmland preserved with state funds, as well as farmland preserved exclusively with county funds. The policy states that the CADB will carefully consider the criteria contained in its policy to evaluate whether a preserved farm should be divided. The CADB criteria will determine whether the division is for an agricultural purpose and whether the resulting parcels are agriculturally viable.

The Morris CADB policy reiterates the Deed of Easement's definition of "*agriculturally viable parcel*," which means a parcel that is capable of sustaining a variety of agricultural operations that yield a reasonable economic return under normal conditions, solely from the parcel's agricultural output. In order to permit a division of a preserved farm, the CADB must find that that division is for an "agricultural purpose" and that it will result in "agriculturally viable" parcels. The policy also contains an application form, which must be submitted with a landowner's request for a division.

The SADC policy outlines the application process for a division of a preserved farm and lists the criteria used by the SADC to make its determinations. In order to permit a division of a preserved farm, the SADC must find that: 1) the division has been approved by the CADB, 2) the division is for an "agricultural purpose" and that 3) it will result in "agriculturally viable" parcels. The SADC considers several factors during its decision-making process, including, but not limited to: current and proposed uses of the premises, purpose of the proposed division, the effect of the division on the existing agricultural operation, who resides on the premises, quality and types of soils, farm boundaries, farm size, etc.

### Approval of Exception Areas

As stated above, the Morris CADB does not permit RDSOs. Instead, if a landowner wishes to retain an option to construct a residence at some point following the preservation of the farm, the Morris CADB encourages a non-severable exception. Non-severable exceptions may also be encouraged if the landowner operates a non-agricultural commercial business on the farm premises and does not wish to encumber the use by the Deed of Easement. The Morris CADB's Ranking System (Policy: P-8), allows one non-severable exception on an application to sell a development easement. A landowner requesting one non-severable exception is not penalized. However, if the landowner's application requests more than one non-severable exception, five points are deducted from the final score for each non-severable exception. The Morris CADB strongly discourages severable exceptions. For each severable exception, ten points are deducted from the final score.

**Funding Plan**

As discussed previously, the Morris CADB’s preservation goals for preserved acres of farmland are:

**One Year Goal: 100**

**Five Year Goal: 520**

**Ten Year Goal: 1,080**

The cost projections associated with one-, five-, and ten-year goals are as follows:

Year	Acquisition Goal (Acres)	Total Projected Cost	Estimated Local Cost Share	Estimated County Cost Share	Estimated State Cost Share	Other Contributors
1	100	\$3,700,000	\$0	\$1,600,000	\$2,000,000	\$0
5	520	\$17,732,000	\$0	\$7,979,400	\$9,752,600	\$0
10	1,080	\$36,828,000	\$0	\$16,572,6000	\$20,255,400	\$0

As discussed in the *Farmland Preservation Program Funding Expended to Date by Source* section of Chapter IV, the funding for the farmland preservation program since the late 1990s has exclusively been the Morris County Open Space Trust Fund (COSTF). Originally established by the Morris County Board of Commissioners in 1993, the Trust Fund’s annual collection has increased the funds available for farmland preservation purposes. The regulations governing the Trust Fund are determined annually by the County Commissioners. For the year 2021, no funding was designated for the County’s Farmland Preservation Plan; the program being well funded with a balance of approximately \$17 million as of May 2021. No funds from the Trust Fund are used for salaries or employee benefits. To date, these funds have been adequate to keep up with application demand. This satisfaction of the demand is anticipated in the future. However, the SADC’s maximum grant funds under the County Planning Incentive Grant Program, which is currently \$2 million per year, is the limiting factor with respect to the funding plan.

Morris County does not require municipal cost-share. Because of the substantial County Open Space Trust Fund, municipal cost-share is not required. It is the County’s position that contributions to the COSTF serve as local cost-share. The County also does not use installment purchase agreements because they would require the County to establish a separate program to manage the installment purchases.

Further, as discussed above, between 2010 and 2020, 28 farms totaling 1,070 acres were preserved. The funding plan goals are consistent with the trends experienced by the CADB, in terms of acres preserved.

Another important factor related to funding and landowner participation in the program relates to the Highlands Act. With a majority of Morris County’s farms that are eligible for preservation located in the Highlands Preservation Area, the “dual appraisal process” is of paramount concern. With the adoption of the Highlands Act in 2004, the legislature provided for a temporary dual appraisal process wherein land values are appraised 1) assuming the Highlands restrictions are not in place, and 2) assuming current restrictions under the Highlands Act. The higher of these two values has been the certified value by the SADC. The dual appraisal protection has been extended several times since it was first due to expire in 2009. Renewal or extension of this provision is necessary to continue voluntary landowner interest in the farmland preservation program for much of Morris County’s remaining unpreserved farms.

**Farmland Preservation Program / CADB Administrative Resources**

The Morris CADB is well positioned to address current and future needs for the farmland preservation and Right-to-Farm programs. Staff for the Morris CADB is within the Preservation Trust Division of the Office of Planning and Preservation. The County currently has a full-time Director for the Morris County Office of Planning and Preservation, who oversees the management of the preservation programs. The Morris CADB has a full-time Director who

oversees the Farmland Preservation Program and the Right-to-Farm Program. The funding for CADB staff is through the county budget process and is not funded by nor tied to the Trust Fund.

Since the early 1990's, legal support for the program has been provided by in-house County Counsel. All legal matters and closing document preparation are coordinated by the Morris County Counsel's office. Keeping this work in-house is very efficient and enables Morris County to respond quickly on all legal matters. The County also has an Office of Information Technology with full-time staff that manages the County's open space and farmland preservation database, along with the County's other GIS data, including parcels, structures, contours, centerlines, and municipal zoning, to name a few.

#### **Factors Limiting Farmland Preservation Implementation**

Several factors are likely to affect the continued success of Morris County's farmland preservation program. The single largest variable is landowner interest. Landowner interest is heavily impacted by the Highlands Water Protection and Planning Act. The dual appraisal process is of paramount importance for landowner interest, however, assuming that the dual appraisal process continues, several other factors could still limit the program's growth.

Again, landowner interest could wane and participation in the program is voluntary. As such, it is impossible to predict who will apply for preservation and when they will apply. To minimize this possible limitation, Morris County has continued to promote the program and its available funding. The County has a website for the Morris County Agriculture Development Board that includes information pertaining to the preservation programs, Right-to-Farm, Preserved Farms, and resources.

The per acre cost for the purchase of the development easements could be another limiting factor. As economic conditions vary over time, and with the current Covid-19 housing "bubble", it is unknown whether the cost of land will continue to increase or decline. However, with the rising costs of land within Morris County, the cost per acre to preserve farmland is likely to continue to increase. Furthermore, it is difficult to determine if easement values will change in the future, and it is even more difficult to determine what the easement purchase price will be per municipality within Morris County.

The issue of long-term state funding availability for farmland preservation, once in question, has been addressed since the passage of the last Morris County Farmland Preservation Plan. In November of 2014, New Jersey voters approved Public Ballot Question #2 to establish a stable source of funding for the preservation and stewardship of open space, parks, farms, historic and flood prone areas by dedicating four percent of existing corporation business tax (CBT) revenues to preservation and environmental programs through fiscal year 2019, and then raising that dedication to six percent from fiscal year 2020 moving forward.<sup>88</sup>

In 2016, the "Preserve New Jersey Act" (P.L.2016, c.12) was passed implementing the constitutional dedication of CBT revenues as approved by the voters in 2014 and the Preserve New Jersey Act Preservation fund was established. In 2019, the Governor signed P.L. 2019, c.132. This bill supplemented and amended the Preserve New Jersey Act, establishing funding allocations for the constitutional dedication of CBT revenues for the State's open space, farmland, and historic preservation programs for fiscal year 2020 and thereafter.

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<sup>88</sup> Introduced into the N.J. Legislature as Senate Concurrent Resolution 84 and Assembly Concurrent Resolution 130.

## CHAPTER VI: AGRICULTURAL ECONOMIC DEVELOPMENT

### Consistency with NJ Department of Agriculture Economic Development Strategies

The State of New Jersey offers farmers a number of support services and programs ranging from technical advice to farm loans. One of these services is the New Jersey Department of Agriculture (NJDA) Smart Growth Toolkit, which provides information to support municipal governments, businesses, non-profit groups, and local citizens in their efforts to achieve the goals and objectives outlined in the 2006 NJDA Agricultural Smart Growth Plan for New Jersey. The Tool Kit embraces the five components that have been identified by the NJDA as critical for the future of farming: Farmland Preservation, Agricultural Land Use Planning, Economic Development, Natural Resource Conservation, and Agricultural Industry Sustainability.

As part of this emphasis on the business of agriculture, NJDA issued its 2011 Economic Development Strategies, which identify and propose methods to expand and enhance various subsets of the agricultural industry in New Jersey, including produce, horticulture, dairy, livestock and poultry, field crops, organic, equine, wine, and agritourism. The NJDA observes that "local access to large affluent markets has long been an advantage for the marketing of products. While our markets are still there, competition has become tougher, New Jersey's produce industry must continually work to rediscover its competitive advantages, improving access to nearby markets and strengthening consumer loyalty."

### Field Crops Production

Forage land, which includes all types of hay and haylage, grass silage, and greenchop, has historically been a key crop for Morris County with an average of 128 farms producing some form of the crop since 1987. According to the 2017 U.S. Agricultural Census, roughly 60 percent of the County's field crop acreage (3,001 acres across 142 farms) remains devoted to forage land, with a market value of nearly \$1 million. Vegetables for sale account for a small but growing portion of the County's agriculture land base, with an average of 74 farms producing some type of vegetable for sale since 1987. The crop has experienced a 10 percent increase in number of farms over the last 30 years, to 88 farms producing the crop with a 2017 market value of \$4.8 million.

The following economic strategies from the New Jersey State Agricultural Convention can be implemented and encouraged regarding field crops in Morris County:

- Ensure plant health by the implementation of the Mexican Bean Beetle parasite program, soybean use monitoring surveys, and the release of beneficial insects to control the tarnished plant bug and Mile A Minute weed, in addition working with the National Resource Conservation Service and the Rutgers Cooperative Extension;
- Support organic field crop production to increase value of the crops and linking growers with organic food processors, retailers, animal feed suppliers, and all other handlers;
- Explore opportunities to diversify farm income to other seasonal products and educate growers about agritourism;
- Support plans for green energy initiative such as bio-fuel plants and related bio-fuel businesses, which could elevate the price of regionally produced grain or other agricultural products;
- Investigate market opportunities for edamame, a variety of vegetable soybean gaining popularity among people from all backgrounds which does not require processing for human consumption, can be consumed fresh or frozen, and is high in protein while being low in cholesterol and fat; and
- Assist in addressing labor issues through the provision of housing and training opportunities at the county and local level and taking a proactive approach to worker safety.

### Nursery and Greenhouse Crops Production

Nurseries, greenhouses, floriculture and sod are important agricultural commodities in Morris County. This agricultural sector accounted for total sales of \$13.8 million in 2017. One likely reason this sector of the crop industry has become so important is due to the continued nonagricultural population growth in the County and region, providing a ready market for these products. The County can continue to strengthen and expand this sector of the agriculture economy as opportunities arise. Morris County can implement the following economic strategies from the New Jersey State Agricultural Convention with regard to nursery and greenhouse crops:

- Ensure plant health by continuing inspections for harmful pests and disease and seek ways to increase use of new methods of pest control, inspecting and certifying disease-free nurseries and conducting seed certification to ensure high quality turf grass seed for sod growers;
- Increase consumer awareness by encouraging increased participation in the *Jersey Fresh* program and aggressively marketing Jersey grown horticultural products; and,
- Support the research of the New Jersey Agricultural Experiment Station in identifying new varieties of pest- and disease-resistant crops and developing new methods of pest control.

In addition, Morris County farmers may also consider growing native plants for direct purchase, since New Jersey farmers are ideally positioned to cultivate New Jersey native plants. The State recently established the “New Jersey Native Plants Program”, which creates a similar labeling system and marketing campaign as the *Jersey Fresh* and *Jersey Grown* brands. Nursery growers in Morris County are encouraged to participate in this program.

