

# COMPREHENSIVE FARMLAND PRESERVATION PLAN UPDATE

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WARREN COUNTY



May 2017



# **COMPREHENSIVE FARMLAND PRESERVATION PLAN UPDATE**

## **WARREN COUNTY**

**Prepared May 15, 2017 by:**

**The Land Conservancy of New Jersey**  
*an accredited land trust*  
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**The original document was appropriately signed and sealed  
in accordance with Chapter 41, Title 13 of the State Board of Professional Planners.**

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## WARREN COUNTY

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May 2017

# ACKNOWLEDGEMENTS

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The Land Conservancy of New Jersey wishes to acknowledge the following individuals and organizations for their help in providing information, guidance, and materials for the *County of Warren Comprehensive Farmland Preservation Plan Update*. Their contributions have been instrumental in the creation of the Plan Update.

***County of Warren Board of Chosen Freeholders***

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Richard D. Gardner, Freeholder Deputy Director  
Edward J. Smith, Freeholder

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**Cover Photograph:** Beaver Brook Farm, Hope Township

# EXECUTIVE SUMMARY

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Since the completion of the *2008 Warren County Comprehensive Farmland Preservation Plan*, Warren County has preserved an additional 8,143 acres of farmland in 109 farms. Warren County has permanently preserved 23,268 acres of farmland in 259 farms since the inception of the County's farmland program. Farmers and local officials in Warren County remain firmly committed to farmland protection and continue to support the preservation of agricultural lands throughout the County.

Warren County is home to some of the most suitable and productive farmland in the State of New Jersey. According to the current *Soil Survey for Warren County*, 35% of the County contains soils of agricultural importance, and as reported in the *2012 Census of Agriculture*, 31% of the County is currently being farmed. The agricultural industry in Warren County has demonstrated its ability to remain not only viable but successful in the face of changing market conditions. Led by its nursery/greenhouse and grain operations, which have rapidly outpaced sales in other sectors, the County produced \$91.2 million in agricultural sales in 2012 versus \$39.7 million in 2002.

Warren County is 232,236 acres<sup>a</sup> and of this, 105,766 acres or 46% of the total land area are under farmland assessment, encompassing croplands, woodlands, farm structures, and wetlands/waterways found on agricultural properties. The *2002 Census of Agriculture* identified 78,042 acres as farms, which excludes those farmland assessed parcels that are not in active agricultural production. The *2012 Census of Agriculture* identifies 72,250 acres as farms<sup>b</sup>, constituting 31% of the County's land base and 68% of the farm assessed property in Warren County. Since 2002 the County has lost 5,792 acres of farms.

Based on a farm unit analysis of the State's Minimum Eligibility Criteria for productive soils and tillable land, 33,246 acres are potentially eligible for farmland preservation in Warren County, for farms greater than 40 acres in size. The Board of Chosen Freeholders supports a strong and active program of farmland preservation. Based upon the inventory of farmland eligible for preservation, landowner interest, and the amount of potential funding available, the following preservation goals are presented for Warren County:

One year target: 900 acres in 15 farms

Five year target: 4,500 acres in 75 farms

Ten year target: 9,000 acres in 150 farms

Over the course of the County's Farmland Preservation Program, a total of \$127,767,359 has been expended to preserve 23,268 acres, amounting to an average of \$5,491 per acre. The State has provided \$80,756,094 in funding and Warren County has spent \$33,063,118 towards this goal. Since the start of the municipal Planning Incentive Grant program in 2008, \$13,495,869 has been expended by the local municipalities and non-profit organizations to preserve farmland in Warren County.

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<sup>a</sup> As measured using the ArcGIS 10.5 digital mapping software. This number may vary from other sources, including the Warren County directory and the Natural Resource Conservation Service (NRCS). The ArcGIS mapping serves as the basis for the farmland analysis in this report.

<sup>b</sup> This number excludes farmland assessed parcels that are not in active agricultural production.

Warren County has received funding from the United States Department of Agriculture (USDA) for *Grow Warren: A Strategic & Marketing Plan* that will identify strategies to connect local farmers with consumers and improve the marketing of small and emerging producers. This inventory of small, emerging farms and resources will help the County to examine the industry's strengths and weaknesses, and be used to recommend effective actions for the County to assist small, emerging farms. Greener by Design, LLC has been contracted to complete this inventory and plan.<sup>1</sup> The completion of this report will study the variation and trends in agricultural production and offer recommendations for the future of agriculture as an integral part of the business sector of the County's economic base.

# CHAPTER 1: AGRICULTURAL LAND BASE OF WARREN COUNTY

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## Agricultural Landscape

Agricultural areas dominate the countryside of Warren County. The County’s contiguous farm belts and scenic agricultural lands bestow the County with a unique rural setting. Motorists and cyclists enjoy roadways that pass through miles of uninterrupted farmland, and fertile valleys spread out beneath towering ridgelines offering breathtaking views. Many farms in Warren County are also located near, or operated in conjunction with, valuable natural resources and public park lands. This combination of agriculture and open space creates an undeveloped, natural landscape that spans large areas of the County. This landscape has been the living and working environment for generations of Warren County residents, and for many, it means home.

Geography plays an important role in determining the distribution of different farmland uses. A combination of physical factors, including topography, soils, and surface water, has created distinct areas that are best suited to accommodate certain types of agricultural activities. Field crops such as corn and soybeans are generally most successful on flat, dry land with good soils. Rolling, grassy hills with lower quality soils are more fitting for pastures while steep topography and relatively poor soils are usually best managed as woodland areas.

## Agricultural Trends and Uses

In 1925, agricultural use represented 68% of land use in Warren County (*1925 Census of Agriculture*).<sup>2</sup> Since then, total farmland acreages have shrunk by 54%, largely due to residential and commercial development pressures competing for this land.

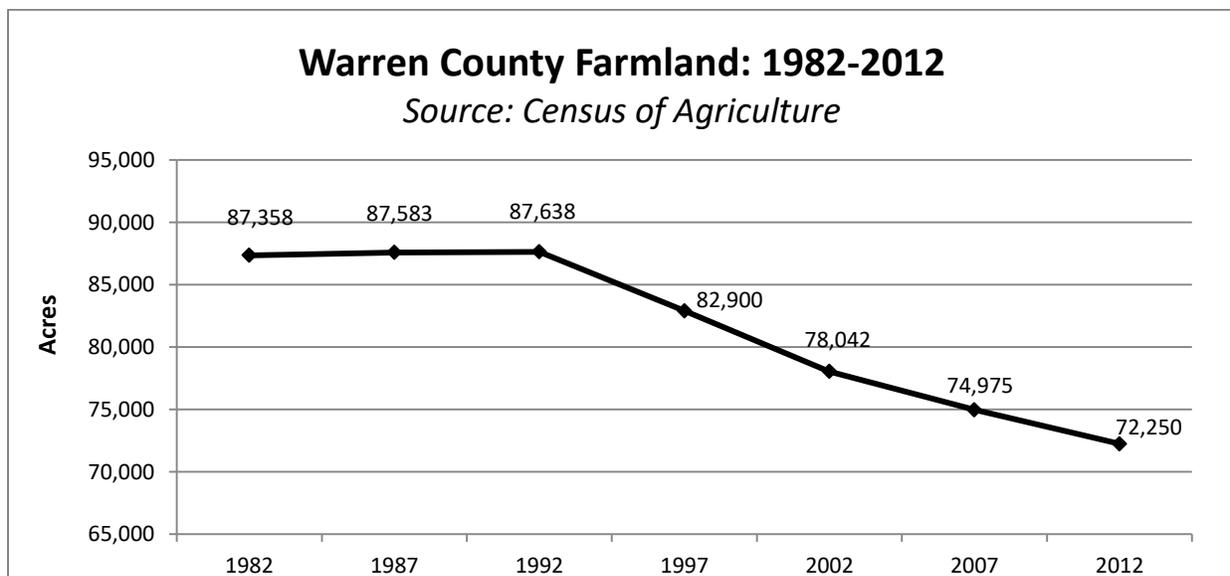
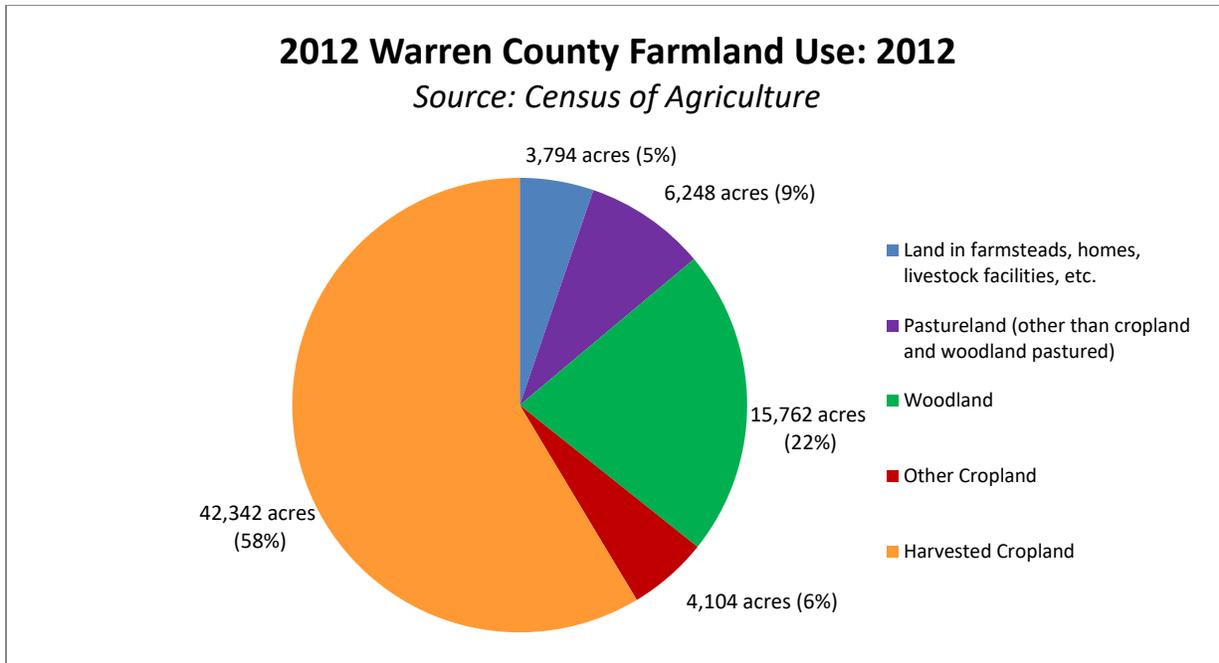


Figure 1. Warren County Farmland: 1982-2012

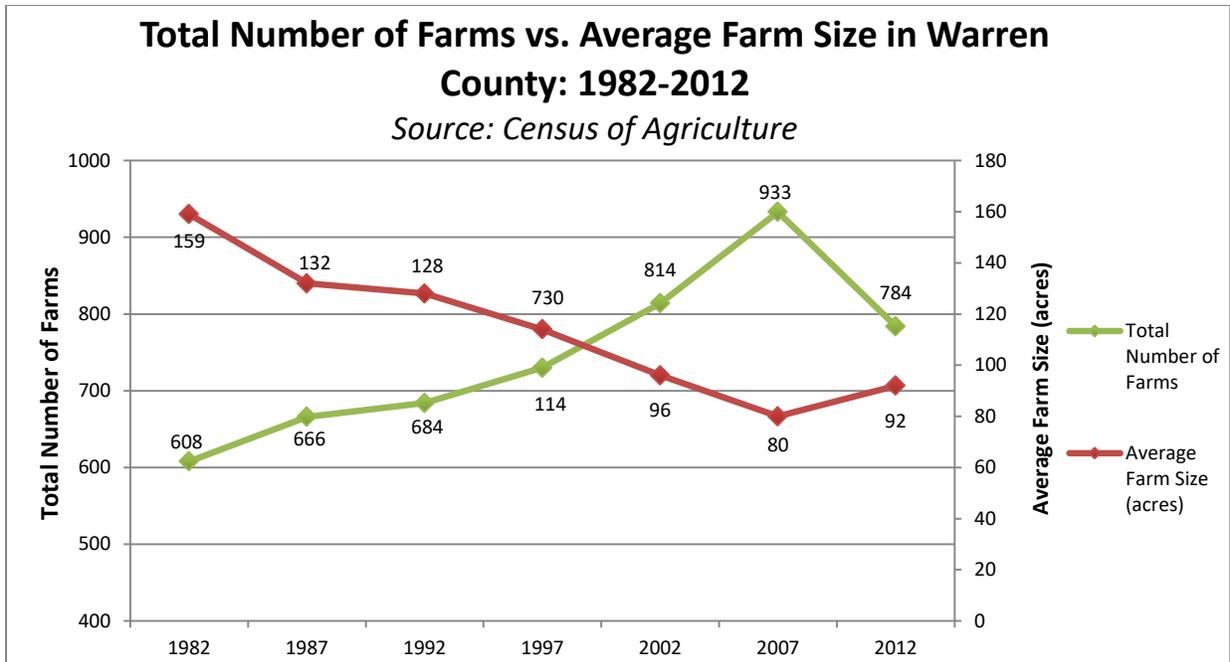
Between 1982 and 2012, agricultural lands declined from 87,358 acres to 72,250 acres (*Figure 1. Warren County Farmland: 1982-2012, p.2*). In 2012, agricultural lands constituted 31% of Warren County’s 232,272 acres<sup>c</sup>, and the County ranked fourth in the state for land acres dedicated to agriculture (*2015 NRCS Web Soil Survey*)<sup>3</sup> (*2012 Census of Agriculture*).<sup>4</sup> The majority of the County’s agricultural lands (58%) are used for field crops, followed by woodlands at 22% and pastured lands at 9% (*Figure 2. 2012 Warren County Farmland Use: 2012, p.3*). “Other” agricultural lands are made up of farmhouse lots, ponds, driveways, and support structures. “Other” cropland includes fallow or soil improvement areas (*2012 Census of Agriculture*).



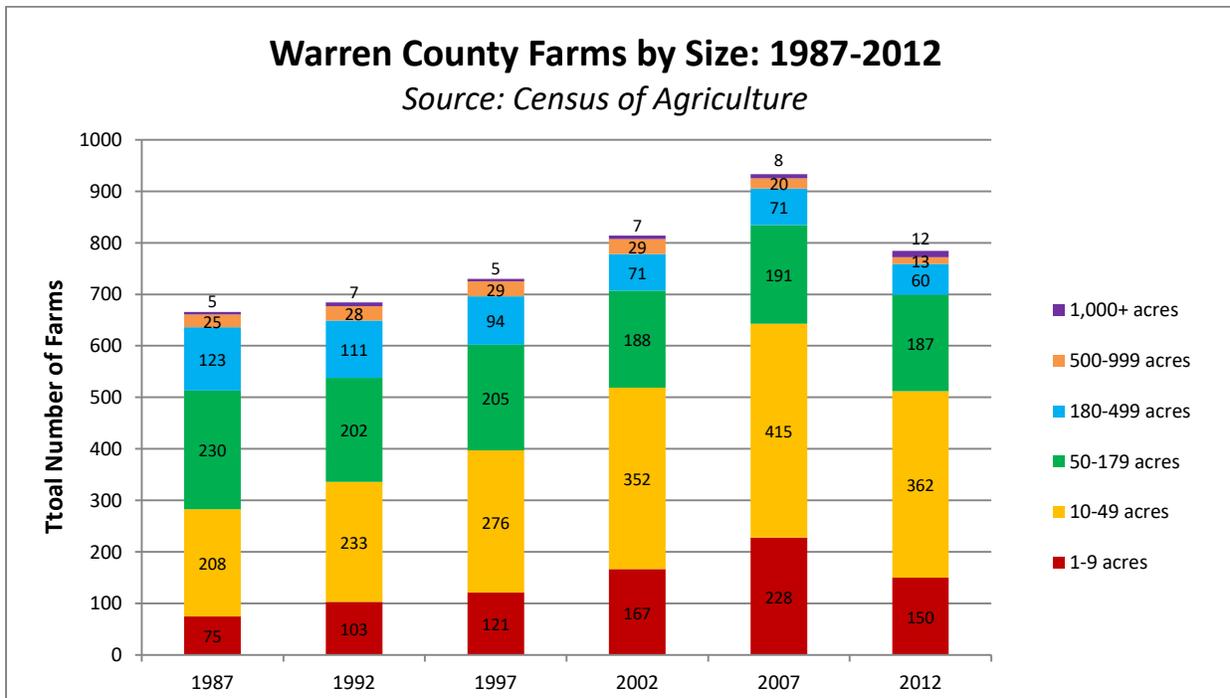
**Figure 2. 2012 Warren County Farmland Use: 2012**

As of 2012, the 784 farms in Warren County averaged 92 acres in size, a 15% increase from the 2007 Census average of 80 acres (*2012 Census of Agriculture*). Warren County’s farms are, on average, larger than the overall state average of 79 acres. This increase in average acreage is due in part to a 16% decline in the overall number of farms since 2007, particularly among smaller farms. However, these smaller farms still comprise the majority of the farm units in Warren County. Of the 784 farms in the County, 512 fall within the 1-49 acre range, and the median size of these smaller farms is 24 acres. Additionally, the County has seen some consolidation of larger farms, meaning fewer total farms and a larger average acreage (*Corey Tierney*)<sup>5</sup> (*Figure 3. Warren County Total Farms vs. Average Farm Size: 1982-2012 and Figure 4. Warren County Farms by Size: 1987-2012, p.4*).

<sup>c</sup> Acreage of the County as measured by the NRCS Soil Survey



**Figure 3. Warren County Total Farms vs. Average Farm Size: 1982-2012**



**Figure 4. Warren County Farms by Size: 1987-2012**

## Soils

More than one hundred individual soil types are found throughout Warren County (see *Table 1. Soils of Warren County, p.6*). Soil types are determined by the parent bedrock material from which they were formed, drainage characteristics, and the steepness of the slopes on which they are found. Soil types are also grouped into larger categories called soil series, based on their parent material, chemical composition, and profile (*NCRS Web Soil Survey 2015*).

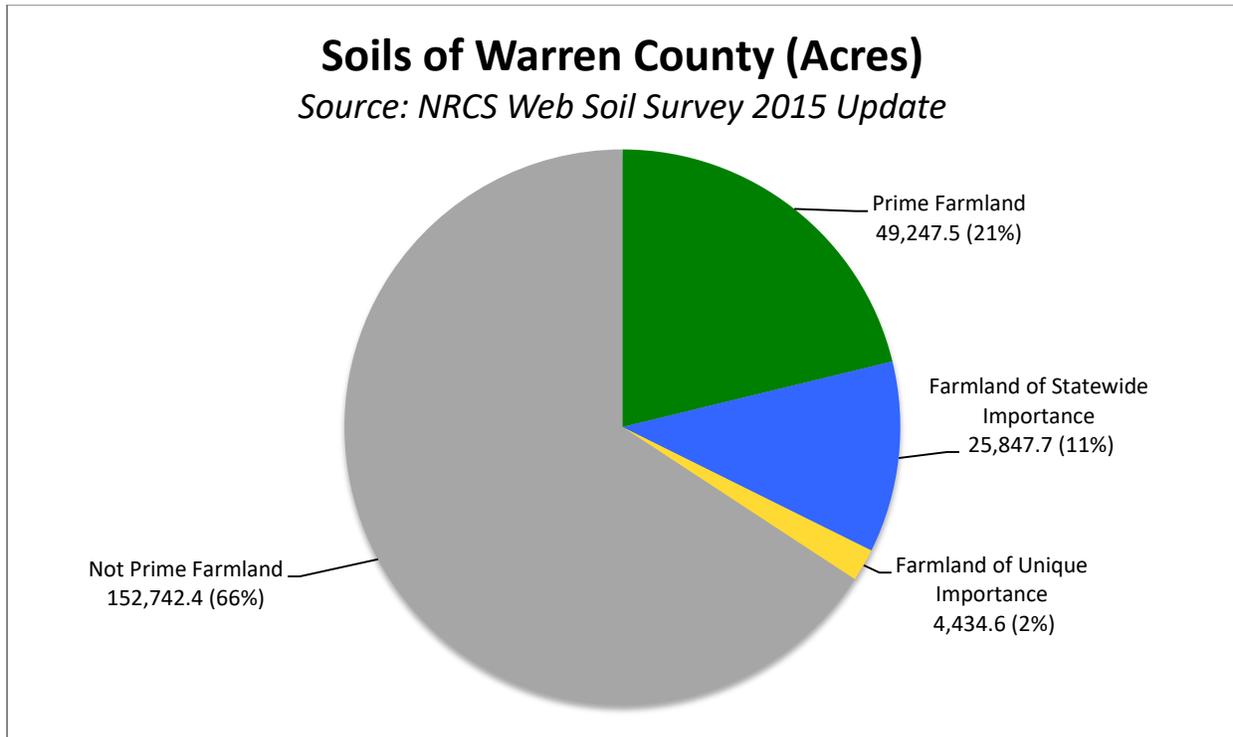
The origin of Warren County's soils makes them generally well-suited for agriculture, especially field crops. Soil fertility, water-holding capacity, and permeability are generally moderate to high, which means the soils are able to support a wide variety of crops. Localized conditions determine whether these soils qualify as *prime, statewide, unique, or non-prime* agricultural soils. For instance, soils located in areas that are frequently flooded are less able to hold nutrients or support the root systems of some crops, making them less suitable for agricultural production than soils in drier locations. Soils on steep slopes are more easily eroded and less productive than soils on flat ground. Depth to bedrock, or fragipan, may limit the root systems of certain crops, making deeper soils more appropriate for intensive field crops such as vegetables, and shallower soils more appropriate for less intensive uses, such as pastures.

Following are the Natural Resources Conservation Service (NRCS) descriptions for *prime farmland, farmland of statewide importance, farmland of unique importance* and *non-prime farmland*:

- *Prime farmland soils* rest on land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber and oilseed crops. They have the quality, growing season, and moisture supply to sustain high yields when managed according to acceptable farming methods. Prime soils are not heavily eroded or saturated for a long period of time, and they either do not flood frequently or are protected from flooding;
- *Farmland soils of statewide importance* are nearly prime, producing high yields of crops when treated and managed according to acceptable farming methods, and some may produce yields that are as high as prime soils if conditions are favorable;
- *Unique soils* exhibit specific qualities that may be favorable to the production of specialized crops, such as blueberries or cranberries;
- *Other soils (or non-prime farmland)* encompass all soil types that are not classified as prime, statewide important, unique, or locally important. The capacity of these soils for supporting agricultural should be assessed on a site-specific basis. This category also includes areas of water.

In total, farmland soils cover 79,530 acres (34%) of Warren County (*Figure 5. Soils of Warren County (Acres)*) (*NCRS Web Soil Survey 2015, p.6*). Agricultural soils are concentrated primarily in the southern portion of the county along the Delaware and Musconetcong Rivers. These soils tend to rest on flat slopes and are loamy and well-drained, making them well-suited to crop agriculture. In general, agricultural soils are present but more scattered across the Highlands ridgeline and the foothills of northern Warren County than they are in the southern portion of the County. Glacial outwash soils in northern areas support a large concentration of vegetable acreage, found on flat to moderately sloping ground along the Paulins Kill, Pequest,

Delaware, and Musconetcong Rivers. Additionally, soils formed from organic deposits support sod and nursery farms in the Great Meadows. These soils are often very wet and poorly drained, but are usually found on flat slopes and contain significant amounts of organic material.



**Figure 5. Soils of Warren County (Acres)**

**Table 1. Soils of Warren County**

Abbr	Soil Description	Farmland Type	Acres	% of Co.
AnoB	Annandale gravelly loam, 3 to 8 percent slopes	Prime Farmland	5,334.5	2.30%
BabA	Bartley loam, 0 to 3 percent slopes	Prime Farmland	815.9	0.35%
BabB	Bartley loam, 3 to 8 percent slopes	Prime Farmland	4,088.8	1.76%
DefAr	Delaware fine sandy loam, 0 to 3 percent slopes, rarely flooded	Prime Farmland	1,145.5	0.49%
DefBr	Delaware fine sandy loam, 3 to 8 percent slopes, rarely flooded	Prime Farmland	1,230.2	0.53%
HdxAb	Hazen-Hoosic complex, 0 to 3 percent slopes, very stony	Prime Farmland	4,880.2	2.10%
HdxBb	Hazen-Hoosic complex, 3 to 8 percent slopes, very stony	Prime Farmland	9,101.5	3.92%
NetBb	Netcong loam, 0 to 8 percent slopes, very stony	Prime Farmland	2,219.9	0.96%
ScoA	Scio silt loam, 0 to 3 percent slopes	Prime Farmland	110.1	0.05%
UnfA	Unadilla silt loam, 0 to 3 percent slopes	Prime Farmland	60.0	0.03%
WafA	Washington silt loam, 0 to 3 percent slopes	Prime Farmland	1,122.7	0.48%
WafB	Washington silt loam, 3 to 8 percent slopes	Prime Farmland	19,138.2	8.24%
	<b>Total Prime Farmland</b>		<b>49,247.5</b>	<b>21.20%</b>

**Table 1. Soils of Warren County**

<b>Abbr</b>	<b>Soil Description</b>	<b>Farmland Type</b>	<b>Acres</b>	<b>% of Co.</b>
AnoC	Annandale gravelly loam, 8 to 15 percent slopes	Farmland of Statewide Importance	7,049.6	3.04%
BekA	Berks channery silt loam, 0 to 3 percent slopes	Farmland of Statewide Importance	173.8	0.07%
BekB	Berks channery silt loam, 3 to 8 percent slopes	Farmland of Statewide Importance	1,445.8	0.62%
CorA	Colonie loamy fine sand, 0 to 3 percent slopes	Farmland of Statewide Importance	42.5	0.02%
HonCb	Hoosic-Hazen complex, 8 to 15 percent slopes, very stony	Farmland of Statewide Importance	5,774.0	2.49%
NetCb	Netcong loam, 8 to 15 percent slopes, very stony	Farmland of Statewide Importance	6,291.7	2.71%
PaoC	Parker gravelly sandy loam, 3 to 15 percent slopes	Farmland of Statewide Importance	99.4	0.04%
UnfB	Unadilla silt loam, 3 to 8 percent slopes	Farmland of Statewide Importance	28.3	0.01%
WafC	Washington silt loam, 8 to 15 percent slopes	Farmland of Statewide Importance	4,942.6	2.13%
	<b>Total Farmland of Statewide Importance</b>		<b>25,847.7</b>	<b>11.13%</b>
CatbA	Catden muck, 0 to 2 percent slopes	Farmland of Unique Importance	2,546.3	1.10%
TheaAt	Timakwa muck, 0 to 2 percent slopes, frequently flooded	Farmland of Unique Importance	1,888.3	0.81%
	<b>Total Farmland of Unique Importance</b>		<b>4,434.6</b>	<b>1.91%</b>
AhbBc	Alden silt loam, 0 to 8 percent slopes, extremely stony	Not Prime Farmland	1,663.7	0.72%
AhcBc	Alden mucky silt loam, gneiss till substratum, 0 to 8 percent slopes, extremely stony	Not Prime Farmland	1,644.3	0.71%
AnnBb	Annandale loam, 0 to 8 percent slopes, very stony	Not Prime Farmland	174.2	0.07%
AnnCb	Annandale loam, 8 to 15 percent slopes, very stony	Not Prime Farmland	934.8	0.40%
AnnDb	Annandale loam, 15 to 25 percent slopes, very stony	Not Prime Farmland	3,497.3	1.51%
AruCh	Arnot-Lordstown complex, 0 to 15 percent slopes, very rocky	Not Prime Farmland	1,184.7	0.51%
ArvD	Arnot-Lordstown-Rock outcrop complex, 15 to 35 percent slopes	Not Prime Farmland	2,346.4	1.01%
ArvE	Arnot-Lordstown-Rock outcrop complex, 35 to 60 percent slopes	Not Prime Farmland	1,770.0	0.76%
AtcA	Atherton mucky silt loam, 0 to 3 percent slopes	Not Prime Farmland	18.6	0.01%
BekE	Berks channery silt loam, 25 to 45 percent slopes	Not Prime Farmland	1,293.0	0.56%
CaoBb	Califon loam, somewhat poorly drained, 0 to 8 percent slopes, very stony	Not Prime Farmland	2,598.6	1.12%
CaoCb	Califon loam, somewhat poorly drained, 8 to 15 percent slopes, very stony	Not Prime Farmland	1,714.3	0.74%
ChkC	Chatfield-Hollis-Rock outcrop complex, 0 to 15 percent slopes	Not Prime Farmland	639.1	0.28%
ChkE	Chatfield-Hollis-Rock outcrop complex, 35 to 60 percent slopes	Not Prime Farmland	4,675.5	2.01%
ChwBc	Chippewa silt loam, 0 to 8 percent slopes, extremely stony	Not Prime Farmland	2,148.9	0.93%
CoadBb	Cokesbury loam, dark surface, 0 to 8 percent slopes, very stony	Not Prime Farmland	2,938.2	1.26%
FaxC	Farmington-Rock outcrop complex, 0 to 15 percent slopes	Not Prime Farmland	1,030.4	0.44%
FdwB	Farmington-Wassaic-Rock outcrop complex, 0 to 8 percent slopes	Not Prime Farmland	1,287.3	0.55%
FmhAs	Fluvaquents, loamy, 0 to 3 percent slopes, occasionally flooded	Not Prime Farmland	42.3	0.02%
FrdAb	Fredon-Halsey complex, 0 to 3 percent slopes, very stony	Not Prime Farmland	6,895.3	2.97%
GkanBc	Gladstone loam, 3 to 8 percent slopes, extremely stony	Not Prime Farmland	637.3	0.27%

**Table 1. Soils of Warren County**

<b>Abbr</b>	<b>Soil Description</b>	<b>Farmland Type</b>	<b>Acres</b>	<b>% of Co.</b>
GkanCc	Gladstone loam, 8 to 15 percent slopes, extremely stony	Not Prime Farmland	2,513.4	1.08%
GkanDc	Gladstone loam, 15 to 25 percent slopes, extremely stony	Not Prime Farmland	536.9	0.23%
HazAs	Halsey silt loam, 0 to 3 percent slopes, occasionally flooded	Not Prime Farmland	3,587.2	1.54%
HhmBc	Hibernia loam, 0 to 8 percent slopes, extremely stony	Not Prime Farmland	2,258.2	0.97%
HkrgBb	Hinckley loamy coarse sand, 0 to 8 percent slopes, very stony	Not Prime Farmland	36.4	0.02%
HkrgCb	Hinckley loamy coarse sand, 8 to 15 percent slopes, very stony	Not Prime Farmland	12.1	0.01%
HncD	Hollis-Rock outcrop-Chatfield complex, 15 to 35 percent slopes	Not Prime Farmland	3,448.5	1.48%
HopEb	Hoosic-Otisville complex, 25 to 60 percent slopes, very stony	Not Prime Farmland	2,890.3	1.24%
LacBc	Lackawanna cobbly fine sandy loam, 0 to 8 percent slopes, extremely stony	Not Prime Farmland	31.7	0.01%
LacCc	Lackawanna cobbly fine sandy loam, 8 to 15 percent slopes, extremely stony	Not Prime Farmland	416.2	0.18%
LacDc	Lackawanna cobbly fine sandy loam, 15 to 35 percent slopes, extremely stony	Not Prime Farmland	1,016.6	0.44%
NauBh	Nassau-Manlius complex, 0 to 8 percent slopes, very rocky	Not Prime Farmland	1,629.3	0.70%
NauCh	Nassau-Manlius complex, 8 to 15 percent slopes, very rocky	Not Prime Farmland	8,595.5	3.70%
NauDh	Nassau-Manlius complex, 15 to 35 percent slopes, very rocky	Not Prime Farmland	9,967.4	4.29%
NavE	Nassau-Rock outcrop complex, 35 to 60 percent slopes	Not Prime Farmland	3,434.8	1.48%
OpnCh	Oquaga-Lackawanna complex, 8 to 15 percent slopes, very rocky	Not Prime Farmland	554.6	0.24%
OpnDh	Oquaga-Lackawanna complex, 15 to 35 percent slopes, very rocky	Not Prime Farmland	2,710.7	1.17%
OprC	Oquaga-Rock outcrop complex, 0 to 15 percent slopes	Not Prime Farmland	131.1	0.06%
OprE	Oquaga-Rock outcrop complex, 35 to 60 percent slopes	Not Prime Farmland	1,344.1	0.58%
PaoD	Parker gravelly sandy loam, 15 to 25 percent slopes	Not Prime Farmland	4,494.3	1.93%
PawE	Parker-Rock outcrop complex, 25 to 45 percent slopes	Not Prime Farmland	1,015.0	0.44%
PawF	Parker-Rock outcrop complex, 45 to 65 percent slopes	Not Prime Farmland	7,496.8	3.23%
PHG	Pits, sand and gravel	Not Prime Farmland	1,232.8	0.53%
PHN	Pits, muck	Not Prime Farmland	226.8	0.10%
QY	Quarries	Not Prime Farmland	480.0	0.21%
RnaF	Rock outcrop-Arnot-Rubble land complex, 60 to 80 percent slopes	Not Prime Farmland	1,017.6	0.44%
RnfC	Rock outcrop-Farmington-Galway complex, 8 to 15 percent slopes	Not Prime Farmland	4,973.8	2.14%
RnfD	Rock outcrop-Farmington-Galway complex, 15 to 35 percent slopes	Not Prime Farmland	9,780.4	4.21%
RoefBc	Rockaway loam, thin fragipan, 0 to 8 percent slopes, extremely stony	Not Prime Farmland	75.3	0.03%
RoefCc	Rockaway loam, thin fragipan, 8 to 15 percent slopes, extremely stony	Not Prime Farmland	276.7	0.12%
RoefDc	Rockaway loam, thin fragipan, 15 to 35 percent slopes, extremely stony	Not Prime Farmland	3,066.9	1.32%
RokB	Rockaway-Chatfield-Rock outcrop complex, 0 to 8 percent slopes	Not Prime Farmland	153.0	0.07%
RokC	Rockaway-Chatfield-Rock outcrop complex, 8 to 15 percent slopes	Not Prime Farmland	659.6	0.28%
RokD	Rockaway-Chatfield-Rock outcrop complex, 15 to 35 percent slopes	Not Prime Farmland	1,438.1	0.62%
RooC	Rockaway-Urban land complex, thin fragipans, 0 to 15 percent slopes	Not Prime Farmland	200.2	0.09%

**Table 1. Soils of Warren County**

<b>Abbr</b>	<b>Soil Description</b>	<b>Farmland Type</b>	<b>Acres</b>	<b>% of Co.</b>
RooD	Rockaway-Urban land complex, thin fragipans, 0 to 25 percent slopes	Not Prime Farmland	77.4	0.03%
SwfBc	Swartswood loam, 0 to 8 percent slopes, extremely stony	Not Prime Farmland	21.2	0.01%
SwfCc	Swartswood loam, 8 to 15 percent slopes, extremely stony	Not Prime Farmland	56.3	0.02%
SwfDc	Swartswood loam, 15 to 35 percent slopes, extremely stony	Not Prime Farmland	254.1	0.11%
UccAs	Udifluvents, 0 to 3 percent slopes, occasionally flooded	Not Prime Farmland	419.6	0.18%
UdaB	Udorthents, 0 to 8 percent slopes, smoothed	Not Prime Farmland	1,621.7	0.70%
UdauB	Udorthents-Urban land complex, 0 to 8 percent slopes	Not Prime Farmland	5,926.5	2.55%
USBEKA	Urban land-Berks complex, 0 to 3 percent slopes	Not Prime Farmland	13.3	0.01%
USBEKB	Urban land-Berks complex, 3 to 8 percent slopes	Not Prime Farmland	121.6	0.05%
USCHRC	Urban land-Chatfield-Rock Outcrop complex, 0 to 15 percent slopes	Not Prime Farmland	35.7	0.02%
USCHRD	Urban land-Chatfield-Rock outcrop complex, 0 to 35 percent slopes	Not Prime Farmland	15.8	0.01%
USFARC	Urban land-Farmington-Rock outcrop complex, 0 to 15 percent slopes	Not Prime Farmland	41.0	0.02%
USHAZA	Urban land-Hazen-Hoosic complex, 0 to 3 percent slopes	Not Prime Farmland	589.5	0.25%
USHAZB	Urban land-Hazen-Hoosic complex, 0 to 8 percent slopes	Not Prime Farmland	787.7	0.34%
USWAFA	Urban land-Washington complex, 0 to 3 percent slopes	Not Prime Farmland	84.3	0.04%
USWAFB	Urban land-Washington complex, 3 to 8 percent slopes	Not Prime Farmland	2,758.9	1.19%
USW AFC	Urban land-Washington complex, 8 to 15 percent slopes	Not Prime Farmland	424.1	0.18%
VepBc	Venango silt loam, 0 to 8 percent slopes, extremely stony	Not Prime Farmland	1,411.1	0.61%
VepCc	Venango silt loam, 8 to 15 percent slopes, extremely stony	Not Prime Farmland	1,029.0	0.44%
WATER	Water	Not Prime Farmland	4,682.5	2.02%
WecBc	Wellsboro silt loam, 0 to 8 percent slopes, extremely stony	Not Prime Farmland	95.6	0.04%
WecCc	Wellsboro silt loam, 8 to 15 percent slopes, extremely stony	Not Prime Farmland	55.8	0.02%
WumBc	Wurtsboro loam, 0 to 8 percent slopes, extremely stony	Not Prime Farmland	22.3	0.01%
WusBc	Wurtsboro-Swartswood complex, 0 to 8 percent slopes, extremely stony	Not Prime Farmland	2,538.8	1.09%
WusCc	Wurtsboro-Swartswood complex, 8 to 15 percent slopes, extremely stony	Not Prime Farmland	5,436.7	2.34%
WusDc	Wurtsboro-Swartswood complex, 15 to 35 percent slopes, extremely stony	Not Prime Farmland	3,385.4	1.46%
		<b>Total Not Prime Farmland</b>	<b>152,742.4</b>	<b>65.76%</b>
		<b>Grand Total (all soil categories)</b>	<b>232,272.3</b>	<b>100%</b>
<i>Source: NRCS Web Soil Survey 2015 Update</i>				

## **Irrigated Land & Water Sources**

Irrigated land is defined by the Census of Agriculture as “all land watered by any artificial or controlled means, such as sprinklers, flooding, furrows or ditches, sub-irrigation, and spreader dikes. Included are supplemental, partial, and preplant irrigation,” as well as “livestock lagoon waste water distributed by sprinkler or flood systems” (2007 Census of Agriculture).<sup>6</sup>

Groundwater provides the supply of water for irrigation in Warren County. Groundwater sources are generally preferred to surface waters because they contain less sediment and

particulates that may clog irrigation pipes and damage crops. Warren County’s productive groundwater aquifers – that yield more than 100 gallons per minute – are found in areas underlain by Jacksonburg Limestone, Kittatinny Supergroup and Hardyston Quartzite. These bedrock species are roughly located beneath the County’s existing croplands in the Musconetcong, Delaware, Pequest, and Paulins Kill Valleys (*2008 Warren County Open Space and Recreation Plan*).<sup>7</sup>

Warren County has experienced a general upward trend in irrigation since 1987, although not consistently. The number of farms with irrigation practices has increased by 58% through 2012, and the total acreages of farms with irrigation (including portions not irrigated) have increased by 35%. However, irrigated farmland as a percentage of all Warren County farmland was highest in 2002, at 4%. The most recent Census of Agriculture indicates 71 farms irrigated 6,142 acres in 2012, representing just 2% of all farmland in the County. This represents a 48% drop from the peak total irrigated farmland of 3,339 acres in 2002; at the same time the number of farms practicing irrigation declined by roughly 27% (*Table 2. Warren County Farms With Land In Irrigation, p.10*). This peak occurred because of a prolonged dry spell, including a drought in 1999, causing farmers to irrigate more of their crops, including fruits and vegetables. Since then farmers have responded to wetter long-term conditions by placing fewer acres in irrigation (*Bruce Barbour*).<sup>8</sup>

**Table 2. Warren County Farms With Land In Irrigation**

	1987	1992	1997	2002	2007	2012	% Change from 1987-2012	% Change from 2002-2012	% Change from 2007-2012
<b># of Farms</b>	45	49	80	97	94	71	58%	-27%	-25%
<b>Land in Irrigated Farms</b>	5,486	6,121	5,284	9,086	11,095	7,390	35%	-19%	-33%
<b>Total Acres Irrigated</b>	1,509	1,006	1,761	3,339	2,426	1,726	14%	-48%	-29%
<b>Percent of Total Farmland</b>	2%	1%	2%	4%	3%	2%			

*Source: Census of Agriculture*

## Active Agricultural Lands

Each fiscal year, the New Jersey Department of the Treasury compiles the *New Jersey Farmland Assessment*. This report divides active agriculture into three main categories: Cropland Harvested, Cropland Pastured, and Permanent Pasture. Warren County’s active agricultural lands are summarized for each municipality in *Table 3. Active Agricultural Land in Warren County (2015) (New Jersey Division of Taxation), p.11*.<sup>9</sup>

Warren County’s most productive croplands fall within the broad plains associated with the Musconetcong, Delaware, and Pequest River Valleys. The Musconetcong River Valley encompasses the southern portions of Mansfield, Washington, Franklin, Greenwich, and Pohatcong Townships, and contains the greatest concentration of cropland in the County. The Delaware River Valley encompasses the western portions of Knowlton, White, Harmony, Lopatcong, and Pohatcong Townships, as well as Belvidere and Phillipsburg. The Pequest

Valley in Allamuchy, Independence, and Liberty Townships is known as the muck lands, and supports a large portion of the County’s sod farms and other nursery crops.