### Livestock & Poultry Production

Livestock and poultry operations include beef and dairy cattle and calves, sheep & lambs, hogs & pigs, and poultry. Due to high input costs, many farmers in the State have opted not to engage exclusively in dairy farming, but rather are sectoring their farms into various agriculture products, such as other livestock. If input costs continue to increase, it is possible the dairy industry may continue to decline, but the County’s farmers should see this as an opportunity to diversify to other agricultural products such as non-dairy cattle, calves, poultry, hogs, pigs, and other animals. According to the US Agricultural Census, livestock, poultry, and their products made up \$1.7 million in sales for the County in 2017.

According to the U.S. Agricultural Census, an average of 65 farms have produced chickens for eggs (also referred to as “layers”) since 1987. As of 2017, 89 farms currently produce layers, representing a 33 percent increase from 59 farms in 1987. Morris County has earned \$395,000 from the production of chickens for eggs. Although cattle and calves have been another consistent earner for the County with an average of 50 farms over the last 30 years, the number of farms producing cattle and calves has dropped roughly 90 percent in that same time period. According to the 2017 US Agricultural Census, Morris County earned \$105,000 from the production of cattle and calves.

The County has seen its role in the above livestock categories fluctuate over the years. Yet, with the County’s focus on general harvested crops such as hay, vegetables, and corn, it is important to engage in economic development efforts that increase potential markets for the County’s livestock and poultry production. The County can employ the following techniques from the economic strategies from the New Jersey State Agricultural Convention’s proposed economic development strategies:

- Ensure animal health through the implementation of best management practices;
- Identify whether goat products are a viable market for Morris County farmers as demand for their products is rising and Federal-State Marketing Improvement Program (FSMIP) grants are available to study the economics of breeding and marketing meat goats; and,
- Encourage the production of grass-fed animals such as beef, sheep and meat goats.

The County can employ the following additional strategies to help boost the crop and livestock sectors:

- Working with markets by supporting the sale and marketing of locally produced meat and eggs;
- Aggressively marketing value-added dairy products;
- Exploring various additional products and markets, including local restaurants and grocery markets;
- Working to attract livestock veterinarians to the area, a strategy which can include economic incentives;
- Bringing in slaughterhouses and USDA inspectors to increase competitiveness;
- Promoting the agritourism portion of livestock and poultry, such as petting zoos; and
- Assisting farmers with farming techniques, regulatory requirements and the latest research for livestock and poultry. This would include continued and additional cooperation with the Rutgers Cooperative Extension of Morris County, NJDA and NRCS.

#### Agritourism

Agritourism is significant to the long-term sustainability of Morris County's agricultural industry. According to the 2011 Agriculture Economic Development Strategies, "many residents consider agriculture a novelty and something to be explored and enjoyed." Agritourism has a unique potential to attract visitors from other counties and even from neighboring states. Seasonal farm stands, petting zoos, hayrides, pick-your-own farms, and seasonal events in the County help to attract visitors. The following are a few techniques discussed by the 2011 NJ State Agricultural Convention Economic Development study:

- Expand roadside programs by working with the NJ Department of Transportation to expand Tourist Oriented Designated Signs and coordinate efforts to gain approval for a discounted agritourism rate.
- Consumer promotion by distributing inexpensive agritourism brochures with industry websites and contact information to help promote seasonal events and direct farm marketing opportunities in addition to expanding the promotion of the [visitnjfarms.org](http://visitnjfarms.org) website.

There are many agencies, boards, and existing programs offered through Morris County and the State which could provide assistance to help farmers advertise their businesses, services, and events.

- Jersey Fresh
  - The County may want to consider working with Jersey Fresh to create a Morris County Administrator account to manage/upload Morris County farms for easy access to the public.
- Morris County Bureau of Tourism
  - Works with the chamber of commerce to promote tourism throughout the County and incorporate agricultural offerings (CSAs, farm stands, farmers markets, etc.) and agritourism events.
- Taste of Morris County
  - Morris County farmers have an opportunity to become involved with this program.
- Visitnjfarms.com
  - Offers farmers a log-in to advertise their farm and activities. The site is sponsored by Rutgers University, New Jersey Farmers' Direct Marketing Association, and the New Jersey Farm Bureau. The website features an interactive map, as well as information pertaining to what is in season, events, and news.
- Farm Bureau
  - Farmers fill out a form about their farm, and what is grown. The Farm Bureau maintains an inventory of farms by each county, including the location, hours of operation, specialties, value-added products, as well as other products.
- New Jersey Farmers' Direct Marketing Association
- County Chamber of Commerce

Outreach and education to farmers in the County may be needed to let them know of the existing services and websites that can be used to advertise their businesses.

The Board recommends that Morris County should work with these existing agencies, rather than creating their own “brand.” Board members expressed concern over diluting the Jersey Fresh brand to create a County-led initiative. Morris County Bureau of Tourism and other existing programs, including Jersey Fresh and other initiatives offered by agencies should be encouraged to be used by existing farms and farmers. The County should incorporate agritourism events into their existing Bureau of Tourism. The Board could also conduct outreach to existing farmers to help them navigate Jersey Fresh and other websites to help get their information available to the public.

*American Farmland Trust Farms Under Threat: The State of the States*

On May 13, 2020, the American Farmland Trust (AFT) published *Farms Under Threat: The State of the States*, a report analyzing the impacts of agricultural land conversion. The Report indicates that from 2001 to 2016 alone, 11 million acres of farmland or rangeland were converted to land uses of higher intensity. The Report also creates an Agricultural Land Protection Scorecard, and assesses six policy tools commonly used to protect farmland, support agricultural viability, and provide access to land. The scorecard ranks all of the states in terms of the following key policies:

1. Purchase of agricultural conservation easements (PACE);
2. Land use planning policies;
3. Property tax relief;
4. Agricultural district programs;
5. Farm link / Land Link; and,
6. State leasing.

The State of New Jersey ranks #1 in terms of raw (345) and weighted score (59). New Jersey ranked 79 for PACE, 47 for planning, 40 for property tax relief, 63 for agricultural district programs, 54 for Farm Link, and 63 for State Leasing.

*Rural Microenterprise Activity on Preserved Farmland*

The SADC recently adopted amendments allowing owners of qualified farmland to apply for special permits for “rural microenterprise” operations, within certain parameters. Rural microenterprises are certain types of appropriately scaled businesses or activities that are compatible with the agricultural use of the farm. The Act also promotes and incentivizes the preservation of historic and culturally significant agricultural structures (N.J.A.C. 2:76-22.1 through 22.12 and 22.14, and new rules at N.J.A.C. 2:76-22.12 and 22A).

*Winery Special Occasion Events on Preserved Farmland*

In July 2014, P.L.2014, Ch 16, “the Winery Special Occasions Event Law,” was enacted to allow special occasion events to be held at wineries located on preserved farms under certain circumstances for a 44-month pilot program. The Legislature authorized expanding the program for two additional years, which expired on May 30, 2020. The rules established the standards for verifying compliance with the legislation's income limit, including audit procedures.

In March of 2020, the SADC released the final report with recommendations pertaining to the winery pilot program. A key finding of the report was that the SADC recommended the enactment of legislation that would allow certain farm based “events” that are not currently permitted on preserved farms, to be conducted by owners of all preserved commercial farms, and that reasonable standards be applied to their size, frequency and impact to the farm’s resources. The provisions should further acknowledge the need to protect the public investment in farmland preservation and ensure that the land remains primarily dedicated to agricultural production activities.

For more information regarding the March 2020 SADC Final Report for the Pilot Program for Winery Special Occasion Events, visit:

<https://www.nj.gov/agriculture/sadc/news/populartopics/SOE%20FINAL%20REPORT%20TO%20THE%20GOVERNOR%20AND%20LEGISLATURE%202020.03.05.pdf>

Solar on Farms- Grid Supply Bill (S2605 and A4554) and Dual Use Bill (S3484 and A5434)

In July of 2021, two separate solar bills were passed by the State Legislature and signed into law. The Grid Supply Bill (S2605 and A4554)<sup>89</sup> aims to permit utility-scale solar projects that are eligible for renewable energy incentive certificates (SREC-IIs) on farmland. Standards are included to protect prime farmland soils and soils of statewide importance, while also establishing limitations on the area of utility-scale projects that can be within a County and its corresponding ADA. However, these projects are prohibited on preserved farmland and are not eligible for farmland assessment purposes.

The Dual Use Bill (S3484 and A5434)<sup>90</sup> establishes a 3-5 year pilot program which will test the viability of the dual use concept. Projects will be capped at 10 MW (estimated to be 50-100 acres) in size and the overall pilot program is capped at 200 MW (1,000-2,000 acres). The law permits owners of unreserved, farm assessed land to install and operate a dual-use solar energy project (as defined in the bill) and continue to receive farmland assessment. The land is required to be actively devoted to agricultural and horticultural use. The loss of prime soils and statewide importance soils in ADAs are prohibited. Under the law, dual use projects approved through the pilot program are defined as a “permitted use” within a municipality.

Agricultural Management Practice for On-Farm Direct Marketing Facilities, Activities and Events; and Revised Right-to-Farm Procedural Rules

On January 31, 2014 the SADC adopted the agricultural management practice (AMP) for On-Farm Direct Marketing Facilities, Activities and Events (N.J.A.C. 2:76-2A.13). The AMP is a set of new rules which establishes performance-based standards for commercial farms seeking to qualify for Right-to-Farm protection for on-farm direct marketing facilities, activities and events that are used to facilitate and provide for direct farmer-to-consumer sales, such as farm stands, farm stores, community-supported agriculture (CSA) and pick-your-own operations, and associated activities and events. The intent of the AMP is to provide statewide standards on which farmers, municipalities, CADBs and the public can rely, while also providing flexibility to commercial farm owners and operators.

The SADC also adopted a revision to the Right-to-Farm procedural rules which is intended to streamline the process (N.J.A.C. 2:76-2.3, 2.4, 2.5, 2.7, 2.8, 2.9 and 2.10). The rule proposal includes procedural changes to the site-specific agricultural management practice (SSAMP) process and the Right-to-Farm complaint process. The proposed amendments also clarify the roles of CADBs and the SADC in the Right-to-Farm review process in a manner consistent with the Right-to-Farm Act.

SADC Agricultural Management Practices

Over the last decade, the SADC has developed agricultural management practices (AMPs) for a variety of farming activities. In order for a farm to be eligible for the protections of the Right-to-Farm Act, the commercial farm must be in compliance with the AMPs or with generally accepted agricultural practices. Twelve AMPs have been promulgated by the SADC, which covers the following topics:

1. Apiary
2. Poultry Manure
3. Food processing by-product land application
4. Commercial vegetable production
5. Commercial tree fruit production
6. Natural resource conservation
7. On-farm compost operations operating on commercial farms
8. Fencing installation for wildlife control
9. Equine activities on commercial farms

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<sup>89</sup> Assembly Bill A4554 adopted as Public Law P.L.2021, c.169.

<sup>90</sup> Assembly Bill A5434 adopted as Public Law P.L.2021, c.170

10. Aquaculture
11. Construction, installation, operation, or maintenance of solar energy facilities, structures and equipment on commercial farms
12. On-farm direct marketing facilities, activities, and events

### Agricultural Industry Retention, Expansion and Recruitment Strategies

#### Institutional Stakeholders

The New Jersey State Board of Agriculture is an eight-member body established by the New Jersey Legislature to set the broad agricultural policies of the Department of Agriculture. The State Board operates in accordance with the agricultural laws of New Jersey to promote the agricultural interests of the State and to protect and serve the citizens of New Jersey by providing information and unbiased enforcement of laws and regulations ensuring quality products and services. Products and services such as seed, feed, fertilizer, conservation of soil and water resources; control, suppression, and eradication of livestock and poultry diseases and plant pests; and many others are regulated by the State Board, as well as, feeding schoolchildren and the distribution of surplus federal foods to soup kitchens and pantries that serve our needy citizens.