Pastured lands are common throughout Warren County, but their largest concentrations are found in the Appalachian foothills that comprise the northern parts of the County. The northern Townships of Blairstown, Knowlton, Hope, and Frelinghuysen contain large concentrations of pastured lands. Franklin Township, located in the Musconetcong River Valley, also has significant pastured acreage.

Woodland managed farms are most commonly found near preserved natural areas and mountainous regions in Warren County. One significant belt of wooded farmland extends from the Kittatinny Ridgeline and the Delaware Water Gap National Recreation Area on the County’s northern border. It encompasses farms in parts of Knowlton, Blairstown, Hardwick, and Frelinghuysen Townships. The Highlands ridgeline is also associated with wooded farmland areas. This includes parts of Allamuchy, Independence, Mansfield, Hope, Liberty, White, Oxford, and Harmony Townships (2015 New Jersey Farmland Assessment).<sup>10</sup>

**Table 3. Active Agricultural Land in Warren County (2015)**

<b>Municipality</b>	<b>Cropland Harvested (Acres)</b>	<b>Cropland Pastured (Acres)</b>	<b>Permanent Pasture (Acres)</b>	<b>Total for Agricultural Use (Acres)</b>
Allamuchy Twp	1,926	111	503	2,540
Alpha Boro	249	0	3	252
Belvidere Town	46	7	8	61
Blairstown Twp	2,183	301	855	3,339
Franklin Twp	6,549	472	1,004	8,025
Frelinghuysen Twp	3,058	577	1,337	4,972
Greenwich Twp	2,804	62	202	3,068
Hackettstown Town	0	0	0	0
Hardwick Twp	958	348	450	1,756
Harmony Twp	4,316	160	473	4,949
Hope Twp	2,463	323	1,093	3,879
Independence Twp	2,303	196	387	2,886
Knowlton Twp	3,088	375	1,211	4,674
Liberty Twp	794	29	372	1,195
Lopatcong Twp	675	25	91	791
Mansfield Twp	2,031	142	430	2,603
Oxford Twp	319	14	54	387
Phillipsburg Town	0	0	0	0
Pohatcong Twp	3,368	137	485	3,990
Washington Boro	0	0	0	0
Washington Twp	2,811	205	435	3,451
White Twp	3,760	277	589	4,626
<b>Total</b>	<b>43,701</b>	<b>3,761</b>	<b>9,982</b>	<b>57,444</b>

*Source: New Jersey Division of Taxation*

## **Summary**

The landscape of Warren County is conducive to the production of various agricultural goods. Large areas of productive soils contribute to the productivity of local crop farms. However, the success of agriculture in Warren County is threatened by competition from other land uses and potential contamination of groundwater from nearby residential, industrial, and commercial areas.

Since peaking at 87,638 acres in 1992, Warren County's total farmed acreage has consistently decreased, reaching 72,250 acres in 2012. Despite consistent increases in the total number of farms since 1982, this trend has reversed in recent years – nearly 150 fewer farms are in practice since 2007, and the average farm size has increased, evidenced by a decline in smaller farms and a rise in larger farms.

## CHAPTER 2: AGRICULTURAL INDUSTRY IN WARREN COUNTY

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Warren County's large and fertile land base supports a thriving farming industry that is among New Jersey's most productive agricultural areas, ranking in the top five statewide in various agricultural yields including corn, hay and soybean production, cattle ownership, milk production, poultry and eggs (*2012 Census of Agriculture*).<sup>d</sup>

The agricultural industry provides stability for the local economy of Warren County. In 2002, agriculture accounted for more than \$39.7 million in sales despite drought conditions. In 2007, sales jumped to roughly \$75.5 million, and in 2012 the County saw \$91.2 million in sales, a 130% increase since 2002 (*2012 Census of Agriculture*). In addition to direct sales, the agriculture industry supports ancillary businesses such as equipment suppliers and livestock veterinarians, whose sales are not captured within agricultural figures but depend upon agriculture to create the necessary demand for their services. Farms also provide indirect support and benefits to the local economy. They offer seasonal employment opportunities for young residents and seasonal workers who, in turn, patronize local stores and businesses. Farms often provide groundwater recharge and stormwater control, which local governments might otherwise have to supply. Additionally, farms generate a positive cash flow by selling their products to buyers outside the County, and often local farmers spend the revenue earned from these sales locally, which supports the County's economy. Agricultural production is one way in which the County promotes a stable and independent local economy.

### Statistical Resources

Agricultural production and market value trends were calculated using data from the United States Department of Agriculture's National Agriculture Statistics Service (NASS), including annual surveys and the Census of Agriculture undertaken every five years. The 2012 Census was released in May 2014. Because the Census is released so infrequently, it is important to be mindful of sampling outliers. For instance, the 2002 Census indicated low yields among many crops, in part due to a drought in 1999, and is not an accurate representation of the County's overall yields on an annual basis.

Yields for many agricultural products have been tabulated annually since 1953. Historical pricing information for some of these products is also available. These historical trends are supplemented by weather and production information from the annual reports of the New Jersey Department of Agriculture (*NJDA Annual Reports*).<sup>11</sup>

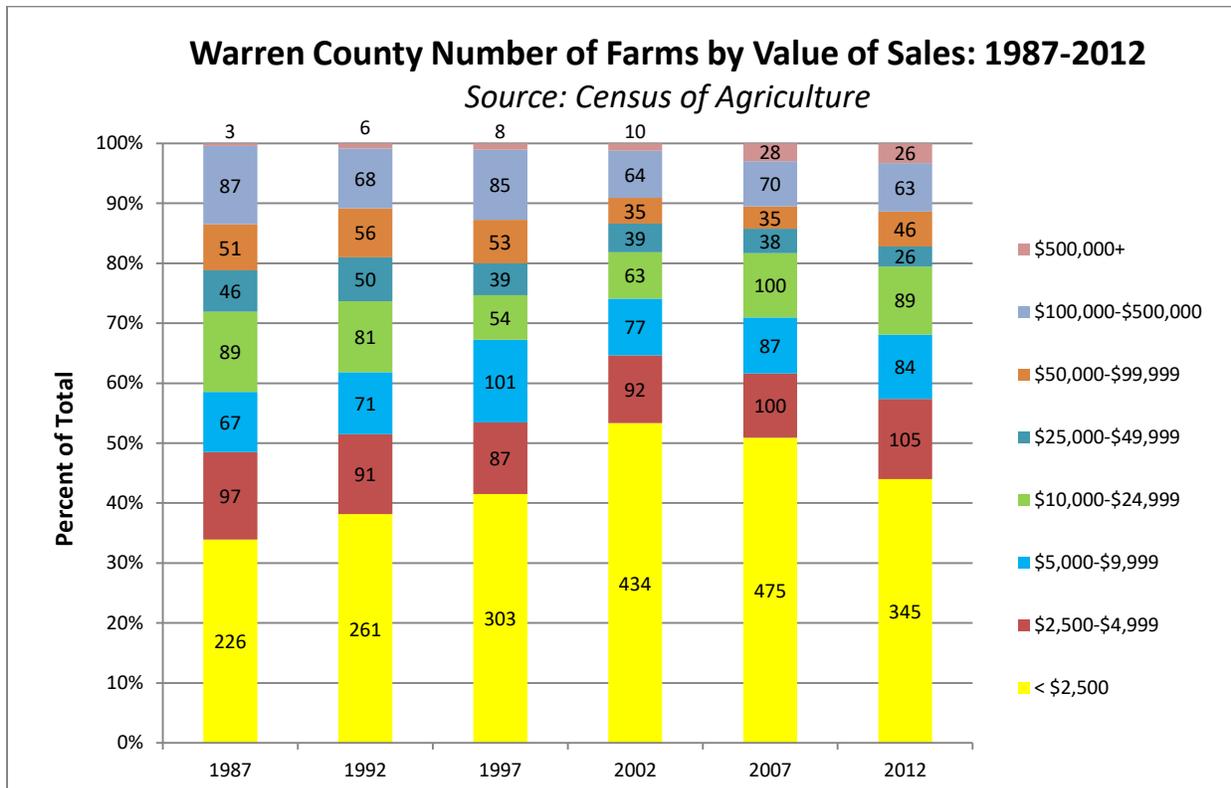
### Agricultural Production and Market Trends

The increasing disparity between the smallest and largest farms is reflected in changes in revenue different farms bring in over the years. This trend is most evident since 2002, when the number of farms bringing in \$5,000 or less in annual sales dropped approximately 15% through the most

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<sup>d</sup> Aquaculture ranked first statewide in 2012, but only six farms participated and sales figures were not disclosed. Thus, aquaculture has been left out of this chapter but is included in *Chapter 6: Economic Development*.

recent 2012 Census of Agriculture. The number of farms bringing in over \$100,000 rose 20%, with the most lucrative of these farms (\$500,000+) more than doubling in number since the 2002 Census (*Figure 6. Warren County Number of Farms by Value of Sales: 1987-2012, p.14*). Larger farms have existing equipment and infrastructure in place, and are able to practice economies of scale by further investing to expand their operations, bringing in additional profits (*Bruce Barbour*).



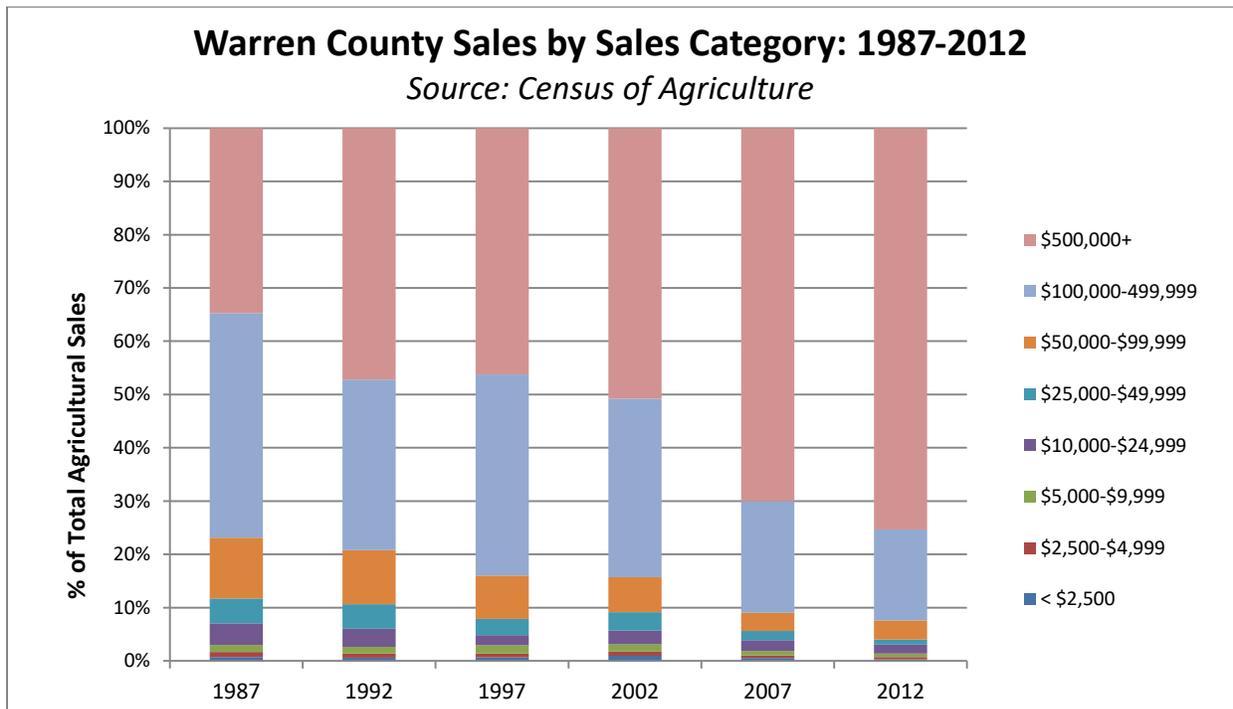
**Figure 6. Warren County Number of Farms by Value of Sales: 1987-2012**

Although small farms dominate in terms of total operations countywide (see *Figure 4, p.4* and *Figure 6, p.14*), the largest farms consistently bring in most of the total agricultural revenue. While sales have generally increased across farms of all sizes over the past several Censuses of Agriculture, the most productive operations have long comprised the vast majority of countywide agricultural revenue despite being relatively few in number, and are only continuing to extend their dominance (*Figure 7. Warren County Agricultural Sales by Sales Category: 1987-2012, p.15*). Since 2002, the largest<sup>c</sup> of these productive farms (\$500,000 or more in sales) have begun to outstrip the next sales bracket (\$100,000-\$499,999), increasing their percentage of Warren County’s total agricultural revenue from roughly 50% to 75% over the next ten years

<sup>c</sup> Largest in terms of sales, not necessarily related to acreage.

through 2012. Some of the larger farms have consolidated their operations in recent years, pooling together resources in order to practice economies of scale and incorporate the necessary infrastructure needed to capture bigger percentages of the market share than smaller operations.

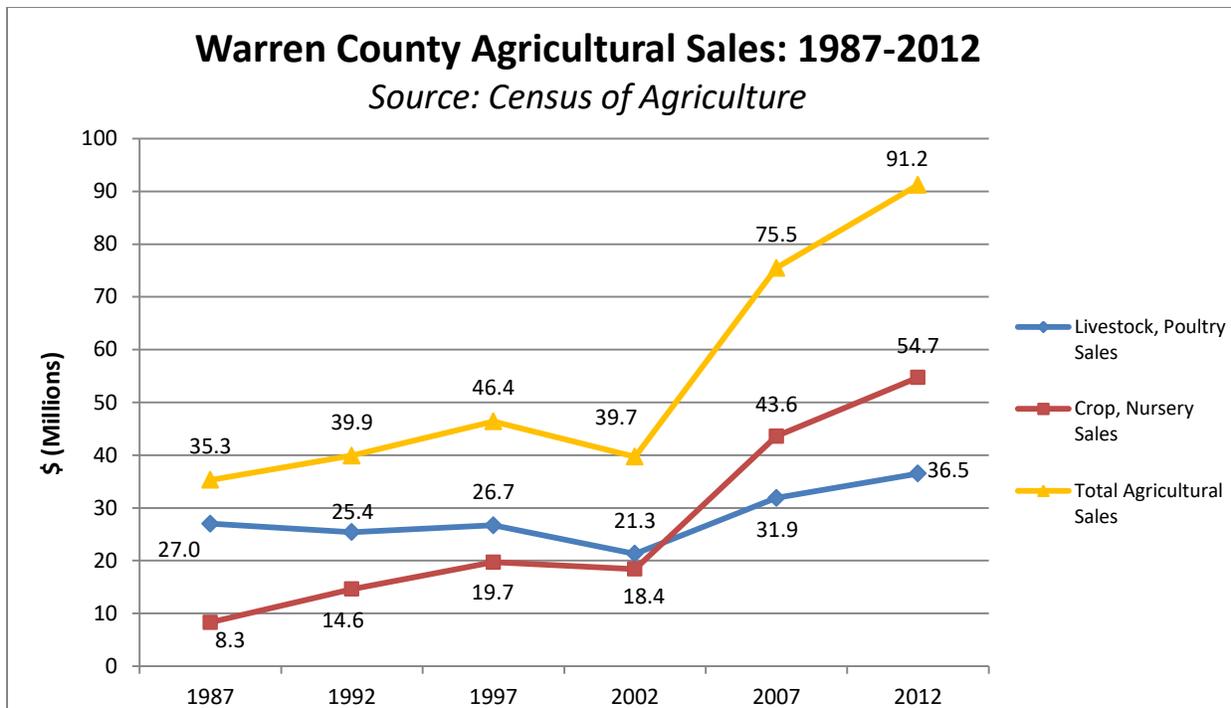
As a result, farms bringing in under \$100,000 continue to take in increasingly smaller portions of total profits, comprising approximately 8% of the countywide share of agricultural revenue in 2012 (down from 16% in 2002). A number of small farms may sell only the minimum amount of agricultural products necessary to retain farmland assessment.<sup>f</sup> A high number of low-earning farms capture only a small portion of the County’s agricultural market share.



**Figure 7. Warren County Agricultural Sales by Sales Category: 1987-2012**

The trend represented by the above chart has been perpetuated by countywide growth in the agricultural sector. The *Census of Agriculture* separates agricultural activities into two broad categories: “livestock, poultry and their products” and “crops, including nursery and greenhouse.” Livestock and poultry-related products produced \$36.5 million in sales during 2012, up 71% from \$21.3 million in 2002. Most notably, sales from the “crops” category rose 197%, from \$18.4 million in 2002 to \$54.7 million in 2012 (*Census of Agriculture*). Altogether Warren County’s total sales have increased 130% from 2002 to 2012 (*Figure 8. Warren County Agricultural Sales: 1987-2012, p.16*).

<sup>f</sup> The 2012 Census notes 387 people listing their primary occupation as farming, versus 397 people listing their primary occupation as “other.”



**Figure 8. Warren County Agricultural Sales: 1987-2012**

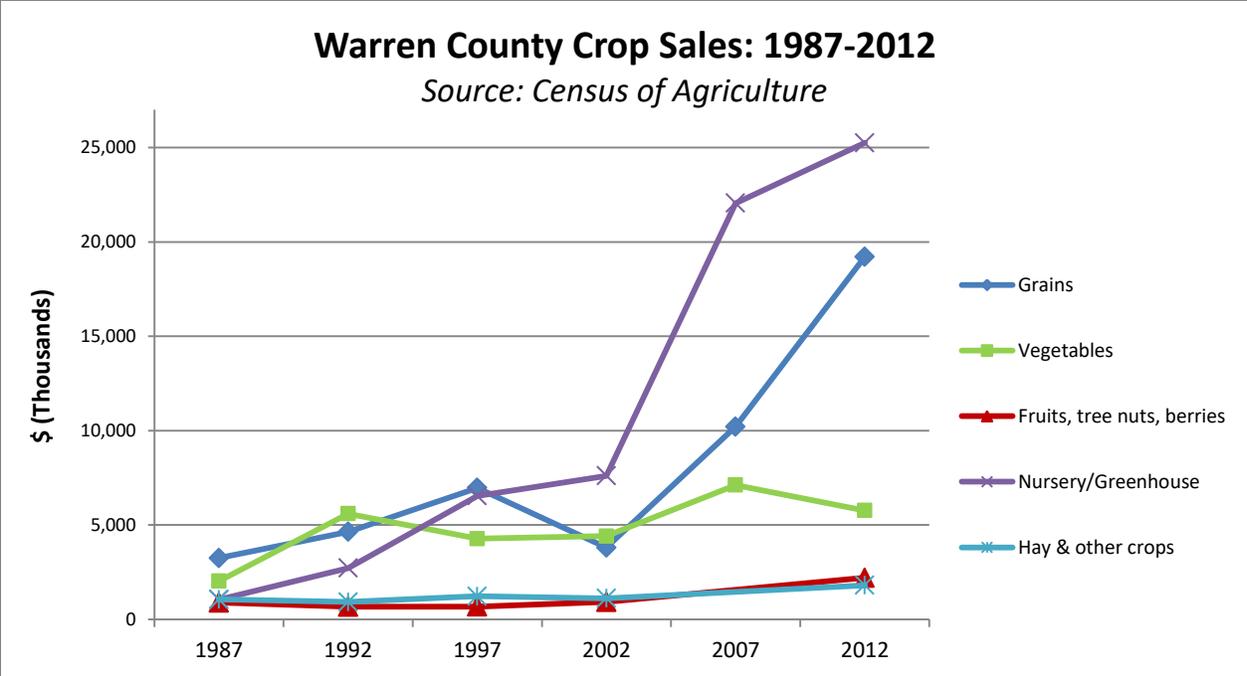
These increased total sales, combined with fewer total farms, translate to higher average revenues. In 2002, farms collected an average of \$48,772 in sales, jumping to \$116,333 in 2012 (*Census of Agriculture*). It is also important to note that, until the 2002 *Census*,<sup>8</sup> livestock and poultry-related products produced more annual agricultural revenue than crop and nursery yields. Since then crop and nursery goods have become the dominant revenue-producing agricultural category, in part due to high prices in some crop categories spurring further investment and production, as well as a decline in cattle stocks over the years.

### Crop Sales & Production

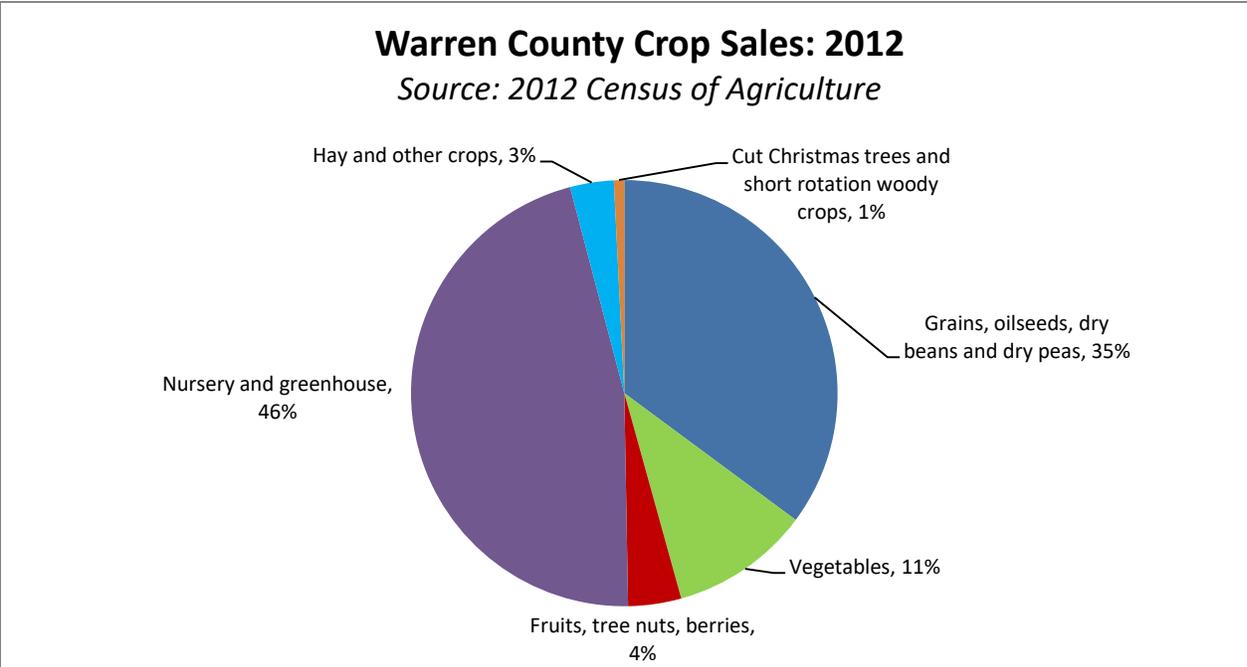
The *Census of Agriculture* divides crops into several general categories: “vegetables,” “nursery/greenhouse,” “fruits, tree nuts and berries,” “grains, oilseeds, dry beans and dry peas,” “cut Christmas trees and short-rotation woody crops,” and “hay and other crops.”<sup>h</sup> Figures for crop categories with reported sales are represented in *Figure 9. Warren County Crop Sales: 1987-2012, p.17*, and *Figure 10. Warren County Crop Sales: 2012*.

<sup>8</sup> It is unclear which specific year crop sales overtook livestock sales, as the *Census of Agriculture* is released every five years.

<sup>h</sup> In prior years, “cut Christmas trees” were included with “hay and other crops,” but were considered a separate category beginning in 2002. For this reason, “cut Christmas trees and short rotation wood crops” is not included as a category in *Figure 9*.



**Figure 9. Warren County Crop Sales: 1987-2012<sup>i</sup>**



**Figure 10. Warren County Crop Sales: 2012.**

<sup>i</sup> Sales figures were not disclosed for both “Fruits, Tree Nuts and Berries” and “Hay and Other Crops” in 2007.

### ***Nursery/Greenhouse***

The nursery, greenhouse, floriculture and sod sector – which encompasses flowers, flower seeds, landscaping plants, trees/shrubs, and other products – has been Warren County’s highest grossing crop category since 2002, and is a major reason why the agricultural sector has seen huge gains in total sales since 2002 (see *Figure 7, p.15* and *Figure 8, p.16*). In 2012, sales surpassed \$25 million, up 15% from 2007 and 232% from 2002.

The nursery and greenhouse sector accounted for 47% of Warren County’s crop sales and 28% of its overall agricultural sales. At 47%, the market share of the County’s agricultural sales comprising nursery and greenhouse products is higher than the 40% for New Jersey as a whole (*2012 Census of Agriculture*). In Warren County, this sector surpassed all other categories in sales per participating farm with an average of \$388,431 in 2012. This is in part due to both a 15% increase in total sales and a 30% drop in the number of farms with such products from 2007, where the average nursery and greenhouse revenue per farm was \$237,129. The County’s agricultural sales percentage from nursery, greenhouse, and sod operations (28%) is over three times higher than the proportion of the County’s farms (65 of 784, or 8%) growing these goods, meaning the nursery and greenhouse industry requires comparatively few farms to bring in a disproportionate share of revenue (*Census of Agriculture*).

In 2012, bedding/garden plants were the largest category of plants grown under cover, with 27 farms occupying 24 acres, with 37 more acres grown in the open. Ten farms grew potted flowering plants under approximately 5 acres of cover and 12 more acres outdoors. Three farms grew greenhouse vegetables and/or herbs on 12,770 square feet (0.3 acres) of land, and cut flowers and florist greens occupied 7 acres in the open (under cover figures were not disclosed). Additionally, three farms harvested sod across 810 acres of outdoor space (*2012 Census of Agriculture*).

Similar to vegetable products, nursery, greenhouse, and sod goods have higher market values than most other agricultural goods, but also require comparatively higher input costs. Nursery stocks, such as trees and shrubs, require costly chemical inputs, such as fertilizers and pesticides, as well as enough labor capacity to maintain and package them for sale. Economy-of-scale production methods, which are mostly utilized by large-scale operations, capture the highest profit margins among producers of goods. This may explain the relationship between rising nursery and greenhouse sales despite fewer participating farms, and an increasing number of County farms bringing in over \$100,000 in sales.

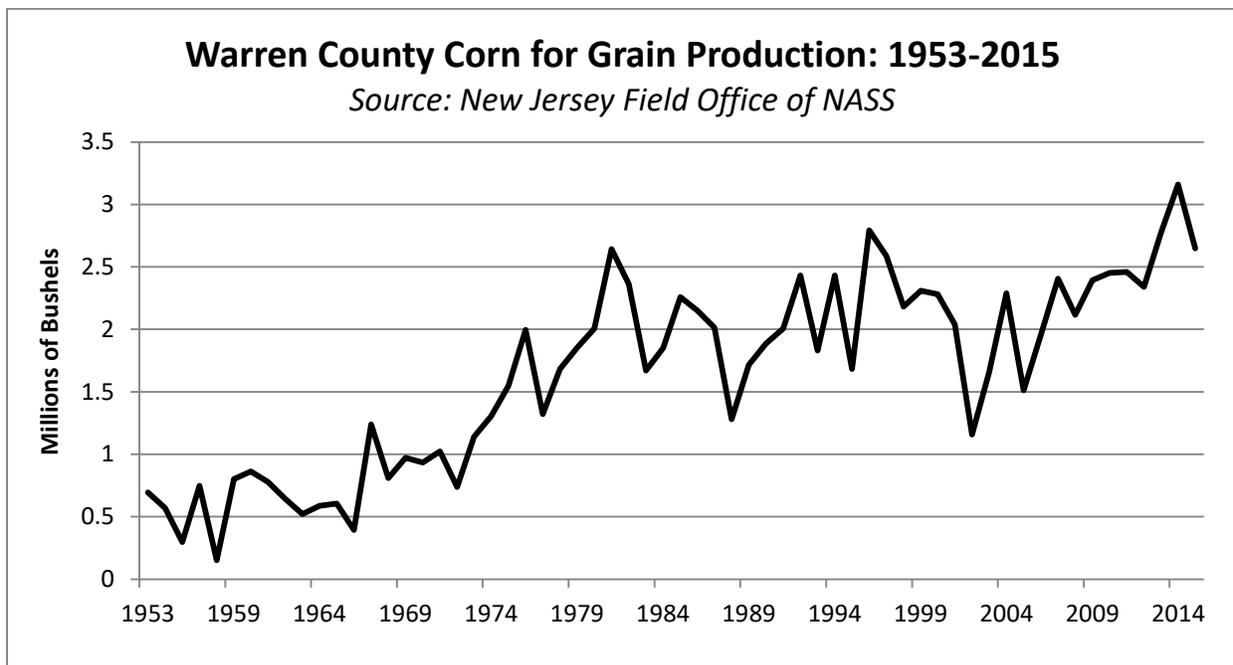
### ***Grains, Oilseeds, Dry Beans and Dry Peas***

The crop sector occupying the most land in Warren County is grains, oilseeds, dry beans and dry peas. In Warren County, this category includes predominantly corn, wheat and soybeans, most of which are found on the County’s larger farms, totaling over 27,500 acres harvested in 2012. This represents approximately 65% of all harvested cropland and 38% of all land in farms. This is in part due to a 156% increase in soybean production in recent years, from 168,000 bushels in 2002 to 430,000 in 2015, with the majority of this growth coming since 2011 (*NASS*). Furthermore, the *2012 Census* indicates that Warren County ranks second statewide in corn production. Salem County, in the southern region of the state, leads statewide, but Warren

County leads corn production in northern New Jersey.<sup>j</sup> This sector also exhibited the largest percentage growth in sales of any crop category following the 2002 Census, jumping 405% from \$3,802,000 in 2002 to \$19,209,000 in 2012 (*Census of Agriculture*). High grain prices in the early 2000s spurred further investment and efforts to produce more grain, helping to greatly boost countywide grain sales (*Bruce Barbour*).

Corn for grain has been the historically dominant field crop of Warren County, constituting 76% of the County’s 2012 acreage in the grains sub-sector of the crops category. Dry conditions following a drought reduced corn for grain outputs in 2002, yielding roughly 1.16 million bushels. However, corn production has since made a comeback, yielding a record 3.16 million bushels in 2014 and 2.65 million bushels in 2015 (*NASS*) (*Figure 11. Warren County Corn for Grain Production: 1953-2015, p.19*). Despite the high variability in annual corn yields, corn remains among the staple crops of Warren County. It supplies feed for many of the County’s dairy and livestock farms, and provides the primary income for many of the County’s farmers.

Soybeans for beans occupied the second most grain acreage, with 21% acres in 2012. Winter wheat and oats for grain comprised the remaining acreages at 3% and 0.5%, respectively (*2012 Census of Agriculture*).



**Figure 11. Warren County Corn for Grain Production: 1953-2015**

**Vegetables**

Vegetables, melons, potatoes and sweet potatoes were Warren County’s third-highest selling crop sector in 2012, comprising roughly 11% of the County’s total crop revenue. More than 40 types of vegetables, herbs, potatoes and other products were harvested on 1,720 acres in 2012, down from 2,480 acres in 2007. Sweet corn and pumpkins had the largest acreages of harvested

<sup>j</sup> According to the 2012 Census of Agriculture, Warren County produced over 2.3 million bushels of corn; the second-closest northern county in terms of corn production was Hunterdon, with 920,000 bushels.

crops, with 465 and 355 acres, respectively. Most recently, 48 out of 58 total farms harvested less than 25 acres of vegetables on their land, with few large operations. All crops were harvested for fresh market, meaning none of them were sent for processing (*2012 Census of Agriculture*).

Vegetables were the only crop category posting less in sales in 2012 than 2007,<sup>k</sup> when the prior Census was taken (see *Figure 9, p.17*). Profits fell 19%, from \$7,114,000 in 2007 to \$5,769,000 in 2007. The total number of farms fell by nearly half as well, from 113 in 2007 to 59 in 2012 (*2012 Census of Agriculture*).

### ***Fruits, Tree Nuts and Berries***

The *2002 Census of Agriculture* reported \$918,000 in fruit, tree nut and berry sales. While sales figures were not disclosed in the *2007 Census*, fruits and tree nuts brought in \$2,102,000, and berries just \$96,000, totaling \$2,198,000 in 2012, a 140% increase since 2002 (*Census of Agriculture*). While significant in itself, this large sales increase resulted in 4% of Warren County's total crop sales, and was overshadowed by the growth experienced by the County's nursery/greenhouse and grain sectors.

### ***Hay and Other Crops***

Sales of other field crops, including hay, totaled \$1,808,000 in 2012, with 347 farms using 11,038 acres for production. Despite comprising just 3% of Warren County's total crop sales, forage-land used for all hay and haylage, grass silage, and greenchop consumed a disproportionate amount of land, second only to corn for grain (19,575 acres). Much of the hay produced in Warren County is sold to local livestock farmers to feed their herds. Some farmers grow their own hay to feed their own livestock; this hay is never sold and is not recorded in the Census sales figures. Consequently, hay plays a much larger role within the local agricultural industry than its sale numbers indicate.

### ***Cut Christmas Trees and Short Rotation Woody Crops***

79 farm operations had sales in cut-Christmas trees and woody crops in 2012 versus 98 in 2007. However, sales in 2007 were lower, with \$361,000 versus \$430,000 in 2012. Sales were not broken down into specific products in 2007, but all sales came exclusively from Christmas trees in 2012 (*2012 Census of Agriculture*).

## **Livestock and Poultry Products**

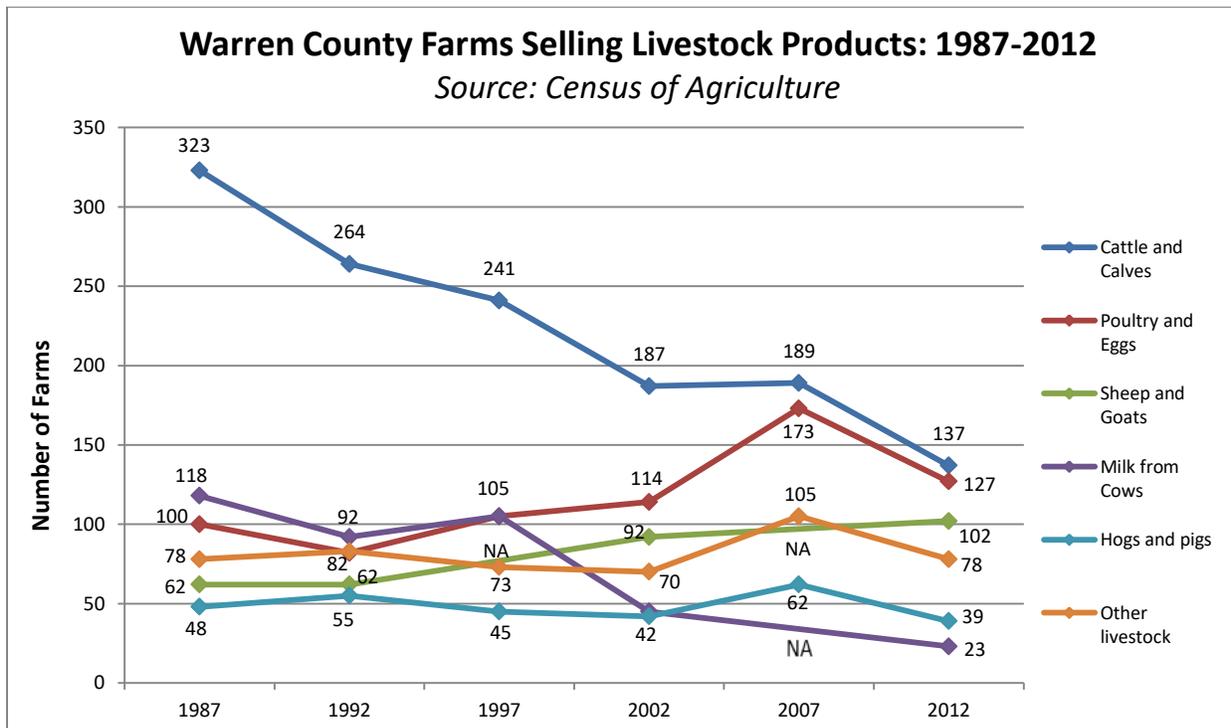
While livestock and poultry products have lost their standing as Warren County's dominant revenue-producing agricultural category, they still comprised 40% of the County's agricultural revenue in 2012, bringing in enough in sales to rank Warren County first statewide in livestock and poultry revenue (*2012 Census of Agriculture*). The livestock industry also provides the demand for much of the County's field crop production. Considerable amounts of the grain and hay produced in Warren County is sold to local farmers to feed their animals (if they do not already grow their own feed themselves). Consequently, the viability and continued growth of Warren County's livestock farms is fundamentally important to the County's agriculture industry as a whole.

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<sup>k</sup> "Fruits, Tree Nuts and Berries" and "Hay and Other Crops" figures were not disclosed in the 2007 Census, but overall growth was reported in both categories from 2002 to 2012.

Because the *2012 Census of Agriculture* did not include sales figures for several livestock and poultry categories, it is unclear how products ranked against each other. However, information on the number of farms involved in each category is available, as are total livestock and poultry sales (see *Figure 8, p.16* and *Figure 12. Warren County Farms Selling Livestock Products: 1987-201, p.21*).

The number of farms involved in the production and sale of livestock and poultry products are on the decline, contributing to the recent downturn in total farms countywide. Since 2002, only two livestock and poultry sub-sectors have shown net increases in their respective numbers of participating farms through 2012 – poultry and eggs (11% increase), and sheep and goats (11% increase) (*Figure 12, p.21*). Despite modest increases, close attention should be paid to these sub-sectors when the *2017 Census of Agriculture* is released, as the long-term distribution between various livestock and poultry activities appear to be shifting. The County’s Grow Warren Strategic and Marketing Plan will study factors behind the decreasing numbers of livestock and poultry farms in the County.



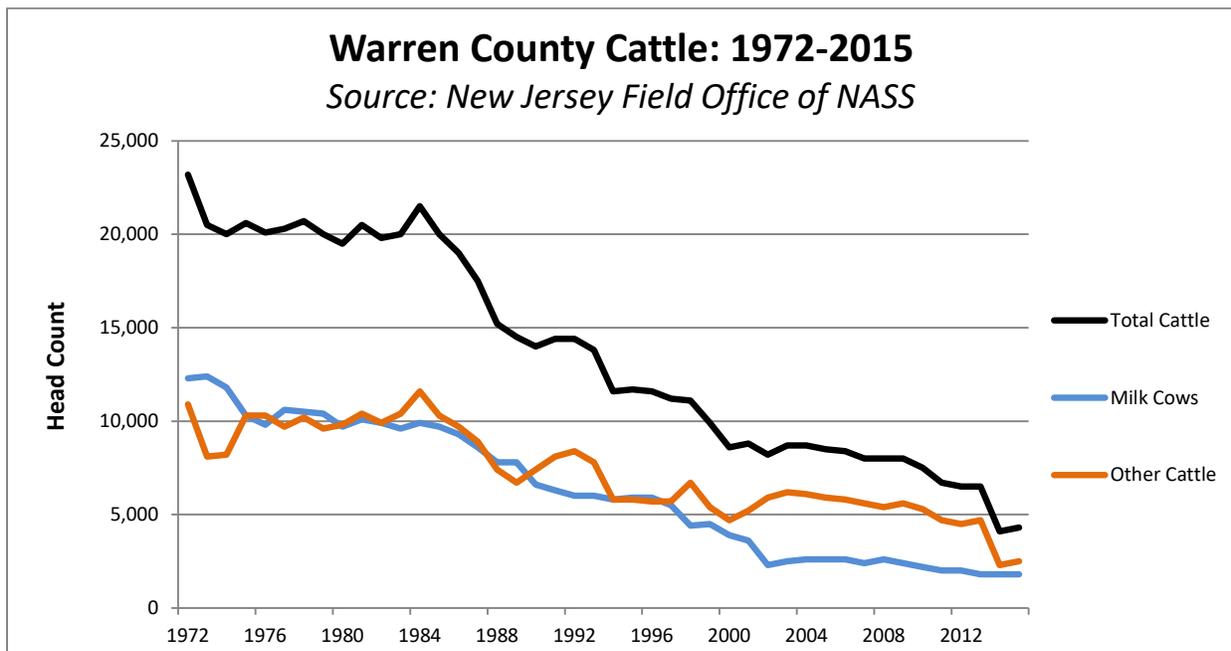
**Figure 12. Warren County Farms Selling Livestock Products: 1987-2012**

### *Cattle and Calves*

The number of farms selling cattle and calves fell 58% from 1987 to 2012, slowing down somewhat in recent years from 2002 to 2012. While livestock practices fell across farms of all sizes, the biggest decreases in cattle stocks were seen in farms containing greater numbers of cattle (*2012 Census of Agriculture*). This is partially because high grain prices in the early 2000s caused some farmers to sell off some of their cattle stocks (*Bruce Barbour*).

Countywide cattle stocks have declined since the 1970s, continuing through 2015 despite a slowdown from roughly 2000 to 2009 (*Figure 13. Warren County Cattle: 1972-2015, p.22*).<sup>12</sup>

Historically, the numbers of both dairy and non-dairy cows have been roughly equal, declining at similar rates, except for a period where non-dairy cattle outnumbered dairy counterparts from 1997 to 2013 (NASS). Non-dairy cattle still comprise a considerable portion of the County’s livestock activity as a whole. The comparatively low land intensity of non-dairy cattle operations has made this an attractive option for some dairy farmers in Warren County.

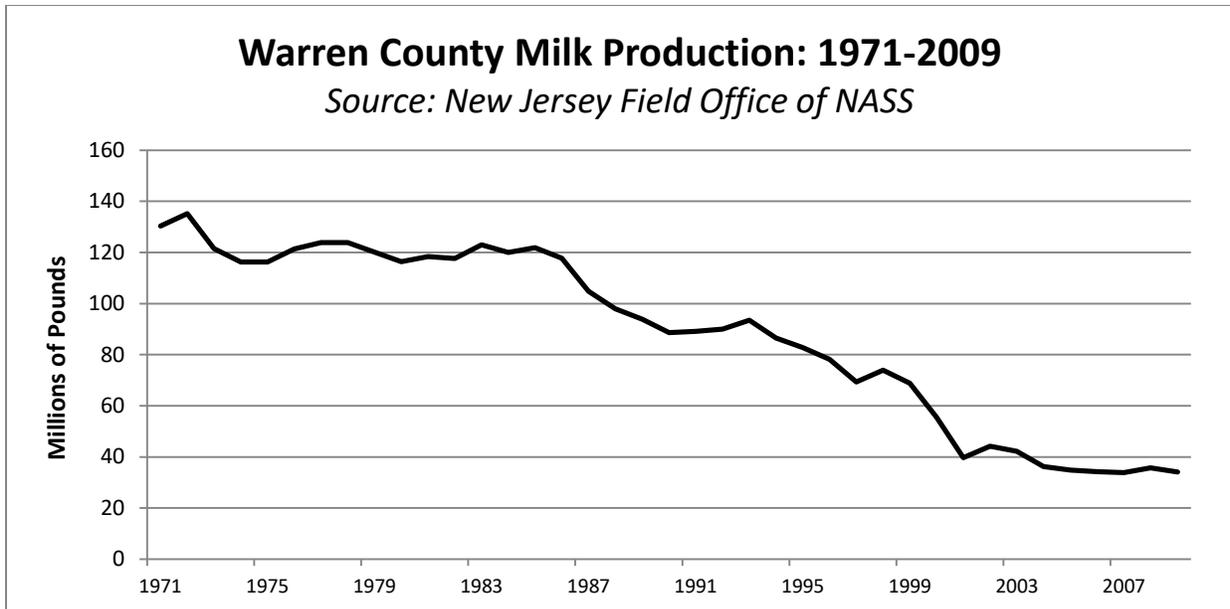


**Figure 13. Warren County Cattle: 1972-2015**

### ***Milk Production***

Total sales of all dairy products are unavailable, but information on milk production is, making for a good indicator of Warren County’s dairy industry (*Bruce Barbour*). Dairy has long been a dominant subsector in Warren County’s livestock industry throughout its history. Unfortunately, production trends show that the County’s dairy industry has declined significantly for some time before leveling out and holding relatively constant since the early 2000s (see *Figure 13, p.22* and *Figure 14. Warren County Milk Production: 1971-2009, p.23*). The number of farms involved in milk production fell by half, from 45 in 2002 to 23 in 2012, but total milk cows and milk production have declined at a slower rate over this period. This suggests that the remaining milk cow operations are increasing in size and becoming better managed; a similar trend is occurring throughout the rest of the state (*Garden State Dairy Alliance*).<sup>13</sup>

Decreasing dairy production has been largely influenced by unfavorable market conditions, including low milk prices. Among the most significant input costs to Warren County dairy farmers are land prices and property taxes. Dairy farms require more extensive plots of land than most agriculture operations, and despite leveling out in recent years, land prices have made alternative uses of dairy land economically attractive to many farmers. Erosion of the local supporting infrastructure has impacted dairy producers as well.



**Figure 14. Warren County Milk Production: 1971-2009<sup>1</sup>**

After the New York demand for Warren County dairy products dropped during the 1960's, many dairy support businesses relocated or closed, with little reinvestment in dairy operations in recent years. There are no remaining creameries in Warren County, forcing dairy producers to ship their products over considerable distances to be processed. There is also a need for large animal veterinarians in the region, as many new veterinarians find smaller animals easier to work with and less time-consuming (*Bruce Barbour*). The expenses incurred by dairy farmers due to inadequate support services have influenced those that wish to remain in agriculture to transition their operations towards less infrastructure-intensive practices, such as cultivating grain and nursery crops, both of which have risen sharply in recent years. These factors present a significant risk to the continued success of dairy farms in Warren County.

***Poultry and Eggs***

This type of farming includes egg production, meat chickens, and other birds, including turkeys and ducks. Unlike farms participating in cattle and milk production, the poultry and eggs sector has shown increasing numbers of participating farms in recent years. While poultry and egg farms have dropped 27% from 2007 to 2012, this category has actually shown a net increase in participating farms since 2002 (114 farms in 2002 versus 127 in 2012, an 11% increase). Although the majority of eggs are produced by one very large operation in Franklin Township, there are 126 smaller farms (less than 100 animals) out of 132 total supplementing their incomes through egg sales. Similarly, most farms selling broilers and other meat-type chickens are relatively small-scale, averaging 43 birds sold annually per farm (*Census of Agriculture*).

***Sheep and Goats***

This sector constitutes sheep and goats, as well as their products – wool, mohair and milk. The number of participating farms has grown slowly but steadily since 1987, something that cannot be said for any other livestock category. The number of farms involved has grown 65% from

<sup>1</sup> 2009 is the most recent year milk production figures are available for Warren County.

1987-2012 (from 62 to 102 farms), but only 11% from 2002-2012 (from 92 to 102 farms). As a result, this sector has crept to third place in terms of the number of participating farms among livestock categories, behind cattle/calves and poultry/eggs (*2012 Census of Agriculture*).

Sales have also increased over time. Figures were not disclosed in the 1992 and 1997 Censuses, but sales have quickly increased from \$94,000 in 2002, \$163,000 in 2007, to \$327,000 in 2012 – a 250% jump in sales. Although sheep and goat revenue makes up a small fraction of total livestock sales, steady sales growth and increasing involvement among farmers make this sector worth a close look in the future. Niche farming has grown throughout the agricultural sector, the *Grow Warren* analysis will investigate growth opportunities and trends for markets for Warren County products, including livestock and crops.

### ***Hogs and Pigs***

Participation in this sector has been consistent since 1987, with little notable fluctuation over the years. However, countywide activity peaked in 2007 with 62 farms, and fell to a low in 2012, with 39 farms. The County saw \$48,000 in revenue in 1987, peaking at \$134,000 in 1997. 1,111 hogs and pigs sold for \$90,000 in 2007. While 2012 sales figures were not disclosed, 714 animals were sold in 2012, marking a 36% drop in total hogs and pigs sold.

### ***Other Animals and Other Animal Products***

This category includes all other animals not listed above, including bees, rabbits and other fur-bearing animals, and equine species. Sales have varied over the years, ranging from \$895,000 in 1987 to \$130,000 in 2012. These sales have declined, because, in 2002, a separate “equine” category was introduced, pulling revenue away from sales totals for “other animals.” Equine animals include horses, ponies, mules, donkeys and burros, with sales varying over the past three Censuses – \$366,000 (2002), \$797,000 (2007), and \$249,000 (2012) (*Census of Agriculture*). It is clear that equine sales comprise a large portion of all sales of “other animals” and their products. Varying sales figures make it difficult to determine general trends.

## **Agricultural Support Services and Related Industries**

The agriculture support services in Warren County are predominantly oriented towards supplying the raw materials necessary for farming. They include businesses such as tractor sales and supply stores, feed vendors, and hardware/equipment retailers. The largest cluster of agricultural support firms in Warren County is in and around Washington Borough where equipment and tractor retailers, such as Smith’s Tractor and Frank Rymon and Sons, are located. Hackettstown contains a second notable concentration of agricultural support firms. It houses the Livestock Cooperative Auction Market – the last of its kind in the state – where local farmers can sell or trade their products as well as general farm supply stores, such as Tickner’s.<sup>14</sup> Also, local hardware and grocery stores throughout Warren County serve as vendors for farming goods and supplies.

As reported in the *2008 Comprehensive Farmland Preservation Plan*, local support businesses are often insufficient to meet all the needs of Warren County’s agricultural community. Consequently, Warren County’s farmers have become adept at minimizing the need for numerous repair services by fixing many mechanical problems themselves. Farmers tend to specialize in some kind of agricultural repair and supplement their incomes by offering their

services to other farmers. Warren County's farmers also rely heavily on mail order and out-of-state retailers for their agricultural supplies. Processing facilities such as creameries and lumber mills have become absent from Warren County as well, forcing local farmers to ship their products out-of-town to be processed. Some farmers have found that reliance upon out-of-state suppliers and non-local processing facilities imposes transportation costs that cut deeply into their operations' profitability.

A comprehensive list of farm related businesses, organizations, and services in New Jersey is available through the Rutgers Cooperative Extension of Salem County Green Pages.<sup>15</sup>

### ***Future of Agriculture***

The future of agriculture in Warren County is being shaped by market forces and social trends that are occurring throughout New Jersey. These trends have already begun to redefine the traditional agricultural industry in Warren County and are starting to replace it with a considerably different variety of farming than existed even 10 to 20 years ago. Among the most substantial trends reshaping the County's agriculture base is the rapid rise of the crops sector. Since the 2002 Census, crop, nursery and greenhouse products have outpaced livestock and poultry sales. This is not only in part due to large gains in grains and nursery and greenhouse sales, but declines in cattle and dairy production within the livestock sector. Dairy has traditionally been the foundation of Warren County's agricultural industry, and while drops in cattle and dairy have greatly slowed since the early 2000s, declining sales will correspondingly impact dairy farmers and their support businesses as they transition towards other forms of agriculture. Consequently, crop farms that support them may assume different agricultural activities as well.

Other challenges facing Warren County farmers are land prices and property taxes. Farmers will show a greater preference for leasing rather than owning land when faced with high property costs, and farming operations will occupy less space and utilize more intensive practices. It has been reported that potentially upwards of 80% of all farms in Warren County are leased (*Corey Tierney*).<sup>16</sup> Higher land prices also threaten to replace many of the County's farmlands and open space areas with residential and commercial developments that are less compatible with agricultural production.

The average age of farmers in Warren County is increasing too. Young farmers are attracted by higher paying opportunities in other employment sectors, and fewer are becoming farmers. Consequently, the average age of farmers in Warren County has increased from 50 years old in 1982, to 56 years old in 2002 and 59 years old in 2012 (*Census of Agriculture*).

# CHAPTER 3: THE LAND USE PLANNING CONTEXT IN WARREN COUNTY

## Development Patterns and Land Use Trends

In addition to their roles as concentrations of agricultural trade and support services, Warren County's towns also accommodate residential land uses. Towns adjacent to traditional centers, including Mansfield, Lopatcong, and Washington Townships, roughly quadrupled in population after 1950. The residential population of Warren County continues to grow today, up 6.1% from 2000-2010 (*Table 4. Warren County Population By Municipality: 1930-2010, p.26*).

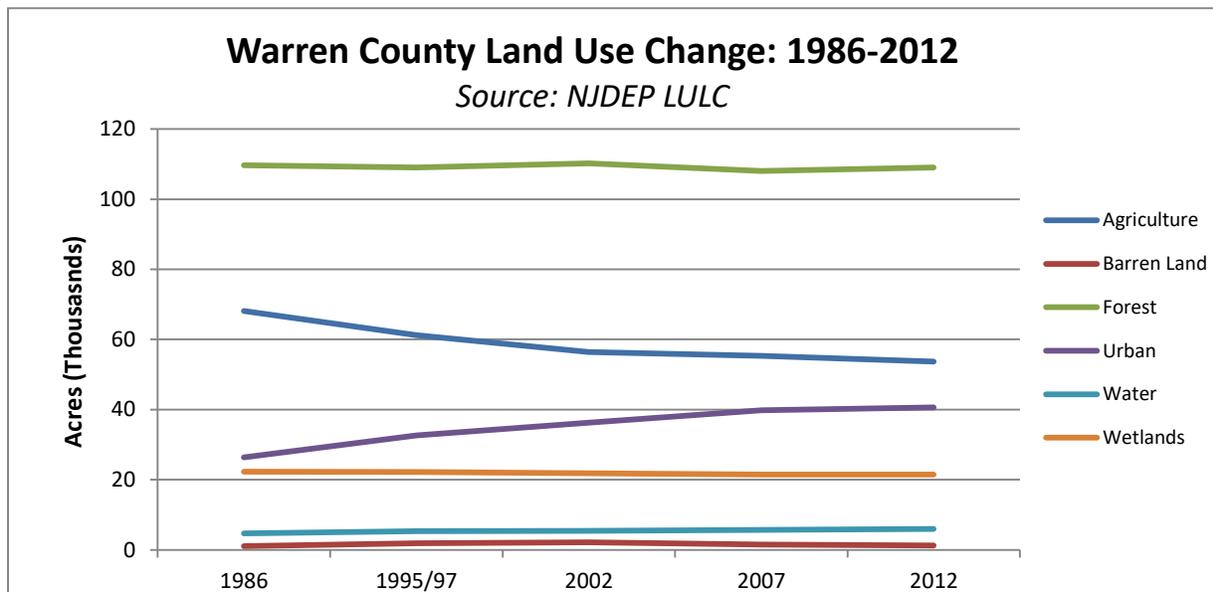
**Table 4. Warren County Population By Municipality: 1930-2010**

MUNICIPALITY	1930	1940	1950	1960	1970	1980	1990	2000	2010
Allamuchy	684	686	736	973	1,138	2,560	3,484	3,877	4,323
Alpha	2,374	2,301	2,117	2,406	2,829	2,644	2,530	2,482	2,369
Belvidere	2,073	2,060	2,406	2,636	2,722	2,475	2,669	2,771	2,681
Blairstown	1,416	1,449	1,571	1,797	2,189	4,360	5,331	5,747	5,967
Franklin	1,213	1,540	1,530	1,729	1,973	2,341	2,404	2,768	3,176
Frelinghuysen	696	715	779	845	1,118	1,435	1,779	2,083	2,230
Greenwich	1,141	1,125	1,217	1,397	1,482	1,738	1,899	4,365	5,712
Hackettstown	3,038	3,289	3,894	5,276	9,472	8,850	8,120	8,984	9,724
Hardwick	331	367	370	370	548	947	1,235	1,464	1,696
Harmony	1,311	1,465	1,763	2,039	2,195	2,592	2,653	2,729	2,667
Hope	553	646	681	833	1,140	1,468	1,719	1,891	1,952
Independence	964	1,046	1,169	1,509	2,057	2,829	3,940	5,603	5,662
Knowlton	1,049	1,084	1,260	1,442	1,738	2,074	2,543	2,977	3,055
Liberty	419	441	529	760	1,229	1,730	2,493	2,765	2,942
Lopatcong	1,269	1,450	1,737	2,703	3,144	4,998	5,052	5,765	8,014
Mansfield	1,139	1,254	1,497	2,130	3,546	5,780	7,154	8,072	7,725
Oxford	1,723	1,548	1,489	1,657	1,742	1,659	1,790	2,307	2,514
Phillipsburg	19,255	18,314	18,919	18,502	17,849	16,647	15,757	15,166	14,950
Pohatcong	1,974	2,029	2,540	3,543	3,924	3,856	3,591	3,416	3,339
Washington Boro.	4,410	4,643	4,802	5,723	5,943	6,429	6,474	6,712	6,461
Washington Twp.	1,007	1,320	1,765	3,055	3,585	4,243	5,367	6,248	6,651
White	1,200	1,335	1,536	1,832	2,326	2,748	3,603	4,245	4,882
<b>Warren County</b>	<b>49,319</b>	<b>50,181</b>	<b>54,374</b>	<b>63,220</b>	<b>73,960</b>	<b>84,429</b>	<b>91,607</b>	<b>102,437</b>	<b>108,692</b>
<b>Growth Rate</b>	<b>-</b>	<b>1.75%</b>	<b>8.36%</b>	<b>16.27%</b>	<b>16.99%</b>	<b>14.15%</b>	<b>8.50%</b>	<b>11.82%</b>	<b>6.11%</b>
<i>Source: United States Census Bureau</i>									

Forestlands and agricultural activities were the two largest land use categories in 2012. While Warren County has retained a predominantly rural character, increasing population growth has led to a rise in development over the past several decades, largely at the expense of agricultural lands. Since 1986, approximately 14,250 acres of developed<sup>m</sup> land were added to Warren

<sup>m</sup> Developed land is identified as "urban" land cover using the New Jersey Department of Environmental Protection Land Use/Land Cover mapping.

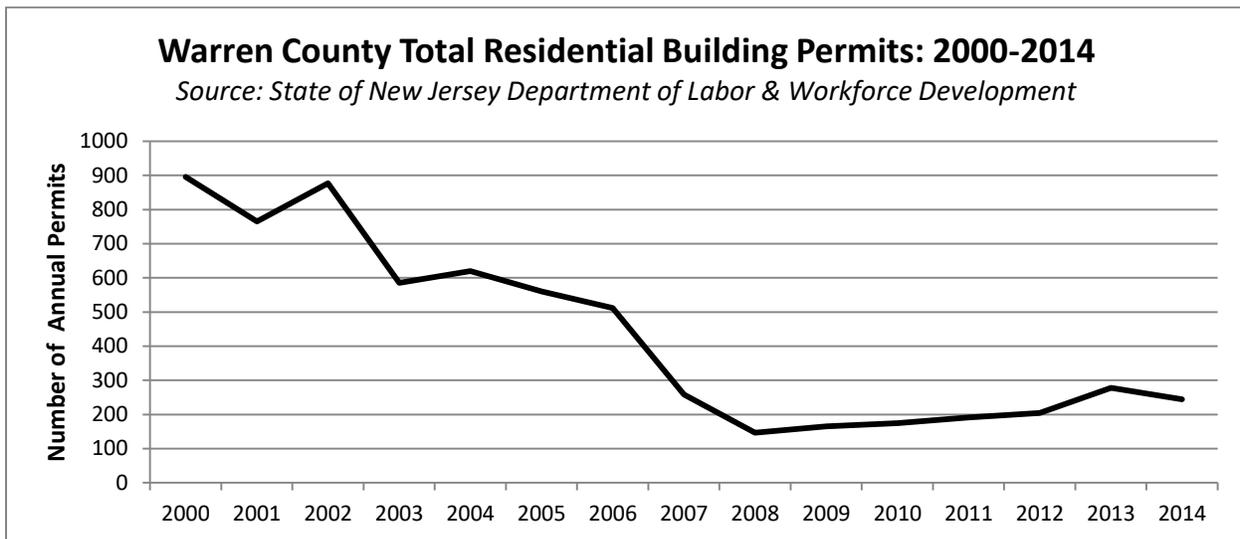
County, while roughly 14,400 acres of agricultural lands were lost. All other land use categories remained relatively constant between 1986 and 2012 (*Figure 15. Warren County Land Use Change: 1986-2012, p.27*).<sup>17</sup> However, increases in development and declines in agricultural lands have slowed since the 2000s, in part due to the Highlands Act’s restrictions on development.



**Figure 15. Warren County Land Use Change: 1986-2012**

Residential building permit data shows that the numbers of total annual permits issued for single and multi-family dwellings have fallen from 2000 to 2008. Since then, the number of residential building permits have climbed slowly from 2009 to 2014 (*Figure 16. Warren County Total Residential Building Permits: 2000-2014*) (*New Jersey Department of Labor & Workforce Development, p.28*).<sup>18</sup>

Hackettstown, Lopatcong and Allamuchy are the top contributors to the countywide increase in residential building permits since 2009, with 419, 269 and 239 total permits issued, respectively (*Table 5. County Residential Building Permits by Municipality: 2000-2014, p.28*). Hackettstown is one of the County’s population and commercial centers, and contains no active agricultural lands. Lopatcong sits in a suburban planning area just outside the metropolitan planning area of Phillipsburg, and contains relatively few active agricultural lands (687 acres). Allamuchy’s location near a highway interchange has helped to support population growth time, but also contains over 2,000 acres of active agricultural land.



**Figure 16. Warren County Total Residential Building Permits: 2000-2014**

**Table 5. County Residential Building Permits by Municipality: 2000-2014**

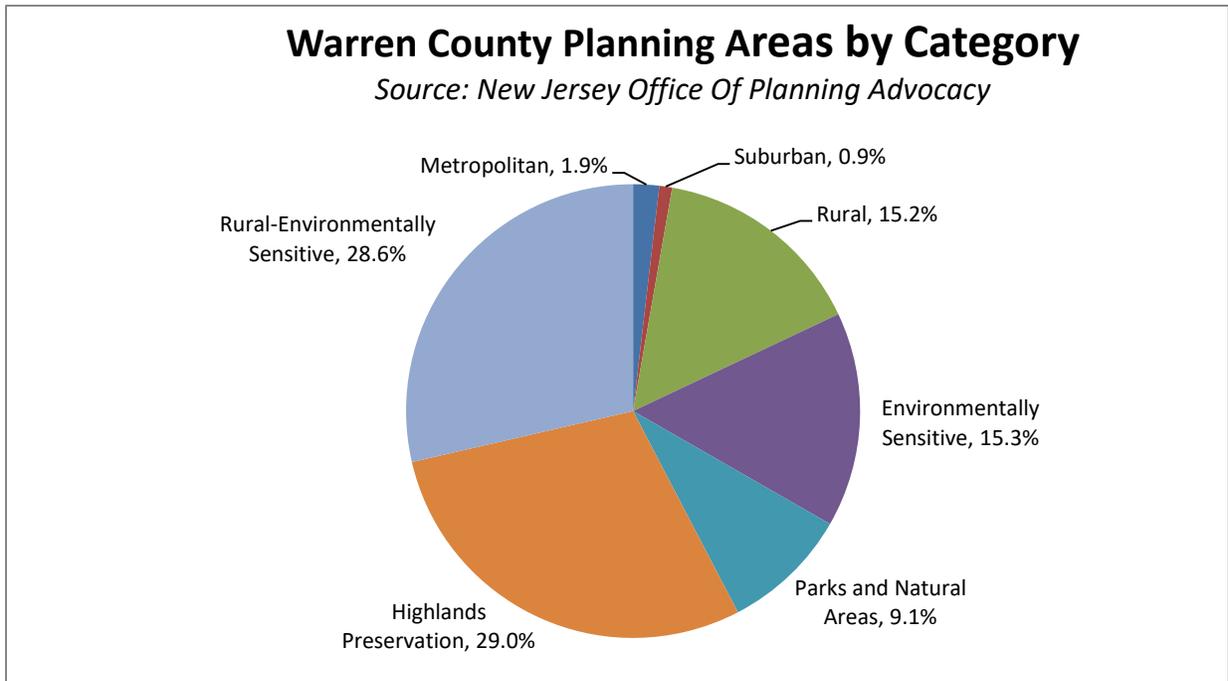
Municipality	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Allamuchy	13	11	4	32	19	51	180	6	1	66	60	33	7	48	25
Alpha	1	3	1	4	1	1	3	3	0	0	0	0	0	0	0
Belvidere	1	5	0	1	1	2	1	2	1	0	0	0	0	0	0
Blairstown	28	29	23	15	13	18	26	13	7	4	1	1	2	0	1
Franklin	57	56	25	13	9	8	4	1	3	1	2	3	1	0	1
Frelinghuysen	6	8	12	12	12	16	13	13	8	3	3	1	3	1	0
Greenwich	129	83	39	15	19	12	2	0	0	0	0	0	1	0	2
Hackettstown	111	3	22	13	56	74	62	54	35	39	45	32	90	106	107
Hardwick	15	17	7	14	7	10	8	7	6	3	1	2	1	2	1
Harmony	5	11	12	10	12	28	6	4	4	3	3	1	1	2	1
Hope	7	14	4	5	11	7	5	7	0	1	1	0	3	0	0
Independence	30	21	10	11	12	14	11	13	10	10	10	10	10	12	13
Knowlton	10	12	19	22	24	13	10	10	3	0	4	1	1	0	1
Liberty	15	12	23	15	22	7	11	4	1	0	2	3	3	0	5
Lopatcong	246	231	392	108	128	113	45	29	19	15	22	59	50	71	52
Mansfield	28	24	25	25	13	22	7	6	1	2	2	1	0	0	0
Oxford	49	38	21	14	13	5	4	5	0	1	0	0	2	0	2
Phillipsburg	11	9	5	3	11	10	21	25	13	9	10	6	6	8	12
Pohatcong	1	4	2	8	9	10	9	8	4	3	5	4	4	4	4
Washington Boro	0	20	37	46	30	10	3	12	5	2	2	30	19	23	14
Washington Twp.	15	34	72	82	73	30	6	12	4	0	0	2	0	0	2
White	118	120	122	117	125	99	75	24	21	3	1	2	0	1	1
<b>Total Permits</b>	<b>896</b>	<b>765</b>	<b>877</b>	<b>585</b>	<b>620</b>	<b>560</b>	<b>512</b>	<b>258</b>	<b>146</b>	<b>165</b>	<b>174</b>	<b>191</b>	<b>204</b>	<b>278</b>	<b>244</b>

*Source: New Jersey Department of Labor and Workforce Development*

## Land Use Planning Initiatives

### *State Development and Redevelopment Plan (2001)*

The *State Development and Redevelopment Plan* (SDRP) produced by the New Jersey State Planning Commission identifies general policy objectives concerning land use and future development in the State.<sup>19</sup> The *State Plan* was completed in 2001 and an official update to the plan has not been released. The seven identified Planning Areas in Warren County include Metropolitan, Suburban, Rural, Environmentally Sensitive, Rural-Environmentally Sensitive, Highlands Preservation, and Parklands and Natural Areas (*Figure 17. Warren County Planning Areas by Category, p.29*).



**Figure 17. Warren County Planning Areas by Category**

*Source: 2001 State Development and Redevelopment Plan*

*Metropolitan Planning Areas (PA1)* in Warren County are centered in Phillipsburg, extending into the surrounding municipalities including Greenwich Township, Lopatcong Township, Pohatcong Township and Alpha Borough.

*Suburban Planning Areas (PA2)* are most commonly found outside heavily urban areas. Suburban Planning Area land is located east of Phillipsburg in Lopatcong, Pohatcong and Greenwich Townships.

*Rural Planning Areas (PA4)* are widespread throughout Warren County, concentrated along the Delaware River and Hope, Knowlton and Frelinghuysen Townships.

*Rural-Environmentally Sensitive Planning Areas (PA4B)* are located in the Musconetcong and Pequest Valleys with scattered occurrences in the northern municipalities.

*Environmentally Sensitive Planning Areas (PA5)* are associated with the Highlands ridge that runs between Allamuchy and Lopatcong Townships, and the Kittatinny range that runs along the County's northern border, with other clusters throughout the northern half of the County.

*Parks and Natural Areas (PA6, PA7, and PA8)* are concentrated along the Highlands and Kittatinny ridgelines.

*Highlands Preservation Areas (PA10)* occupy the Highlands Ridgeline, beginning at Allamuchy Mountain and continuing southwest through Upper Pohatcong Mountain and Jenny Jump Mountain before ending at Scott's Mountain in Lopatcong Township. Highlands Preservation Areas also encompass Warren County's southern tip, covering virtually all of Pohatcong Township.

Centers are defined by the New Jersey State Planning Commission as "compact forms of development that, compared to sprawl development, consume less land, deplete fewer natural resources and are more efficient in the delivery of public services" (*SDRP*). Centers become designated after the municipalities or counties that encompass them submit development plans to the State Planning Commission (now the Office of Smart Growth) that are subsequently endorsed. The only municipalities in Warren County with designated centers are Hope Township, Washington Borough and Washington Township.<sup>11</sup> No townships contain endorsed plans (*New Jersey Office for Planning Advocacy*).<sup>20</sup> There are various types of center designations according to the characteristics of the urban areas being considered, with different policies concerning land use and the promotion of future development opportunities applicable in each.

*Urban Centers* are the most intensively utilized areas in the state. They serve as concentrations for corporate headquarters, industry, residential areas and culture. Warren County contains no Designated, Proposed or Potential Urban Centers.