The North Eastern Organic Farming Association- New Jersey, (NOFA-NJ) is an association supporting organic growers to promote healthy farms, healthy food, and healthy land. NOFA-NJ also caters to beginner farmers interested in growing organically, offering information about organic certification, events, and NOFA programs.

The USDA Farm Service Agency (FSA) offers assistance to farmers through the delivery of agricultural programs, such as Farm and Farm Loan Programs.

Farm Credit East (FCE) offers farmers a variety of financial and lender services. Farm Credit East offers beginner farmers with additional technical assistance and resources needed to improve financial profitability by hosting online webinar sessions throughout the year.

The New Jersey Farm Bureau is a private, non-profit membership organization that represents agricultural producers and enterprises. This organization focuses on advocating for, informing, and promoting all facets of New Jersey Agriculture. The Farm Bureau offers legislative and policy information, emergency alerts, and the latest news to farmers across the state, including beginner farmers through the New Jersey Farm Bureau's Young Farmers and Ranchers Committee.

The New Jersey Department of Agriculture website is a resource for consumers, farmers/producers, food industry buyers, teachers, students, and Future Farmers of America members. This website includes information on all things "Jersey Fresh", including hot topics, press releases, financial services, and applications/forms. Beginner farmers can learn more about state policies and regulations by visiting this website.

The Morris County Board of Agriculture dates back to the early 1900s and is composed of farmers, farming professionals and representatives from the NJ Farm Bureau, Rutgers University Co-op Extension, the State Board of Agriculture and other agriculture organizations. The Board of Agriculture serves as the county component of the NJ Farm Bureau and its headquarters is located at 25 Hillside Avenue in Mount Olive.

The County College of Morris is another stakeholder in the development of the County's agricultural economy. The community college has its main campus in Randolph and offers associate degrees in agribusiness. Visit [www.ccm.edu/academics/divdep/health-professions-natural-sciences/department-of-landscape-and-horticultural-technology-old/agribusiness/](http://www.ccm.edu/academics/divdep/health-professions-natural-sciences/department-of-landscape-and-horticultural-technology-old/agribusiness/) for more information.

*Visit NJ Farms* is an initiative sponsored by Rutgers University, New Jersey Farmers' Direct Marketing Association, Inc. and the New Jersey Farm Bureau. The website features a robust directory of farm markets, nurseries/greenhouses, pick and cut Christmas tree farms, pick-your-own-farms, vineyards/wineries, and other farm activities

throughout the entire state. The directory identifies seven farm operations within Morris County as of April 2021. See <https://www.visitnjfarms.com/> for more information.

Morris County's major private employers are in the industrial, healthcare, and business sectors. Picatinny Arsenal, Atlantic Health System, and Novartis are among the top major private sector employment centers in the County. Other major employers include Bayer life sciences and ADP business services and Wyndham Worldwide hospitality, according to Choose New Jersey. For more information, visit <https://www.choosenj.com/new-jerseys-assets/stats-and-facts/counties/morris-county/>. Two Morris County municipalities have also been identified by the NJ Department of Community Affairs (DCA) as having at least one census tract designated Opportunity Zone: Dover and Wharton Borough.

#### *Farmer Support*

The *New Jersey Land Link* Program serves as a referral center connecting farmers and landowners and also provides information and resources related to farming, leasing farmland, finding farmers/landowners, and developing farm transfer and succession plans. As of July 2021, the Land Link website is advertising two farming opportunities within Morris County: School Lunch Organic Farm in Hackettstown and the Totten Family Farm in Washington Township, both of which are seeking experienced farmers to help their operations. For more information, visit <http://www.njlandlink.org/>.

#### *Marketing / Public Relation Support*

The Morris County Agriculture Development Board (MCADB) maintains its website as an information clearinghouse to serve farmers in the County, keeping the page updated with valuable information regarding farmland preservation. The website also provides information to farmers such as the Renewable Energy Development Assistance Program and promoting events on VisitNJ.com. The MCADB is valuable to farmers in that it also aides in navigating interactions with the USDA, NRCS, and SADC.

The *Jersey Fresh* program promoted by the State of New Jersey has increased retail opportunities for vegetable and field crop growers across the state, which has proven beneficial in the long term due to the tendency of wholesale prices to fluctuate more frequently than retail prices. The *Jersey Fresh* website identifies one Morris County farm actively participating in the *Jersey Fresh* program as of July 2021: Happy Harvest Hydroponic Farms in Denville. Visit [www.findjerseyfresh.com](http://www.findjerseyfresh.com) for more information.

*Jersey Grown* is a program promoted by the State and is a brand for locally grown plants, trees, shrubs and flowers, which certifies the item was grown in New Jersey. The *Jersey Grown* label certifies that the item is grown in New Jersey, so it is accustomed to the state's soil and growing conditions. The items are further checked for quality and are disease- and pest-free. Farms and farmers wishing to use the *Jersey Grown* label need to submit an application to the Department of Agriculture Division of Marketing and Development. For more information, please visit: <https://nj.gov/agriculture/jerseygrown/>

The Morris County Tourism Bureau is a valuable resource for the County's municipalities to utilize in their agricultural industry retention, expansion and recruitment efforts. The website features an expansive directory of wineries, trails, dining, nightlife, hotels and other attractions within the County. The Morris County Tourism Bureau website advertises the following Morris County farms:

- Alstede Farms in Chester Township
- Ashley Farms in Mount Olive
- Fosterfields Living Historical Farm in Morris Township
- Ort Farms in Washington Township
- Riamede Farm in Chester Township
- Stony Hill Farms in Chester Township
- Totten Family Farm in Washington Township

- Wightman Farms in Morristown

There are likely additional farms that provide direct marketing to customers within Morris County. It is recommended that the County provide outreach to the farms and farmers to encourage them to register their operations with the Morris County Tourism Bureau. For more information, see [www.morristourism.org](http://www.morristourism.org).

#### *Community Farmers Markets*

As identified on the Jersey Fresh website, there are currently eight farmers markets within or in close proximity to Morris County:

- **Morris Plains Farmers Market**  
771 Speedwell Avenue, Morris Plains
- **Morris County Winter Farmer's Market**  
24 Mills Street, Morristown
- **Morristown Farmers Market**  
10 Wilmot Street, Morristown
- **Denville Farmers Market**  
51 Bloomfield Avenue, Denville
- **Chester Farmers Market**  
175 Main Street, Chester Borough
- **Madison Farmers Market**  
49 Central Avenue Dodge Field, Madison
- **Boonton Farmers Market**  
Upper Plane Street, Town of Boonton
- **Hopatcong Borough Farmers Market**  
111 River Styx Road, Hopatcong

In addition to the above, the following farmers markets are also located within Morris County and are not listed on the *Jersey Fresh* website:

- **Chatham Borough**- Railroad Plaza South off Fairmont Avenue Train Station
- **East Hanover** - Lurker Park, 609 Ridgedale Avenue
- **Netcong** - Main Street and Route 46
- **Riverdale** - Glenburn Estate, 211 Hamburg Turnpike
- **Rockaway Township**- Rockaway Mall Farmers Market- Rockaway Townsquare

*Morris County Tourism Bureau* also advertises a number of Morris County farmers markets on their website. For more information, visit <https://www.morristourism.org/farmers-market-directory/>.

Community groups, farms and farmers within Morris County are encouraged to register their farmers markets on the *Jersey Fresh* website and with the Morris County Tourism Bureau.

Many farmers who attend markets are Certified Farmer Vendors in the WIC & Senior Farmers Market Nutrition Programs (FMNP) and members of the SNAP program may be eligible to use their Families First cards at certain participating farmers markets. The New Jersey Department of Agriculture and Department of Health and Senior Services collaborated to prepare “Chapter 24 and You: A Practical Guide to Selling Safely at Farmer’s Markets” as a guide for farmers in to ensuring prepared foods offered at farmers markets are safe and in compliance with the law. To review the guide, visit <https://www.nj.gov/agriculture/pdf/chapter24guide.pdf>.

*Community Supported Agriculture*

There are currently three community supported agriculture (CSA) programs within or in close proximity to Morris County, as identified on the *Jersey Fresh* website as of July 2021:

- **Cerbo's Garden Center**  
440 Littleton Road, Parsippany-Troy Hills
- **Stony Hill Farms**  
15 North Road, Chester Township
- **Alstede Farms**  
1 Alstede Farms Lane, Chester Township

Morris County Tourism Bureau also advertises a number of CSA operations on their website. See [www.morristourism.org/csa-morris-county-nj/](http://www.morristourism.org/csa-morris-county-nj/) for more information.

According to the Morris County Tourism Bureau, the County has the following CSAs:

- **Alstede Farms**  
1 Alstede Farms Lane, Chester Township
- **Wightman Farms**  
1111 Mt Kemble Ave, Harding Township
- **Ort Farms**  
25 Bartley Road, Washington Township
- **Stony Hill Farms**  
15 North Road, Chester Township
- **Totten Family Farms**  
442 Naughtright Road, Washington Township
- **Grow it Green-Morristown**  
31 Hazel Street, Morristown

It is recommended that farms and farmers are encouraged to register their CSA on the *Jersey Fresh* website and also through the Morris County Tourism Bureau.

*Pick-your-Own*

According to the *Jersey Fresh* website as of July 2021, there are currently ten Morris County farms with on-farm markets offering pick-your-own produce:

- **Knothe's Farm:** Assorted fruits and Christmas trees  
645 Millbrook Avenue, Randolph
- **Union Hill Farms:** Assorted fruits and flowers  
25 Cooper Road, Denville
- **Sunhigh Orchards:** Assorted fruits and veggies (apples, nectarines, peaches, eggplants, peppers, tomatoes), flowers and pumpkins  
19 Canfield Avenue, Randolph
- **Miller's Hill Farm:** Flowers and pumpkins  
10 Combs Avenue, Randolph
- **Franz Fuertges Landscape and Nursery:** Strawberries  
109 Ford Road, Denville
- **Stony Hill Farms:** Apples, strawberries, assorted vegetables, flowers, pumpkins  
15 North Road, Chester Township
- **Hamilton Farms Greenhouses & Farm Market:** Assorted fruits, flowers and pumpkins  
130 Old Denville Road, Boonton Township

- **Riamede Farm:** Apples, tomatoes, pumpkins  
122 Oakdale Road, Chester Township
- **Parks Farms:** Assorted fruits, flowers and pumpkins  
525 Route 24, Chester Borough
- **Alstede Farms:** Strawberries, blueberries, peaches, cut flowers, peppers, tomatoes, eggplant, apples, blackberries, raspberries, vegetables, gooseberries, currants, pumpkins, Indian corn  
1 Alstede Farms Lane, Chester Township

Farms and farmers are encouraged to register their pick-your-own operations on the *Jersey Fresh* website. The County should also consider incorporating pick-your-own facilities in conjunction with the Morris County Tourism Bureau.

#### *Agricultural Education and Market Research Coordination*

New and emerging trends in agricultural markets and technologies require continual research and education as local farmers respond to ever changing opportunities. Morris County farmers are uniquely situated to capitalize on these niche markets. Education and market research are critical to not only maintain a healthy industry, but to ensure its growth into the future. In an increasingly competitive business climate, Morris County farmers must remain up to date on the latest technologies and trends. Many stakeholders across the business and institutional sectors are available to help Morris County farmers stay ahead of the curve when it comes to emerging trends and technologies in the agricultural market.

The Rutgers New Jersey Agricultural Experiment Station (NJAES) Cooperative Extension of Morris County offers a 4-H Youth Development Program, various commercial agriculture programs such as fruit and vegetable grower education and landscape and turf management, family and community health sciences programs, as well as the Rutgers Master Gardeners of Morris County. Visit <https://njaes.rutgers.edu/county/quickinfo.php?Morris> for more information.