*Regional Centers* are smaller urban areas that provide the various commercial, cultural and residential needs of a geographically defined region. Regional Centers are generally less than 10 square miles, but are sufficiently active to support public transportation. Warren County contains no Designated Regional Centers.

*Towns* are smaller than Urban and Regional Centers, usually less than 2 square miles in size, that serve as local concentrations of commerce and government activity. They commonly support residential neighborhoods and offer access to local goods and services as well. The Washington Town Center, which incorporates parts of Washington Township and all of Washington Borough, is the only Designated Town in Warren County.

*Villages* are residential neighborhoods that have access to some local public and commercial facilities. Villages are small, occupying less than 1 square mile. The only Designated Village in Warren County is Hope Township, but many areas have been identified as suitable for Village designation by the State Planning Commission.

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<sup>11</sup> Oxford Township lost its Village Designation on January 7, 2008. Designations for Washington Town Center, Hope Township, and Mount Hermon will expire on December 31, 2018.

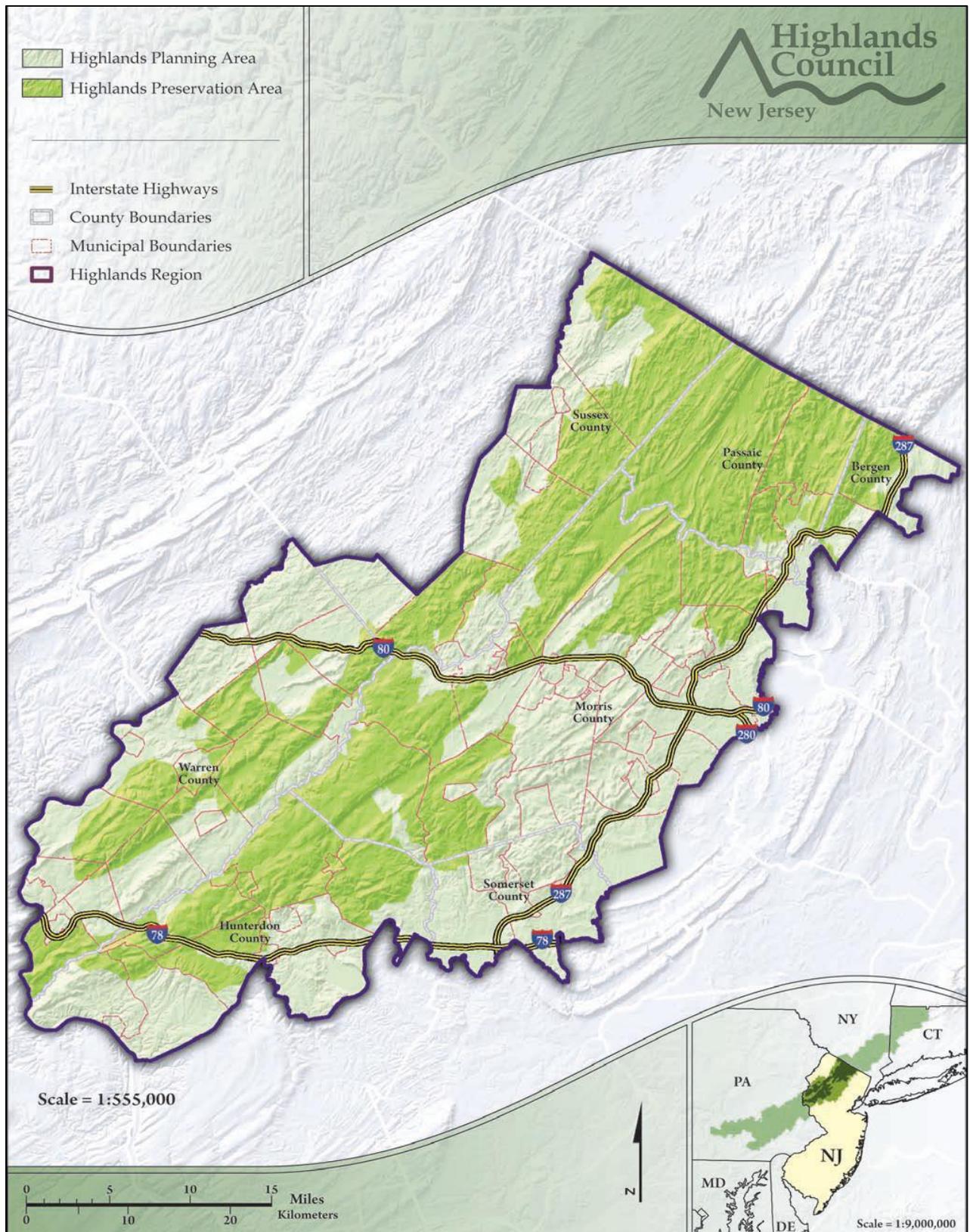
*Hamlets* are the smallest type of Center. They are usually a residential community that is planned around some small local focal point, such as a place of worship. The recommended area of a hamlet is between 10 and 50 acres without community wastewater or less than 100 acres with community wastewater. Mount Hermon, which is part of Hope Township, is the only Designated Hamlet in Warren County.

### ***New Jersey Highlands Act and Highlands Regional Master Plan***

In an effort to ensure the integrity of northern New Jersey's drinking water resources, the New Jersey State Legislature enacted the Highlands Water Protection and Planning Act on August 10, 2004. The Highlands Act imposes strict land use controls over large parts of the 88-municipality region, known as the Highlands Preservation Area (*Figure 18. New Jersey Highlands Planning and Preservation Boundaries*) (*New Jersey Highlands Council, p.32*).<sup>21</sup> Areas within the Preservation Zone are subject to heightened restrictions on development, water use and activities that affect water quality or environmentally sensitive lands. The Act expands mandatory buffers around the region's streams and water bodies, sets limits on impervious coverage for individual properties and requires master plan conformance from municipalities within the Preservation Area to the *Highlands Regional Master Plan* (RMP), among other criteria.

Despite these strict land use restrictions, the Highlands Act provides for numerous exemptions that allow property owners to develop or improve their properties without applying the enhanced protections prescribed in the Act. These exemptions provide a streamlined approach, enabling municipal officials to make exemption determinations at the local level and expedite processes for landowners. Examples of exemptions include the construction of a single family dwelling for an owner's own uses, improvements to single family buildings, and activities conducted in accordance with approved Woodland Management Plans (WMPs). Allamuchy, Franklin, Oxford, Pohatcong, and Washington Townships are certified to make determinations regarding exemptions (*New Jersey Highlands Council*).<sup>22</sup>

As of 2016, the following municipalities in the Preservation Area have master plans in conformance with the Highlands RMP: Allamuchy, Franklin, Harmony, and Washington Townships; the status of Independence, Liberty, and White Townships' plans is pending. Six municipalities lying entirely within the Planning Area are not mandated to conform to the RMP, including: Alpha, Belvidere, Frelinghuysen, Hope, Phillipsburg, and Washington Borough. Of these voluntary municipalities, only Alpha and Phillipsburg have voluntarily conformed to the RMP. Other municipalities whose master plans have conformed to the RMP include Hackettstown, Lopatcong, Oxford and Pohatcong. Greenwich Township's petition is pending, and Mansfield has not filed a petition (*New Jersey Highlands Council*).



**Figure 18. New Jersey Highlands Planning and Preservation Boundaries**

*Source: New Jersey Highlands Council*

Large portions of Warren County fall within the Highlands region. Over 67,000 acres in Warren County fall within the Highlands Preservation Zone and are subject to the restrictions that apply there (see *Table 6. Highlands Acreage: 2011*) (*Highlands Regional Master Plan, Addendum A, p.33*).<sup>23</sup> The Preservation Area in Warren County roughly incorporates the Highlands ridgeline starting with Allamuchy Mountain and running southwest through Upper Pohatcong Mountain and Jenny Jump Mountain before terminating at Scott’s Mountain in Lopatcong Township. Significant areas in the lower Delaware and Musconetcong Valleys, encompassing most of Pohatcong Township and parts of Greenwich Township, are included in the Preservation Area as well. Blairstown, Knowlton and Hardwick Townships are the only municipalities in the County that are not affected by the Highlands Act.

**Table 6. Highlands Acreage: 2011**

<b>MUNICIPALITY</b>	<b>PLANNING AREA</b>	<b>PRESERVATION AREA</b>	<b>TOTAL</b>
Allamuchy Township	7,695	5,278	12,973
Alpha Borough	1,098	0	1,098
Belvidere Town	950	0	950
Franklin Township	11,288	3,763	15,051
Frelinghuysen Township	15,275	0	15,275
Greenwich Township	5,994	786	6,780
Hackettstown Town	2,171	203	2,374
Harmony Township	7,003	8,413	15,416
Hope Township	11,706	0	11,706
Independence Township	6,510	6,276	12,786
Liberty Township	543	7,090	7,633
Lopatcong Township	3,672	1,049	4,721
Mansfield Township	5,969	13,032	19,001
Oxford Township	1,672	2,206	3,878
Phillipsburg Town	2,133	0	2,133
Pohatcong Township	1,208	7,571	8,779
Washington Borough	1,259	0	1,259
Washington Township	7,953	3,595	11,548
White Township	9,993	7,800	17,793
<b>Total</b>	<b>104,092</b>	<b>67,062</b>	<b>171,154</b>
<i>Source: New Jersey Highlands Council</i>			

The Highlands Council – the regional planning body charged with implementing the Highlands Act – has established the preservation of farmland and agricultural practices as one of its principal objectives. To this end, the Highlands RMP identifies Agricultural Resource Areas that encompass spaces containing contiguous farm belts and quality agricultural soils. The large majority of Warren County’s Highlands acreage falls within the Agricultural Resource Area (*Figure 19. New Jersey Highlands Agricultural Resource Areas*) (*New Jersey Highlands Council, p.35*).

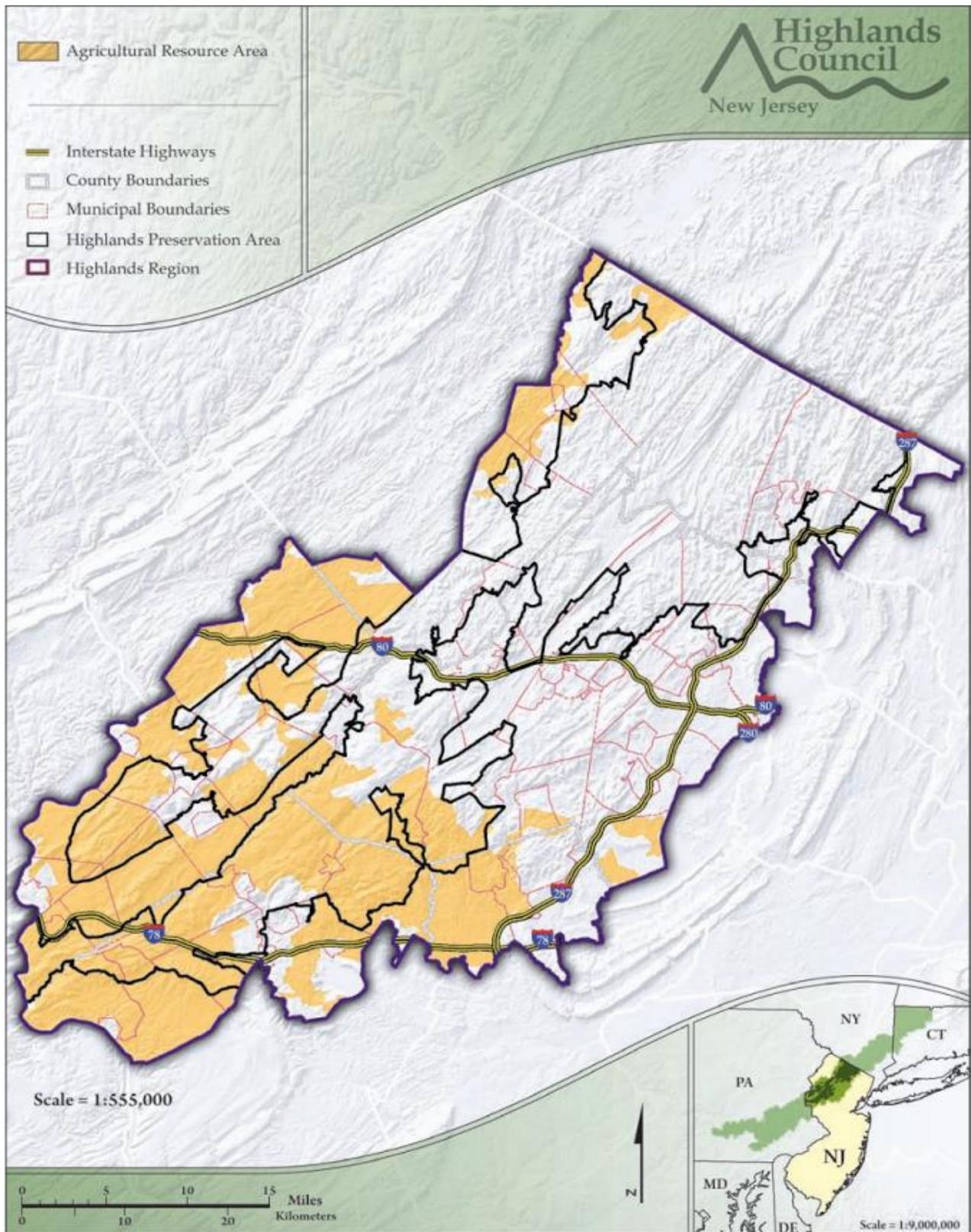
The Highlands Council also identifies Agricultural Priority Areas as subsets of the larger Agricultural Resource Areas that are particularly well-suited to agricultural production. Criteria used by the Highlands Council to delineate these areas include soil quality, tillable acreage, buffers, development potential, local commitment, contiguity with other farm parcels and size (*Highlands Sustainable Agriculture Technical Report*).<sup>24</sup> The Delaware, Musconetcong, and Pequest Valleys contain the greatest concentrations of High Priority Agricultural Areas in the County's Highlands region (*Figure 20. New Jersey Highlands Agricultural Priority Areas*) (*New Jersey Highlands Council, p.36*). A breakdown of preserved farmlands and agricultural lands in the Highlands Planning and Preservation Areas within Warren County is available (*Table 7. Highlands Agricultural Acreages: 2015, p.34*).

**Table 7. Highlands Agricultural Acreages: 2015**

<b>Municipality</b>	<b>Preservation Area</b>		<b>Planning Area</b>		<b>Total</b>		<b>Change in Total Agricultural Land Since 2008 Plan</b>
	Preserved Farmland	All Agricultural Land	Preserved Farmland	All Agricultural Land	Preserved Farmland	All Agricultural Land	
Allamuchy	47	673	2,355	3,671	2,402	4,344	<b>-52 (-1%)</b>
Alpha	0	0	132	338	132	338	<b>-55 (-14%)</b>
Belvidere	0	0	3	97	3	97	<b>0</b>
Franklin	237	2,605	2,743	8,029	2,980	10,634	<b>-359 (-3%)</b>
Frelinghuysen	0	0	2,112	9,324	2,112	9,324	<b>-1,009 (-10%)</b>
Greenwich	54	487	849	3,053	903	3,539	<b>-392 (-10%)</b>
Hackettstown	0	0	0	0	0	0	<b>0</b>
Harmony	741	3,140	1,578	4,065	2,320	7,205	<b>-1,101 (-13%)</b>
Hope	0	0	1,132	7,087	1,132	7,087	<b>-164 (-2%)</b>
Independence	0	2,802	439	4,363	439	7,165	<b>-524 (-7%)</b>
Liberty	0	2,494	140	413	140	2,907	<b>-397 (-12%)</b>
Lopatcong	72	536	34	773	106	1,309	<b>-97 (-7%)</b>
Mansfield	552	6,445	710	2,680	1,262	9,125	<b>-1,044 (-10%)</b>
Oxford	0	416	52	486	52	902	<b>-149 (-14%)</b>
Phillipsburg	0	0	0	263	0	263	<b>0</b>
Pohatcong	2,765	5,249	0	432	2,765	5,680	<b>-157 (-3%)</b>
Washington Borough	0	0	0	66	0	66	<b>-8 (-11%)</b>
Washington Township	361	1,583	835	3,365	1,196	4,948	<b>-269 (-5%)</b>
White	558	3,873	671	4,889	1,229	8,762	<b>-683 (-7%)</b>
<b>TOTAL</b>	<b>5,387</b>	<b>30,303</b>	<b>13,785</b>	<b>53,394</b>	<b>19,173</b>	<b>83,695</b>	<b>-6,460 (-7%)</b>

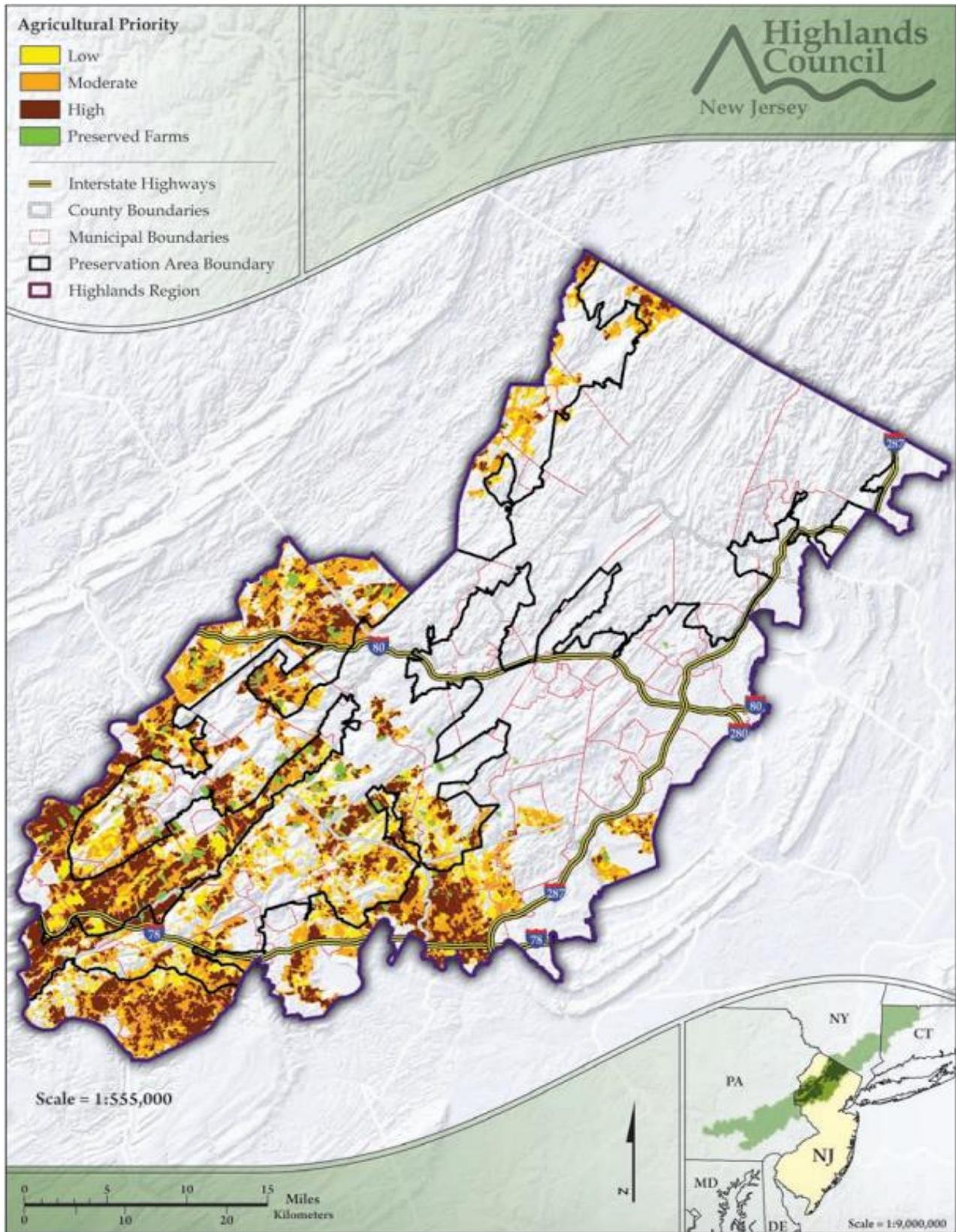
*Source: Warren County Planning Department*

Since the 2008 *Comprehensive Farmland Preservation Plan*, Frelinghuysen, Harmony, and Mansfield Townships, experienced the largest decreases in Highlands agricultural lands, each losing over 1,000 acres. Municipalities within Warren County's Highlands region lost nearly 6,500 acres of agricultural lands in that time. No net gains in agricultural lands were reported among any municipalities.



**Figure 19. New Jersey Highlands Agricultural Resource Areas**

*Source: New Jersey Highlands Council*



**Figure 20. New Jersey Highlands Agricultural Priority Areas**

*Source: New Jersey Highlands Council*

The Highlands Act also encourages center-based development and redevelopment, which may be achieved through Highlands Center designations. A Highlands Center is a specific geographic area identified by both a municipality and Highlands staff as appropriate for development. Municipalities with approved Highlands Center designations engage in an enhanced planning process seeking to implement natural resource protections while supporting development and redevelopment opportunities. As of 2015, the Highlands Council has approved six Centers within Warren County for various purposes,<sup>25</sup> including:

- Alpha Borough (redevelopment)
- Hackettstown (economic revitalization, redevelopment)
- Lopatcong Township (community enhancement, redevelopment)
- Oxford Township (downtown revitalization, redevelopment)
- Phillipsburg (economic growth, redevelopment)
- Pohatcong Township (infill development, redevelopment)

## **County Planning Tools**

### ***Warren County Strategic Growth Plan (2005)***

The *Warren County Strategic Growth Plan*<sup>26</sup> was adopted in December 2004 and revised in October 2005, and serves as an update to the County's 1979 *General Development Plan* and the 1984 *Transportation Plan*. The *Strategic Growth Plan* is an effort to enhance intergovernmental coordination by serving as an intermediary between State and local governments. Goals identified by the *Strategic Growth Plan* include concentrating growth in existing centers, improving public infrastructure in these centers, and maintaining quality of life for local residents (2005 *Warren County Strategic Growth Plan*). The *Strategic Growth Plan* supports an alternative, centers-based scenario where commercial and industrial zones are restricted to existing centers of development. Other recommendations advocate resource preservation efforts such as open space and farmland preservation, stormwater planning, density transfer programs (including Transfer of Development Rights) and subdivision design ordinances that mandate clustering or conservation design (2005 *Warren County Strategic Growth Plan*).

### ***Route 57 Corridor Study***

In 2003 an agreement was made with the New Jersey Department of Transportation (NJDOT) to acquire lands in the viewshed of Route 57 that had been designated as a scenic byway. The *Warren Heritage Byway Corridor Management Plan* was published in 2010, with the goals of preserving and enhancing the landscape through the encouragement of specific land uses, enhancing tourism near centers of recreation and commerce, highlighting regional history, and mitigating tensions between preservation and development. Numerous strategies are listed to address historic, archaeological, cultural, scenic, natural and recreational resources. The *Corridor Management Plan* also addresses land use and development along the byway, including discussions on zoning restrictions, the Highlands Act and Regional Master Plan, and land acquisition strategies.<sup>27</sup>

### ***Route 22 Corridor Study***

In recent years, a housing, commercial and retail development in southern Warren County and adjacent communities in Pennsylvania has led to increased congestion along Route 22. Completed in 2009, the study identifies improvements to reduce traffic congestion, improve

pedestrian safety, and analyze potential cycling corridors.<sup>28</sup> While this assessment focuses on a much more developed portion of the County and does not address farmland or agricultural practices, it may serve as a useful guide in determining potential areas to send Highlands Development Credits when preserving farmlands in more rural areas (see *Transfer of Development Rights* in the “Preservation Planning Mechanisms” section below).

### ***Warren County Open Space and Recreation Plan***

Last updated in 2008, Warren County’s Open Space and Recreation Plan provides an outline of what the Warren County Planning Board endorses as areas that should be preserved as open space, regardless of municipality or land ownership. While lands acquired for farmland preservation are not considered public “open space,” preserved farms are mapped in the plan and serve as permanent buffers to development activities and maintain scenic landscapes. Additionally, preserved farmlands can provide linkages in greenway and trail acquisition efforts (*2008 Warren County Open Space and Recreation Plan*). The Plan is currently being updated by the Planning Department.<sup>29</sup>

## **Municipal Planning and Zoning**

### ***Municipal Planning***

The *2005 Warren County Cross-Acceptance Report*<sup>30</sup> recorded municipal planning priorities. Concerns were expressed regarding increasing growth in rural areas, with desires to direct growth into new or existing centers and towns. However, some residents already living in centers felt that increasing population densities would threaten their quality of life.

The prevalent theme in many municipal reports was that local control of land use planning and approval must be retained by municipalities, with fears that the State Plan would undermine local authority. However, usurpation of local authority has come instead from the implementation of the Highlands Act, which mandates county and municipality conformance with its Master Plan for regions within the Highlands Preservation Area. The Act places the Highland Council and the NJDEP in full control of the use of these lands. The report also briefly mentions the potential for towns inside the Planning Area to voluntarily conform to the Master Plan based on a variety of incentives and benefits.

The report listed several planning outcomes for local municipalities, including:

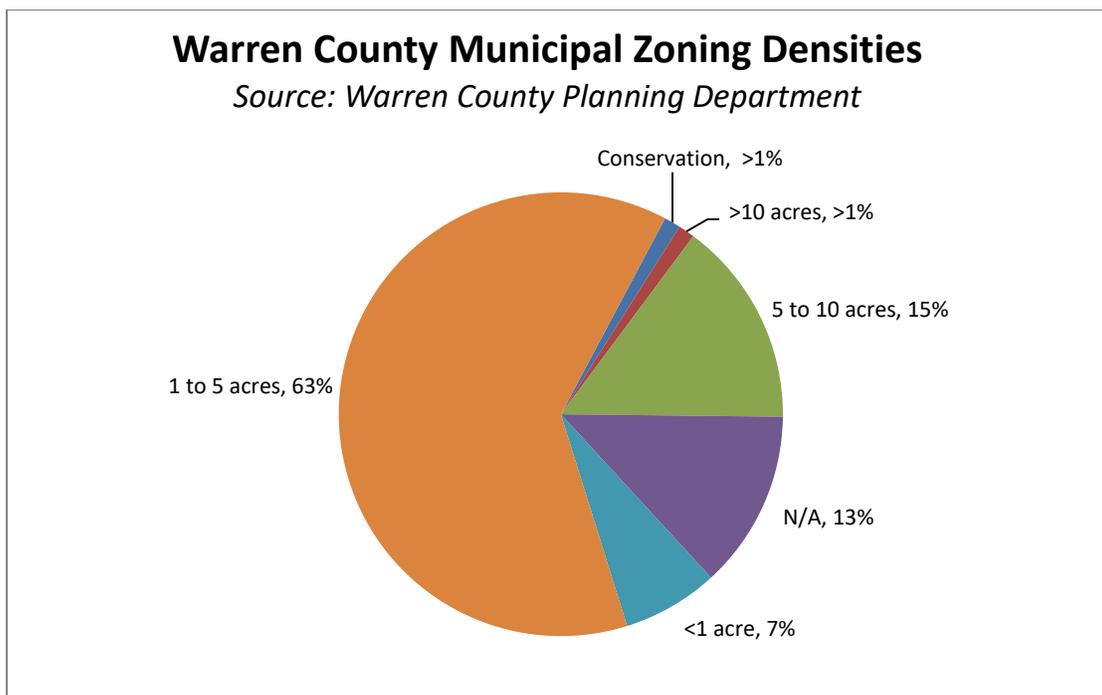
- Prevention of pollution, excessive traffic congestion, and excessive land consumption;
- Maintenance and revitalization of existing communities, especially Urban Centers and urban, suburban and rural municipalities experiencing distress;
- Development and redevelopment should be planned and constructed to restore and create diverse, compact, mixed-use, and healthy communities; and
- Protection, restoration and integration of nature and natural ecosystem services

### ***Municipal Zoning***

The municipal zoning patterns that exist in Warren County are instrumental in determining the land use patterns that will emerge there. Very low density development is the most consistent with agriculture because it is less likely to produce conflicts over issues such as water rights and road usage between farmers and their residential neighbors. However, concentrated high-density

development is better for providing services, such as education and police protection. A mixed zoning pattern in which centers zoned for high-density development are surrounded by large areas of very low density development creates a desirable land use pattern consistent with both agricultural and smart growth goals.

The majority of land in Warren County is zoned at densities between one and five acres per unit *Figure 21. Warren County Municipal Zoning Densities*. Zoning densities of greater than one unit per acre tend to be concentrated within towns that have existing or proposed centers and wastewater treatment facilities such as Hackettstown, Phillipsburg and Allamuchy. Conservation zoning districts that allow for little to no development within them are utilized in some Warren County towns. However, many towns still permit significant development within these zones, and thus they do not appear under the “conservation” category. Large lot zoning of greater than five acres per development unit exists in many municipalities as well, particularly in Frelinghuysen, Knowlton, Hardwick, and Allamuchy.



**Figure 21. Warren County Municipal Zoning Densities.**

This zoning scheme, where most of the County’s land is zoned between one and five acres, encourages growth of the sprawling, suburban landscape that Warren County is trying to prevent. The vast majority of lands (89%) are zoned for residential purposes (*Table 8. Municipal Zoning Uses in Warren County: 2011, p.40*). A zoning scheme that is more consistent with a centers-based land use pattern has more land designated as high density (<1 acre) near development centers and very low density (>10 acres) outside the centers. Some municipalities in Warren County have begun to adopt such a zoning scheme by utilizing natural resource features, such as nitrate dilution capacity, to establish appropriate development densities for agricultural and natural areas. Mixed-use, or “other,” zoning standards within existing centers may help

encourage attractive and economically feasible land uses there while drawing development demand away from prime agricultural and natural resource lands, helping to preserve the County’s rural characteristics. Intermediate zoning, between one and ten acres per development unit, is appropriate for some transfer of development rights (TDR) receiving areas so additional development credits can be applied to these lands (see *Transfer of Development Rights* in the next section). Also, conservation zoning should be applied to a broader range of preserved lands including local recreational areas, preserved farm belts, and natural resource lands.

**Table 8. Municipal Zoning Uses in Warren County: 2011**

<b>Municipality</b>	<b>Residential</b>	<b>Commercial</b>	<b>Industrial</b>	<b>Other</b>	<b>TOTAL</b>
Allamuchy	8,239	252	49	4,582	<b>13,122</b>
Alpha	636	91	312	60	<b>1,099</b>
Belvidere	518	55	309	67	<b>950</b>
Blairstown	19,362	486	198	-	<b>20,047</b>
Franklin	13,770	439	867	-	<b>15,077</b>
Frelinghuysen	15,142	136	-	-	<b>15,278</b>
Greenwich	5,882	449	447	-	<b>6,778</b>
Hackettstown	1,336	237	394	404	<b>2,371</b>
Hardwick	24,848	-	-	-	<b>24,848</b>
Harmony	13,426	731	993	-	<b>15,149</b>
Hope <sup>o</sup>	11,153	386	-	199	<b>11,738</b>
Independence	11,368	1,016	383	-	<b>12,767</b>
Knowlton	15,684	596	-	-	<b>16,280</b>
Liberty	6,881	291	124	404	<b>7,701</b>
Lopatcong	3,823	409	491	-	<b>4,723</b>
Mansfield	17,369	344	1,301	-	<b>19,014</b>
Oxford	3,285	183	388	-	<b>3,856</b>
Phillipsburg	1,065	286	683	-	<b>2,033</b>
Pohatcong	7,349	247	774	-	<b>8,370</b>
Washington Borough	875	219	88	80	<b>1,262</b>
Washington Township	10,267	810	409	88	<b>11,574</b>
White	13,926	639	3,230	-	<b>17,795</b>
<b>TOTAL</b>	<b>206,204</b>	<b>8,302</b>	<b>11,440</b>	<b>5,884</b>	<b>231,832</b>
<i>Source: Warren County Planning Department</i>					

<sup>o</sup> Hope Township also zones for “Public Property,” “Church/Charitable,” and “Mixed Use.” These total 199 acres, and are included in “Other.”

## Preservation Planning Mechanisms

The viability of farming in Warren County can be maintained and even advanced by implementing preservation planning policies that minimize conflict between agriculture and development. Development's most damaging impact on agriculture occurs when large areas of active farmlands are converted to non-agricultural land uses. Planning methods are available that can effectively reduce the amount of farmland that is subsumed by development without placing economic hardship on local residents or precluding growth. These planning methods also help preserve the rural character of areas where they are employed and contribute to the positive impacts farming has on local economies.

On August 7, 2013, Governor Christie signed into law the Cluster Development Act (P.L.2013, c.106), which amends the Municipal Land Use Law to make it easier for municipalities to control growth and preservation in their towns. These changes modified the process by which existing tools work, strengthening municipal authority. "Municipalities now have the option of directing development through their existing zoning ordinances, or of offering landowners and developers additional benefits via these updated clustering opportunities" (*New Jersey Future*).<sup>31</sup> The three tools, contiguous cluster zoning, lot-size averaging, and noncontiguous cluster zoning, are summarized below.

### *Cluster Zoning*

Cluster zoning is a tool that allows builders to reduce the overall area of their projects without reducing the number of structures they construct. A cluster zoning ordinance, for example, may allow a developer with a 200-acre parcel zoned for a density of ten acres per unit to construct the permitted 20 units on only a portion of the property. If the builder, through a cluster zoning option, constructs the 20 units on only 100 acres of the parcel at a density of 5 acres per unit, the remaining 100 acres are left open. The open area of the parcel must remain in an undeveloped state in perpetuity, but may be used for farming. This area may also be conveyed to a separate person or entity, which was not previously the case.

Cluster zoning provides both the ability to develop a site to its full extent based on zoning and the preservation of contiguous agricultural lands. This option is often attractive to builders because there tends to be fewer infrastructure costs associated with roadway construction, power lines, and sewage connections in more compact developments. Clustering is attractive to local residents and farmers because it retains some agricultural areas and the rural character they create. Additionally, the undeveloped portions of clustered developments are permanently deed-restricted, which helps to ensure the permanence of local farming. Clustering has added effectiveness when open space set-asides on adjacent properties are linked in a coordinated fashion. This requires pre-planning on the part of the municipality.

### *Lot-Size Averaging*

Lot-size averaging is similar to cluster zoning because it allows for the creation of differently-sized parcels within one development. For instance, lot size averaging on a 200-acre parcel with 10-acre zoning would permit its subdivision into fifteen one-acre parcels and five 37-acre parcels. This subdivision may allow farmland production to continue on the larger parcels created and helps retain some of the agricultural ambience that might otherwise be lost.

### *Non-Contiguous Cluster Zoning*

In contrast to cluster zoning, non-contiguous cluster zoning permits the transfer of development density between instead of only within parcels. First, a “sending” parcel (where permitted development density is reduced) and a “receiving” parcel (where permitted development density is increased) are designated. Then, the total development potential on both properties is calculated. In a case where two fifty-acre parcels are undergoing non-contiguous clustering under ten-acre zoning, there are five permitted units on each lot and ten permitted units overall. Finally, the overall development potential (10 units in this case) is applied to the receiving parcel while the sending parcel is permanently protected from future development. Non-contiguous clustering allows for development to be moved out of prime agricultural areas and concentrated into more appropriate and desirable locations. The possibility for landowners and developers to utilize non-contiguous clustering is achieved through amending a municipality’s master plan and development ordinances.

### *Transfer of Development Rights*

The New Jersey State Transfer of Development Rights Act (*N.J.S.A. 40:55D-140*)<sup>32</sup> authorizes the transfer of development rights by municipalities and outlines what a town must do in order to adopt or amend a TDR ordinance. Regional TDR programs could also be instituted in Warren County, operating throughout the County or at a higher level of regional government. The New Jersey Highlands Council has established a regional TDR program open to all Warren County municipalities. Through the Highlands program, landowners may sell the development rights on their lands at pre-Highlands Act prices. They will then be allocated to voluntary receiving areas throughout the seven-county region. The sending areas and receiving area landowners are the active participants in the transaction. The Highlands TDR Bank certifies and records these transactions. The municipalities containing these receiving areas have the right to assess impact fees of up to \$15,000 per unit for all new development. They are also able to apply for grants to offset the costs associated with amending their master plans and municipal ordinances.

Oxford Township previously sought to develop a TDR program, in part to support a large redevelopment initiative aimed at bolstering economic activity in the downtown area. The Township received numerous grants to pursue their TDR program including a \$40,000 Planning Assistance Grant from the New Jersey State TDR Bank, a Highlands MP3 Municipal Partnership Planning Pilot TDR Grant, and a \$65,000 Smart Future Grant from the New Jersey Office of Smart Growth. However, Oxford suspended its pursuit of an intra-municipal TDR program because the Highlands regional TDR program had not yet been implemented; no further action has been taken regarding the Oxford TDR program. However, Hackettstown and Pohatcong both have grants to study the feasibility of instituting their own TDR programs but neither have done any work yet (*James Humphries*).<sup>33</sup> Today there are no non-Highlands TDR programs within Warren County (*Steve Bruder*).<sup>34</sup>

### *Competition for Land*

The advent of highway development and suburban growth helped to shape Warren County’s land use patterns, supporting residential development, particularly in and around town centers. Following the 1950s, several towns roughly quadrupled in population size, including Mansfield, Lopatcong, and Washington Townships (see *Table 4. Warren County Population By Municipality: 1930-2010, p.26*). However, residential development within Warren County slowed following the passage of the Highland Act and the 2008 housing market crash, both of

which worked to halt increases in land values within the County (*Bruce Barbour*). The numbers of residential building permits issued annually have crept upwards since 2008 (see *Figure 20, p.36*). While permits were issued to Hackettstown, Lopatcong and Allamuchy, 11 of the County's 22 municipalities received fewer than 10 permits from 2009 to 2014, indicating disparities in recent residential development throughout the County.

Commercial and retail development has also increased in recent years, particularly in southern Warren County where some of the County's highest population densities and largest commercial activities are found. The Route 22 corridor has seen major construction activity, including a Wal-Mart Supercenter in Phillipsburg.

As communities grow in the face of development-restricting initiatives such as the Highlands Act, competition for the available land base is keen, and farmers are faced with pressures to sell or subdivide their land to help support their agricultural operations. Development pressure may be the single largest threat to the agricultural economy and rural character of Warren County. The Farmland Preservation Program and proactive planning efforts are the crucial link in ensuring the permanence and success of farming in Warren County.

## **CHAPTER 4: FARMLAND PRESERVATION PROGRAM - OVERVIEW**

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As of September 15, 2016 Warren County had preserved **259 farms** permanently protecting **23,268 acres**.<sup>P</sup> Since the completion of the *2008 Comprehensive Farmland Preservation Plan*, Warren County has preserved an additional **109 farms** permanently protecting **8,143 acres** of farmland. Farmers and local officials in Warren County remain firmly committed to farmland protection and continue to support the preservation of agricultural land throughout the County.

### **Agricultural Development Areas (ADAs)**

The Warren County Agricultural Development Area (ADA) is 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 the exclusive, use. Statutory criteria include:

- The land must be agriculturally productive or have future production potential. Also, zoning for the land must permit agriculture or permit it as a nonconforming use.
- Suburban and/or commercial development must be reasonably non-existent in the proposed ADA area.
- The ADA must comprise less than 90% of the County's agricultural land mass.
- Any attributes deemed appropriate by the Board must also be incorporated.

### **2008 Comprehensive Farmland Preservation Plan**

Prior to 2008, the entire county had been designated as being part of the Agricultural Development Area (ADA) with the exceptions of Hackettstown, Belvidere, Phillipsburg, and Washington Borough. As part of the *2008 Comprehensive Farmland Preservation Plan*, the Warren CADB updated the ADA designating lands capable of supporting agriculture and excluding those lands that are protected as public open space, developed areas, and land contained within the developed Boroughs and Towns located within the County.

Utilizing the state's regulatory criteria for designating an ADA and existing farmland assessment data, the County delineated an ADA on a county-wide basis that did not exceed 90% of the County's agricultural land base. Criteria developed in 2008, and still supported today by the CADB are as follows:

- Land is currently in agricultural production or has strong potential for agricultural production or is farm assessed through a woodland management plan.
- Agriculture is the preferred, but not necessarily the exclusive use.
- Agriculture is a use permitted by current municipal zoning ordinance or is allowed as a non-conforming use.

In 2008 the Warren CADB identified the ADA for the County and designated productive agricultural lands, soils, preserved farms, and farms enrolled in the 8-year program as within the

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<sup>P</sup> Acreage per the Warren County Department of Land Preservation, September 15, 2016.

ADA boundaries. It excluded publicly preserved open space and populous regions of Warren County. In addition, areas excluded from the Warren County ADA in their entirety include:

- 1) Phillipsburg
- 2) Merrill Creek Reservoir
- 3) Belvidere
- 4) Washington Borough
- 5) Hackettstown
- 6) Lopatcong
- 7) Pequest Wildlife Management Area (WMA)
- 8) Jenny Jump State Forest
- 9) Oxford Township

In 2008, 96,547 acres of farm assessed land was included within the ADA, or 85% of Warren County's agricultural land base was identified as being within the ADA. This was approved by the Warren County Agriculture Development Board (CADB) on October 18, 2007 and subsequently approved by the SADC.

### **2016 Comprehensive Farmland Preservation Plan Update**

Beginning in 2011, the Warren County Department of Land Preservation, with the County Agriculture Development Board (CADB), proposed several amendments to the ADA to include farmland whose owners had expressed interest in preserving their property but the land had not been included in the 2008 ADA. Between 2011 and 2016, the County conducted a comprehensive parcel-based review of the ADA, revising the proposed expansion areas to focus on the most productive farms, those farms in which owners had expressed interest in preservation, and the municipalities in which they were located were supportive of their preservation. As a result of this analysis, Warren County is adding 1,392 acres of farm assessed land to the ADA. The percentage of farm assessed properties in the ADA is 86.61%.

A summary of the maps and appendices used for this section of the report is as follows:

- Maps 1-10: Maps showing the changes to the Warren County ADA.
- Appendix A: County and municipal resolutions of support for the ADA amendments.

#### ***ADA Amendments (2011-2016)***

The CADB reviewed the revisions to the ADA at a series of advertised public meetings, conducted in a format pursuant to Subchapter 1 in N.J.A.C 2:76-1:

1. *Map 1. ADA Map 1. Project Area North – Blairstown Township* (CADB Resolution 2011-14, October 20, 2011): Amendment to include farmland in Blairstown Township. The CADB approved the addition of 138 acres of farmland in Blairstown Township to be added to the ADA as part of Project Area North (*Map 1*). Blairstown Township Committee approved a resolution dated August 10, 2011 supporting this amendment (Resolution 2011-101)

Block	Lot	Owner's Name	Acres (GIS)
702	6.02	Kennedy	31.12
702	15.01	Range	5.74
702	15.07	Flynn	17.01
702	15.17	Range	8.06
702	23	Smith	11.78
702	23.05	Mitchell	25.03
<b>Total:</b>			<b>94.74</b>
<b>CADB resolution:</b>			<b>137.58 acres<sup>q</sup></b>

(CADB, Resolution 2016-18, November 17, 2016): In 2016 Warren County CADB and the Land Preservation Department completed an analysis of farms consisting of multiple lots, and looked at those farm units which crossed municipal boundaries. For those farms which meet the minimum eligibility requirements for preservation and exceed 40 acres in size, the CADB amended the ADA to include those farm units which were outside of the ADA but identified as targeted farms. The Kennedy Farm in Blirstown Township was added to the ADA, totaling 241.80 acres. This addition to the ADA enlarges what was approved by the CADB, Township and SADC in 2011. (*Map 1*) Blirstown Township passed a resolution of support for this addition (Resolution 2016-110).

Block	Lot	Owner's Name	Acres (GIS)	Acres (CADB Resolution)
702	2	Kennedy John & Pat	18.51	20.09
702	3	Kennedy John & Pat	39.14	34.72
702	6.01	Kennedy John & Pat	153.02	68.4 <sup>r</sup>
702	6.02 <sup>s</sup>	Kennedy John & Pat	31.12	31.88
<b>Total:</b>			<b>241.80</b>	<b>155.09</b>

2. *Map 2. ADA Map 2. Project Area West – Oxford Township*

(CADB Resolution 2011-15): Amendment to include farmland in Oxford Township: In Oxford Township the CADB approved adding 104 acres of farmland to the ADA in Project Area West (*Map 2*). Oxford Township Committee approved a resolution dated October 5, 2011 supporting this amendment (Resolution 2011-71). *Note:* Lot 1.01 (0.44 acres) is part of the Kiszona farm and Lot 11 (2.07 acres) is part of the McConnell farm. These additional lots were also added to the County ADA.

<sup>q</sup> The CADB Resolution includes the total parcel acreage, per the tax assessor database, which differs from the ArcGIS digital mapping analysis.

<sup>r</sup> The CADB Resolution lists 68.4 acres for this parcel, but this is a typo as tax records list 168.4

<sup>s</sup> Lot 6.02 of the Kennedy Farm was added to the County ADA as part of the October 2011 ADA Amendment.

Block	Lot	Owner's Name	Acres (GIS)	Acres (CADB Resolution)
25	1	Kiszona	52.15	51.85
25	1.01	Kiszona	0.44	
25	10	McConnell	51.7	52
25	11	McConnell	2.07	
<b>Total:</b>			<b>106.36</b>	<b>103.85</b>

3. *Map 3. ADA Map 3. Project Area West – Lopatcong Township*

(CADB Resolution 2012-19, December 20, 2012): Amendment to include farmland in Lopatcong Township. The Raub Farm (6.13 acres) was added to the ADA in Project Area West (*Map 3*). The Township of Lopatcong did not object to this amendment per the CADB resolution. The Raub Farm has since been preserved by Warren County.

Block	Lot	Owner's Name	Acres (GIS)	Acres (CADB Resolution)
2	5	Raub Farm	5.72	6.13
<b>Total:</b>			<b>5.72</b>	<b>6.13</b>

4. *Map 4. ADA Map 4. Project Area South – Alpha Borough*

(CADB Resolution 2014-01, January 16, 2014): Amendment to include farmland in Alpha, Frelinghuysen, Liberty, Mansfield, Oxford, Pohatcong, and White Townships. The Oberly Farm in Alpha Borough is part of a larger farm in neighboring Pohatcong Township (which is part of the ADA) and was added to the County ADA in 2014. Alpha Borough passed a resolution of support for this addition (Resolution 2014-40). The SADC preserved the Oberly Farm in 2015. (*Map 4*)

Block	Lot	Owner's Name	Acres (GIS)	Acres (CADB Resolution)
97	5	Oberly, Jack	7.68	7.25
<b>Total:</b>			<b>7.68</b>	<b>7.25</b>

5. *Map 5. ADA Map 5. Project Area Northeast – Frelinghuysen Township*

(CADB Resolution 2014-01, January 16, 2014): The following farms were added to the ADA at the recommendation and support of Frelinghuysen Township (Resolution 2014-25). (*Map 5*)

Block	Lot	Owner's Name	Acres (GIS)	Acres (CADB Resolution)
201	17	Heather Hills Farm	65.6493	63.68
201	17.02	DeCamp, Sue	35.0483	34.71
201	21	Canace, Robert	5.8185	5.81
201	22	IHM Realty	16.2156	18.19
201	23	IHM Realty	89.9869	88.28
201	31	Frelinghuysen Township	59.2387	58.90
201	32	Muller, Charles	42.3215	42.02

Block	Lot	Owner's Name	Acres (GIS)	Acres (CADB Resolution)
201	32.06	Muller, Charles	4.0673	3.09
201	32.07	Muller, Charles	4.0790	4.23
201	33	Muller Road LLC	15.1770	13.41
<b>Total:</b>			<b>337.60</b>	<b>332.32</b>

(CADB, Resolution 2016-18, November 17<sup>th</sup>, 2016): Amendment to include farmland in Frelinghuysen Township. The DeCamp farm (Lot 17.03) in Frelinghuysen Township was added to the ADA as it is part of the farm unit which includes Lot 17.02. This addition supported by the Township (Resolution 2016-99). (*Map 5*)

Block	Lot	Owner's Name	Acres (GIS)	Acres (CADB Resolution)
201	17.02 <sup>†</sup>	DeCamp, Sue	35.05	35
201	17.03	DeCamp, Sue	24.62	21.2
<b>Total:</b>			<b>59.67</b>	<b>56.2</b>

6. *Map 6. ADA Map 6. Project Area Central – Independence Township*

7. *Map 7. ADA Map 7. Project Area Central – Independence Township*

(CADB Resolution 2014-01, January 16, 2014): Part of larger farms, the Barton (Map 6) and Kilmas properties (Map 7) were added to the ADA in 2014. Independence Township Committee approved a resolution supporting this amendment. (Resolution 2014-17)

Block	Lot	Owner's Name	Acres (GIS)	Acres (CADB Resolution)
23	1	Barton, John	21.85	21.60
14	10	Kilmas, Gabriella	43.96	43.22
14	12.01	Kilmas, Gabriella	5.04	5.13
<b>Total:</b>			<b>70.85</b>	<b>69.95</b>

8. *Map 8. ADA Map 8. Project Area West – Oxford Township*

(CADB Resolution 2014-01, January 16, 2014): The Bartha Farm in Oxford Township was added to the ADA, as it is part of a larger farm unit. Oxford Township passed a resolution of support for this amendment (Resolution 2014-27). (*Map 8*)

Block	Lot	Owner's Name	Acres (GIS)	Acres (CADB Resolution)
2	16	Bartha, Thomas	12.73	16.3
2	16.01	Bartha, Thomas	3.55	5.8
<b>Total:</b>			<b>16.28</b>	<b>22.1</b>

(CADB Resolution 2014-01, January 16, 2014): The Fratezi property (Block 51, Lot 4, 20 acres) in White Township was approved by the CADB to be added to the ADA in their 2014 Resolution. White Township approved a resolution supporting this amendment (Resolution 2014-13) (*Appendix A*). The SADC did not approve the inclusion of the

<sup>†</sup> Lot 17.02 of the DeCamp Farm was added to the County ADA as part of the November 2014 ADA Amendment.

Fratezi property due to concerns regarding zoning, location, and possible suitability for commercial development and it is not included in the ADA for Warren County.

9. *Map 9. ADA Map 9. Project Area Central – Independence Township*

(CADB, Resolution 2016-18, November 17<sup>th</sup>, 2016): In Independence Township, the owners of the Greco Farm contacted the Land Preservation Department regarding preservation of their farm. The municipality and CADB agreed to amend the ADA to include this property which totals 67.34 acres (Block 17, Lots 56, 56.01, and 56.06; and Block 16, Lot 1). The Township Committee supported this addition in Township (Resolution 16-68). (*Map 9*)

Block	Lot	Owner's Name	GIS Acres	Acres (CADB Resolution)
16	1	Greco, Carmen	34.15	34.96
17	28	Klobocista, Ekrem	152.38	153
17	33	Choe, Sun Chu	19.31	18.25
17	55	Piteo, Laurel	52.31	52
17	56	Greco, Carmen	19.56	19.12
17	56.01	Greco, Jean	11.31	10.16
17	56.06	Greco, Carmen	2.32	2.01
<b>Total:</b>			<b>291.34</b>	<b>289.5</b>

10. *Map 10. ADA Map 10. Project Area North – Hardwick Township*

December 2016: In response to the County’s September 15, 2016 notification letter to the municipalities regarding the *Comprehensive Farmland Preservation Plan Update*, the Township of Hardwick requested the addition of four farms (Hilbert, Don Con Enterprises, Old Orchard Road, and Malton Farm Associates) due to landowner interest and suitability for farming. The CADB approved the proposed amendment at its December 15, 2016 meeting (*Appendix A*), and the Township of Hardwick approved a similar resolution at its meeting on December 7, 2016. Hardwick Township submitted a request of support for this addition on November 10, 2016. (*Map 10*)

Block	Lot	Owner's Name	Acres (GIS)	Acres (CADB Resolution)
Farms added to ADA at the request of Hardwick Township:				
1201	1	Old Orchard Road	76.37	72
1201	5	Malton Farm Associates	35.39	39.48
1201	5.01	Malton Farm Associates	5.47	4.6
1201	6	Malton Farm Associates	3.27	3.4
901	2	Don Con Enterprises LLC	61.76	61.87
202	1.03	Hilbert, John & Mary	36.51	23.2
202	3.01	Oleszek, Walter	3.01	13.3
202	3.06	Oleszek, Walter	12.59	
Farms added to keep the ADA continuous (but do not meet eligibility criteria for farmland preservation):				
201	12.07	YMCA Camp	2.91	105.53
201	9	Grandin, Jason	24.71	
201	9.05	Carpenter, M / Polowy, M	27.21	

Block	Lot	Owner's Name	Acres (GIS)	Acres (CADB Resolution)
202	1	White, John & Beth	21.25	
202	1.04	Degwitz, Robert & Kathleen	2.85	
202	1.06	Degwitz, Robert & Kathleen	3.12	
202	6	Grandin, Frederick	7.59	
<b>Total:</b>			<b>328.95</b>	<b>323.38</b>

***In summary:***

ADA (Project Area) Acreage:	155,598 acres
Preserved Farms in the ADA:	23,610 acres
Preserved Farms in Warren County:	23,781 acres
Targeted Farms in the ADA: <i>(farms greater than 40 acres in size)</i>	33,246 acres
Farm Assessed Property in ADA:	91,600 acres
Total Farm Assessed Land in County:	105,766 acres
% of Farm Assessed Property in ADA (2016):	86.61 %
% of Farm Assessed Property in ADA (2008):	85 %
Net Increase in Farm Assessed Land in ADA:	1,392 acres

The following maps show the soils, farmland, and ADA for Warren County:

*Map 11. Agricultural Soil Categories*

*Map 12. Farmland*

*Map 13. Agricultural Development Area (ADA)*

## **Farmland Preserved to Date by Program and Municipality**

As of September 2016, there are 259 permanently preserved farms in Warren County, permanently protecting 23,268 acres<sup>u</sup>. Over the course of the County's farmland preservation program, a total of \$127,767,359 has been expended and the State has spent a total of \$80,756,094 to protect farmland in 19 of the County's 22 municipalities. Warren County has spent \$33,063,118 (see Table 10, *p.52*, for the complete breakdown). The Freeholder Board has strongly supported the proactive acquisition of farmland easements to protect the agricultural integrity of their County.

Between 2008 and 2016 Warren County preserved an additional 109 farms totaling 8,143 acres. (*Table 9. Municipal Farmland Preserved in Warren County: 2008-2016*). For the first time Warren County preserved land in Liberty, Lopatcong, and Oxford Townships. The State spent \$27,035,615 in funding during that time period and the County expended \$12,593,894. Since the start of the municipal Planning Incentive Grant program in 2008, \$8,851,698 has been expended by local municipalities and non-profit organizations to preserve farmland in Warren County.

<sup>u</sup> As recorded by the Warren County Department of Land Preservation, which may differ from the calculated acreage as measured by the ArcGIS digital mapping software.

Franklin Township has the highest amount of preserved farmland in Warren County, with 2,966 acres preserved to date. Pohatcong (2,821 acres), Harmony (2,382 acres), Allamuchy (2,351 acres), Frelinghuysen (2,135 acres), and Knowlton (2,056 acres) each have permanently preserved over 2,000 acres of farmland. A detailed history of the farmland preservation program, including state and county expenditures is shown in *Table 9. Municipal Farmland Preserved in Warren County: 2008-2016* and *Table 10. Municipal Farmland Preserved in Warren County: 1989- 2016*. The comprehensive history of the farmland program in Warren County is included in *Table 11. Warren County Farmland Preservation Program History: 1989-2016*.

**Table 9. Municipal Farmland Preserved in Warren County: 2008-2016**

<b>Municipality</b>	<b>Acres</b>	<b>Total Cost</b>	<b>State Cost</b>	<b>County Cost</b>	<b>Municipal Cost</b>	<b>Other</b>
Allamuchy	305.00	\$1,330,608.00	\$920,660.00	\$270,000.00	-	\$139,947.00
Alpha	7.90	-	-	-	-	-
Belvidere	-	-	-	-	-	-
Blairstown	193.93	\$994,610.90	\$506,813.80	\$270,911.95	\$216,885.13	-
Franklin	928.36	\$5,906,265.65	\$2,766,800.22	\$188,398.30	\$355,816.36	\$897,250.78
Frelinghuysen	513.62	\$2,115,076.08	\$1,099,002.26	\$809,121.33	\$216,146.88	\$541,425.60
Greenwich	485.37	\$4,780,336.92	\$2,468,850.98	\$859,584.57	\$434,954.78	\$1,016,946.60
Hardwick	346.76	\$2,157,114.00	-	\$1,617,835.50	\$43,142.28	\$496,136.23
Harmony	1,198.74	\$7,856,008.80	\$4,979,926.34	\$2,087,251.97	\$788,786.73	-
Hope	784.88	\$3,717,120.58	\$2,470,953.83	\$1,084,193.93	\$72,286.05	\$89,686.77
Independence	-	-	-	-	-	-
Knowlton	437.22	\$2,387,406.02	\$1,558,076.28	\$437,028.01	\$392,301.72	-
Liberty	136.06	\$898,694.60	\$558,992.50	\$339,702.10	-	-
Lopatcong	31.36	\$42,746.45	\$21,374.72	\$21,374.72	-	-
Mansfield	532.95	\$3,810,358.02	\$2,243,695.13	\$1,566,662.89	-	-
Oxford	52.58	\$326,014.60	\$209,688.00	\$116,326.60	-	-
Pohatcong	880.98	\$6,123,045.42	\$3,511,500.34	\$1,049,733.97	\$1,473,177.81	\$88,633.50
Washington	99.85	\$1,554,218.40	\$284,703.85	\$316,909.25	\$224,137.00	\$728,468.30
White	752.68	\$5,629,003.41	\$3,434,576.90	\$1,558,858.54	\$577,526.18	\$58,041.80
<b>Totals:</b>	<b>7,688.24</b>	<b>\$49,628,627.85</b>	<b>\$ 27,035,615.15</b>	<b>\$ 12,593,893.63</b>	<b>\$ 4,795,160.92</b>	<b>\$ 4,056,536.58</b>

**Table 10. Municipal Farmland Preserved in Warren County: 1989- 2016**

<b>Municipality</b>	<b>Acres</b>	<b>Total Cost</b>	<b>State Cost</b>	<b>County Cost</b>	<b>Municipal Cost</b>	<b>Other</b>
Allamuchy	2,351	\$9,195,601	\$6,675,136	\$2,382,518	-	\$139,948
Alpha	131	\$656,992	\$438,408	\$218,584	-	-
Belvidere	3	\$15,459	\$10,600	\$5,198	-	-
Blairstown	1,340	\$5,807,011	\$3,959,026	\$1,578,557	\$360,409	\$6,500
Franklin	2,966	\$15,404,249	\$8,542,452	\$5,078,495	\$897,136	\$897,251
Frelinghuysen	2,135	\$8,025,658	\$4,215,743	\$2,595,679	\$444,479	\$769,758
Greenwich	992	\$10,966,742	\$7,781,452	\$1,490,253	\$608,128	\$1,086,940
Hardwick	543	\$3,395,457	\$557,093	\$2,048,202	\$43,142	\$590,136
Harmony	2,382	\$12,833,869	\$8,323,238	\$3,272,091	\$824,736	-
Hope	1,233	\$6,130,710	\$4,039,439	\$1,932,298	\$72,286	\$89,687
Independence	352	\$1,420,481	\$805,795	\$614,687	-	-
Knowlton	2,056	\$8,036,376	\$5,952,148	\$1,472,482	\$612,549	-
Liberty	136	\$898,695	\$558,993	\$339,702	-	-
Lopatcong	31	\$42,746	\$21,375	\$21,375	-	-
Mansfield	1,311	\$7,404,025	\$4,803,482	\$2,405,824	\$194,719	-
Oxford	53	\$326,015	\$209,688	\$116,327	-	-
Pohatcong	2,821	\$16,788,110	\$10,918,657	\$3,175,423	\$2,409,406	\$288,634
Washington	1,202	\$12,379,084	\$7,707,797	\$2,197,449	\$1,745,369	\$728,468
White	1,230	\$8,040,076	\$5,235,573	\$2,117,975	\$577,526	\$108,663
<b>Total:</b>	<b>23,268</b>	<b>\$127,767,359</b>	<b>\$80,756,094</b>	<b>\$33,063,118</b>	<b>\$8,789,886</b>	<b>\$4,705,983</b>

The following funding programs have been used in Warren County as shown in

- CEP** - County-owned easement with SADC cost share grant
- SADC Direct** – SADC easement purchase (direct)
- SADC Fee Simple** - SADC purchase of farm in fee simple
- Municipal PIG** - Municipal Planning Incentive Grant program
- NP EP** – Non-profit easement purchase
- NP PIG Fee** – Non-profit fee purchase (PIG program)

For farms preserved through the Municipal PIG program, the cost share was typically split between Warren County and the municipality.

**Table 11. Warren County Farmland Preservation Program History: 1989-2016**

FARM	MUNICIPALITY	ACRES	TOTAL COST	STATE COST SHARE	COUNTY COST SHARE	MUNICIPAL COST SHARE	OTHER	COST PER ACRE	YEAR PURCHASED	PROGRAM
Gibbs Farm #1	Allamuchy	287.373	\$1,338,698.16	\$1,070,958.54	\$267,739.64			\$4,658.00	1989	CEP
Gibbs Farm #2	Allamuchy	289.9633	\$1,101,340.32	\$881,072.26	\$220,268.06			\$3,798.00	1989	CEP
<b>Total 1989</b>		<b>577.3363</b>	<b>\$2,440,038.48</b>	<b>\$1,952,030.80</b>	<b>\$488,007.70</b>			<b>\$4,228.00</b>		
Steinhardt / Bogyos	Franklin	190.78	\$661,464.00	\$429,951.60	\$231,512.40			\$3,467.00	1991	CEP
Caputo / Tucker	Washington	146.88	\$1,671,686.00	\$1,003,011.60	\$668,674.40			\$11,381.00	1991	CEP
<b>Total 1991</b>		<b>337.66</b>	<b>\$2,333,150.00</b>	<b>\$1,432,963.20</b>	<b>\$900,186.80</b>			<b>\$7,424.00</b>		
Leyburn, Robert	Franklin	58.43	\$315,522.00	\$189,313.20	\$126,208.80			\$5,400.00	1992	CEP
Schnetzer Farms	Franklin	50.13	\$257,217.03	\$154,330.22	\$102,886.81			\$5,131.00	1992	CEP
Schnetzer Farms (Main Farm)	Washington	67.9	\$324,781.16	\$189,753.63	\$135,027.53			\$5,131.00	1992	CEP
<b>Total 1992</b>		<b>176.46</b>	<b>\$897,520.19</b>	<b>\$533,397.05</b>	<b>\$364,123.14</b>			<b>\$5,220.67</b>		
Gibbs, James	Allamuchy	431.85	\$1,433,493.72	\$1,146,794.98	\$286,698.74			\$3,319.00	1993	CEP
Fox / Engborg	Franklin	98.17	\$353,412.00	\$229,717.80	\$123,694.20			\$3,600.00	1993	CEP
Jelliffe, Myrtle	Washington	78.44	\$329,055.80	\$197,433.48	\$131,622.32			\$4,195.00	1993	CEP
<b>Total 1993</b>		<b>608.46</b>	<b>\$2,115,961.52</b>	<b>\$1,573,946.26</b>	<b>\$542,015.26</b>			<b>\$3,704.67</b>		
Schnetzer Estate (Main Farm)	Franklin	18.07	\$82,724.19	\$46,293.06	\$36,431.13			\$4,579.00	1994	CEP
Schnetzer Estate	Washington	3.32	\$15,220.62	\$8,517.57	\$6,703.05			\$4,579.00	1994	CEP
<b>Total 1994</b>		<b>21.39</b>	<b>\$97,944.81</b>	<b>\$54,810.63</b>	<b>\$43,134.18</b>			<b>\$4,579.00</b>		
Schnetzer, Marie	Washington	3.1	\$11,780.00	\$0.00	\$11,780.00			\$3,800.00	1995	CEP
Schnetzer, Marie (Main Farm)	Franklin	126.5	\$465,500.00	\$319,992.00	\$145,508.00			\$3,800.00	1995	CEP
Makarevich, Gene	Knowlton	170.949	\$538,489.35	\$391,473.21	\$147,016.14			\$3,150.00	1995	CEP
Terpstra, Orrie	Knowlton	109.29	\$338,799.00	\$246,995.40	\$91,803.60			\$3,100.00	1995	CEP
Millheim Estate	Knowlton	161.4	\$479,358.00	\$351,690.60	\$127,667.40			\$2,970.00	1995	CEP
Cummins, George	Independence	103.581	\$482,130.70	\$330,310.82	\$151,819.88			\$4,655.00	1995	CEP
<b>Total 1995</b>		<b>674.82</b>	<b>\$2,316,057.05</b>	<b>\$1,640,462.03</b>	<b>\$675,595.02</b>			<b>\$3,579.17</b>		
Semanchik Estate	Allamuchy	18.713	\$99,178.90	\$66,431.15	\$32,747.75			\$5,300.00	1997	CEP
Risko, Louis	Harmony	97.156	\$158,622.72	\$126,898.37	\$31,724.35			\$1,633.00	1997	CEP
Trout, Henry	Franklin	159.463	\$545,192.46	\$390,880.68	\$154,311.78			\$3,419.00	1997	CEP
Oostdyk, John	Franklin	138.316	\$525,600.80	\$370,686.88	\$154,913.92			\$3,800.00	1997	CEP
<b>Total 1997</b>		<b>413.648</b>	<b>\$1,328,594.88</b>	<b>\$954,897.08</b>	<b>\$373,697.80</b>			<b>\$3,538.00</b>		

**Table 11. Warren County Farmland Preservation Program History: 1989-2016**

FARM	MUNICIPALITY	ACRES	TOTAL COST	STATE COST SHARE	COUNTY COST SHARE	MUNICIPAL COST SHARE	OTHER	COST PER ACRE	YEAR PURCHASED	PROGRAM
Genesis Farm	Frelinghuysen	138.659	\$318,915.70	\$237,106.89	\$81,808.81			\$2,300.00	1998	CEP
Moore, Cham (sold to Genesis)	Frelinghuysen	71.542	\$186,009.20	\$137,360.64	\$48,648.56			\$2,600.00	1998	CEP
Corestates, Blazing Star Realty	Pohatcong	560.958	\$3,250,000.00	\$2,450,000.00	\$400,000.00	\$200,000.00	\$200,000.00	\$5,762.00	1998	SADC Direct
Jozwik / Suk	Knowlton	168.894	\$400,545.60	\$297,071.32	\$103,474.28			\$2,400.00	1998	CEP
<b>Total 1998</b>		<b>940.053</b>	<b>\$4,155,470.50</b>	<b>\$3,121,538.85</b>	<b>\$633,931.65</b>	<b>\$200,000.00</b>	<b>\$200,000.00</b>	<b>\$3,265.50</b>		
Baldwin / Warren County	Mansfield	139	\$630,000.00	\$461,007.00	\$112,662.00	\$56,331.00		\$4,532.00	1999	CEP
McShane / Semanchik, K.	Independence	109.423	\$401,113.30	\$284,031.58	\$117,081.72			\$3,686.00	1999	CEP
Anisfield / Gibbs	Allamuchy	236.806	\$720,988.00	\$533,575.20	\$187,412.80			\$3,045.00	1999	SADC Direct
<b>Total 1999</b>		<b>485.229</b>	<b>\$1,752,101.30</b>	<b>\$1,278,613.78</b>	<b>\$417,156.52</b>	<b>\$56,331.00</b>		<b>\$3,754.33</b>		
Csiszlak, John (Main Farm)	Alpha	99.651	\$518,005.49	\$348,657.54	\$169,347.95			\$5,198.00	2000	CEP
Csiszlak, John	Pohatcong	60.762	\$315,873.27	\$212,607.01	\$103,266.26			\$5,198.00	2000	CEP
Schneiber, Harry	Belvidere	2.811	\$15,459.45	\$10,599.93	\$5,198.18			\$5,500.00	2000	CEP
Schneiber, Harry (Main Farm)	White	28.111	\$154,611.55	\$102,285.37	\$51,987.52			\$5,500.00	2000	CEP
Teel, Gloria	Blairstown	123.778	\$371,334.00	\$272,311.60	\$99,022.40			\$3,000.00	2000	CEP
Gouger, Mary	Blairstown	113.257	\$315,337.50	\$231,609.81	\$83,727.49			\$2,784.00	2000	CEP
Augusta, Joseph	Franklin	110.825	\$345,640.00	\$257,114.00	\$97,526.00			\$3,200.00	2000	CEP
Bennett, Thomas	Frelinghuysen	89.7639	\$269,291.70	\$197,480.58	\$71,811.12			\$3,000.00	2000	CEP
Young, Joseph	Frelinghuysen	64.529	\$225,851.50	\$161,322.50	\$64,529.00			\$3,500.00	2000	CEP
Vegh Brothers	Harmony	110.048	\$351,513.60	\$254,847.36	\$96,666.24			\$3,194.00	2000	CEP
Heeres, Harold	Harmony	144.468	\$469,521.00	\$339,499.80	\$130,021.20			\$3,250.00	2000	CEP
Hengst Farm	Harmony	180.1	\$641,612.27	\$227,578.98	\$0.00			\$3,562.59	2000	SADC Fee Simple
Durholz	Knowlton	62.632	\$152,822.08	\$113,238.66	\$39,583.42			\$2,440.00	2000	CEP
Yentema, Peter	Mansfield	101.996	\$336,586.80	\$242,750.48	\$93,836.32			\$3,300.00	2000	CEP
Kayhart / Waters	Mansfield	166.733	\$512,703.98	\$374,315.59		\$138,388.39		\$3,075.00	2000	CEP
Blazier	Washington	136.06	\$750,000.00	\$750,000.00	\$0.00			\$5,512.00	2000	SADC Direct
	Mansfield									
Frey Living Trust	Pohatcong	93.776	\$468,880.00	\$318,838.40	\$150,041.60			\$5,000.00	2000	CEP
<b>Total 2000</b>		<b>1689.3009</b>	<b>\$6,215,044.19</b>	<b>\$4,415,057.61</b>	<b>\$1,256,564.70</b>	<b>\$138,388.39</b>		<b>\$3,894.92</b>		
Tranquility Farms	Allamuchy	203.131	\$997,592.28	\$775,054.30	\$222,537.98			\$3,400.00	2001	CEP

**Table 11. Warren County Farmland Preservation Program History: 1989-2016**

FARM	MUNICIPALITY	ACRES	TOTAL COST	STATE COST SHARE	COUNTY COST SHARE	MUNICIPAL COST SHARE	OTHER	COST PER ACRE	YEAR PURCHASED	PROGRAM
Pehowski	Blairstown	161.437	\$742,610.20	\$500,454.70	\$242,155.50			\$4,600.00	2001	CEP
Joseph, Peter	Franklin	86.258	donation	\$0.00	\$0.00			\$0.00	2001	CEP
Fischer-Bigelow, Barbara	Harmony	175.72	\$722,407.95	\$366,364.03	\$356,043.92			\$4,111.00	2001	CEP
	Franklin	12.871	\$52,874.25	\$26,814.80	\$26,059.45					
Arvystas	Franklin	48.782	\$229,275.40	\$154,151.12	\$75,124.28			\$4,700.00	2001	CEP
Parrott/Simonetti	Frelinghuysen	117.036	\$203,464.80	\$153,729.00	\$49,735.80			\$1,739.00	2001	CEP
Smolha, Jean	Frelinghuysen	78.715	\$236,145.00	\$172,906.80	\$63,238.20			\$3,000.00	2001	CEP
Smolha / Feldman	Frelinghuysen	103.239	\$289,069.20	\$212,672.34	\$76,396.86			\$2,800.00	2001	CEP
Smolha / Lolos	Frelinghuysen	50.926	\$162,963.20	\$118,148.32	\$44,814.88			\$3,200.00	2001	CEP
MacQueen, William	Harmony	54.517	\$299,843.50	\$136,292.50	\$163,551.00			\$5,500.00	2001	CEP
Santini, Santino	Pohatcong	75.383	\$602,264.00	\$319,952.75	\$282,311.25			\$8,000.00	2001	CEP
Kingsbury, Robert	Washington	134.803	\$471,810.50	\$320,831.14	\$150,979.36			\$3,500.00	2001	CEP
Marra	Washington	96.509	\$173,716.24	\$131,252.24	\$21,232.00	\$21,232.00		\$1,800.00	2001	Municipal PIG
<b>Total 2001</b>		<b>1399.327</b>	<b>\$5,184,036.52</b>	<b>\$3,388,624.04</b>	<b>\$1,774,180.48</b>	<b>\$21,232.00</b>		<b>\$3,604.36</b>		
Bockbrader, Ronald	Allamuchy	141	\$271,190.00	\$146,442.60	\$124,747.40			\$2,000.00	2002	CEP
Bockbrader, Kathleen	Allamuchy	86	\$181,881.00	\$137,977.70	\$45,903.30			\$2,100.00	2002	CEP
Handel, Marjorie	Blairstown	95.576	\$429,192.00	\$284,220.48	\$144,971.52			\$4,500.00	2002	CEP
Schuster, John	Franklin	184.572	\$1,010,856.00	\$661,651.20	\$349,204.80			\$5,500.00	2002	CEP
	Greenwich									
Oberly, Clifford	Greenwich	125.33	\$739,440.00	\$444,921.50	\$294,518.50			\$5,688.00	2002	CEP
Tom, K.C.	Greenwich	45.618	\$252,789.00	\$252,789.00	\$0.00			\$5,436.00	2002	SADC Direct
Magyar, NJ Conservation Foundation	Harmony	127.15	\$988,591.25	\$988,591.25	\$0.00			\$7,775.00	2002	SADC Fee Simple
Walters	Knowlton	149.339	\$472,765.00	\$472,765.00	\$0.00			\$3,166.00	2002	SADC Direct
Smith, Mary	Pohatcong	188	\$914,039.00	\$619,602.06	\$294,446.46			\$5,060.00	2002	CEP
Gambino	Pohatcong	100.003	\$500,015.00	\$500,015.00	\$0.00			\$5,000.00	2002	SADC Direct
Snyder	Pohatcong	86.406	\$293,780.00	\$293,780.00	\$0.00			\$3,400.00	2002	SADC Direct
McDonough	Washington	144.597	\$1,034,816.50	\$1,034,816.50	\$0.00			\$5,500.00	2002	SADC Fee Simple
The Nature Conservancy/Jamar	Frelinghuysen	202.816	\$913,000.00	\$456,336.00	\$0.00	\$228,332.00	\$228,332.00	\$4,502.00	2002	SADC
<b>Total 2002</b>		<b>1676.407</b>	<b>\$8,002,354.75</b>	<b>\$6,293,908.29</b>	<b>\$1,253,791.98</b>	<b>\$228,332.00</b>	<b>\$228,332.00</b>	<b>\$4,586.69</b>		
Braun	Blairstown	40.85	\$111,310.20	\$82,119.34	\$29,190.86			\$2,700.00	2003	CEP
Flitcroft	Blairstown	1.2	\$3,718.55	\$2,387.07	\$1,331.48			\$3,100.00	2003	CEP
Flitcroft, David (Main Farm)	Knowlton	172.143	\$533,644.75	\$342,565.50	\$191,079.25			\$3,100.00	2003	CEP