The Youth Farm Stand Program, run by NJAES, provides educational and employment opportunities to high school youth. These selected youth sell New Jersey produce throughout the state and acquire hands-on agricultural work experiences aimed at developing citizenship skills. Visit <https://njaes.rutgers.edu/youth-farmstands/> for more information.

The Rutgers University Agricultural Experiment Station in Morristown offers a training program for agritourism development. The program assists farmers in establishing agritourism operations as a component to their existing farms. The program provides a number of fact sheets for farmers to use in developing their business strategies. For more information, see <https://agritourism.rutgers.edu/training/factsheets.html>.

North Jersey Resource Conservation & Development (North Jersey RC&D) is currently involved in a number of research efforts aimed at increasing the reach of Morris County agricultural products. The organization is currently engaged in projects related to on-farm soil health, renewable energy development, no-till and cover crop education, and river-friendly farms among others.

Business Stakeholders

*Input Suppliers and Services*

Morris County needs greater variety of agricultural services to lessen farmer's dependence on mail order supplies, which can be costly and unreliable. The following is a list of suppliers and services most often used by Morris County farmers:

- **Country Feed & Grain**  
400 Union Avenue UNIT 4, Haskell
- **Crop Production Services,**  
127 Perryville Road, Pittstown
- **D & R Equipment**  
258 County Road 579, Ringoes
- **4-T's Farm Trailer Sales**  
1 Stone Signpost Road, Flemington
- **Parker Landscaping Construction Inc.**  
150 Allen Road #108, Basking Ridge
- **Penwell Mills**  
448 Penwell Road, Port Murray
- **Tractor Supply Co.**  
293 US-206 Unit 15a, Flanders

A full list of agriculture-related suppliers and services can be found in *Appendix B*.

*Product Distributors and Processors*

The following is a list of distributors and processors serving Morris County farms:

- **Livestock Coop Auction Market**  
225 W Stiger Street, Hackettstown
- **Harkers Auction Co.**  
391 Medford Lakes Road, Tabernacle
- **Helis Stock Farms**  
2530 Monmouth Road, Jobstown
- **Norman Parker**  
146 Jacobstown Cookstown Road Wrightstown
- **Sal's Farm**  
27 Church Lane, Montville
- **Green Village Packing**  
68 Britten Road, Green Village
- **Trenton Halal Packing Co**  
610 Roebling Avenue, Trenton
- **Marcucci Meats**  
1159 N Delsea Drive, Vineland
- **D & M Meat Products**  
1301 20 Road, Newark

For a full list of product distributors and processors, see *Appendix B*.

### Anticipated Agricultural Trends

Newly emerging boutique crops, such as herbs, greens, squash, peppers, eggplant, onion, and garlic are becoming more popular as farmers look to diversify, rotate soil uses and increase profit margins. Further, farmers may want to consider growing high value specialty crops for nearby urban markets to enhance the County's economic base. Farm-to-table restaurants are extremely popular in high-end areas, whereas it does not appear as though Morris County farmers have been successful in tapping into that niche market.

Among the trends witnessed across Morris County farms, the Board noted that the equine industry has become less active over the past few years.

Cannabis seems to be an emerging crop. Although cannabis is not permitted to be grown on preserved farms or on farmland assessed properties<sup>91</sup>, the Board expressed concern that the law may be changed in the future to allow it.

There are a number of specialty farms and niche markets in the County. One of the preserved farms in Washington Township specializes in goat cheese and offers cheese making classes. Hobby farming operations, such as bee keeping/honey/wax, are also popular, and there are many other different types of hobby farming operations throughout the County.

Value-added, prepared food, and experiences on farms are going to become more prominent. With the prevalence of two income households and less time for meal preparation, greater emphasis is being placed on purchasing food/produce items that can be cooked and ready for dinner within 30 minutes.

Patrons of local farms can be exposed to and are often anticipating operations that include farm animals/petting zoos, and other types of agritourism operations.

The phasing in of state minimum wage increases over the next several years and tightening restrictions at the federal level will likely impact farming operations in Morris County.

### *Impacts of COVID-19 on the Agricultural Industry*

The COVID-19 pandemic has several implications for the County's agricultural industry and economic viability. Many farm markets throughout the state closed in 2020 as a result of the increased expenses required to accommodate changing trends. Compounded by the diminishing federal budget for the agricultural industry, it is a possibility that a number of small farmers markets may remain closed indefinitely.

Additional challenges farmers face include meeting the safety needs of market customers and transitioning to electronic payment systems in order to reduce contact with cash. Farmers also have difficulty finding farm labor to assist with daily farming activities. As a result of COVID-19 protocols, equipment suppliers and service providers are not as readily accessible as they once were.

Moving forward post-COVID, the County will need to find new ways to help farmers adapt to changing circumstances in order to remain competitive. With support from the County, farmers can take a cooperative approach to modernizing certain aspects of their businesses, such as expanding online sales, taking credit card and electronic payment methods, and establishing appointment-based or communal pickup and distribution models.

The U.S. Farm Service Agency offers three programs aimed at lessening the impacts of COVID on farmers: the Coronavirus Food Assistance Program, Pandemic Assistance for Producers, and Outreach Cooperative Agreements. For more information, see <https://www.fsa.usda.gov/state-offices/New-Jersey/index#CFAP>.

### *Market Location*

Morris County has the geographic advantage of access to markets in New York and Pennsylvania in addition to New Jersey. In particular, affluent consumers in the New York City and Philadelphia metropolitan areas, and wealthy New

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<sup>91</sup> As of September 2022.

Jersey municipalities, are increasingly interested in new farm-to-table concept restaurants. Morris County farmers are poised to provide agricultural products to an increasingly health conscious, wealthy consumer base that spreads far beyond the County.

#### *Product Demand*

Over the past 30 years, Morris County producers have witnessed a steady decline in the market demand of dairy cattle, while that of beef cattle has experienced more fluctuations. The overall demand for cattle and calves, although depleting, remains higher than smaller livestock animals such as hogs and pigs or sheep and lambs. Market demand for egg chickens has remained consistently high and has continued to grow each year since 2007. From a horticulture standpoint, hay and grain remain the County's most profitable field crops, followed closely behind by vegetables for sale. In recent years, Morris County farmers have chosen to focus the majority of their efforts on nursery products that are in great demand, are easily marketed to the public, and have a great rate of return on a per acre basis.

#### *Sustainability and Resiliency*

As mentioned in Section III of this document, the County's 2020 Hazard Mitigation Plan identifies many hazards that can impact the agricultural community within Morris County. Hazards such as droughts, floods, infestation, severe weather, and wildfires can be detrimental to the farming community.

While preparing the update of this Plan, Hurricane Ida swept through Morris County, resulting in rising flood waters, downed wires, road closures, wind damage, and fallen trees. It is likely many farmers suffered crop damages and/or other types of losses due to this weather event.

In addition, advances in technology within the farming community can also help mitigate the effects of climate change and global warming. While still in beta mode and not available to purchase, electric farm equipment is an up-and-coming sector of the industry. Further, land management practices, such as the incorporation of regenerative farming practices into land management strategies, can also help increase crop yields, reduce the use of natural resources (fossil fuels/water), and support the use of land as a "carbon sink" by sequestering carbon from the atmosphere and storing it in the soil.

#### *Agricultural Support Needs*

Funding to preserve farming is the primary resource needed to help make positive changes for agriculture in Morris County. Without a strong agricultural land base, the viability of farming is questionable. As more land is lost to development, preservation opportunities are quickly diminishing. Other valuable resources for Morris County farmers include an adequate farm labor source, updated equipment, the ability to get parts and expertise to repair the machinery, water for irrigation and individuals with the expertise to assist new farmers. The farming community also needs the support of state representatives to back legislation, e.g., provisions for a reduction in the cost for electricity used for farming and fuel for growing and transporting produce.

#### *Agricultural Facilities and Infrastructure*

Morris County's food processing facility is P.L. Thomas & Company located in Morristown. The facility specializes in canning, condiment and sauce manufacturing, wholesale and retail, and food products wholesale and manufacturers. After processing, Morris County agricultural products are shipped throughout the region, but many stay local. Through partnerships with restaurants, Morris County farmers can increase exposure to consumers and highlight the use of fresh, locally grown products. By selling their products in close proximity to the agricultural operations, farmers can reduce the costs of transporting these goods and reduce their overhead, while the consumer is assured that the product is fresh and has been exposed to minimal processing and handling. A great deal of the agricultural products from Morris County farms end up being sold in one of the many on-farm markets or community farmers markets throughout the County.

For a full list of food markets and processing facilities serving Morris County farmers, see *Appendix B*.

#### *Flexible Land Use Regulations*

The MCADB continues to make itself available to Morris County municipalities in terms of resources and guidance for best management practices. Morris County municipalities have a wealth of tools at their disposal to help protect the viability of Morris County agricultural products, such as Right-to-Farm ordinances, accommodations for agricultural vehicle movement, and provisions for agriculture in municipal master plans and zoning ordinances.

In addition to the above-mentioned policies, Morris County municipalities with agricultural operations would benefit from facilitating renewable energy development on local preserved and unreserved farms.

#### *Agricultural Representation in Economic Development Organizations*

There are three main economic development entities in Morris County that work towards uplifting Morris County farms to the national stage: the Morris County Tourism Bureau, the Morris County Chamber of Commerce and the Morris County Economic Development Corporation (MCEDC). These groups work both independently and collaboratively to attract and expand Morris County agricultural operations.

As discussed earlier in this section, Morris County agriculture gets a great deal of recognition from the Morris County Tourism Bureau. The Bureau keeps their website updated with a running list of Morris County farms, providing links to special programs and events for each farm.

The Morris County Chamber of Commerce is another economic development entity aiming to prop up Morris County farms. Alstede Farms is the sole member-farm advertised on the website; however, all Morris County farmers are entitled to membership, which as advertised on the Chamber's website, and comes with access to exclusive member-to-member deals.

The Morris County Economic Development Corporation (MCEDC) is a 501(c)6 organization resulting from a partnership between the County Commissioners and Chamber of Commerce. The MCEDC serves as a business association for Morris County businesses, many of which are leaders in the industries of life sciences, technology, transportation and logistics, financial services, healthcare, manufacturing, and aerospace and defense.

#### *Agricultural Support Implementation*

As farmers continue to look for ways to reinvent themselves and their products, and to explore new markets and new methods for promoting their businesses, it is important that the County continues to develop new ways to help farmers increase their profitability and coordinate with federal, state and county agencies and other organizations, both in the public and private sector to find solutions. These may include workshops, newsletters and other opportunities for farmers to continue to educate themselves about:

- Better ways to manage their farm as a business;
- Emerging trends in agriculture;
- Ways to diversify, add value and maximize profitability;
- Technical advice and assistance with choosing and marketing their products;
- Advances in technology that may help them farm more efficiently and productively;
- Grants to assist in facility and technology upgrades;
- Agri-tourism opportunities with nexus to their production; and,
- More resilient breeds of crops to keep up with changing environmental conditions.

As the produce sector continues to grow in Morris County, and with the increased interest by consumers in organic produce and animal products, Morris County farmers may be encouraged to expand or diversify into this sector. As a result, the County may look to:

- Improve marketing of organic and natural produce;
- Explore various additional markets, including local restaurants and grocery markets and cooperative farm stands at municipal and county events;

- Explore the feasibility of establishing licensed food preparation facilities and meat processors in the County to facilitate growth of value-added products in this sector;
- Promote agritourism for organic and natural farm stands;
- Capitalize on growing trends in organic products as noted by Rutgers University Agricultural Experimental Station;
- Educate growers about organic and natural regulatory and certification requirements and about the availability of federal funds to help offset certification costs; and,
- Explore ways to support organic food growing and processing, such as assisting growers, with the help of the NJDA and the Rutgers Extension, to identify products that can benefit as organic (high value/high demand products).