**Table 11. Warren County Farmland Preservation Program History: 1989-2016**

FARM	MUNICIPALITY	ACRES	TOTAL COST	STATE COST SHARE	COUNTY COST SHARE	MUNICIPAL COST SHARE	OTHER	COST PER ACRE	YEAR PURCHASED	PROGRAM
Mowbray	Blairstown	81.104	\$218,980.80	\$57,583.84	\$161,396.96			\$2,700.00	2003	CEP
Dukes	Blairstown	66.847	\$200,541.00	\$147,056.72	\$53,484.28			\$3,000.00	2003	CEP
Silverside	Frelinghuysen	49.03	\$161,799.00	\$161,799.00	\$0.00			\$3,300.00	2003	SADC Direct
Staufenberger	Frelinghuysen	125.198	\$463,232.60	\$328,018.76	\$135,213.84			\$3,700.00	2003	CEP
Gurba, Stephen #1	Frelinghuysen	178.892	\$679,789.60	\$0.00	\$679,789.60			\$3,800.00	2003	CEP
Dischler, Est. of Robert	Franklin	27.738	\$147,011.40	\$98,468.24	\$48,543.16			\$5,300.00	2003	CEP
Estate of Rinehart	Greenwich	107.4	\$816,604.80	\$505,013.92	\$206,590.88	\$105,000.00		\$7,600.00	2003	CEP
Estate of Rinehart #2	Greenwich	68.173	\$518,114.80	\$320,413.10	\$129,558.70	\$68,173.00		\$7,600.00	2003	CEP
Santini, Peter & June	Harmony	51.867	\$165,974.40	\$165,974.40	\$0.00			\$3,200.00	2003	SADC Direct
Motyka	Hope	78	\$280,137.60	\$140,068.80	\$140,068.80			\$3,600.00	2003	NP EP
Nykun, Peter	Independence	92.938	\$399,633.40	\$191,452.28	\$208,181.12			\$4,300.00	2003	CEP
Ridgewood Hunt Club	Knowlton	311.357	\$1,120,885.20	\$1,120,885.20	\$0.00			\$3,600.00	2003	SADC Direct
Hillyerd (Knowlton Direct)	Knowlton	78.079	\$288,892.30	\$204,566.98	\$84,325.32			\$3,700.00	2003	CEP
Munniksma, George	Mansfield	37.1	\$189,210.00	\$125,540.84	\$63,669.16			\$5,100.00	2003	CEP
Munniksma, George (Main Farm)	Washington	60.83	\$320,015.60	\$212,310.76	\$107,704.84			\$5,100.00	2003	CEP
<b>Total 2003</b>		<b>1628.746</b>	<b>\$6,619,496.00</b>	<b>\$4,206,224.75</b>	<b>\$2,240,128.25</b>	<b>\$173,173.00</b>		<b>\$4,138.89</b>		
Ervey, Joyce	Allamuchy	224.217	\$896,868.00	\$613,727.12	\$283,140.88			\$4,000.00	2004	CEP
Gurba, Stephen #2	Allamuchy	28.362	\$88,298.00	\$0.00	\$88,298			\$3,400	2004	CEP
Gurba, Stephen #2 (Main Farm)	Frelinghuysen	81.326	\$299,115.00	\$0.00	\$299,115.00			\$3,400.00	2004	CEP
Oberly, Jack	Alpha	22.508	\$138,986.90	\$89,750.65	\$49,236.25			\$6,175.00	2004	CEP
Oberly, Jack (Main Farm)	Pohatcong	122.403	\$755,838.53	\$488,081.96	\$267,756.57			\$6,175.00	2004	CEP
Round Hill Farm	Hardwick	27.371	\$475,041.00	\$172,157.50	\$52,000.00		\$94,000.00	\$7,000.00	2004	NP EP
	Blairstown	41.742			\$156,883.50					
DeBlock / Blairstown Twp.	Blairstown	164.545	\$1,069,542.50	\$1,004,542.50	\$0.00		\$6,500.00	\$6,500.00	2004	SADC EP
Falk, Norman	Franklin	45.094	\$234,488.80	\$139,791.40	\$94,697.40			\$5,200.00	2004	CEP
Warren Rod & Gun Club	Franklin	95.645	\$422,288.76	\$290,351.26	\$131,937.50			\$4,568.00	2004	CEP
Westbrook, Jacob (Main in Sussex)	Frelinghuysen	8.428	\$20,817.16	\$15,414.81	\$5,402.35			\$2,470.00	2004	CEP
Rayna	Greenwich	69.9935	\$629,941.50	\$559,948.00	\$0.00		\$69,993.50	\$9,000.00	2004	SADC EP

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FARM	MUNICIPALITY	ACRES	TOTAL COST	STATE COST SHARE	COUNTY COST SHARE	MUNICIPAL COST SHARE	OTHER	COST PER ACRE	YEAR PURCHASED	PROGRAM
Joseph P. Young & Son, Inc.	Hardwick	76.746	\$383,730.00	\$158,096.76	\$225,633.24			\$5,000.00	2004	CEP
William Vosper	Hardwick	92.29	\$379,572.32	\$226,838.99	\$152,733.33			\$4,113.00	2004	CEP
Zahn / Aguero	Knowlton	29.36	\$99,834.20	\$71,641.02	\$28,193.18			\$3,400.00	2004	CEP
Smith, E. R. Estate	Mansfield	161.036	\$966,216.00	\$397,222.50	\$568,993.50			\$6,000.00	2004	CEP
Horizon Associates	Pohatcong	100.617	\$426,033.00	\$293,489.40	\$132,543.60			\$4,500.00	2004	CEP
Willard, Donald #1	Pohatcong	50.392	\$317,469.60	\$204,101.21	\$56,684.20	\$56,684.19		\$6,300.00	2004	Municipal PIG
Marchesi	Pohatcong	18.09	\$95,877.00	\$64,219.50	\$15,828.75	\$15,828.75		\$5,300.00	2004	Municipal PIG
Chelsea Forge Vintners	Pohatcong	68.658	\$302,095.20	\$208,720.32	\$46,687.44	\$46,687.44		\$4,673.00	2004	Municipal PIG
Willard, Donald #2	Pohatcong	240.248	\$1,441,488.00	\$888,917.60	\$228,235.60	\$324,334.80		\$6,000.00	2004	PIG
Pineyhill Farm (Sylstra)	Washington	126.47	\$339,824.89	\$339,824.89	\$0.00			\$2,687.00	2004	SADC Fee Simple
Crossroads Farm (Polhemus)	White	108.127	\$648,762.00	\$419,402.10	\$229,359.90			\$6,000.00	2004	CEP
<b>Total 2004</b>		<b>2003.6685</b>	<b>\$10,432,128.36</b>	<b>\$6,646,239.49</b>	<b>\$3,113,360.19</b>	<b>\$443,535.18</b>	<b>\$170,493.50</b>	<b>\$5,084.59</b>		
Mangine (Main Farm)	Blairstown	30	\$135,000.00	\$93,000.00	\$20,678.09	\$20,419.41		\$4,500.00	2005	Municipal PIG
Mangine	Knowlton	3.52	\$13,870.00	\$9,486.00	\$2,463.91	\$2,722.59		\$4,500.00	2005	Municipal PIG
Glenview	Blairstown	39.5	\$136,250.00	\$70,000.00	\$40,000.00	\$26,250.00		\$3,449.37	2005	NP EP
Sigler, Ronald #1	Franklin	90.9876	\$600,518.16	\$382,147.92	\$109,185.12	\$111,269.08		\$7,400.00	2005	Municipal PIG
Sigler, Ronald #2	Franklin	82.3244	\$609,200.56	\$362,227.36	\$107,021.72	\$139,951.48		\$7,400.00	2005	Municipal PIG
Sigler, Ronald #3	Franklin	97.88	\$685,160.00	\$381,732.00	\$102,774.00	\$200,654.00		\$7,000.00	2005	Municipal PIG
Sigler, Ronald #4	Franklin	53.3998	\$373,798.60	\$221,609.17	\$62,744.77	\$89,444.66		\$7,000.00	2005	Municipal PIG
Curba, Stephen #3	Frelinghuysen	123.498	\$345,794.40	\$254,400.00	\$91,394.40			\$2,800.00	2005	CEP
Van Grouw, William	Frelinghuysen	93.768	\$356,318.40	\$356,318.40	\$0.00			\$3,500.00	2005	SADC Direct
Hengst, L.	Harmony	63.086	\$239,726.80	\$169,070.48	\$70,656.32			\$3,800.00	2005	CEP
Rohsler, H. Mark	Hope	70.697	\$162,175.30	\$105,766.50	\$56,408.80			\$2,300.00	2005	CEP
Rohsler, Barbara	Hope	60.168	\$167,792.80	\$89,889.00	\$77,903.80			\$2,800.00	2005	CEP
Arena	Knowlton	35.11	\$175,555.00	\$119,377.40	\$28,088.80	\$28,088.80		\$5,000.00	2005	Municipal PIG
Dunne	White	39.339	\$155,756.00	\$105,135.30			\$50,620.70	\$3,959.33	2005	NP EP
Caruso	White	126.086	\$673,716.00	\$673,716.00	\$0.00			\$5,343.00	2005	SADC Direct
Bullock	White	101.922	\$392,399.70	\$255,059.81	\$137,339.89			\$3,850.00	2005	CEP

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<b>Total 2005</b>		<b>1111.2858</b>	<b>\$5,223,031.72</b>	<b>\$3,648,935.34</b>	<b>\$906,659.62</b>	<b>\$618,800.02</b>	<b>\$50,620.70</b>	<b>\$4,662.61</b>		
Bungert, Mary Lou	Franklin	41.5925	\$328,580.75	\$201,715.72	\$126,865.03			\$7,900.00	2006	CEP
Peck	Frelinghuysen	43.9203	\$228,385.56	\$153,726.32	\$74,659.24			\$5,200.00	2006	CEP
Dering (White Oak Farm)	Hope	46.8524	\$311,568.46	\$193,541.89	\$118,026.57			\$6,650.00	2006	CEP
Grochowicz, T. & L	Hope	128.3587	\$904,928.84	\$449,232.62	\$455,696.22			\$7,050.00	2006	CEP
Van Horn Estate	Allamuchy	98.062	\$735,465.00	\$382,441.80	\$353,023.20			\$7,500.00	2,006	CEP
McCloskey, Anne	Independence	45.868	\$137,604.00	\$0.00	\$137,604.00			\$3,000.00	2006	CEP
Brugler Farm #1	Knowlton	33.296	\$224,748.00	\$136,920.40	\$43,913.80	\$43,913.80		\$6,750.00	2006	Municipal PIG
Brugler Farm #2	Knowlton	46.828	\$325,454.60	\$204,872.50	\$60,291.05	\$60,291.05		\$6,950.00	2006	Municipal PIG
Diecidue, Agostino	Knowlton	45.537	\$182,148.00	\$127,503.60	\$27,322.20	\$27,322.20		\$4,000.00	2006	Municipal PIG
Weeks III	Pohatcong	18.516	\$240,708.00	\$81,470.40	\$24,070.80	\$135,166.80		\$13,000.00	2006	Municipal PIG
Enz, Kathleen	Washington	37.792	\$196,518.40	\$123,957.76	\$72,560.64			\$5,200.00	2006	CEP
	White	37.853	\$196,835.60	\$124,157.84	\$72,677.76					
AJR REALTY - Washington Twp	Washington	150.599	\$5,000,000.00	\$3,000,000.00	\$500,000.00	\$1,500,000.00		\$33,200.75	2006	SADC Fee Simple
Matthews, Ivan	White	35.6588	\$188,991.64	\$121,239.92	\$67,751.72			\$5,300.00	2006	CEP
<b>Total 2006</b>		<b>810.7337</b>	<b>\$9,201,936.85</b>	<b>\$5,300,780.77</b>	<b>\$2,134,462.23</b>	<b>\$1,766,693.85</b>		<b>\$8,350.05</b>		
Convey, Frank et als	Franklin	147.6845	\$679,348.70	\$466,712.55	\$212,636.15			\$4,600.00	2007	CEP
Sigler, Earl #1	Franklin	44.7231	\$353,312.49	\$0.00	\$353,312.49			\$7,900.00	2007	CEP
Sigler, Earl #2	Franklin	28.0766	\$218,997.48	\$0.00	\$218,997.48			\$7,800.00	2007	CEP
Hamlen/McNerney	Harmony	19.9201	\$103,584.52	\$55,589.24	\$12,045.58	\$35,949.70		\$5,200.00	2007	Municipal PIG
Schanzlin, Robert	Harmony	83.121	\$531,974.40	\$299,190.50	\$232,783.90			\$6,400.00	2007	CEP
Jansen, Peter C. & Heather A.	Harmony	76.122	\$304,488.00	\$213,414.60	\$91,346.40			\$4,000.00	2007	CEP
Sosnovik	Hope	64.503	\$586,986.40	\$589,986.40	\$0.00			\$9,100.00	2007	SADC Direct
Fritz, Gladys	Knowlton	12.571	\$11,615.60	\$9,292.48	\$2,323.12			\$924.00	2007	CEP
Gessie	Knowlton	28.111	\$289,543.30	\$173,725.98	\$57,908.66	\$57,908.66		\$10,300.00	2007	Municipal PIG
Willever	Pohatcong	26.562	\$273,588.60	\$155,387.70	\$51,795.90	\$66,405.00		\$10,300.00	2007	Municipal PIG
Czar # 2	Pohatcong	66.744	\$333,720.00	\$226,929.60	\$53,395.20	\$53,395.20		\$5,000.00	2007	Municipal PIG
Czar # 3	Pohatcong	25.169	\$133,395.70	\$81,044.18	\$18,625.06	\$37,726.46		\$5,300.00	2007	Municipal PIG
Heath	Washington	9.282	\$185,640.00	\$111,384.00	\$74,256.00			\$20,000.00	2007	CEP
Hill	Blairstown	28.885	\$216,637.50	\$134,315.25	\$63,366.47	\$18,955.78		\$7,500.00	2007	Municipal PIG
Ruh	Blairstown	135.577	\$705,000.40	\$474,519.50	\$182,009.45	\$48,471.45		\$5,200.00	2007	Municipal PIG
Woodcock	Blairstown	21.798	\$156,945.60	\$98,091.00	\$29,427.30	\$29,427.30		\$7,200.00	2007	Municipal PIG

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Bernard Britt (RJDD, LLC Eagle Valley Farm)	Mansfield	78.118	\$958,950.00	\$958,950.00	\$0.00			\$12,276.00	2007	SADC Fee Simple
Jayne, William III & Bruce, Dale - David Slack now owns	Greenwich	127.305	\$3,229,515.00	\$3,229,515.00	\$0.00			\$25,368.00	2007	SADC Fee Simple
	Pohatcong									
	Alpha									
<b>Total 2007</b>		<b>1024.2723</b>	<b>\$9,273,243.69</b>	<b>\$7,278,047.98</b>	<b>\$1,654,229.16</b>	<b>\$348,239.55</b>		<b>\$8,576.00</b>		
Miller, John & Wendy	Franklin	48.537	\$407,710.80	\$0.00	\$336,361.41	\$71,349.39		\$8,400.00	2008	CEP
Smith, Emily & Lyle	Frelinghuysen	21.785	\$163,387.50	\$101,300.25	\$31,043.62	\$31,043.62		\$7,500.00	2008	Municipal PIG
Estate of B. Hamlen	Greenwich	86.9955	\$591,569.40	\$374,080.65	\$108,744.38	\$108,744.38		\$6,800.00	2008	Municipal PIG
Tjalma	Harmony	218.9992	\$1,463,700.00	\$928,950.81	\$267,354.22	\$267,354.22		\$6,683.59	2008	Municipal PIG
Bromm & Meris (Cool)	Knowlton	62.061	\$465,457.50	\$288,583.65	\$88,436.92	\$88,436.93		\$7,500.00	2008	Municipal PIG
Topoleski	Liberty	11.142	\$38,997.00	\$16,713.00	\$22,284.00			\$3,500.00	2008	CEP
Quick	Liberty	49.888	\$259,417.60	\$174,608.00	\$84,809.60			\$5,200.00	2008	CEP
Weeks #1	Pohatcong	79.081	\$695,912.80	\$407,267.15	\$132,460.68	\$156,184.96		\$8,800.00	2008	Municipal PIG
Babinsky	Pohatcong	41.912	\$562,977.00	\$300,254.40	\$100,084.80	\$162,637.80		\$13,500.00	2008	Municipal PIG
Frey #1	Pohatcong	138.603	\$771,602.90	\$446,301.66	\$102,566.22	\$222,735.02		\$5,567.00	2008	Municipal PIG
Frey #2	Pohatcong	72.138	\$569,890.20	\$317,407.20	\$93,779.40	\$158,703.60		\$7,900.00	2008	Municipal PIG
Frey #3	Pohatcong	25.366	\$304,392.00	\$182,635.20	\$60,878.60	\$60,878.40		\$12,000.00	2008	Municipal PIG
Frey #4	Pohatcong	12.997	\$304,935.61	\$101,376.60	\$67,584.40	\$135,974.61		\$23,462.00	2008	Municipal PIG
Sigler, Anna	Washington	60.789	\$1,280,784.40	\$284,703.85	\$224,137.00	\$224,137.00	\$547,806.55	\$20,600.00	2008	NP Fee
	Franklin	1.385								
Parks	White	43.437	\$218,835.61	\$142,473.36	\$33,012.12	\$43,350.13		\$5,038.00	2008	Municipal PIG
Maine	Blairstown	23.007	\$176,334.60	\$108,513.60	\$52,459.54	\$15,361.46		\$7,800.00	2008	Municipal PIG
Duckworth #1	Harmony	69.569	\$472,987.60	\$299,095.10	\$173,892.50			\$6,800.00	2008	CEP
Duckworth #2	Harmony	71.469	\$547,400.00	\$344,080.00	\$203,320.00			\$7,000.00	2008	CEP
	White	6.74								
Duckworth #3	Harmony	24.501	\$166,606.80	\$104,129.25	\$62,477.55			\$6,800.00	2008	CEP
Duckworth, Donald & Elise	Harmony	130.2	\$781,200.00	\$781,200.00	\$0.00			\$6,000.00	2008	SADC Direct
Sakele	Harmony	105.1817	\$915,080.79	\$292,742.66	\$440,899.76	\$181,438.37		\$8,700.00	2008	Municipal PIG
Denjoe	Harmony	63.2779	\$531,634.36	\$322,717.29	\$104,508.53	\$104,408.54		\$8,400.00	2008	Municipal PIG
Fuchs / Supplee	White	94.163	\$941,630.00	\$564,978.00	\$188,326.00	\$188,326.00		\$10,000.00	2008	Municipal PIG
White Twp	White	18.408	\$204,558.32	\$122,735.16	\$40,736.68	\$41,086.48		\$11,112.48	2008	Municipal PIG
Gardner	Franklin	89.831	\$556,952.20	\$327,883.15	\$83,093.67	\$145,975.38		\$6,200.00	2008	Municipal PIG
Venner	Harmony	51.619	\$390,047.20	\$241,213.40	\$148,833.80			\$7,556.27	2008	CEP

**Table 11. Warren County Farmland Preservation Program History: 1989-2016**

FARM	MUNICIPALITY	ACRES	TOTAL COST	STATE COST SHARE	COUNTY COST SHARE	MUNICIPAL COST SHARE	OTHER	COST PER ACRE	YEAR PURCHASED	PROGRAM
Santini, Robert & Sharon	Pohatcong	64.168	\$570,561.89	\$337,572.90	\$111,462.75	\$121,526.24		\$8,958.00	2008	Municipal PIG
Zapatka #1	Pohatcong	50.185	\$331,221.00	\$188,193.75	\$71,513.63	\$71,513.63		\$6,600.00	2008	Municipal PIG
Zapatka #2	Pohatcong	49.201	\$346,424.24	\$191,883.90	\$77,270.17	\$77,270.17		\$7,041.00	2008	Municipal PIG
May	Hope	36.871	\$184,355.00	\$125,361.40	\$29,496.80	\$29,496.80		\$5,000.00	2008	Municipal PIG
<b>Total 2008</b>		<b>1923.5073</b>	<b>\$15,216,564.32</b>	<b>\$8,418,955.34</b>	<b>\$3,541,828.75</b>	<b>\$2,707,933.13</b>	<b>\$547,806.55</b>	<b>\$8,552.20</b>		
DePietro (Main in Blirstown)	Hope	26.4774	\$557,679.46	\$0.00	\$557,679			\$6,200.00	2009	CEP
	Blirstown	63.4709								
Murray (Shoebox)	Blirstown	22.641	\$226,410.00	\$27,321.65	\$99,544.18	\$99,544.17		\$10,000.00	2009	Municipal PIG
Kurnath	Liberty	75.035	\$600,280.00	\$367,671.50	\$232,608.50			\$8,000.00	2009	CEP
Warren Beagle Club	Pohatcong	118.601	\$471,794.78	\$128,089.08	\$37,952.32	\$305,753.38		\$3,978.00	2009	Municipal PIG
Terhune #1	Mansfield	77.468	\$353,461.50	\$167,353.20	\$186,108.30			\$4,200.00	2009	CEP
Terhune #2	Mansfield	66.2199	\$264,879.60	\$177,469.33	\$87,410.27			\$4,000.00	2009	CEP
Sams	Mansfield	64.791	\$129,582.00	\$88,115.76	\$41,466.24			\$2,000.00	2009	CEP
Goodbody	Hope	178.519	\$1,088,355.90	\$1,088,355.90	\$0.00			\$6,097.00	2009	SADC Direct
Carmeci	Knowlton	35.187	\$351,870.00	\$211,122.00	\$70,374.00	\$70,374.00		\$10,000.00	2009	Municipal PIG
Paans	Hardwick	56.8	\$273,960.00	\$0.00	\$205,470.00	\$5,479.20	\$63,010.80	\$5,000.00	2009	NP EP
Stires	Hardwick	169.831	\$1,103,901.50	\$0.00	\$827,926.12	\$22,078.03	\$253,897.35	\$6,500.00	2009	NP EP
Bennett	Hardwick	120.133	\$779,252.50	\$0.00	\$584,439.38	\$15,585.05	\$179,228.08	\$6,500.00	2009	NP EP
Slack	Greenwich	117.017	\$972,862.80	\$590,666.70	\$382,196.10			\$8,400.00	2009	CEP
Polowy	Frelinghuysen	139.869	\$853,200.90	\$0.00	\$426,600.45		\$426,600.45	\$6,100.00	2009	NP EP
Truszkowski I	Franklin	110.756	\$742,065.20	\$222,619.56	\$148,413.04		\$371,032.60	\$6,700.00	2009	NP EP
Truszkowski II	Franklin	28.412	\$221,737.50	\$66,521.25	\$44,347.50		\$110,868.75	\$8,100.00	2009	NP EP
Pequest Development, LLC	White	59.839	\$1,165,475.26	\$711,169.76	\$245,150.48	\$209,155.02		\$19,476.85	2009	CEP
<b>Total 2009</b>		<b>1531.0672</b>	<b>\$10,156,768.90</b>	<b>\$3,846,475.69</b>	<b>\$4,177,686.34</b>	<b>\$727,968.85</b>	<b>\$1,404,638.03</b>	<b>\$7,132.46</b>		
Woodcock	Frelinghuysen	27.382	\$232,747.00	\$116,373.00	\$116,374.00			\$8,500.00	2010	NP EP
Matthews, Timothy	White	84.4026	\$396,692.22	\$270,521.22	\$126,171.00			\$4,700.00	2010	CEP
Peck	Knowlton	37.643	\$146,807.70	\$94,107.50	\$26,350.10	\$26,350.10		\$3,500.00	2010	Municipal PIG
Demeter 1	White	83.521	\$668,168.00	\$403,615.30	\$214,426.10		\$50,126.60	\$8,000.00	2010	CEP
Motyka	Hope	38.62	\$193,100.00	\$119,722.00	\$73,378.00			\$5,000.00	2010	CEP
Greene	Frelinghuysen	32.504	\$157,084.68	\$98,812.16	\$29,136.26	\$29,136.26		\$4,832.78	2010	Municipal PIG
Santini Testament Trust	Franklin	101.182	\$607,092.00	\$154,215.70	\$107,596.40	\$121,418.40	\$223,861.50	\$6,000.00	2010	Municipal PIG
Prant	Allamuchy	107.652	\$538,260.00	\$366,016.80	\$32,295.60		\$139,947.60	\$5,000.00	2010	CEP
Wattles #1 (West Farm)	Mansfield	112.192	\$1,212,952.00	\$727,771.20	\$485,180.80			\$10,900.00	2010	CEP

**Table 11. Warren County Farmland Preservation Program History: 1989-2016**

FARM	MUNICIPALITY	ACRES	TOTAL COST	STATE COST SHARE	COUNTY COST SHARE	MUNICIPAL COST SHARE	OTHER	COST PER ACRE	YEAR PURCHASED	PROGRAM
Wattles #2 (East Farm)	Mansfield	98.485	\$1,053,538.89	\$632,122.94	\$421,415.95			\$10,753.14	2010	CEP
Demeter #2	White	53.036	\$371,252.00	\$206,840.40	\$164,411.60			\$7,000.00	2010	CEP
Schuster	Greenwich	53.8826	\$330,513.32	\$213,234.10	\$63,970.62		\$53,308.60	\$6,200.00	2010	CEP
Demeter #3 (Main)	White	56.679	\$401,093.00	\$243,520.75	\$157,572.25			\$7,000.00	2010	CEP
	Harmony	0.62								
Buchman	Knowlton	59.199	\$161,846.52	\$119,206.99	\$21,319.76	\$21,319.76		\$2,736.39	2010	Municipal PIG
<b>Total 2010</b>		<b>947.0002</b>	<b>\$6,471,147.33</b>	<b>\$3,766,080.06</b>	<b>\$2,039,598.44</b>	<b>\$198,224.52</b>	<b>\$467,244.30</b>	<b>\$6,833</b>		
Leavens	Franklin	57.009	\$420,397.50	\$227,564.58	\$1,344.99		\$191,487.93	\$7,500.00	2011	Municipal PIG
Santini, S & C	Franklin	88.245	\$564,768.00	\$282,384.00	\$282,384.00			\$6,400.00	2011	NP EP
Dumont Road, LLC	Greenwich	93.935	\$1,795,500.00	\$399,398.93	\$205,463.07	\$227,000.00	\$963,638.00	\$19,950.00	2011	CEP
Getto	Mansfield	42.798	\$298,944.03	\$156,212.70	\$142,731.33			\$6,985.00	2011	CEP
Kinney	Harmony	121.147	\$545,161.50	\$361,018.06	\$184,143.44			\$4,500.00	2011	CEP
Sigler	Franklin	19.806	\$103,923.75	\$69,777.38	\$17,073.19	\$17,073.19		\$5,250.00	2011	Municipal PIG
Ring	Knowlton	41.659	\$157,599.90	\$109,935.54	\$23,832.18	\$23,832.18		\$4,100.00	2011	Municipal PIG
<b>Total 2011</b>		<b>464.599</b>	<b>\$3,886,294.68</b>	<b>\$1,606,291.19</b>	<b>\$856,972.20</b>	<b>\$267,905.37</b>	<b>\$1,155,125.93</b>	<b>\$8,365</b>		
Fox River, LLP	Greenwich	65.858	\$513,942.40	\$315,521.60	\$99,210.40	\$99,210.40		\$7,900.00	2012	Municipal PIG
Santini	Franklin	70.109	\$384,565.50	\$192,282.75	\$192,282.75			\$5,500.00	2012	NP EP
CJ Race Farm	Blairstown	44.196	\$340,309.20	\$209,931.00	\$65,189.10	\$65,189.10		\$7,700.00	2012	Municipal PIG
D. Race Farm	Blairstown	30.033	\$201,221.10	\$127,640.25	\$36,790.43	\$36,790.42		\$6,700.00	2012	Municipal PIG
Drake	Allamuchy	198.087	\$792,348.00	\$554,643.60	\$237,704.40			\$4,000.00	2012	CEP
Linz	Frelinghuysen	122.847	\$429,828.00	\$307,020.00	\$61,404.00	\$61,404.00		\$3,500.00	2012	Municipal PIG
Bertholf (48 Delaware LLC)	Knowlton	55.628	\$294,828.40	\$197,479.40	\$48,674.50	\$48,674.50		\$5,300.00	2012	Municipal PIG
<b>Total 2012</b>		<b>586.758</b>	<b>\$2,957,042.60</b>	<b>\$1,904,518.60</b>	<b>\$741,255.58</b>	<b>\$311,268.42</b>		<b>\$5,040</b>		
Martin	White	86.306	\$431,530.00	\$215,765.00	\$215,765.00			\$5,000.00	2013	CEP
DiRisio	Mansfield	71	\$497,000.00	\$294,650.00	\$202,350.00			\$7,000.00	2013	CEP
A. Schnetzer (Estate)	Franklin	61.82	\$278,190.00	\$191,642.00	\$86,548.00			\$4,500.00	2013	CEP
Brook Hollow (Ritter)	Knowlton	7.003	\$69,810.00	\$41,886.00	\$13,962.00	\$13,962.00		\$10,000.00	2013	Municipal PIG
<b>Total 2013</b>		<b>226.129</b>	<b>\$1,276,530.00</b>	<b>\$743,943.00</b>	<b>\$518,625.00</b>	<b>\$13,962.00</b>		<b>\$5,645</b>		
Pruden	Hope	128.561	\$513,532.00	\$359,472.40	\$154,059.60			\$4,000.00	2014	CEP
Bowers	Pohatcong	47.91	\$311,415.00	\$198,826.50	\$23,955.00		\$88,633.50	\$6,500.00	2014	CEP
Erhardt	White	26.384	\$189,964.80	\$118,728.00	\$35,618.40	\$27,703.20	\$7,915.20	\$7,200.00	2014	Municipal PIG
McConnell	Oxford	52.583	\$326,014.60	\$209,688.00	\$116,326.60			\$6,200.00	2014	CEP

**Table 11. Warren County Farmland Preservation Program History: 1989-2016**

FARM	MUNICIPALITY	ACRES	TOTAL COST	STATE COST SHARE	COUNTY COST SHARE	MUNICIPAL COST SHARE	OTHER	COST PER ACRE	YEAR PURCHASED	PROGRAM
May (Non-Profit with TLC-NJ)	Hope	21.038	\$125,176.10	\$62,588.05	\$62,588.05			\$5,950.00	2014	NP EP
Sunny Hill Farm (Raub) (Non-Profit with TLC-NJ)	Harmony	23.724	\$164,881.80	\$82,440.90	\$82,440.90			\$6,950.00	2014	NP EP
	Lopatcong									
Beaver Brook Farm	Hope	136.226	\$533,579.92	\$373,787.55	\$159,792.37			\$3,979.00	2014	CEP
Kleindienst-part in Stillwater Twp. Sussex County	Frelinghuysen	44.707	\$178,828.00	\$114,002.85	\$0.00		\$64,825.15	\$4,000.00	2014	SADC Direct
Czar Farm	Pohatcong	95.922	\$510,678.00	\$340,452.00	\$170,226.00			\$5,400.00	2014	CEP
<b>Total 2014</b>		<b>577.055</b>	<b>\$2,854,070.22</b>	<b>\$1,859,986.25</b>	<b>\$805,006.92</b>	<b>\$27,703.20</b>	<b>\$161,373.85</b>	<b>\$4,945.92</b>		
Cooke	Hope	48.386	\$179,028.20	\$84,931.03	\$4,410.40		\$89,686.77	\$3,700.00	2015	CEP
	Frelinghuysen									
Farley Acres (Stern)	Harmony	104.162	\$581,655.20	\$384,307.90	\$98,673.65	\$98,673.65		\$5,600.00	2015	Municipal PIG
Anderson	Knowlton	116.885	\$607,802.00	\$409,097.50	\$99,352.25	\$99,352.25		\$5,200.00	2015	Municipal PIG
McCullough Road Land Development, LLC	Washington	39.062	\$273,434.00	\$0.00	\$92,772.25		\$180,661.75	\$7,000.00	2015	CEP
Frelinghuysen Township- County Only (TLCNJ)	Frelinghuysen	27.804	\$100,000.00	\$0.00	\$50,000.00		\$50,000.00	\$3,596.60	2015	NP EP
Al-Ruby Farm	Harmony	23.617	\$165,319.00	\$103,914.80	\$30,702.10	\$30,702.10		\$7,000.00	2015	Municipal PIG
Santini, Robert & Sarah	Greenwich	92.895	\$575,949.00	\$575,949.00	\$0.00			\$6,200.00	2015	SADC Direct
	Lopatcong									
Apgar Cider Farm	Harmony	18.005	\$125,419.00	\$78,834.80	\$23,292.10	\$23,292.10		\$4,400.00	2015	Municipal PIG
Estate of Mary Kinney	Blairstown	32.485	\$181,720.00	\$120,065.00	\$61,655.00			\$5,600.00	2015	CEP
	Knowlton									
Estate of Clarence Bullock	White	60.141	\$234,549.90	\$164,786.34	\$69,763.56			\$3,900.00	2015	CEP
Cericola #1	Franklin	174.186	\$1,079,953.20	\$696,744.00	\$383,209.20			\$6,200.00	2015	CEP
Cericola #2	Franklin	29.354	\$176,124.00	\$110,811.35	\$65,312.65			\$6,000.00	2015	CEP
Smith, J&K #1	Harmony	49.457	\$296,742.00	\$184,782.00	\$111,960.00			\$6,000.00	2015	CEP
Smith, J&K #2	Harmony	50.384	\$277,112.00	\$183,901.60	\$93,210.40			\$5,500.00	2015	CEP
Walburn	White	23.449	\$138,349.10	\$90,278.65	\$24,035.23	\$24,035.23		\$5,900.00	2015	Municipal PIG
Oberly (SADC Direct)	Pohatcong	92.81	\$371,240.00	\$371,240.00	\$0.00			\$4,000.00	2015	SADC Direct
	Alpha									
<b>Total 2015</b>		<b>983.082</b>	<b>\$5,364,396.60</b>	<b>\$3,559,643.97</b>	<b>\$1,208,348.79</b>	<b>\$276,055.33</b>	<b>\$320,348.52</b>	<b>\$5,457</b>		
Schanzlin	Harmony	78.968	\$473,808.00	\$307,972.50	\$82,917.75	\$82,917.75		\$6,000.00	2016	Municipal PIG

**Table 11. Warren County Farmland Preservation Program History: 1989-2016**

FARM	MUNICIPALITY	ACRES	TOTAL COST	STATE COST SHARE	COUNTY COST SHARE	MUNICIPAL COST SHARE	OTHER	COST PER ACRE	YEAR PURCHASED	PROGRAM
Thompson	White	34.621	\$124,635.60	\$88,629.76	\$18,002.92	\$18,002.92		\$3,600.00	2016	CEP
RLL Enterprises	Franklin	47.735	\$362,786.00	\$224,354.50	\$138,431.50			\$7,600.00	2016	CEP
Berry	Frelinghuysen	95.76	\$550,620.00	\$361,494.00	\$94,563.00	\$94,563.00		\$5,750.00	2016	Municipal PIG
Shoemaker (Twin Brook)	White	21.556	\$142,269.60	\$90,535.20	\$25,867.20	\$25,867.20		\$6,600.00	2016	Municipal PIG
Campbell Foundry Farm	Hope	171.157	\$342,314.00	\$256,735.50	\$42,789.25	\$42,789.25		\$2,000.00	2016	Municipal PIG
<b>Total 2016</b>		<b>449.797</b>	<b>\$1,996,433.20</b>	<b>\$1,329,721.46</b>	<b>\$402,571.62</b>	<b>\$264,140.12</b>		<b>\$5,258.33</b>		
<b>Totals:</b>		<b>23,267.79</b>	<b>\$127,767,358.66</b>	<b>\$80,756,093.51</b>	<b>\$33,063,118.31</b>	<b>\$8,789,885.92</b>	<b>\$4,705,983.38</b>	<b>\$5,491.17</b>		
<b>Total # of Farms:</b>		<b>259</b>	Percent Cost Share:		63%	26%	7%	4%		

### ***County Easement Purchase***

County Easement Purchases (CEP) involve the sale of farmland development rights to the county by the landowner. By selling their development rights to the county, the landowner agrees to restrict their land to agricultural use. The landowner still retains ownership of his or her farm and can sell it on the open market at any time, but the land is deed-restricted, in perpetuity, for agricultural use.

To be eligible for the County Easement Purchase program, a landowner must complete an application. In the past, these applications were distributed once a year, with the new County Planning Incentive Grant program there will no longer be an annual application date for the County Easement Purchase program. Following review of the application and a site visit by the CADB, two independent appraisals must be conducted. Each appraisal should determine the land's fair market value and its agricultural value. The difference between these two is the price of the farm's "development rights," also known as the easement value. The easement value offered to the landowner is the price that the SADC certifies based on the findings of the two independent appraisals. If this price is accepted, the County has title work and a survey done for farms receiving final State, County and Municipal approvals, and then schedules a closing. The landowner still retains ownership of his or her farm and can sell it on the open market at any time, but the land is deed-restricted, in perpetuity, for agricultural use.

In certain situations, the SADC may cost share on an easement which has been, or is being acquired, by a county. The SADC will not authorize a grant for greater than 80% of the SADC's certified fair market value of the development easement. If the landowner's asking price is greater than the certified fair market value, the SADC's cost share grant shall be based upon the SADC's certified fair market value. The percent cost share is based upon the sliding scale shown in *Table 12. SADC Sliding Cost Share, p.64.*<sup>35</sup>

**Table 12. SADC Sliding Cost Share**

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

### ***County Planning Incentive Grants***

The goal of County Planning Incentive Grants (PIGs) is to protect and preserve large pieces of contiguous farmland through the purchase of development easements. The State Agriculture

Development Committee (SADC) updated their rules (N.J.A.C. 2:76-6.3 through 2:76-17A.17) to promote County PIGs to streamline and expand the farmland preservation program throughout the state. In order to qualify for PIGs, an agricultural advisory committee, as which the County Agriculture Development Board (CADB) functions for the county, is necessary. Additionally, the county must maintain a dedicated source of funding or alternative means for funding farmland preservation. Both county and municipal applications should correlate with county comprehensive farmland preservation plans. Warren County developed their 2008 *Comprehensive Farmland Preservation Plan* in order to bring it in to compliance with the adopted guidelines and qualify for the County Planning Incentive Grant program. The 2016 *Plan Update* ensures continued consistency and compliance with local and state programs.

Warren County has encumbered and expended in each funding round the following grants awarded through the SADC, including both the base award and competitive grants.<sup>36</sup>

2009: \$2,080,293.55 encumbered and expended

2011: \$290,754.42 encumbered and expended

2013: \$2,469,447.11 encumbered and expended

### ***Municipal Planning Incentive Grants***

Municipal Planning Incentive Grants (PIGs) are very similar to the County PIGs in their goals, requirements, and implementation. Like the County PIGs, Municipal PIGs require a local financial commitment for preserving farmland. Upon the completion of a municipal Farmland Preservation Plan and application to the SADC, grants are provided by the SADC in order to purchase development easements. The Farmland Preservation Plan describes the farms that are the focus of the municipal PIG. In order to qualify for this program, the town must have an agricultural advisory committee and a source of funding for farmland preservation. Farms preserved through a municipal PIG need to be approved by the CADB only when there is a county cost share.

There are nine municipalities in Warren County enrolled in the Municipal PIG program:

1. Blairstown Township
2. Franklin Township
3. Frelinghuysen Township
4. Greenwich Township
5. Harmony Township
6. Hope Township
7. Knowlton Township
8. Pohatcong Township
9. White Township

These nine municipalities have state-approved Comprehensive Farmland Preservation Plans and have preserved land through the Municipal Planning Incentive Grant program. These farms are identified in *Table 10. Municipal Farmland Preserved in Warren County: 1989- 2016, p.52.*

Typically, in Warren County, the SADC has funded 60% of the development easement purchase through the municipal PIG program, and the CADB and municipality have split the remaining cost equally.

*Note:* Washington Township agreed to start a Municipal Planning Incentive Grant plan and application when they received funding for the AJR property in 2008. The Township earmarks its local open space and farmland funding on maintaining their Meadow Breeze Park and did not complete the Municipal PIG application. It does not have an active PIG program for farmland preservation at this time.

### ***SADC State Acquisition Program***

#### **SADC Direct Easement Purchase**

The State Agriculture Development Committee (SADC) is the lead program in administering the state's Farmland Preservation Program. The SADC:

- Provides cost share funding for the purchase of development easements.
- Directly purchases farms and development easements from landowners;
- Administers grants to landowners in the Farmland Preservation Program to fund up to 50% of soil and water conservation projects;
- Administers the Right to Farm Program (discussed in *Chapter 8*);
- Administers the Transfer of Development Rights Bank; and,
- Operates the Farm Link Program, which helps connect farm owners with potential tenant farmers.

The SADC Direct Easement Purchase is a program that allows a landowner to apply directly to the SADC for the sale of development rights. In most cases, the State will pay up to 100% of the certified appraised easement value in the direct easement purchase program. By participating in this program, the landowner still retains ownership of their land, but agrees to restrict land use to agricultural purposes. The Direct Easement Program does not usually receive monetary contributions from the County or municipality.

#### **SADC Fee Simple**

A fee simple acquisition involves an entire property being purchased directly by the state for farmland preservation purposes. The SADC pays the survey and title costs, the landowner is exempt from paying rollback taxes for farmland assessment and the transaction can be completed in a matter of months. The SADC negotiates a purchase price subject to recommendations of two independent appraisers and review by a state review appraiser. The land becomes restricted so that it becomes permanently preserved for agriculture. In this type of acquisition, the landowner does not retain any rights. The property is then resold at auction; the SADC does not retain ownership. To qualify to participate in this program, the farmland must be within an ADA and be eligible for Farmland Assessment.

#### **Nonprofit Grant Program**

Grants are provided to nonprofit organizations by the State Agriculture Development Committee for farmland preservation. These grants fund up to 50% of the fee simple or development easement values on farms. These grants help to preserve farmland throughout the County. These grants are obtained through an application process, in which the land is valued by independent

appraisers. Often, farms preserved in the nonprofit program have agricultural and environmental significance.

### Consistency with SADC Strategic Targeting Project

The purpose of the SADC Strategic Targeting Project is to prioritize farmland to be preserved by targeting farms for preservation based on specific criteria, including the prioritization of prime and statewide soils in agricultural production outside sewer service areas. According to the SADC, the Strategic Targeting Project has three primary goals:

- The coordination of farmland preservation and retention of agricultural practices “with proactive planning initiatives.”
- To update and create maps which serve as a tool for more accurate preservation targets.
- To coordinate different preservation efforts, such as open space, with farmland preservation.

Through the use of the Strategic Targeting Program, the SADC hopes to more efficiently target and designate farmland for preservation and, by doing so, boost the State’s agricultural industry. The Warren CADB, through the completion of its *2008 Comprehensive Farmland Preservation Plan* and the *2016 Plan Update*, meets each of the goals as outlined in the Strategic Targeting Project.

### Eight Year Programs

The 8-Year Farmland Preservation Program is a temporary preservation program which includes eligibility for soil and water conservation grants as an incentive for participation. For entrance into this program and to qualify for benefits, a farm must be located within an ADA. The farmer signs an agreement that restricts the land to agricultural use for eight years and the farmer is eligible to receive 50% cost sharing for these projects as well as protection against emergency energy and water restrictions and eminent domain. Technical assistance for the soil and water practices comes through the Natural Resource Conservation Service. In Warren County, 68 acres are currently protected through the eight-year program and includes farms in Frelinghuysen, Liberty, and Independence. This is down from 1,190 acres in 2008. (*Table 13, p.67*) The Warren CADB views the 8-Year Program as a stepping stone to preservation. It gives participants an opportunity to see the workings of the program and participate in grants for needed projects.

**Table 13. 8-Year Farmland Preservation Program in Warren County**

Township	Owner Name	Expiration Date	Block, Lot	Project Area	Acres <sup>v</sup>
Frelinghuysen	Kuhn Farm	1/26/2020	B1701, L11, 11.01	Northeast	21.97
Independence	Piasecki	5/24/2019	B29, L4	Northeast	13.66
Liberty	Piasecki	5/24/2019	B1, L29	Central	32.32
<b>Total Acres:</b>					<b>67.95</b>

<sup>v</sup> As recorded in the tax assessor database.

## **Coordination with Transfer of Development Rights Programs**

Transfer of Development Rights (TDR) may be used in conjunction with the traditional Purchase of Development Rights program; these two programs are not mutually exclusive. See *Chapter 3* for a discussion of the possibilities for implementing and coordinating transfer-of-development rights programs within the Highlands and throughout Warren County.

## **Coordination with Open Space Preservation Initiatives**

The coordination of farmland preservation with open space planning efforts is supported by the Planning Board. Appropriate measures should be taken to clearly separate and mark the public portion of the preserved land (as open space) from that which remains in private ownership as preserved farmland. This type of cooperative project involves a strong working relationship between the private owner and the public agency which owns and manages the preserved open space. Completing these projects requires partnership and/or funding from more than one agency to match local funding and expands opportunities for preservation. These projects leverage county farmland preservation dollars and make use of municipal open space trust funds or grants to non-profit organizations. “Hybrid” projects are an opportunity to use traditional open space funds, where appropriate, to help preserve farm properties, especially where those properties are a mixture of cropland and woodland areas. The use of NDPEP Green Acres funding, local open space trust funds and nonprofit grant funds are becoming increasingly important to preserving agricultural landscapes. All publicly preserved open space is shown in “green” on *Map 12. Farmland*.

Trail easements and adjacency to proposed and existing active recreational facilities are potential areas of concern for farmers. As the establishment of trails and parks in local communities grows in Warren County the CADB can look to local and county Open Space Plans to determine whether public access easements should be negotiated as part of a farmland preservation project. Warren County is currently updating its Open Space and Recreation Plan with a focus on trail expansion and connectivity, with a goal of permanently protecting the Morris Canal corridor and the abandoned rail lines which criss-cross the County. Balancing public access with private land ownership and the management of farmland is a challenge for the open space and farmland programs in Warren County.

Sixteen towns in Warren County currently have municipal Open Space Trust Funds (*Table 14*) (*New Jersey Division of Taxation, p.69*).<sup>37</sup> Municipal open space tax rates either remained the same as 2008 or declined through 2016. The addition of local open space taxes from Lopatcong, Mansfield and Washington Townships contributed to a 16% increase in total annual revenue generated in 2016 versus 2008. The State of New Jersey’s Green Acres program has supplemented these municipalities in securing funds for land preservation, with nearly \$13.3 million in cumulative grants to 11 of the 16 municipalities with Open Space Trust Funds.

Working with these towns and NJDEP Green Acres, the Warren CADB is in a better position to coordinate farmland preservation with open space preservation.

**Table 14. Municipal Open Space Trust Funds and Green Acres Awards in Warren County**

Municipality	2008 Open Space Tax Rate (per \$100)	2015 Open Space Tax Rate (per \$100)	2008: Amount Generated (Annual)	2015: Amount Generated (Annual)	Green Acres Funding Planning Incentive Project Awards
Allamuchy Twp.	0.020	0.020	\$90,000.00	\$108,076.46	\$2,700,000.00
Alpha Boro	0.040	0.040	\$80,000.00	\$84,978.25	\$350,000.00
Belvidere Town	-	-	-	-	-
Blairstown Twp.	0.035	0.020	\$300,000.00	\$143,925.00	\$1,315,000.00
Franklin Twp.	0.065	0.039	\$260,000.00	\$165,400.00	\$1,047,000.00
Frelinghuysen Twp.	0.020	0.020	\$53,000.00	\$58,290.00	\$1,375,000.00
Greenwich Twp.	0.040	0.040	\$245,000.00	\$238,010.30	\$2,384,665.28
Hackettstown Town	-	-	-	-	-
Hardwick Twp.	0.01-0.03	0.029	\$49,000.00	\$47,500.00	\$951,571.47
Harmony Twp.	0.050	0.050	\$260,000.00	\$239,142.00	\$1,625,000.00
Hope Twp.	0.020	0.004	\$28,000.00	\$12,780.00	-
Independence Twp.	-	-	-	-	-
Knowlton Twp.	0.020	0.020	\$20,774.00	\$51,827.00	\$685,753.84
Liberty Twp.	0.020	0.020	\$53,000.00	\$53,775.00	-
Lopatcong Twp.	-	0.029	-	\$258,473.00	-
Mansfield Twp.	-	0.019	-	\$132,932.88	-
Oxford Twp.	-	-	-	-	-
Phillipsburg Town	-	-	-	-	-
Pohatcong Twp.	0.02-0.05	0.049	\$180,000.00	\$174,563.00	\$111,525.92
Washington Boro	-	-	-	-	-
Washington Twp.	-	0.020	-	\$135,873.70	\$750,000.00
White Twp.	0.020	0.020	\$124,431.00	\$112,877.18	-
<b>Totals:</b>			<b>\$1,743,205.00</b>	<b>\$2,018,423.77</b>	<b>\$13,295,516.51</b>
<i>Source: State of New Jersey Department of Treasury Division of Taxation "Abstract Ratables"</i>					

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

The Warren County Open Space Preservation Trust Fund was established in January 1995 and set at two cents. In 1999 the Freeholders renamed the Trust Fund to the Open Space Recreation Farmland Preservation Trust Fund and increased it to four cents. The Fund was subsequently increased to six cents in 2003; since 2014 the tax has been set at four cents (*Table 15, p.70*).<sup>38</sup> In 2015, 47% of revenue from the County Trust Fund was apportioned to farmland preservation. This is in line with previous years; in the past 48-49% of annual revenues have been allocated for farmland preservation. However, the actual amount being allocated for farmland preservation has dropped by 52% from 2009 to 2015.

**Table 15. Warren County Open Space Preservation Trust Fund: Revenues and Appropriations (2009-2015)**

Year	2009	2010	2011	2012	2013	2014	2015
Rate	\$ 0.06	\$ 0.06	\$ 0.06	\$ 0.05	\$ 0.05	\$ 0.04	\$ 0.04
<b>Amount Collected</b>	\$8,248,169	\$8,081,461	\$7,693,036	\$7,238,407	\$5,090,513	\$4,784,196	\$4,103,735
<b>Appropriations</b>							
Administrative & Maintenance	\$675,000	\$675,000	\$660,000	\$660,000	\$450,000	\$450,000	\$400,000
Debt Open Space	\$ 890,000	\$ 890,000	\$ 890,000	\$ 890,000	\$ 890,000	\$ 860,000	\$ 860,000
Debt Farmland Preservation	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000
Farmland	\$4,065,243	\$3,973,554	\$3,768,170	\$3,518,124	\$2,452,282	\$2,283,808	\$1,937,054
Parkland	\$1,133,067	\$1,099,308	\$1,023,690	\$931,627	\$539,204	\$490,675	\$363,006
Municipal & Charitable	\$1,384,859	\$1,343,599	\$1,251,176	\$1,138,656	\$659,027	\$599,714	\$443,674
<b>Totals</b>	<b>\$8,248,169</b>	<b>\$8,081,461</b>	<b>\$7,693,036</b>	<b>\$7,238,407</b>	<b>\$5,090,513</b>	<b>\$4,784,196</b>	<b>\$4,103,735</b>
<i>Source: Warren County Department of Land Preservation (July 2016)</i>							

## Monitoring of Preserved Farmland

To verify that compliance with the deed restriction on preserved property is taking place, the Warren County Soil Conservation District has been contracted by the Land Preservation Department to perform the required annual inspections. Any violations are then referred to the Special Counsel for the Warren CADB for action, including, if necessary, injunctive relief. The inspectors take note of the following:

- Change in ownership since the previous inspection
- Evidence of non-agricultural development (approved or otherwise)
- Use of the premises for agricultural activities
- Presence of expansion of non-agricultural activity since the previous inspection
- If the non-agricultural practice has been abandoned
- Evidence of mining or removal of materials such as sand, gravel, rock, etc.
- Evidence of dumping
- Whether or not the farm has an approved conservation plan
- Any improvements to farm buildings and residences
- Any new agricultural buildings erected

The SADC is responsible for monitoring state-held easements. Warren County works cooperatively with the state to identify and resolve potential problems with easement enforcement.

# CHAPTER 5: FUTURE FARMLAND PRESERVATION PROGRAM

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## Preservation Goals

Warren County is 232,236 acres (362.9 square miles) in size. Of this, 105,766 acres, or 45%, of total land area, are under farmland assessment, which encompasses croplands, woodlands, farm structures, and wetlands/waterways that occur on agricultural property. The *2012 Census of Agriculture* identifies 72,250 acres as farms, constituting 31% of the County's land base and roughly 68% of the farm assessed property in Warren County.

As of April 2008, Warren County had preserved 15,125 acres of farmland. By September 2016, Warren County had preserved 23,268 acres<sup>w</sup>, with an additional 1,213 acres pending preservation. Warren County has preserved an additional 8,143 acres since the publication of its *2008 Comprehensive Farmland Preservation Plan*.

Based upon a farm unit analysis of the State's Minimum Eligibility Criteria for productive soils and tillable land, 33,246 acres are potentially eligible for farmland preservation in Warren County within the County's ADA, for farms greater than 40 acres. The Board of Chosen Freeholders currently, and historically, supports a strong and active program of farmland preservation. Based upon the inventory of farmland eligible for preservation, landowner interest, and the amount of potential funding available, the following preservation goals are presented for Warren County:

- One year target: 900 acres in 15 farms
- Five year target: 4,500 acres in 75 farms
- Ten year target: 9,000 acres in 150 farms

## Project Area Summaries

The Warren County CADB identified 7 project areas in the Agricultural Development Area for farmland preservation in its *2008 Comprehensive Farmland Preservation Plan*. These project areas are shown on *Map 14. Project Areas* and *Table 16. Farm Assessed Land in Warren County Project Areas, p.72*. These were developed by analyzing the County's soils and tillable land areas, as well as productive farmland and existing preserved farmland clusters:

- North
- Northwest
- Northeast
- Central
- West
- Southeast
- South

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<sup>w</sup> As recorded by Warren County Department of Land Preservation (September 2016).

**Table 16. Farm Assessed Land in Warren County Project Areas**

<b>Project Areas</b>	<b>Total Farm Assessed Land (Acres)</b>	<b>Unpreserved Farmland (Acres)</b>	<b>Preserved Farmland (Acres)</b>	<b>Eight Year Farms (Acres)</b>	<b>Farmland Pending Preservation (Acres)</b>
ADA North	12,667.68	9,913.81	2,786.44	-	280.56
ADA Northwest	11,093.50	8,653.95	2,487.76	-	64.26
ADA Northeast	16,110.73	11,259.05	5,055.99	33.62	42.86
ADA Central	11,993.25	10,590.78	1,402.47	31.51	342.30
ADA West	15,671.95	12,205.02	3,784.87	-	276.92
ADA Southeast	17,600.38	12,998.27	4,904.44	-	206.14
ADA South	6,462.75	3,277.92	3,188.07	-	-
<b>Total: Project Areas</b>	<b>91,600.24</b>	<b>68,898.80</b>	<b>23,610.04</b>	<b>65.13</b>	<b>1,213.04</b>
Outside the Project Areas:	14,166.01	13,995.09	170.93	-	-
<b>County Total</b>	<b>105,766.25</b>	<b>82,893.89</b>	<b>23,780.97</b>	<b>65.13</b>	<b>1,213.04</b>

## Project Area Inventory

For each project area, an analysis was completed to identify the amount and density of preserved farmland, soils and size of the area. The following data was determined:

- i. The total acreage of targeted farms;
- ii. The total acreage of farms with final approval;
- iii. The total acreage of preserved farmland;
- iv. The total acreage of other deed restricted farmland;
- v. The total acreage of farms enrolled in the eight-year farmland preservation program or municipally-approved farmland preservation program;
- vi. The total acreage of preserved open space compatible with agriculture.

For each of the above categories, the land area within each project area is expressed as a ratio between the total acreage for each category and the total acreage of the project area. Also included is the percentage of each category expressed as a percentage of the total project area.

Note: There are no “*other deed restricted farmlands*” in Warren County. All farmland has been preserved through the farmland preservation program.

“*Open space compatible with agriculture*” excludes any open space that has active recreational facilities on it, as this is an incompatible use with agriculture.

The “*Density of the Project Area*” is presented as the sum of the acreages of items (ii) through (vi), as compared to the total acreage of the project area.

These tables are presented in *Table 17. Project Area Analysis: Warren County, p.73.*

**Table 17. Project Area Analysis: Warren County**

<b>ADA North</b>	<b>Acreage</b>	<b>Density Ratio</b>	<b>Percentage</b>
i. Targeted Farms	2,756.15	2,756.15 : 25,122.35	10.97%
ii. Farms with Final Approval	280.56	280.56 : 25,122.35	1%
iii. Preserved Farmland	2,786.44	2,786.44 : 25,122.35	11.09%
iv. Other Deed Restricted Farmland	-	- : 25,122.35	0%
v. Farms Enrolled in 8 Year Program	-	- : 25,122.35	0%
vi. Preserved Open Space Compatible with Agriculture	193.89	193.89 : 25,122.35	1%
Aggregate Size of Project Area	25,122.35		
Total Project Area Inventory: Items (i) through (vi)	6,017.04	6,017.04 : 25,122.35	23.95%
(Selected) Density of the Project Area (without targeted farms): Items (ii) through (vi)	3,260.89	3,260.89 : 25,122.35	12.98%

<b>ADA Northwest</b>	<b>Acreage</b>	<b>Density Ratio</b>	<b>Percentage</b>
i. Targeted Farms	5,030.26	5,030.26 : 17,797.29	28.26%
ii. Farms with Final Approval	64.26	64.26 : 17,797.29	0.36%
iii. Preserved Farmland	2,487.76	2,487.76 : 17,797.29	13.98%
iv. Other Deed Restricted Farmland	-	- : 17,797.29	0%
v. Farms Enrolled in 8 Year Program	-	- : 17,797.29	0%
vi. Preserved Open Space Compatible with Agriculture	244.67	244.67 : 17,797.29	1.37%
Aggregate Size of Project Area	17,797.29		
Total Project Area Inventory: Items (i) through (vi)	7,826.95	7,826.95 : 17,797.29	43.98%
(Selected) Density of the Project Area (without targeted farms): Items (ii) through (vi)	2,796.69	2,796.69 : 17,797.29	15.71%

<b>ADA Northeast</b>	<b>Acreage</b>	<b>Density Ratio</b>	<b>Percentage</b>
i. Targeted Farms	5,051.54	5,051.54 : 23,108.32	21.86%
ii. Farms with Final Approval	42.86	42.86 : 23,108.32	0%
iii. Preserved Farmland	5,055.99	5,055.99 : 23,108.32	21.88%
iv. Other Deed Restricted Farmland	-	- : 23,108.32	0%
v. Farms Enrolled in 8 Year Program	33.62	33.62 : 23,108.32	0%
vi. Preserved Open Space Compatible with Agriculture	470.61	470.61 : 23,108.32	2%
Aggregate Size of Project Area	23,108.32		
Total Project Area Inventory: Items (i) through (vi)	10,654.62	10,654.62 : 23,108.32	46.11%
(Selected) Density of the Project Area (without targeted farms): Items (ii) through (vi)	5,603.08	5,603.08 : 23,108.32	24.25%

**Table 17. Project Area Analysis: Warren County**

<b>ADA Central</b>	<b>Acreage</b>	<b>Density Ratio</b>	<b>Percentage</b>
i. Targeted Farms	4,065.24	4,065.24 : 22,946.89	17.72%
ii. Farms with Final Approval	342.30	342.30 : 22,946.89	1%
iii. Preserved Farmland	1,402.47	1,402.47 : 22,946.89	6.11%
iv. Other Deed Restricted Farmland	-	- : 22,946.89	0%
v. Farms Enrolled in 8 Year Program	31.51	31.51 : 22,946.89	0.14%
vi. Preserved Open Space Compatible with Agriculture	469.58	469.58 : 22,946.89	2.05%
Aggregate Size of Project Area	22,946.89		
Total Project Area Inventory: Items (i) through (vi)	6,311.10	6,311.10 : 22,946.89	27.50%
(Selected) Density of the Project Area (without targeted farms): Items (ii) through (vi)	2,245.86	2,245.86 : 22,946.89	9.79%

<b>ADA West</b>	<b>Acreage</b>	<b>Density Ratio</b>	<b>Percentage</b>
i. Targeted Farms	6,461.75	6,461.75 : 28,339.84	22.80%
ii. Farms with Final Approval	276.92	276.92 : 28,339.84	1%
iii. Preserved Farmland	3,784.87	3,784.87 : 28,339.84	13.36%
iv. Other Deed Restricted Farmland	-	- : 28,339.84	0%
v. Farms Enrolled in 8 Year Program	-	- : 28,339.84	0%
vi. Preserved Open Space Compatible with Agriculture	732.07	732.07 : 28,339.84	2.58%
Aggregate Size of Project Area	28,339.84		
Total Project Area Inventory: Items (i) through (vi)	11,255.61	11,255.61 : 28,339.84	39.72%
(Selected) Density of the Project Area (without targeted farms): Items (ii) through (vi)	4,793.86	4,793.86 : 28,339.84	16.92%

<b>ADA Southeast</b>	<b>Acreage</b>	<b>Density Ratio</b>	<b>Percentage</b>
i. Targeted Farms	8,432.25	8,432.25 : 28,680.78	29.40%
ii. Farms with Final Approval	206.14	206.14 : 28,680.78	0.72%
iii. Preserved Farmland	4,904.44	4,904.44 : 28,680.78	17.10%
iv. Other Deed Restricted Farmland	-	- : 28,680.78	0%
v. Farms Enrolled in 8 Year Program	-	- : 28,680.78	0.00%
vi. Preserved Open Space Compatible with Agriculture	545.00	545.00 : 28,680.78	1.90%
Aggregate Size of Project Area	28,680.78		
Total Project Area Inventory: Items (i) through (vi)	14,087.83	14,087.83 : 28,680.78	49.12%
(Selected) Density of the Project Area (without targeted farms): Items (ii) through (vi)	5,655.58	5,655.58 : 28,680.78	19.72%

**Table 17. Project Area Analysis: Warren County**

<b>ADA South</b>	<b>Acreage</b>	<b>Density Ratio</b>	<b>Percentage</b>
i. Targeted Farms	1,449.01	1,449.01 : 9,602.76	15.09%
ii. Farms with Final Approval	-	- : 9,602.76	0%
iii. Preserved Farmland	3,188.07	3,188.07 : 9,602.76	33%
iv. Other Deed Restricted Farmland	-	- : 9,602.76	0%
v. Farms Enrolled in 8 Year Program	-	- : 9,602.76	0.00%
vi. Preserved Open Space Compatible with Agriculture	140.99	140.99 : 9,602.76	1%
Aggregate Size of Project Area	9,602.76		
Total Project Area Inventory: Items (i) through (vi)	4,778.07	4,778.07 : 9,602.76	49.76%
(Selected) Density of the Project Area (without targeted farms): Items (ii) through (vi)	3,329.06	3,329.06 : 9,602.76	34.67%

<b>ALL PROJECT AREAS</b>	<b>Acreage</b>	<b>Density Ratio</b>	<b>Percentage</b>
i. Targeted Farms	33,246.20	33,246.20 : 155,598.23	21.37%
ii. Farms with Final Approval	1,213.04	1,213.04 : 155,598.23	0.78%
iii. Preserved Farmland	23,610.04	23,610.04 : 155,598.23	15.17%
iv. Other Deed Restricted Farmland	-	- : 155,598.23	0%
v. Farms Enrolled in 8 Year Program	65.13	65.13 : 155,598.23	0.04%
vi. Preserved Open Space Compatible with Agriculture	2,796.81	2,796.81 : 155,598.23	1.80%
Aggregate Size of Project Area	155,598.23		
Total Project Area Inventory: Items (i) through (vi)	60,931.22	60,931.22 : 155,598.23	39.16%
(Selected) Density of the Project Area (without targeted farms): Items (ii) through (vi)	27,685.02	27,685.02 : 155,598.23	17.79%

## Minimum Eligibility Criteria

Minimum Eligibility Criteria are based upon the SADC's (*May 21, 2007*) rules for farmland preservation and project eligibility. In order to be eligible for preservation the site must be developable, have soils capable of supporting agricultural or horticultural production and meet minimum tillable land standards. (N.J.A.C. 2:76-6.20)

*NOTE:* Per the SADC rules, "tillable" are lands that are classified as cropland harvested, cropland pastured and permanent pasture for farmland assessment purposes. "Cropland harvested" means land from which a crop was harvested in the current year, and includes land under structures utilized for agricultural or horticultural production. "Cropland pastured" means land which can be and often is used to produce crops, but its maximum income may not be realized in a particular year. This includes land that is fallow or in cover crops as part of a rotational program. "Permanent pasture" means land that is not cultivated because its maximum economic potential is realized from grazing or as part of erosion control programs. Animals may or may not be part of the farm operation.

In summary:

### For all lands less than or equal to 10 acres:

- The land must produce at least \$2,500 worth of agricultural or horticultural products annually; and
- At least 75% or a minimum of 5 acres of the land (whichever is less) must be tillable; and
- At least 75% or a minimum of 5 acres of the land (whichever is less) must be capable of supporting agriculture or horticulture; and
- The land in question must exhibit development potential as defined by the SADC (based upon zoning, ability to be subdivided, less than 80% wetlands, less than 80% slopes of 15%); or
- The land must be eligible for allocation of development credits pursuant to a Transfer of Development Credits (TDR) program.

### For lands greater than 10 acres:

- At least 50% or a minimum of 25 acres of land (whichever is less) must be tillable; and
- At least 50% or a minimum of 25 acres of land (whichever is less) must have soils capable of supporting agriculture or horticulture; and
- The land in question must exhibit development potential as defined by the SADC; or
- The land must be eligible for allocation of development credits pursuant to a TDR program.

The minimum eligibility analysis involved a parcel-based screening of tax lot characteristics. Farmland preservation applications often include multiple lots; combining these lots may increase the acreage eligible for SADC cost share funding in Warren County. As part of this *Plan Update*, an analysis of farm units was undertaken to combine those properties of common ownership for their potential eligibility for preservation. These Minimum Eligibility Standards must be met in order for the State to provide matching funds on a farmland preservation project.

The County may proceed without State funding on projects that do not meet these Minimum Eligibility Standards. In Warren County, the CADB will participate in any project that exceeds 40 acres in size.

***For any application to qualify for state cost share the farm must: have at least one parcel listed on the targeted farm list; be comprised of an assemblage of substandard parcels which together meet SADC minimum standards; or have sufficient justification by the Warren CADB that the parcels were not identified as targeted due to a specific mapping issue or other error.***

Within the identified project areas, the County has identified candidate farms (or “targeted farms” as referenced in the May 21, 2007 rules) that meet the tillable land and soils minimum eligibility standards. The following queries were made utilizing the ArcGIS 10.4.1 digital mapping software:

***Farmland that meets the SADC Criteria for Agricultural Soils***

Agricultural soils as defined by the SADC are those soils capable of supporting agricultural or horticultural production. The use of the NRCS Soil Survey identifying prime, statewide and unique agricultural soils is the first and best indication of the farmland soils. The interpretation of the tillable land layer from the NJDEP Land Use/Land Cover data (including pastureland) is the second screen for soils capable of supporting agriculture with the following provisions:

- It is best to make determination of soils capable of supporting agriculture on a site specific basis (that is for individual submitted applications);
- For farmland planning, on a municipal and county basis, the tillable land layer can also be used to show general areas of farmland potentially eligible for preservation as long as it is noted that this picture of farmland would need to be confirmed on an individual basis by studying:
  - Practices the individual farmer has made to farm the land
  - Amount and location of steep slopes on the farm
  - Amount of stony/gravelly soils on the farm

In summary, the SADC has agreed that soils capable of supporting agricultural production are those classified as agricultural by the NRCS Soil Survey or identified as tillable by the NJDEP Land Cover/Land Use mapping. (*Robert Baumley*)<sup>39</sup> Farm parcels are sorted on size based upon the State Agriculture Development Committee (SADC) Minimum Eligibility Criteria for soils:

<u>Farm Size</u>	<u>Requirements</u>
0-6.667 acres	75% soils capable of supporting agricultural production
6.667-10 acres	5 acres of soils capable of supporting agricultural production
10-50 acres	50% soils capable of supporting agricultural production
50+ acres	25 acres of soils capable of supporting agricultural production

***Farmland that meets the SADC Criteria for Tillable Land***

Tillable acreage was determined using the New Jersey Department of Environmental Protection (NJDEP) 2012 Land Use/Land Cover mapping for agricultural lands. The land categories that are defined as the “tillable land” are as follows:

- Agricultural Wetlands (Modified)
- Confined Feeding Operations
- Cropland and Pastureland
- Former Agricultural Wetland
- Orchards/Vineyards/Nurseries/Horticultural Areas
- Other Agriculture

Farm parcels were sorted on size based upon the State Agriculture Development Committee (SADC) Minimum Eligibility Criteria for tillable land.

<u>Farm Size</u>	<u>Requirements</u>
0-6.667 acres	75% tillable
6.667-10 acres	5 acres tillable
10-50 acres	50% tillable
50+ acres	25 tillable acres

***Farmland that meets SADC Criteria for both Tillable Land and Soils***

Utilizing the tillable acreage and soil acreage, farm parcels/units were sorted on size based upon the State Agriculture Development Committee (SADC) Minimum Eligibility Criteria for tillable land and soils. Farms exceeding 40 acres in size were analyzed to determine their eligibility for preservation. Included within each of the Project Area tables is the acreage of the farms which qualify for the Planning Incentive Grant (PIG) program and the County Competitive Grant (CCG) round of funding. This later funding round uses only the NRCS Soil Survey as the measure for “soils capable of supporting agricultural production.”