#### *Cost*

Confronted with continually rising land prices, Morris County is always looking for ways to lower the costs of farmland preservation. Fortunately, Morris County has a well-funded farmland preservation program. The most effective method to reduce costs to date has been to encourage applicants to either donate a portion of the land to be preserved, or to accept a lower price than the certified market value. This benefits the Program by maximizing available funds while also providing the landowner with significant tax benefits. Should funding become an issue for the County, the County may consider offering farmers the option to receive installment payments, rather than a lump sum.

#### *Funding Opportunities*

Farmland preservation is funded primarily through the Morris County Open Space Trust Fund, State Agriculture Development Committee programs, soil and water conservation grants and federal programs like the Agricultural Conservation Easement Program (formerly the Wetlands Reserve Program, Grassland Reserve Program, and the Farm and Ranch Land Protection Program).

#### *Timeline*

In recent years, the Morris County Agriculture Development Board (MCADB) has increased its efforts to aide farmers in maintaining an economic presence in the County. As discussed earlier, the Board's website serves as an information clearinghouse for farmers and helps them to navigate the various programs and entities involved in the agricultural economy. MCADB continues to work towards building closer relationships with corporations, tourism boards, local economic development boards, and communities; these efforts are inherently long-term.

## CHAPTER VII: NATURAL RESOURCE CONSERVATION

### Natural Resource Protection Coordination

#### Natural Resource Conservation Service

The USDA Natural Resources Conservation Service (NRCS) is an important partner in support of natural resource conservation for the agricultural community. The NRCS assists landowners and managers with conserving soil, water, and other natural resources. The agency has a field office at 101 Bilby Road in Hackettstown and offers technical and financial assistance. It also oversees conservation programs, such as the Environmental Quality Incentive Program (EQIP) Conservation Stewardship Program (CSP), and Agriculture Management Assistance (AMA).

Conservation plans are a written record of management suggestions and conservation practices to be used on a farm and are intended to help protect soil fertility and productivity, improve water quality, and attract desirable wildlife. These plans are required within one year of the date of the deed of easement for those who wish to sell a development easement via the Farmland Preservation Program or apply for natural resource conservation program grants such as EQIP, CSP or AMA. The local NRCS office administers these conservation program grants, which offer financial incentives to support conservation projects, including the creation of riparian buffers and protection of wildlife habitat. Administration of these grant programs includes field visits to prepare the Conservation Plans, preparation of grant program contracts, assistance with installation of contract conservation practices, and the inspection of farms to verify that the contract conservation practices are implemented and maintained.

#### Soil Conservation District

An additional partner in the conservation of resources is the New Jersey Department of Agriculture, Division of Agricultural and Natural Resources. Among its responsibilities, the Division implements the natural resource conservation programs administered by the State Soil Conservation Committee (SSCC). These programs provide engineering services and regulatory guidance to soil conservation districts, homeowners, engineers and planners regarding nearly all development activities, with the goal of reducing the danger from stormwater runoff, retarding non-point source pollution from sediment, and conserving and protecting the land, water and other natural resources of the State. Morris County is served by the Morris Soil Conservation District. The Soil District Office mailing address and website is:

30 Schuyler Pl. 4th Floor  
Morristown, NJ 07960  
<https://mcscd.org/>

The Morris County Soil Conservation District oversees a range of soil conservation and water quality programs. The office provides assistance with agricultural conservation planning, including the development of conservation management plans using best management practices (BMPs) for soil erosion and sediment control, water quality improvement, and nonpoint source pollution control. The Conservation District helps farmers secure water use allocations and better manage irrigation water and stormwater, and provides guidance concerning the application of organic materials (animal waste, leaves, grass clippings, food processing waste, and sludge) on agricultural lands.

The Morris County Soil Conservation District office is charged with reviewing and approving natural resource conservation assistance and agricultural conservation cost-sharing program grants and implementing agricultural conservation planning assistance programs. It also oversees agricultural water supply management, soil erosion and sediment control management, storm water discharge authorization, soil surveys and the application of organic materials on agricultural land.

In accordance with soil standards, construction, grading and demolition projects that disturb more than 5,000 square feet of the surface area of the land require soil erosion and sediment control plans. Commercial farms may be required to prepare such plans for parking lot installation, soil grading and the erection of agricultural structures. Cultivation of farmland for food, fiber or animals is typically exempt.

## Natural Resources Protection Programs

### SADC Stewardship Grants

The SADC provides cost-sharing grants to landowners in the permanent or Term Preservation programs to fund approved soil and water conservation projects. These projects protect soil and water resources and increase productivity and profitability for the farmer. Projects include terrace systems, diversions, water impoundment reservoirs, irrigation systems, sediment retention, erosion or water control systems, drainage systems and animal waste control facilities as well as land shaping and grading.

*Soil and Water Conservation Grant Program* – The SADC Soil and Water Conservation Grant Program awards grants of up to 50 percent of the project cost to owners of permanently preserved farms and term preservation program participants. Irrigation, erosion control, and stream corridor enhancement projects are among those that are eligible.

*Deer Fencing Grant Program* – The SADC Deer Fencing Grant Program can provide 50 percent matching grants to assist farmers with the materials and installation of fencing to protect permanently preserved farmland from crop losses related to deer. The maximum grant award is \$200 per acre or a total of \$20,000 to eligible farmers. Applications are accepted on a rolling basis, with no deadlines.

### Federal Conservation Programs

The NRCS, under the USDA administers a number of Federal Farm Bill programs. As a means to boost conservation efforts, the NRCS offers financial assistance in the form of the Environmental Quality Incentives Program (EQIP), the Conservation Reserve Enhancement Program (CREP), the Conservation Stewardship Program (CSP), and Agriculture Management Assistance (AMA) and under the U.S. Forest Service, the Forest Stewardship Program. These programs are examples of multilateral partnerships which aim to financially incentivize voluntary conservation practices among local farmers.

EQIP is open to eligible agricultural producers including livestock, forestry and organic production that offers financial and technical assistance to implement conservation practices on eligible land. Opportunities within EQIP include assistance with aquaculture, beginning farmers, conservation activity plans, high tunnels, on-farm energy, organic production, socially disadvantaged producers, soil health, and working lands for wildlife.

The primary objectives of CREP are to maintain and improve water quality by reducing agricultural pollutants into streams, to enhance farm viability, and to contribute to the State's open space goals. The program implements either a 10- to 15-year rental contract or a permanent easement in combination with a 10- to 15-year contract agreement to reduce non-point source pollutants by preserving stream buffers and implement conservation practices. The program pays 100 percent of the cost to establish these mechanisms on eligible farms and it serves as a way to recognize farmers for their environmental stewardship.

CSP is a voluntary conservation program that encourages producers to address resource concerns in a comprehensive manner by undertaking additional conservation activities and improving, maintaining and managing existing conservation activities. CSP participants will receive an annual land use payment for operation-level environmental benefits produced. Participants are paid for conservation performance, meaning the higher the operational performances, the higher the payment. For example, if a farmer has been practicing prescribed grazing, CSP would give options to enhance that practice with activities such as grazing management to improve plants for wildlife, to reduce soil compaction, or to improve riparian function.

AMA is another voluntary conservation program that targets beginning and limited resource farmers, small farms, and producers who have had limited participation in other USDA financial assistance programs. AMA provides assistance to address issues such as water management, water quality, and erosion control by incorporating conservation into their farming operations. The program has five priority areas:

1. Reduction in non-point source pollutants
2. Irrigation water use efficiency
3. Reduction in particulate or ozone precursor emissions
4. Reduction in soil erosion and sedimentation
5. Promotion of at-risk species habitat conservation

Projects eligible for assistance utilizing the AMA program include constructing efficient irrigation systems and implementing irrigation water management practices, reducing non-point source pollutants via filter strips and nutrient management, and projects to improve habitat conservation through conservation cover and windbreaks.

The U.S. Forest Stewardship Program is an additional source of preservation for forested lands on active farm properties that may not qualify under other programs. The U.S. Forest Service sponsors the Forest Stewardship Program, which supports landowners whose property has a woodland management plan that recognizes and manages the wetlands, wildlife, aesthetics, soil and water in addition to the woodlands on the property. This program, when fully funded, offers landowners cost-share initiatives to allow the landowners to fully follow the guidelines in their woodland management plan. In New Jersey, the state farmland assessment tax program and the U.S. Forest Service program have merged to allow one planning document for the landowner where the stewardship plan meets the state tax code and eliminates conflicts between the two. Increasing enrollment of landowners in this merged state-federal program will ensure increased protection of the natural resources for an extended period; the minimum is a 10-year management plan. This does not ensure preservation of the land in perpetuity, but it does allow recognition of the importance of the land value and stewardship of the property for a longer period of time.

Farms applying to the stewardship program have been consistently smaller and more fragmented than previous years. The rise in the number of farms and the small drop in acreage may be attributed to the development pressures facing the entire region. At this time there is no county-level or state-level woodland preservation program to complement existing farmland preservation; however, should a program be developed at the county or state level, the County should consider seeking grant funds to preserve wooded areas that are compatible with farmland preservation activities.

The NRCS previously offered a voluntary program that was designed for non-federal landowners who wish to improve or develop fish and wildlife habitats. The program known as Wildlife Habitat Incentives Program (WHIP), was not reauthorized as part of the Federal Agricultural Act in 2014. Similarly, the NJDEP Division of Fish & Wildlife formerly administered a program known as the Land Owner Program (LIP), which offered technical and financial assistance to private landowners interested in conserving threatened and endangered plant and animal species on their property. The LIP was an annually appropriated program originally created by Congress in 2002; however, appropriations ceased in the fiscal year 2007 and the program was discontinued.

#### *North Jersey Resource Conservation and Development Council*

The North Jersey Resource Conservation & Development (RC&D) Council is a regional non-profit that was initially established in 1972. The organization's mission is to facilitate the transition to sustainable use and protection of the region's human and natural resources through partnerships, education and innovation. This is accomplished by working with communities and regional partnerships to: address issues related to water quality and water resource protection, sustainable farming and farm communities, building local community capacity and resource management on public lands.

There are currently five Board Members made up of representatives from Morris County, Warren County, Sussex County, Hunterdon County, and Union County. The staff of RC&D includes an Executive Director, Agricultural Specialists, Conservation Specialists, and financial staff.

Partners include the Natural Resources Conservation Service (Frenchtown and Hackettstown Service Centers), Musconetcong Watershed Association, New Jersey Audubon, Trout Unlimited, Lopatcong Creek Initiative, and Rutgers New Jersey Agricultural Experimental Station.

The RC&D focuses on specific projects pertaining to on-farm soil health, no-till and cover crops, renewable energy development assistance, drill rentals, and river friendly farms.

For more information pertaining to the RC&D, visit their website: <https://www.northjerseyrcd.org/>

#### River-Friendly Farm Program

River Friendly Farm is a voluntary certification program based on standards that define sustainable agricultural practices. Farms that meet River Friendly Farm standards, as determined by a Certification Committee, use the River Friendly Farm Certification to differentiate their products, strengthen their brands, and support credible claims for environmental responsibility. The certification program aims to provide cleaner water and healthier soil, provide wildlife habitat, and encourage climate resilience.

The River-Friendly Farm Program was originally created to provide incentives through recognition for agricultural producers who voluntarily manage their land in a manner that protects and enhances the water resources of the Raritan River Watershed. However, the River Friendly Farm Certification is currently available to farms located in Northern and Central New Jersey, as well as the Cumberland River Compact (Kentucky and Tennessee). By publicly recognizing farmers' voluntary contributions to resource protection, the River-Friendly Farm Program seeks to increase public awareness and appreciation for the role agriculture plays in the community.

Currently, the River Friendly Farm program is administered through the North Jersey RC&D and the New Jersey Water Supply Authority. Farms are eligible for certification provided they are located in Morris, Warren, Sussex, Hunterdon, Middlesex or Union Counties.

For more information regarding River-Friendly Farm Program, visit their website:

<https://www.riverfriendlyfarm.org/>

#### **Water Resources**

The supply of groundwater and surface water in a given area is increasingly critical to sustained human activity. The maximum rate that water is potentially available for human use and management is often considered the best measure of the total water resources of a given region. The protection of water resources is a vital tool in land management techniques that seek to sustain agriculture in the long-term, as farms are dependent upon an abundant, uncontaminated and sustainable water source.

As discussed in Section 3 of this Plan, Morris County adopted a Water Supply Element to its Master Plan in 1994 which addresses water distribution, water quality, and the protection of water supplies.

#### Supply Characteristics

The following chart details the types of water withdrawals for all uses based upon the New Jersey Geological and Water Survey Water Transfer Model for 2018. As discussed in previous sections of the Plan, potable water supply accounts for the majority of water withdrawals, of which a significant portion is exported to neighboring counties. Industrial uses account for the second largest amount of water withdrawal, followed by irrigation. Agricultural withdrawals account for less than 0.01% of the total water use in Morris County.

2018 Water Withdrawals from Morris County Summary Table <sup>92</sup>					
Use Group	Total Withdrawal (MGY)	Groundwater Withdrawal (MGY)	Surface Water Withdrawal (MGY)	Surface & Groundwater Withdrawal (MGY)	Unknown (MGY)
Agricultural	28.3	11.4	13.5	3.4	-
Commercial	31.3	31.3	0.0	-	-
Industrial	1,780.5	1,380.1	400.4	-	-
Irrigation	111.1	38.9	67.4	4.8	-
Mining	11.6	11.6	-	-	-
Potable Water Supply	34,282.0	16,737.6	17,542.4	-	2.0
<b>Total</b>	<b>36,244.8</b>	<b>18,210.9</b>	<b>18,023.7</b>	<b>8.2</b>	<b>2.0</b>

Source: NJGS, 2021 Water Transfer Model

In 2018, approximately 40% of the reported agricultural water withdrawals stemmed from groundwater sources, 48% from surface water withdrawals, and 12% of the reported withdrawals utilized a combination of both surface water and groundwater withdrawals.

Among the water supply trends faced by Morris County farms, the Board notes that there is an ongoing issue with municipalities putting well heads on farms. In addition, some farmers have recently had their water allocation permits “cut back” by NJDEP as the farmer uses less water annually likely due to advances in technology and the incorporation of trickle irrigation, resulting in the need to use less water.

As climate change and global warming continue to alter the seasons and weather patterns, it is unknown as to how precipitation patterns will affect the agricultural community.

Agricultural Demand and Supply Limitations

The following chart shows the total water withdrawals compared to the agricultural water withdrawals for Morris County. Since 2005, agricultural water withdrawals have made up a very small portion of the total water withdrawn from groundwater and surface waters. Since 2005, the amount of water used by the agricultural community has fluctuated- In 2006, only 12.1 MG were used by the agricultural community, representing less than 0.1% of the total water withdrawn. However, in 2001, this number spiked to 200.7 MG, the most withdrawn in a given year to date. The agricultural water withdrawals continued to fluctuate, decreasing to 24.8 MG in 2013, before peaking to 55.3 MG in 2016, to the most recent data available, which was 28.3 MG in 2018.

<sup>92</sup> This table includes all water withdrawn from Morris County aquifers.

Annual Water Withdrawals from Morris County <sup>93</sup>			
Year	Total Water Withdrawals (MG)	Agricultural Withdrawals (MG)	Percentage of Agriculture Withdrawal
2005	40,903.0	24.0	0.1%
2006	39,171.2	12.1	0.0%
2007	38,459.8	38.5	0.1%
2008	39,061.8	52.7	0.1%
2009	36,610.7	25.0	0.1%
2010	37,013.5	36.0	0.1%
2011	35,451.2	200.7	0.6%
2012	34,808.5	38.8	0.1%
2013	31,319.0	24.8	0.1%
2014	33,926.9	35.5	0.1%
2015	36,552.3	43.8	0.1%
2016	35,075.6	55.3	0.2%
2017	34,818.8	26.6	0.1%
2018	36,244.9	28.3	0.1%

Source: New Jersey Geological and Water Survey Water Transfer Model  
(January 2021)

There is currently a \$3.2 million Water Supply Improvement Project planned by the Southeast Morris County Municipal Utilities Authority (SMCMUA) which includes the upgrade of roughly 1.53 miles of water mains in the Greater Morristown area, along with other improvements. An interactive map of the impacted areas is available here: <https://water-supply-enhancement-smcmua.hub.arcgis.com/>.

#### Conservation and Allocation Strategies

The protection of water resources as it relates to agriculture and farmland preservation in the County cannot be overstated. Without a consistent, plentiful, adequate and clean water source, agriculture cannot exist. Farms also serve a valuable function in providing critical open space areas for aquifer recharge. Careful consideration should be given to the existing water supply and future water demand, with the understanding that water supply management is critical, and requires a proactive approach. To ensure a healthy water supply into the future, sound farmland management measures are essential:

- Advocate for the responsible use of synthetic chemicals, such as fertilizers, herbicides, pesticides, and fungicides, as to lessen their impact to the ground water. While the application and use of these products increases yield and can enhance the quality of agricultural output, they can have significant negative effects on water resources. Proper timing as well as application rates must be considered as to minimize any harmful effects to water sources;
- Creating riparian buffers by planting rows of trees and shrubs, including strips of native grasses, along the land area adjacent to surface water bodies, so as to ensure adequate protection from synthetic chemicals, organic byproducts, and soil erosion;
- Emphasizing the importance of water conservation techniques such as drip irrigation and water recycling. Excess irrigation and water use can increase runoff as well as reduce efficiency;
- Minimizing the use of chemical application;

<sup>93</sup> This table includes all water withdrawn from Morris County aquifers.

- Implementing water conservation techniques such as drip irrigation and water re-use in smaller-scale vegetable and fruit operations; and,
- Practicing organic farming methods when possible.

The United States Department of Agriculture, National Resource Conservation Service (USDA-NRCS), assists farmers in irrigation and water quality enhancement projects. As previously mentioned, NRCS assists in the development of conservation plans for both preserved and non-preserved farm owners. These plans take into consideration water sources, use and delivery methods. The NJDEP Division of Water Supply also allocates water permits to farmers who extract more than 100,000 gallons per day, above 30 days in a year.

### **Waste Management Planning**

Agriculture inherently produces an abundance of waste such as animal waste, plastic mulch, tires, or greenhouse wrapping. Left uncontrolled, animal waste can spread harmful microorganisms into the soil, as well as ground- and surface-water sources. In an unmanaged environment, farm animals can be exposed to diverse disease outbreaks. The state's agricultural community bears a responsibility to help protect and restore the natural resources for which they are the stewards.

#### Animal Waste

Animal Feeding Operations (AFOs) have the potential to cause water pollution through the collection of large amounts of animal waste in relatively small areas. Mismanagement of animal waste can cause large amounts of soil and groundwater contamination via introduction of the bacteria, fecal coliform, a known contaminant from animal farming operations. Concentrated Animal Feeding Operations (CAFOs) are defined by the USDA as operations with 1,000 animal units confined on site for more than 45 days during the year. An animal unit is defined as an animal equivalent of 1,000 pounds live weight and equates to 1,000 head of beef cattle, 700 dairy cows, 2,500 swine weighing more than 55 pounds, 125 thousand broiler chickens, or 82 thousand laying hens or pullets. Often times, manure and wastewater from these operations are discharged into natural or man-made ditches, streams, or other waterways, regardless of the size.

The NJDEP has outlined a statewide strategy to manage and regulate these operations. The strategy is closely coordinated between the NJDEP and the New Jersey Department of Agriculture (NJDA). Within NJDEP, the Division of Water Quality, Water Compliance and Enforcement Program, the Division of Watershed Management and the Bureau of Nonpoint Pollution are involved in the management and regulation of AFO/CAFO operations. NJDEP administers CAFO permits and NJDA administers the appropriate measures for AFOs. The permits and measures require development and implementation of comprehensive waste management plans, utilizing "animal waste standards." The NJDA has implemented the following five general animal waste management requirements for all livestock farms:

1. Animals in confinement areas shall only have controlled access to waters of the State;
2. Manure storage areas must be 100 feet from waters of the State, and on slopes less than five percent;
3. Land application of manure must follow Best Management Practices;
4. Livestock contagious disease must be reported to the State Vet; and
5. State Officials must follow bio-security protocols.

#### Recycling Programs

Through the years, the practice of reuse has expanded to include both man-made and natural resources. Recycling efforts not only help to conserve natural resources but can also provide cost-saving benefits to farmers that creatively reuse the waste generated on their farms. This performs a necessary function on the farm, while saving on solid waste disposal costs. One example of this opportunity is the utilization of leaves and grass clippings to mulch

fields and/or compost. In general, recycling saves natural resources and precious space in landfills. Various recycling programs are available to area farmers.

#### *Nursery and Greenhouse Film Collection*

The nursery and greenhouse film recycling program is administered by the New Jersey Department of Agriculture. The Cumberland County Improvement Authority offers a number of opportunities to farmers in the region for recycling standard farm waste. The Authority runs a nursery and greenhouse film collection site, available to any farm in New Jersey, where shrink wrap for shipping and plastic film coverings from greenhouses, which have to be replaced often, are collected for proper recycling. Since this program was so successful the Authority has expanded to offer the free recycling of pesticide containers. Agricultural Recycling Services, Inc. in Atlantic County and Allied Recycling in Burlington County also offer nursery and greenhouse film collection to farmers across the state. These programs help the agricultural community become better stewards of the environment. For further information, visit: <https://www.nj.gov/agriculture/divisions/anr/nrc/filmsites.html>.

#### *Agricultural Plastics – Drip Irrigation Tape*

In 2005, the NJDA initiated a pilot program to collect and recycle other agricultural plastics generated by New Jersey farmers with the help of a grant from the New Jersey Department of Environmental Protection. Farmers utilizing this service can realize savings of almost 50 percent over landfill tipping fees. For more information about this service, visit: <https://www.nj.gov/agriculture/divisions/anr/nrc/dirtyplastics.html>.

#### *Nursery Pot/Plug Trays/Flat Recycling*

Farmers can also recycle nursery pots, plastic flats, trays, and cell packs. The NJDA maintains a list of recycling vendors through its website: <https://www.nj.gov/agriculture/divisions/anr/nrc/plasticpotvendors.html>.

However, it may be most economically feasible if farmers, who sell their products directly to consumers, to inform customers as to whether nursery pots, plastic flats, trays, etc. can be returned to the farm for the farmer to reuse. Often times, the consumer throws away the packaging after a single use, which contributes to plastic pollution. Returning this packaging to the farmer would reduce the need to purchase more “new” single-use plastic for the next cycle.

#### *Pesticide Containers*

The New Jersey Department of Agriculture has partnered with Helena Chemical for free recycling of empty plastic pesticide containers. As with other recycling programs, only certain products are accepted and participants must follow strict guidelines. The program is open to agricultural, professional and commercial pesticide applicators, along with Helena Chemical customers who hold NJDEP pesticide licenses, as well as State, County and Municipal government agencies. Morris County farmers are encouraged to utilize the site in Monmouth County located at 283 Route 539, Cream Ridge. For further information, visit: <https://www.nj.gov/agriculture/divisions/anr/nrc/pesticidecontsched.html#4>.

### **Energy Conservation Planning**

Energy conservation has become an important objective for the agricultural industry due to its positive effects on the sustainability and growth of agricultural operations. With ever-changing technological advancements comes a corresponding increase in energy costs, which can negatively affect a farm business's bottom line. Additionally, energy conservation measures and alternative energy sources can facilitate responsible environmental stewardship and present new business opportunities for farmers.

The New Jersey Department of Agriculture highlighted the significance of energy conservation and alternative energy use in its 2006 Agricultural Smart Growth Plan. The Plan states that it is important to “...promote the use of innovative technologies, recycling, energy conservation and renewable energy systems on New Jersey’s farms” and to “...promote, provide technical assistance for and inform the agricultural community about new and existing energy conservation and renewable energy programs by promoting the financial and environmental benefits of implementing these programs.” With energy prices continuing to rise and traditional energy sources becoming

scarce people in all sectors are increasingly embracing energy conservation techniques and the move to alternative sources of energy.

Solar power is one technology that has proven to be a viable option for local farmers. Solar panels installed on farm buildings and on areas that are not in active agricultural production can provide power and heat to operate the farm. Programs are available to farmers to assist in the costs to implement solar opportunities. The Environmental Quality Incentives Program (EQIP) includes cost sharing for conservation practices in addition to solar energy. The U.S. Department of Energy's Solar Energy Technology Program and the New Jersey Board of Utilities' Solar Energy for New Jersey Agriculture program provide grants and technical assistance. Farmers interested in using alternative energy sources can contact their local NRCS office for more information.

The SADC adopted an Agricultural Management Practice (AMP) for the construction, installation, operation or maintenance of solar energy generation facilities, structures and equipment on commercial farms. The AMP sets limitations and restrictions to the scope of the solar project allowable on a commercial farm, as well as the amount of energy that is generated, to ensure that the primary use of the land continues to be agricultural production. Commercial farms must be in compliance to retain Right-to-Farm protections for these activities. While the amount of energy generated is limited by the AMP, farmers can take advantage of the savings realized by generating energy on-site to support their agricultural operations.

An inherently beneficial use is defined at Section 40:55D-4 of the Municipal Land Use Law (MLUL) as "a use which is universally considered of value to the community because it fundamentally serves the public good and promotes the general welfare. Such uses include, but are not limited to, a hospital, school, child care center, group home, or a wind, solar or photovoltaic energy facility or structure." New Jersey has seen a growing interest in larger solar farm systems, which continues to threaten the viability of the farming industry. The practice of dedicating large swaths of farmland to ground-mounted solar arrays should be avoided in the interest of stability in the agricultural market.

#### **Outreach and Incentives**

The NJDA's Agriculture Development Initiative encourages the production of alternative fuel sources such as ethanol, bio-diesel, biogas, and biomass. To refine these fuels from agricultural products such as soybeans, corn and waste stream products, local facilities would need to be established.

Through a partnership with the local Rutgers Agricultural Extension Service, the USDA and other farm community organizations, Morris County has the opportunity to encourage farmers to embrace energy conservation and alternative energy measures through new and emerging technologies. It is important for Morris County farmers to gain an understanding of the benefits possible through the use of these programs.

Efforts to support and promote Morris County's agricultural industry are needed for continued growth and success into the future. The acquisition of farmland preservation easements results in a variety of opportunities not only for the current landowner, but also for future prospective farmers. However, the availability of land is only one consideration. Many factors influence the degree of success in any agricultural operation. Continued long-term viability of the local industry is dependent upon further exploration and implementation of the various initiatives discussed within this Plan and is largely dependent upon education as well as public policies, laws and programs that support agriculture. Therefore, agriculture should be a priority in present and future decisions regarding taxation, regulations, financial incentives and educational opportunities.

The retention of farmland helps to improve aquifer recharge, provides wildlife habitat and provides scenic open space vistas. A Farmland Preservation Program at the county level helps to protect farmland from being developed with more intense land uses, reduce the rate of stormwater runoff and potential traffic generation, and eliminate the costs of services that are associated with other types of development.

## Sustainability

### New Jersey's Global Warming Response Act 80x50 Report - Evaluating Our Progress and Identifying Pathways to Reduce Emissions by 80% by 2050

In 2020, the NJDEP in partnership with numerous agencies including the Board of Public Utilities, Economic Development Authority, Division of Community Affairs, NJ Transit, Department of Labor, Department of Transportation, and the Department of Agriculture, issued New Jersey's Global Warming Response Act 80x50 Report for Evaluating Our Progress and Identifying Pathways to Reduce Emissions by 80% by 2050. As noted in the Report, agricultural activities make up very little of the state's overall greenhouse gas emissions (0.4 MMT CO<sub>2</sub>). However, studies have shown that effective agricultural land management practices and enhanced waste management practices can be successful in off-setting emissions, as the land and soil can be used to sequester carbon. The Report outlines the following strategies:

- Adopt regulations to implement requirements of the Food Waste Recycling and Waste-to-Energy Production Act (P.L.2020, c.24)
- Promote the development of food waste processing facilities and the development of markets and best practices for sectors of the economy generating food waste
- Expand education and outreach efforts about climate friendly agricultural practices

For more information regarding the New Jersey's Global Warming Response Act 80x50 Report and the discussion regarding agriculture, visit the following:

<https://www.nj.gov/dep/climatechange/docs/nj-gwra-80x50-report-2020.pdf#page=114>

### 2020 New Jersey Scientific Report on Climate Change

In June 2020, NJDEP released the 2020 New Jersey Scientific Report on Climate Change. This report evaluated climate change and its effects, as well as its effects on resources and ecosystems, including the agriculture sector.

Key findings of the report include:

- The productivity of crops and livestock are expected to change due to climate-induced changes in temperature and precipitation
- New Jersey may become unsuitable for specialty crops like blueberries and cranberries in the future as higher temperatures reduce necessary winter-chills.

The report also notes that these changes may limit the use of water supplies, especially if the growing season is extended as a result of increases in temperatures. A likely scenario also involves wetter conditions early in the season, delayed spring plantings, warmer and drier conditions mid-season, and increased need for irrigation to sustain crops, pastureland and livestock. Crops and livestock may also see a decrease in growth and productivity due to increased dry spells, heat waves, and sustained droughts. It may also be likely that farmers will need to increase the use of pesticides as agricultural pests and weeds move northward, resulting in additional environmental concerns.

While some crops and plant species may benefit from the increase of CO<sub>2</sub> in the atmosphere, invasive weed species can also benefit from same, which will lead to an increase in the number of weeds that crops will need to compete against for resources, negatively impacting harvests and profits. This will likely result in an increase in the application of pesticides, increasing costs for the farmer and also contributing to environmental degradation.

Increased precipitation is a particular concern for run-off, as the stormwater run-off will mobilize nutrients, leading to an increase in surface water nutrient loading, which can have detrimental effects on local freshwater ecosystems by creating to eutrophic conditions. Surface waters in proximity to agricultural practices are at particular risk for nutrient loading. In addition, pending the severity of a storm, high winds and flooding can also damage crops, structures, and livestock.

For more information regarding the 2020 New Jersey Scientific Report on Climate change, visit:

<https://www.nj.gov/dep/climatechange/docs/nj-scientific-report-2020.pdf>

2021 New Jersey Climate Change Resiliency Strategy

The State of New Jersey issued a Climate Change Resiliency Strategy in April of 2021. This report outlines six priorities including:

- Build Resilient and Healthy Communities
- Strengthen the Resiliency of New Jersey’s Ecosystems
- Promote Coordinated Governance
- Invest in Information and Increase Public Understanding
- Promote Climate-Informed Investments and Innovative Financing
- Coastal Resilience Plan

The report notes that the effects of climate change include rising temperatures, increasing precipitation, sea-level rise, ocean acidification, decreased water quality, extreme weather, drought, and decreased air quality. As it relates to agriculture, the productivity of crops and livestock are expected to change due to climate-induced changes in temperature and precipitation patterns. The Resilience Strategy further includes recommendations that ensure state investments minimize future climate resilience needs by continuing to invest in renewable energy and regenerative agriculture, which includes farming practices that improve the entire ecosystem of the farm such as low- or no-till practices, crop diversity and rotation, and crop cover.

For more information regarding the 2021 climate Change Resiliency Strategy, visit:

<https://www.nj.gov/dep/climatechange/docs/nj-climate-resilience-strategy-2021.pdf>

## CHAPTER VIII: AGRICULTURAL INDUSTRY SUSTAINABILITY, RETENTION AND PROMOTION

### Existing Agricultural Industry Support

Just as the preservation of farmland is extremely important, so is the promotion and development of the advancement of agriculture as an industry. The promotion, development and enhancement of this industry are key to its sustained economic vitality.

#### Right-to-Farm / Agricultural Mediation Programs

To ensure farmers' continued ability to operate without nuisance complaints, the Right-to-Farm Act was enacted by the State Legislature in 1983 and amended in 1998. The Act provides protection of commercial farm operations from nuisance action, where recognized methods and techniques of agricultural production are applied, while simultaneously acknowledging the need to provide a balance among the varied and conflicting interests of all lawful activities in New Jersey. Another critical piece of legislation to support agriculture is the 1983 Agriculture Retention and Development Act. This Act created the SADC and the 18 CADBs. Both the SADC and CADBs implement the Right-to-Farm Act on the State and local levels.

The SADC works to maximize protections for commercial farmers under the Right-to-Farm Act by developing Agricultural Management Practices (AMPs), tracking Right-to-Farm cases, offering a conflict resolution process and a mediation program, and reviewing rules proposed by other state agencies for the impact they may have on agriculture. When a commercial farm is operated in accordance with the AMPs adopted by the SADC, the Right-to-Farm Act provides commercial farmers with protection from restrictive municipal ordinances, as well as public and private nuisance complaints. The Act gives primary jurisdiction in resolving complaints against agricultural operations to local CADBs (and ultimately to the SADC if the decisions of the county board are appealed), subject to a formal conflict resolution process.

In order to qualify for Right-to-Farm protection, a farm must meet the definition of a "commercial farm" in the Right-to-Farm Act; be operated in conformance with federal and state law; comply with the AMPs recommended by the SADC, or site specific AMPs developed by the Morris CADB at the request of a commercial farmer; must not be a direct threat to public health and safety; and must be located in an area where agriculture was a permitted use under municipal zoning ordinances as of December 31, 1997, or thereafter; or, must have been an operating farm as of December 31, 1997.

All Right-to-Farm complaints or issues that are brought before the Morris CADB are handled first with fact-finding and efforts to resolve differences between the parties. If the parties agree, the SADC will provide mediation at no cost to the participants. If a complaint is formally filed with the Morris CADB, and the activity in question is not addressed by an existing AMP, it is sent to the SADC for a determination as to whether the farm falls within the parameters established by the Act for Right-to-Farm protection. Once the complaint is returned to the Morris CADB from the SADC, additional fact finding, and technical review occurs, and the issue is given a public, quasi-judicial hearing at the county level. After all information has been considered, the Morris CADB will make a determination as to whether the agricultural activity is protected by the Right-to-Farm Act or whether changes to the operation may be warranted. Either party in the dispute may appeal the CADB's determination to the SADC.

New Jersey's Right-to-Farm Act is considered the strongest in the nation. The Right-to-Farm Act protects those farm operations that meet the definition of a "commercial farm" and meet the following criteria.

#### *Basic Requirements for Right-to-Farm Eligibility*

To qualify for the protections of the Right-to-Farm Act, a farm must meet the following eligibility criteria:

1. The farm must qualify as a commercial farm. This means an operation larger than five acres must annually engage in agricultural or horticultural production worth at least \$2,500 and be eligible for differential property taxation under Farmland Assessment. For farms smaller than five acres, the annual production

requirement is a minimum of \$50,000 and the farm must satisfy eligibility requirements for farmland assessment, other than the farm size requirement;

2. The farm (as of December 31, 1997 or thereafter) must be located in an area in which agriculture is a permitted use under the municipal zoning ordinance and is consistent with the municipal master plan. However, if the commercial farm was in operation on the effective date of the 1998 amendments to the Right-to-Farm Act (July 2, 1998), this zoning ordinance/master plan requirement does not need to be met;
3. The farmer must conduct his operation, or a specific agricultural activity at issue, in compliance with the standards contained in agricultural management practices that have been promulgated by the SADC, or with generally accepted agricultural practices;
4. The operation must be in compliance with relevant state and federal statutes and rules; and,
5. The operation must not pose a direct threat to public health and safety.

Farms that meet the eligibility requirements listed above, may also be entitled for protection for the following activities:

1. Produce agricultural and horticultural crops, trees and forest products, livestock, poultry and other commodities as described in the Standard Industrial Classification for agriculture, forestry, fishing and trapping;
2. Process and package the agricultural output of the commercial farm;
3. Provide for the operation of a farm market, including the construction of building and parking areas in conformance with municipal standards;
4. Replenish soil nutrients and improve soil tilth;
5. Control pests, predators and diseases of plants and animals;
6. Clear woodlands using open burning and other techniques, install and maintain vegetative and terrain alterations and other physical facilities for water and soil conservation and surface water control in wetland areas;
7. Conduct on-site disposal of organic agricultural wastes;
8. Conduct agriculture-related educational and farm-based recreational activities provided that the activities are related to marketing the agricultural or horticultural output of the commercial farm;
9. Engage in the generation of power or heat from biomass, solar or wind energy within certain limits; and,
10. Engage in any other agricultural activity as determined by the State Agriculture Development Committee and adopted by rule or regulation pursuant to the provisions of the "Administrative Procedure Act," P.L.1968, c.410 (C.52:14B-1 et seq.).

When an individual or municipality is "aggrieved" by a commercial farm operation the Right-to-Farm Act requires the aggrieved party to file a complaint with the applicable CADB prior to filing an action in court. Municipalities seeking to enforce their ordinance are therefore required to file such a complaint rather than issue a summons against the farmer. Once a complaint is filed, a public hearing is held by the CADB to determine whether the farmer is entitled to the protections of the Act. If a finding by the CADB is questioned, it may be appealed to the SADC and, if necessary, to the New Jersey Superior Court, Appellate Division.

Morris County encourages municipalities with local farms to adopt Right-to-Farm ordinances. The following Morris County municipalities have Right-to-Farm ordinances in place:

- Boonton Township
- Chester Borough
- Chester Township
- Denville Township
- Harding Township
- Jefferson Township
- Lincoln Park Borough
- Long Hill Township
- Mendham Borough
- Mendham Township
- Mine Hill Township
- Montville Township
- Morris Township
- Mount Olive Township
- Randolph Township
- Rockaway Township
- Washington Township

Morris CADB offers a number of resources online to landowners and municipal officials revolving around the Right-to-Farm, such as:

- Right-to-Farm Act, N.J.S.A. 4:1C-1 et seq.
- Right-to-Farm Procedural Rules
- Adopted Agricultural Management Practices (AMPs)
- Proposed New Rules/New AMPs
- “Am I Protected by the Right-to-Farm Act?” brochure
- Application for a Site Specific AMP
- Conflict Resolution Process, N.J.A.C. 2:76-2.7
- Right-to-Farm Mediation Program Request Forms (for Right-to-Farm and agricultural credit disputes)
- Model Municipal Right-to-Farm ordinances

For more information, visit <https://www.morriscountynj.gov/Departments/County-Agriculture-Development-Board/Right-to-Farm-Program>

While the Right-to-Farm process is effective overall and one of the strongest in the country, Board members have determined that the process of Right-to-Farm needs tweaking. The most pressing issue with the Right-to-Farm process has to do with determining whether a conflict exists between an applicant and a Board member. The Local Finance Board determines whether a conflict exists between farmers coming to the Board and Board members. Most common conflicts can be due to a business or family relationship. It can take several months to receive a determination from the Local Finance Board, which slows down the process.

Board members feel that the Board attorney should be able to determine whether a conflict exists. In addition, CADBs should have the ability to have alternate members who can step in if conflicts occur. Without having alternate members, the County may not have a quorum to hear certain cases due to having a conflict. The Board feels that cases should be able to be heard by other County Agriculture Development Boards as a means to move cases along in a timelier fashion, which is not currently allowed within the existing regulations.

### Farmland Assessment

The Farmland Assessment program offers a tax incentive, which reduces property taxes on any active farmed land, thereby assisting farmers with a critical financial aspect in helping to keep land in agricultural production. This tax incentive is made possible by the Farmland Assessment Act of 1964, N.J.S.A. 54:4-23.1 et seq. The application for farmland assessment is due annually before August 1. The basic eligibility requirements include:

1. The applicant must own the land;
2. The property owner must apply annually for Farmland Assessment on or before August 1 of the year immediately preceding the tax year;
3. Land must be devoted to agricultural and/or horticultural uses for at least two years prior to the tax year;
4. Land must consist of at least five contiguous farmed and/or woodland management plan acres. Land under or adjoining a farmhouse is not counted towards the minimum five acres;
5. Gross sales of products from the land must average at least \$1,000 per year for the first five acres, plus an average of \$5.00 per acre for each acre over five. In the case of woodland or wetland, the income requirement of \$500 per year is for the first five acres, plus \$.50 per acre for any acreage over five. Dependent on the agricultural or horticultural products being produced, the farmer can also offer clear evidence of anticipated yearly gross sales, payments, or fees within a reasonable period of time; and,
6. The property owner must represent that the land will continue in agricultural or horticultural use to the end of the tax year.

When land that is in agricultural or horticultural use (and is being valued under the Farmland Assessment Act), is changed to a different use, it is subject to additional taxes. These are referred to as roll-back taxes, and they are charged in an amount equal to the difference, if any, between the taxes paid or payable on the basis of "Farmland Assessment" and the taxes that would have been paid or payable had the land been valued, assessed, and taxed as other land in the taxing district. In the case of a change in use, the roll-back taxes shall be applicable in the year in which the change took place and in each of the two tax years immediately preceding, in which the land was valued, assessed and taxed under the Farmland Assessment Act.

Land is deemed to be in *agricultural use* when devoted to the production for sale of plants and animals, including but not limited to: forages and sod crops; grains and feed crops; dairy animals and dairy products; poultry and poultry products; livestock, including beef cattle, sheep, swine, horses, ponies, mules or goats, including the breeding, boarding, raising, rehabilitating, training or grazing of any or all of such animals, except that "livestock" shall not include dogs; bees and apiary products; fur animals, trees and forest products; or when devoted to and meeting the requirements and qualifications for payments or other compensation pursuant to a soil conservation program under an agreement with an agency of the federal government. Although beekeeping and apiary products are excluded from the statutory definition, such operations are protected under the Right-to-Farm Act, provided that they produce apiary-related products or provide crop pollination services worth at least \$10,000 annually.

Land is deemed to be in *horticultural use* when devoted to the production for sale of fruits of all kinds, including grapes, nuts and berries; vegetables; nursery, floral ornamental and greenhouse products; or when devoted to and meeting the requirements and qualifications for payments or other compensation pursuant to a soil conservation program under an agreement with an agency of the federal government. There are additional requirements for the boarding, training, or rehabilitation of livestock and for forestlands under a woodlot management program.

### **Other Strategies**

Over the last 50 years, the State of New Jersey has increasingly transformed from a largely rural and agricultural landscape to a more urban and suburban landscape. However, farming remains strong and viable in many regions of the state. If the County's remaining agricultural areas are to survive and prosper, the non-farming public needs to be aware of, and be financially supportive of, the continuing economic, cultural, scenic and agricultural contributions made by Morris County farmers. Public education and outreach will increase the recognition of the farm industry's

importance to the non-agriculture resident. Agritourism is one form of public outreach that exists in the County and should be expanded when appropriate. Other public outreach mechanisms should be explored and instituted when feasible.

#### Permit Streamlining

Streamlining the permitting process can help to facilitate ease of access for new farming operations. Permit streamlining can be practiced by allowing a farmer to interact with one office in a single location as opposed to multiple offices and people at multiple locations, instituting preliminary consultation services, implementing expedited reviewing periods, or lowering fees to encourage activity.

#### Agricultural Vehicle Movement / Routes

Continued development and redevelopment in the County will further impact roadways. Farmers often need to move their slow-moving equipment over roadways to access other noncontiguous portions of the land they farm, while other roadway users, such as cars, trucks, tractor trailers, and buses, use these same roads to get to their destinations. These users often compete for the same road space, which can create unsafe road conditions for all roadway users.

The SADC model Right-to-Farm ordinance protects farmers' abilities to operate and transport large, slow-moving heavy equipment over roads. Morris County municipalities would benefit from reviewing their ordinances to ensure that farmer vehicles are protected. Should future conflicts arise, the County could consider working with the municipalities to install signage that alerts drivers on roadways to be mindful of farming equipment on the road. Signs can be a helpful tool to not only inform the local community that agriculture is a necessary and permanent fixture in Morris County, but to also provide a clear warning that slow-moving vehicles may be on the road ahead.

#### Agricultural Labor Housing / Training

The County can help its municipalities provide housing and training opportunities for existing agricultural labor. Through a partnership with the Morris County Housing Authority, the County can also provide employment opportunities at Morris County farms to the residents of Housing Authority sites.

The Community College of Morris County offers an associate degree in agribusiness as well as landscape and horticultural technology; both disciplines can directly serve the agricultural operations in Morris County.

#### Wildlife Management Strategies

Like many New Jersey counties, Morris County has been impacted by the overpopulation of white tail deer, which requires anything grown in the ground to be enclosed with fencing. Black bears, groundhogs, and rodents also present issues for Morris County farmers. Farmers across the state are contending with invasive pests such as the Bag Fly, Spotted Lanternfly, Spotted Winged Drosophila, Emerald Ash Borer, Asian Longhorned Beetle, Mexican Bean Beetle, Marmorated Stink Bug, Gypsy Moth and Pine Shoot Beetle. The County should work with the Rutgers Agricultural Experimental Station, Rutgers Cooperative Extension of Morris County, and the SADC to develop ways to mitigate their impacts. Farms in Morris County are also threatened by a proliferation of invasive vegetation, such as the water chestnut and Japanese stilt grass.

#### Agricultural Education and Promotion

A well-trained and educated workforce is paramount to the success of the local agricultural industry. Educational opportunities must be readily available for industry participants, to advance the knowledge gained through the continued study, research and development of industry issues and topics. Education and training in areas related to business management, marketing, and the industry in general help to advance the efforts of local farmers who wish to expand their business and maximize profitability. Apart from the programs and educational opportunities offered through various organizations dedicated to agriculture, secondary schools, colleges and other higher education

institutes should offer programs for those interested in entering the field or wishing to expand their knowledge and keep up with the latest industry advancements.

The significance of the local agricultural industry can be conveyed at the local K-12 level through school curriculum as well as programs offered through area organizations such as the 4-H Club. Such programs offer a hands-on approach to learning, and provide opportunities to help build confidence, learn responsibility and develop skills. Information related to local 4-H programs in Morris County can be found online at [Morris.njaes.rutgers.edu/4h/](http://Morris.njaes.rutgers.edu/4h/).

The New Jersey Agricultural Society's Agricultural Leadership Program is a two-year program providing educational programming to individuals involved in farming, focusing on leadership development, management skills, communication, decision making, conflict resolution, as well as other areas. More information on this program can be found at <http://www.njasociety.org/leadership-development-program.html>.

The National Future Farmers of America Organization (FFA) was founded in 1928, and currently has 7,242 chapters across the country with nearly 500,000 members. The program is open to students in middle school and high school. Although originally focused solely on the agricultural industry, the organization now seeks to prepare students for a broad range of career opportunities. According to the National website, there are currently no Morris County chapters. The County should consider encouraging the creation of a Morris County chapter as a way to support future Morris County farmers. More information about the FFA Organization can be found at <https://www.ffa.org/>.

Educational opportunities are equally important to those currently involved in agriculture as well as to those who have an interest in entering the field. To be effective, the industry's leadership and employment needs must be identified and communicated to decision makers and educators preparing young people for careers in agriculture. The NJDA offers technical, financial, and regulatory assistance, and provides educational outreach to landowners throughout the state. The Department also offers, in conjunction with the USDA, farm risk management and crop insurance education programs to assist farmers. Additional programs are highlighted throughout this document, which also provide educational opportunities and programs for local farmers.

**APPENDICES**

Appendix A: Public Survey & Municipal Outreach Summary

Appendix B: Local and Regional Service Providers

Appendix C: Preserved Farms Inventory

Appendix D: Morris CADB Ranking System

Appendix E: Morris CADB Policies

Appendix F: Targeted Farms Inventory