The following table includes the results of this analysis:

*Table 18: Minimum Eligibility Criteria Analysis: Warren County Project Areas: summary of the minimum eligibility analysis for each Project Area in Warren County.*

For the County PIG program the following maps and appendix identify those properties which meet the minimum eligibility criteria:

*Map 15. Farmland that meets the SADC Minimum Eligibility Criteria for Agricultural Soil (PIG Program)*

*Map 17. Farmland that meets the SADC Minimum Eligibility Criteria for Tillable Land*

*Map 18. Farmland that meets the SADC Minimum Eligibility Criteria for Agricultural Soils and Tillable Land (PIG Program)*

*Map 19. Targeted Farms: PIG Program*

*Appendix B. Targeted Farms: PIG Program*

For the County Competitive Grant Program (CCG) program the following maps shows those properties which meet the minimum eligibility criteria:

*Map 16. Farmland that meets the SADC Minimum Eligibility Criteria for Agricultural Soil (Competitive Grant Program)*

*Map 17. Farmland that meets the SADC Minimum Eligibility Criteria for Tillable Land*

*Map 20. Targeted Farms: Competitive Grant Program*

*Appendix C. Targeted Farms: Competitive Grant Program*

**Table 18. Minimum Eligibility Criteria Analysis: Warren County Project Areas**

<b>ADA North</b>	<b>Acreage</b>	<b>Density Ratio</b>	<b>Percentage</b>
Aggregate Size of Project Area:	25,122.35		
i. Soil Acreage of Prime Farmland Soils	2,306.69	2,306.69 : 25,122.35	9.18%
ii. Total Acreage of Prime Farmland Soils of Statewide Importance	1,678.80	1,678.80 : 25,122.35	6.68%
iii. Total Acreage of Unique Farmland Soils	380.20	380.20 : 25,122.35	2%
<b>Farmland Analysis: Soils and Tillable Land</b>			
i. Farmland meeting SADC Criteria for Agricultural Soils (PIG)	2,970.12	2,970.12 : 25,122.35	11.82%
ii. Farmland meeting SADC Criteria for Tillable Lands	2,756.15	2,756.15 : 25,122.35	10.97%
iii. Farmland meeting SADC Criteria: Soils and Tillable Land (PIG)	2,756.15	2,756.15 : 25,122.35	10.97%
iv. Farmland meeting SADC Criteria for Agricultural Soils (NRCS) (CCG)	940.01	940.01 : 25,122.35	3.74%
v. Farmland meeting SADC Criteria: Soils (NRCS) and Tillable Land (CCG)	726.03	726.03 : 25,122.35	2.89%

<b>ADA Northwest</b>	<b>Acreage</b>	<b>Density Ratio</b>	<b>Percentage</b>
Aggregate Size of Project Area:	17,797.29		
i. Soil Acreage of Prime Farmland Soils	1,183.65	1,183.65 : 17,797.29	6.65%
ii. Total Acreage of Prime Farmland Soils of Statewide Importance	588.42	588.42 : 17,797.29	3.31%
iii. Total Acreage of Unique Farmland Soils	453.91	453.91 : 17,797.29	2.55%
<b>Farmland Analysis: Soils and Tillable Land</b>			
i. Farmland meeting SADC Criteria for Agricultural Soils (PIG)	5,153.22	5,153.22 : 17,797.29	28.96%
ii. Farmland meeting SADC Criteria for Tillable Lands	5,030.26	5,030.26 : 17,797.29	28.26%
iii. Farmland meeting SADC Criteria: Soils and Tillable Land (PIG)	5,030.26	5,030.26 : 17,797.29	28.26%
iv. Farmland meeting SADC Criteria for Agricultural Soils (NRCS) (CCG)	1,631.57	1,631.57 : 17,797.29	9.17%
v. Farmland meeting SADC Criteria: Soils (NRCS) and Tillable Land (CCG)	1,508.61	,508.61 : 17,797.29	8.48%

<b>ADA Northeast</b>	<b>Acreage</b>	<b>Density Ratio</b>	<b>Percentage</b>
Aggregate Size of Project Area:	23,108.32		
i. Soil Acreage of Prime Farmland Soils	3,222.74	3,222.74 : 23,108.32	13.95%
ii. Total Acreage of Prime Farmland Soils of Statewide Importance	1,063.48	1,063.48 : 23,108.32	4.60%
iii. Total Acreage of Unique Farmland Soils	1,933.62	1,933.62 : 23,108.32	8.37%
<b>Farmland Analysis: Soils and Tillable Land</b>			
i. Farmland meeting SADC Criteria for Agricultural Soils (PIG)	6,291.09	6,291.09 : 23,108.32	27.22%
ii. Farmland meeting SADC Criteria for Tillable Lands	5,051.54	5,051.54 : 23,108.32	21.86%
iii. Farmland meeting SADC Criteria: Soils and Tillable Land (PIG)	5,051.54	5,051.54 : 23,108.32	21.86%
iv. Farmland meeting SADC Criteria for Agricultural Soils (NRCS) (CCG)	4,699.79	4,699.79 : 23,108.32	20.34%
v. Farmland meeting SADC Criteria: Soils (NRCS) and Tillable Land (CCG)	3,460.23	3,460.23 : 23,108.32	14.97%

**Table 18. Minimum Eligibility Criteria Analysis: Warren County Project Areas**

<b>ADA Central</b>	<b>Acreage</b>	<b>Density Ratio</b>	<b>Percentage</b>
Aggregate Size of Project Area:	22,946.89		
i. Soil Acreage of Prime Farmland Soils	5,125.41	5,125.41 : 22,946.89	22.34%
ii. Total Acreage of Prime Farmland Soils of Statewide Importance	4,476.03	4,476.03 : 22,946.89	19.51%
iii. Total Acreage of Unique Farmland Soils	436.27	436.27 : 22,946.89	1.90%
<b>Farmland Analysis: Soils and Tillable Land</b>			
i. Farmland meeting SADC Criteria for Agricultural Soils (PIG)	5,006.02	5,006.02 : 22,946.89	21.82%
ii. Farmland meeting SADC Criteria for Tillable Lands	4,065.24	4,065.24 : 22,946.89	17.72%
iii. Farmland meeting SADC Criteria: Soils and Tillable Land (PIG)	4,065.24	4,065.24 : 22,946.89	17.72%
iv. Farmland meeting SADC Criteria for Agricultural Soils (NRCS) (CCG)	4,711.89	4,711.89 : 22,946.89	20.53%
v. Farmland meeting SADC Criteria: Soils (NRCS) and Tillable Land (CCG)	3,771.11	3,771.11 : 22,946.89	16.43%

<b>ADA West</b>	<b>Acreage</b>	<b>Density Ratio</b>	<b>Percentage</b>
Aggregate Size of Project Area:	28,339.84		
i. Soil Acreage of Prime Farmland Soils	9,682.11	9,682.11 : 28,339.84	34.16%
ii. Total Acreage of Prime Farmland Soils of Statewide Importance	5,215.37	5,215.37 : 28,339.84	18.40%
iii. Total Acreage of Unique Farmland Soils	160.87	160.87 : 28,339.84	0.57%
<b>Farmland Analysis: Soils and Tillable Land</b>			
i. Farmland meeting SADC Criteria for Agricultural Soils (PIG)	7,903.63	7903.63 : 28,339.84	27.89%
ii. Farmland meeting SADC Criteria for Tillable Lands	6461.75	6461.75 : 28,339.84	22.80%
iii. Farmland meeting SADC Criteria: Soils and Tillable Land (PIG)	6461.75	6461.75 : 28,339.84	22.80%
iv. Farmland meeting SADC Criteria for Agricultural Soils (NRCS) (CCG)	7498.66	7498.66 : 28,339.84	26.46%
v. Farmland meeting SADC Criteria: Soils (NRCS) and Tillable Land (CCG)	6056.78	6056.78 : 28,339.84	21.37%

<b>ADA Southeast</b>	<b>Acreage</b>	<b>Density Ratio</b>	<b>Percentage</b>
Aggregate Size of Project Area:	28,680.78		
i. Soil Acreage of Prime Farmland Soils	14,357.59	14,357.59 : 28,680.78	50.06%
ii. Total Acreage of Prime Farmland Soils of Statewide Importance	4,793.52	4,793.52 : 28,680.78	16.71%
iii. Total Acreage of Unique Farmland Soils	-	- : 28,680.78	0.00%
<b>Farmland Analysis: Soils and Tillable Land</b>			
i. Farmland meeting SADC Criteria for Agricultural Soils (PIG)	9,180.55	9,180.55 : 28,680.78	32.01%
ii. Farmland meeting SADC Criteria for Tillable Lands	8,432.25	8,432.25 : 28,680.78	29.40%
iii. Farmland meeting SADC Criteria: Soils and Tillable Land (PIG)	8,432.25	8,432.25 : 28,680.78	29.40%
iv. Farmland meeting SADC Criteria for Agricultural Soils (NRCS) (CCG)	8,992.31	8,992.31 : 28,680.78	31.35%
v. Farmland meeting SADC Criteria: Soils (NRCS) and Tillable Land (CCG)	8,244.01	8,244.01 : 28,680.78	28.74%

**Table 18. Minimum Eligibility Criteria Analysis: Warren County Project Areas**

<b>ADA South</b>	<b>Acreage</b>	<b>Density Ratio</b>	<b>Percentage</b>
Aggregate Size of Project Area:	9,602.76		
i. Soil Acreage of Prime Farmland Soils	4,762.62	4,762.62 : 9,602.76	49.60%
ii. Total Acreage of Prime Farmland Soils of Statewide Importance	1,694.64	1,694.64 : 9,602.76	17.65%
iii. Total Acreage of Unique Farmland Soils	4.53	4.53 : 9,602.76	0.05%
<b>Farmland Analysis: Soils and Tillable Land</b>			
i. Farmland meeting SADC Criteria for Agricultural Soils (PIG)	1,756.59	1,756.59 : 9,602.76	18.29%
ii. Farmland meeting SADC Criteria for Tillable Lands	1,449.01	1,449.01 : 9,602.76	15.09%
iii. Farmland meeting SADC Criteria: Soils and Tillable Land (PIG)	1,449.01	1,449.01 : 9,602.76	15.09%
iv. Farmland meeting SADC Criteria for Agricultural Soils (NRCS) (CCG)	1,756.59	1,756.59 : 9,602.76	18.29%
v. Farmland meeting SADC Criteria: Soils (NRCS) and Tillable Land (CCG)	1,449.01	1,449.01 : 9,602.76	15.09%

<b>ALL PROJECT AREAS: SUMMARY</b>	<b>Acreage</b>	<b>Density Ratio</b>	<b>Percentage</b>
Aggregate Size of Project Area:	155,598.23		
i. Soil Acreage of Prime Farmland Soils	40,640.81	40,640.81 : 155,598.23	26.12%
ii. Total Acreage of Prime Farmland Soils of Statewide Importance	19,510.27	19,510.27 : 155,598.23	12.54%
iii. Total Acreage of Unique Farmland Soils	3,369.40	3,369.40 : 155,598.23	2.17%
<b>Farmland Analysis: Soils and Tillable Land</b>			
i. Farmland meeting SADC Criteria for Agricultural Soils (PIG)	38,261.22	38,261.22 : 155,598.23	24.59%
ii. Farmland meeting SADC Criteria for Tillable Lands	33,246.20	33,246.20 : 155,598.23	21.37%
iii. Farmland meeting SADC Criteria: Soils and Tillable Land (PIG)	33,246.20	33,246.20 : 155,598.23	21.37%
iv. Farmland meeting SADC Criteria for Agricultural Soils (NRCS) (CCG)	30,230.82	30,230.82 : 155,598.23	19.43%
v. Farmland meeting SADC Criteria: Soils (NRCS) and Tillable Land (CCG)	25,215.78	25,215.78 : 155,598.23	16.21%

Based on the GIS parcel data analysis, there are 232,236 acres in Warren County; of these, 105,766 acres (46%) are farmland assessed. The Agriculture Development Area (ADA) is 155,379 acres; of these, 91,600 acres (59%) are farmland assessed.

For the Planning Incentive Grant program there are a total of 33,246 acres of farmland in the Warren County ADA that meet both the Minimum Eligibility Criteria for soils and tillable land, for farms that are greater than 40 acres in size. The *2012 Census of Agriculture* identifies 72,250 acres of land in farms in Warren County. Thus, 46% of the existing farmland in Warren County, as identified by the *2012 Census of Agriculture*, meets both the soils and tillable land Minimum Eligibility Criteria as defined by the SADC. (*Appendix B*)

For the Competitive (CCG) Round, 27,018 acres in Warren County meet the SADC requirements. Within the County ADA, 25,216 acres (35% of the active agricultural land in Warren County, greater than 40 acres) meets the requirements of the County Competitive Grant for farmland preservation funding. A complete list of these farms is included in *Appendix C*.

## **County Ranking Criteria**

The Warren CADB continues to calculate the rank of each farm based upon the State's ranking criteria. The CADB supplements this ranking with an on-site visit for each applicant. Determination whether an application will be submitted to the County PIG program, to other SADC programs or through independent preservation strategies without state cost share, is made on an application by application basis as to which program is most suited for that project.

## **County Policies Related to Farmland Preservation Applications**

The Warren CADB follows the SADC's policies regarding housing opportunities, division of premises and exception areas; there have been no changes to these policies since the *2008 Comprehensive Farmland Preservation Plan*. Below is a brief summary of the state policies for each of these issues:

### ***Approval of Housing Opportunities***

*Agricultural labor housing:* Agricultural labor housing is not currently a protected land use in the State of New Jersey under the Right to Farm Act. However, the State Agriculture Development Committee understands the need for this type of housing and does have a policy that a landowner may refer to in order to construct labor housing. These applications are reviewed by the CADB and State Agriculture Development Committee.

*House replacement:* The policy of the State Agriculture Development Committee on house replacement is that requests for replacement of a residence on permanently preserved land must be reviewed and approved on an individual basis by the CADB and the SADC, in order to minimize the impact on the agricultural operation.

*Residual dwelling site opportunity allocation:* Residual Dwelling Site Opportunities (RDSOs) are lingering potential housing prospects located within a deed-restricted farm. By designating an area as an RDSO, the landowner is implying that the land will be used for a residential unit or other structure as referred to in N.J.A.C. 2:76-6.17. These prospective residential units can be

allocated to parcels that are at least 100 acres in size, but at a density not to exceed one residential unit per 100 acres. (This density calculation includes existing and proposed residential buildings.) As noted in the SADC Appraiser Handbook, the purpose of the building must be for “single-family residential housing and its appurtenant uses” (*SADC Appraiser Handbook*).<sup>40</sup> To qualify as an RDSO, the SADC requires that the use of the residential unit be for agricultural purposes and “at least one person residing in the residential unit shall be regularly engaged in common farm site practices.”

### ***Division of the Premises***

The goal of the State Agriculture Development Committee is to preserve large tracts of farmland and, therefore, a division of the premises is not an encouraged practice; however when division occurs it must be for agricultural purposes and must result in agriculturally viable land parcels. A landowner wishing to divide permanently preserved farmland must submit a written request. The application must be approved, in writing, by both the State Agriculture Development Committee and the CADB.

### ***Approval of Exception***

Exceptions are defined by the SADC as “acres within a farm being preserved” which are “not subject to the terms of the deed of easement.” When an exception is made, the landowner does not receive any compensation in the excepted area. Exceptions are not a practice that is encouraged by the SADC and, when they occur, it is recommended that they should be as small as possible. There are two types of exceptions that can occur; severable and non-severable.

*Severable:* A severable exception is defined by the SADC as an “area which is part of an existing Block and Lot owned by the applicant which will be excluded from the restrictions of the Deed of Easement and may be sold as a separate lot in the future.” (*SADC Appraiser Handbook*) A severable exception is made “if a landowner wants to be able to sell the excepted area separate from the deed-restricted farm.”

*Non-severable:* Non-severable exceptions are defined by the SADC as “area which is part of an existing Block and Lot owned by the application that will not be subject to the restrictions of the Deed of Easement but cannot be sold separately from the remaining premises.” (*SADC Appraiser Handbook*) Unlike a severable exception, a non-severable exception is “always attached to the protected farm.”

Exceptions made to farmland have the potential to impact the value of the property. When an appraisal occurs, both severable and non-severable exceptions are considered in the determination of the restricted/ after value of the property. The Warren CADB and staff at the Department of Land Preservation speak with every landowner applying to the farmland preservation program to encourage the inclusion of exception areas in a farmland application. The consequences for the landowner if there are no exception areas are reviewed in depth. If the landowner agrees to the establishment of an exception area, the staff and CADB advise the applicant as to the location and type of exception area taken.

## **Farmland Preservation Program Administrative Resources**

The County of Warren has a Land Preservation Department that is led by Corey Tierney, Director. The Land Preservation Department oversees Warren County's land preservation program with the County's Agriculture Development Board. The CADB meets the third Thursday of each month. The CADB is composed of seven members and five associate members including the Rutgers Cooperative Extension Agricultural Agent, U.S. Natural Resource Conservation Service, County Planning Director, Planning Board and a representative from the Freeholder Board.

Legal support for the County's farmland preservation program is provided by special counsel. The Department of Land Preservation tracks all farmland preservation projects, including their applications and status. The Department of Planning houses the Geographic Information System mapping and staff for the County.

## **Factors Limiting Farmland Preservation Implementation**

Funding is the most critical limiting factor for Warren County's farmland preservation program. The high rate of farmland preservation in Warren County has been attributable to the availability of state funds and the ability of the County to leverage its own funding with state and local financing. Funding from the state is critical to the integrity of the municipal PIG program. Due to the decrease in state funding and drop in county ratables, Warren County's program faces financial challenges as it moves forward in purchasing and preserving land during the next ten years.

## **Funding Plan**

### ***Description of County Funding Sources***

The Warren County Open Space Preservation Fund was first established in 1995 as a two-cent tax levy. The trust fund was increased in 1999 and again in 2003. The trust remained at six cents until 2012 when there was a one cent decrease, and then another one cent decrease in 2014 left the trust at four cents. As of 2015, the trust was set a four-cent tax levy, and generated \$4,103,735. Farmland preservation constituted nearly half of this funding in 2015 (49.6%), administrative costs were 9.7%, with open space and historic programs comprising the remainder (40.6%). (*Table 15. Warren County Open Space Preservation Trust Fund: Revenues and Appropriations (2009-2015), p.70*) The rate for 2016 is \$.04 per \$100.<sup>41</sup>

### ***Financial Policies Related to Cost-share Requirements***

*County Preservation Programs:* Municipal contributions are not required in the County Easement Purchase or County PIG programs.

*Municipal Planning Incentive Grant Programs:* Farms preserved through the municipal PIG need to be approved by the CADB only when there is a county cost share. Traditionally, the SADC will fund 60% of the development easement purchase through the municipal PIG program, and the CADB and municipality split the remaining cost share equally, based upon the Certified Market Value. If necessary the CADB will fund up to 25% of the development easement purchase price.

*Donation and Bargain Sales/Installment Purchases:* The Warren CADB is supportive of donation/bargain sales, although it has not preserved farms using an installment purchase.

### ***Cost Projections and Funding Plan Associated with Preservation Goals***

The Warren County Trust Fund collected \$4,103,735 in revenue in 2015. Of this, \$2,037,054 was earmarked to the farmland program, of which \$100,000 was set aside for debt repayment for past farmland projects. For the 10-year financial analysis, six assumptions were made regarding the Warren County Trust Fund, land value and the cost-share between the CADB and SADC<sup>42</sup>:

1. County Trust Fund: Since 2009 the Warren County Trust Fund revenue has decreased due to both a drop in the overall tax base and a reduction in the annual levy set by the Board of Chosen Freeholders (*Table 15, p.70*). Although the tax base has stabilized, it is anticipated that there will be no net growth in the revenue generated by the Trust Fund and it will remain unchanged over the ten year projection.
2. Amount Available for Farmland Preservation Program: The County currently allocates 55% of the Trust Fund towards farmland preservation and it is anticipated that this allocation will remain unchanged over the ten year projection.
3. Cost Per Acre: Since 2011 the average cost per acre of purchasing an easement has dropped (*Table 10, p.52*). As with the assumption for the revenue generated by the County Trust Fund, it is anticipated that there will be no net gain in land value over the ten year projection period, and the average cost per acre will remain the same.
4. Administrative Costs: Assume allocation remains stable at 10% per year.
5. Debt Repayment: Assume allocation remains stable at \$100,000 per year.
6. Direct Easement Purchase: The Warren County Department of Land Preservation does not anticipate purchasing any easements without leveraging state funding over the next ten years.
7. Cost Share: Assume County cost-share is 40% and the SADC contribution is 60%, consistent with the last six years.

*Table 19. Ten-Year Financial Analysis: Warren County, p.86*, details the ten-year financial analysis for the Warren County farmland preservation program. If the market continues as anticipated and funding is allocated as estimated, the County plans to preserve an additional 10,000 acres over the next ten years.

**Table 19. Ten-Year Financial Analysis: Warren County**

Year	Annual Levy	Farmland Funding	Less Administrative Costs (10%)	Less Debt Repayment (\$100,000)	Average Cost per Acre	Acres Preserved at 40% County Cost Share	40% County Cost Share	60% State Cost Share	Total Project Cost
1	\$ 4,103,735.00	\$ 2,257,054.25	\$ 2,031,348.83	\$ 1,931,348.83	\$ 5,270.00	<b>916.20</b>	\$ 1,931,348.83	\$ 2,897,023.24	<b>\$ 4,828,372.06</b>
2	\$ 4,103,735.00	\$ 2,257,054.25	\$ 2,031,348.83	\$ 1,931,348.83	\$ 5,270.00	<b>916.20</b>	\$ 1,931,348.83	\$ 2,897,023.24	<b>\$ 4,828,372.06</b>
3	\$ 4,103,735.00	\$ 2,257,054.25	\$ 2,031,348.83	\$ 1,931,348.83	\$ 5,270.00	<b>916.20</b>	\$ 1,931,348.83	\$ 2,897,023.24	<b>\$ 4,828,372.06</b>
4	\$ 4,103,735.00	\$ 2,257,054.25	\$ 2,031,348.83	\$ 1,931,348.83	\$ 5,270.00	<b>916.20</b>	\$ 1,931,348.83	\$ 2,897,023.24	<b>\$ 4,828,372.06</b>
5	\$ 4,103,735.00	\$ 2,257,054.25	\$ 2,031,348.83	\$ 1,931,348.83	\$ 5,270.00	<b>916.20</b>	\$ 1,931,348.83	\$ 2,897,023.24	<b>\$ 4,828,372.06</b>
6	\$ 4,103,735.00	\$ 2,257,054.25	\$ 2,031,348.83	\$ 1,931,348.83	\$ 5,270.00	<b>916.20</b>	\$ 1,931,348.83	\$ 2,897,023.24	<b>\$ 4,828,372.06</b>
7	\$ 4,103,735.00	\$ 2,257,054.25	\$ 2,031,348.83	\$ 1,931,348.83	\$ 5,270.00	<b>916.20</b>	\$ 1,931,348.83	\$ 2,897,023.24	<b>\$ 4,828,372.06</b>
8	\$ 4,103,735.00	\$ 2,257,054.25	\$ 2,031,348.83	\$ 1,931,348.83	\$ 5,270.00	<b>916.20</b>	\$ 1,931,348.83	\$ 2,897,023.24	<b>\$ 4,828,372.06</b>
9	\$ 4,103,735.00	\$ 2,257,054.25	\$ 2,031,348.83	\$ 1,931,348.83	\$ 5,270.00	<b>916.20</b>	\$ 1,931,348.83	\$ 2,897,023.24	<b>\$ 4,828,372.06</b>
10	\$ 4,103,735.00	\$ 2,257,054.25	\$ 2,031,348.83	\$ 1,931,348.83	\$ 5,270.00	<b>916.20</b>	\$ 1,931,348.83	\$ 2,897,023.24	<b>\$ 4,828,372.06</b>

## CHAPTER 6: ECONOMIC DEVELOPMENT

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Warren County is among the top counties in the State of New Jersey in agricultural production. Cattle, grains and nursery crops form the economic base of the farming industry in Warren County. Building upon this are the ancillary businesses and infrastructure that support the County's farmers. Throughout the state, the marketing and profitability of the agricultural industry has gained renewed focus. The Farmland Preservation Program in Warren County is measured not just by acres preserved but also by the programs put in place to support farmers and their businesses. The County's agricultural community and its supporting groups and agencies understand that a Farmland Preservation Program constitutes much more than the act of preserving land. In order to be a full partner in a successful Farmland Preservation Program, agriculture as an industry must be vibrant, self-sustaining and innovative.

The Warren County Agriculture Development Board (CADB) and its Department of Land Preservation are directly and administratively involved with the preservation and enhancement of farming in the County. This involvement is focused not just on acquisition but also on monitoring farms, assisting with Right to Farm disputes, working with municipalities to create farm-friendly atmospheres where possible, and coordinating with the state, County, and other organizations to maximize the agricultural potential of the County, including an awareness of the need to support agriculture from an economic development perspective. This chapter assesses how economic development strategies set forth by the New Jersey Department of Agriculture (NJDA) can be applied to the agricultural industry in Warren County and how coordination with other state and County level planning tools and organizations can strengthen the business of agriculture in the County.<sup>1</sup>

### **N.J. Department of Agriculture Economic Development Strategies (2011)**

At the state level, New Jersey offers Warren County farmers a number of support services and programs ranging from technical advice to farm loans. One of these is the New Jersey Department of Agriculture *Smart Growth Toolkit*,<sup>2</sup> which provides information to support municipal governments, businesses, nonprofit groups, and local citizens in their efforts to achieve the goals and objectives outlined in the NJDA *Agricultural Smart Growth Plan for New Jersey*, released in 2006.<sup>3</sup> The *Toolkit* embraces the five components identified by the NJDA as critical for the future of farming: Farmland Preservation, Innovative Conservation Planning for Agricultural Land Use, Economic Development, Agriculture Industry Sustainability, and Natural Resource Conservation (*Agricultural Smart Growth Toolkit*).

As part of this emphasis on the business of agriculture, the NJDA issued its *2011 Economic Development Strategies*, which identify and propose methods to expand and enhance various subsets of the agriculture industry in New Jersey, including produce, horticulture, aquaculture and seafood, dairy, field and forage crops, livestock and poultry, organic, wine, and agritourism. The NJDA observes that "local access to large affluent markets has long been an advantage for the marketing of [those] products. While our markets are still there, competition has become tougher. New Jersey...must continually work to rediscover its competitive advantages, improving access to nearby markets and strengthening consumer loyalty" (*Economic Development Strategies*).<sup>4</sup>

### ***Economic Snapshot of Warren County Farming***

In 2012, 89 of Warren County’s 784 farms, or 11% of all farms, had sales of more than \$100,000, accounting for 92% of the total revenue. This leaves 89% of farms accounting for just 8% of the remaining total sales, indicating a wide disparity in revenue between a large majority of smaller farms and a small minority of larger farms (*2012 Census of Agriculture*).

From a profitability standpoint, 36% of County farms realized net gains in 2012, slightly lower than the statewide percentage of 38%, and the \$105,820 average dollar amount for farms with gains was higher than the statewide average of \$96,373. For farms reporting net losses, the \$17,578 average lost per farm was lower than the statewide average of \$26,895. Overall, the County’s average net income per farm of \$26,650 is above the statewide average of \$19,539. Since 2002, the number of County farms with net gains decreased by 11% and those with net losses has increased 1%. However, because the total number of farms decreased since 2002, the proportion of farmers reporting net losses increased from 61% in 2002 to 64% in 2012 (*Table 20. Warren County Agriculture- Economic Overview*) (*Census of Agriculture*), p. 88.

**Table 20. Warren County Agriculture- Economic Overview**

	<b>2002</b>	<b>2012</b>	<b>% Change to 2012</b>
Market Value/Products Sold (\$1,000)	\$39,701	\$91,205	130%
Average/Farm (\$)	\$48,772	\$116,333	139%
<b>Production Expenses (\$1,000)</b>			
Production Expenses (\$1,000)	\$40,084	\$73,841	84%
Average/Farm (\$)	\$49,243	\$94,185	91%
<b>Net Income (\$1,000)</b>			
Net Income (\$1,000)	\$4,009	\$20,894	421%
Average/Farm (\$)	\$4,926	\$26,650	441%
<b>Farms w/Net Gains</b>			
Farms w/Net Gains	316	281	-11%
Average/Farm (\$)	\$26,493	\$105,820	299%
% of All of Farms	39%	36%	-3%
<b>Farms w/Net Losses</b>			
Farms w/Net Losses	498	503	1%
Average/Farm (\$)	\$8,700	\$17,578	102%
% of All of Farms	61%	64%	3%
<b>Total Acres</b>			
Total Acres	78,042	72,250	-7%
All Farms	814	784	-4%
Average Acres/Farm	96	92	-4%
<i>Source: Census of Agriculture</i>			

Overall, farm operators have found ways to significantly boost their net gains by nearly 300% on average. However, fewer farms are enjoying these increased profits in 2012, with a greater proportion of the County’s farms seeing their average net losses increase roughly 100%. It is important that the County’s focus remains on ways to help farmers increase their profitability

and coordinate with federal and state agencies, as well as other organizations, both in the public and private sectors, to find solutions.

A look at market sectors in Warren County shows that crop sales climbed slowly from \$8.3 million in 1987 to \$18.4 million in 2002, before jumping to \$54.7 million in 2012. Over this same time period, livestock sales gradually declined, posting \$27 million in sales in 1987 and \$21.3 million in 2002. Since then, livestock sales have improved, posting \$36.5 million in total revenue in 2012. Within the crop sector, nursery/greenhouse was the largest sub-sector in 2012, with 46% of the market share. The grains sub-sector came in second, with 35%, and vegetables, fruits, hay, and Christmas trees all lagged behind, with 11%, 4%, 3%, and 1%, respectively.

Major efforts by the NJDA are directed at increasing the demand for New Jersey grown produce through branding, agritourism, farm direct sales programs, and farm markets. The NJDA *2011 Economic Development Strategies* include all of these activities. NJDA is committed to promoting agritourism through the *Jersey Fresh* website, the distribution of printed materials, and other forms of advertisement and promotion including collaborating with Rutgers University through the New Jersey Agricultural Experiment Station, and promotion of the work of other organizations such as the New Jersey Farmers' Direct Marketing Association. Warren County farms with appropriate activities, as well as roadside stands and pick-your-own farms, benefit from such promotion. Using recommendations outlined in the *2011 Economic Development Strategies* report, Warren County can investigate ways to expand and/or diversify into more profitable sectors and continue to direct County programs to ensure sustainable agriculture practices and profitability.

The following is a brief discussion of each of the sectors of Warren County's agriculture industry as they relate to the *2011 Economic Development Strategies* report. For each of the sectors, the 2011 report encourages Warren County farmers to continually seek new local, state and interstate markets to strengthen market share.

## **Produce**

The NJDA *2011 Economic Development Strategies* for produce focused on the *Jersey Fresh* program and food safety. A new focus of the *Jersey Fresh* program was to work with processors to develop and market products labeled with a new "Made with Jersey Fresh" brand. NJDA's *Jersey Fresh* labels program was to be updated and promoted throughout the state. The Department continued to grow the *Jersey Fresh* Hospitality Industry Program. The program works closely with the industry to market *Jersey Fresh* produce to the hotel, restaurant, educational, and institutional foodservice industries. In addition, the NJDA planned to strengthen the appeal of the *Jersey Fresh* brand to supermarket chains and other retailers, increase the use of the *Jersey Fresh* brand name and discourage the use of the "Locally Grown" product claim. The Department also planned to continue to promote New Jersey grown organic products as distinct from, and of higher value than, competing products by establishing the *Jersey Organic* brand (*Economic Development Strategies*).

Produce, which includes vegetables and fruits, are a leading agricultural commodity in New Jersey, representing 15% of all agricultural sales based on the *2012 Census of Agriculture*. In 2012, Warren County vegetable growers on 58 farms harvested 1,720 acres, with resulting sales

of \$5,769,000. Fruit, tree nut and berry combined sales totaled \$2,198,000 in 2012, and sales figures were not disclosed for 2007. Total produce sales increased after 2002, from \$5,324,000 in 2002 to \$7,967,000 in 2012, a 50% increase. Total acreages were not disclosed for fruits and tree nuts, but berries were grown on 40 acres in 2012. The number of farmers involved in this sector fell by nearly half, from 109 in 2007 to 58 in 2012. In 2012, Warren County ranked ninth statewide for vegetables and tenth for fruits, tree nuts and berries. When combined, the two sectors represented 8.7% of the County's total agricultural sales in 2012. Warren County is one of the leading producers in the state for apples, grapes, sweet corn and pumpkins, but overall the produce sector plays a very small role in the County's agricultural industry. Some of these crops do not require as much land as field and forage crops such as soybeans and hay, making them a positive match with the trend towards smaller farms over the years, especially those that follow organic or sustainable practices. However, these crops also have higher input costs than crops such as hay, and in that respect can benefit from economies of scale. The County can work to strengthen and expand the modestly growing produce sector as opportunities arise.

In Warren County, many produce growers either market their products at their own roadside stands or at farmer's markets. Many farmers with roadside stands or markets have their own websites and also gain visibility through other websites and regional events. Opportunities for promoting produce (and, in many cases, numerous other agricultural products) include:<sup>x</sup>

- NJDA *Jersey Fresh* website listings have recorded 37 County farms, including 26 roadside markets and 17 pick-your-own crops (NJDA);<sup>5</sup>
- *Jersey Fresh* also offers community-supported agriculture (CSA), where residents can pledge to support a farm in advance of the growing season, where they receive shares of the total harvest in return. Five farms in Warren County currently practice CSA;<sup>6</sup>
- *Rutgers New Jersey Agricultural Experiment Station Cooperative Extension (RNJAESCE)* created an educational website dedicated to agritourism for the public, government officials, farmers and educators.<sup>7</sup> A training website was also developed by the Rutgers Agritourism Team for farmers and can be found at <http://agritourism.rutgers.edu/training/>;
- *New Jersey Skylands* promotes agritourism within Warren County, offering descriptions of the Warren County Farmers Fair, wineries, farmers markets, and other attractions. The website offers a comprehensive list of different types of produce available and the best time to attend pick-your-own operations for each produce category;<sup>8</sup>
- *Natural Jersey* is a site promoting local natural health products, such as body products, juice bars, and farm stands and farmers markets. Six Warren County farmers markets are listed, as are ten individual farms;<sup>9</sup>
- *Tour de Farm New Jersey* holds an annual cycling event in both Sussex and Warren Counties, with the goal of supporting local farmers. Farmers provide samples, as well as goods for sale along the route;<sup>10</sup>
- *Warren County Farmer's Fair* is a weeklong festival featuring many local farms offering products for sale, as well as hot air balloons, artwork and other attractions;<sup>11</sup>

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<sup>x</sup> These websites are not meant to exclusively promote produce-centric farms, but rather to highlight various farms and events throughout the County.

- *Greenmarket* is a network of New York City farmers markets designed to promote small family farms within the region. Over 50 Greenmarket locations are found within all five boroughs, where at least four Warren County farms offer products for sale;<sup>12</sup>
- Other resources listing direct marketing opportunities for produce in Warren County include VisitNJfarms.org, NJ Farmers' Direct Marketing Association (<http://njfarmmarkets.org/>), Northeast Organic Farming Association New Jersey (<http://nofanj.org>), LocalHarvest.org, and EdibleJersey.com (pick-your-own listings).

Other ways to promote Warren County produce and, again, other agricultural products (where applicable), increase marketing, and encourage farmers include:

- Through CADB and RNJAESCE communications, encourage farmers to promote their farm stands, farm markets, CSAs, participation in community farmers markets, pick-your-own operations, and other offerings through their own websites, social media sites, and state and organization websites such as those mentioned above, and remind farmers to keep their listings up to date;
- Coordinate between state, County and regional/association websites and literature to achieve consistency, inclusiveness and up-to-date accurate information;
- The CADB, the RNJAESCE and the Warren County Economic Development Advisory Council can work with municipalities in the County to establish or reestablish community farmers markets; there are 12 participating communities within the County that are working towards Sustainable Jersey certification, with two achieving Bronze certification status (Hope and Mansfield Townships);<sup>13</sup> any of these communities can get Sustainable Jersey credit for operating farmers' markets in their communities or in concert with other communities; in addition, they can get credit for Buy Fresh, Buy Local programs that actively promote businesses that sell locally grown food or use it in their restaurants;
- Ensure that residents in more developed areas of the County and the region are aware of the farming community, its products and benefits, through publicity and product offerings on a regular basis at community events such as farmers markets, street fairs, festivals and other public events, with the goal of getting consumers to depend on and value Warren County agricultural products and, thus, support its farmers and farming initiatives;
- Explore expansion/diversification into value-added produce products, such as jams and jellies, in concert with the NJDA and Rutgers and provide information to farmers through workshops and direct communications;
- Explore "Contract Growing," that is, growing goods for specific customers on a contract basis (such as regional pharmaceutical or biotech companies);
- Encourage farmers to explore diversifying into produce crops that serve the needs of growing ethnic populations in the region, and in concert with the state and Rutgers, inform farmers about these crops through the Internet, workshops, and/or direct communications (see RNJAES publication "Growing Ethnic Vegetables in the Garden State");<sup>14</sup>
- Communicate to farmers the availability of state promotional campaigns, free signage, and other signage opportunities;
- Encourage more participation in the *Jersey Fresh Hospitality Program* from County restaurants, hotels and specialty, and institutional food services such as schools and hospitals, and help County farmers connect with these outlets;

- Encourage more grocery stores to follow Shop-Rite’s model of offering local *Jersey Fresh* produce such as apples, lettuce, asparagus, peaches and tomatoes in its stores;
- Encourage support for agricultural irrigation (often necessary for crop production; especially fruit, vegetable, nursery, greenhouse, and other specialty crops);
- Encourage research into alternative water management strategies, such as efficient pump engines that reduce fuel consumption while still having adequate outputs of water for crop needs, conservation soil moisture monitoring technology to apply water based on evaporation and crop uptake, and using alternative water application methods that are more efficient; and other water conservation measures; and
- Encourage more farms to offer Community Supported Agriculture and other retail options to capture consumer dollars to garner increase from profitability, as well as raise community awareness of local agriculture.

## **Nursery, Greenhouses, Floriculture and Sod**

The NJDA *2011 Economic Development Strategies* focused on ensuring plant health, including inspections and research; increasing consumer awareness of the *Jersey Grown* brand; and working with government agencies to use New Jersey-produced products wherever possible.

This is the highest-ranking category of agricultural commodities in Warren County in 2012, bringing in \$25,248,000. It accounted for 47% of total crop sales and 28% of total agricultural sales, versus 54% and 48% statewide (*2012 Census of Agriculture*). This sub-sector exhibited steady growth from \$1 million in countywide in 1987, to \$7.6 million in 2002, before jumping to \$25.2 million in 2012. Despite a 36% drop in participating farms from 2002 to 2012, the County still experienced a 232% revenue increase from nursery/greenhouse products during those 10 years. The sales increase is attributed in part to businesses taking advantages of market niches and new technologies, supplying specialty products to customers throughout the region. For example, Edible Gardens in Belvidere underwent a major expansion over a decade ago, including the installation of a state-of-the-art Dutch Hydroponic table system in their 700,000+ square foot greenhouse. The farm has been so successful that products can be found all across the country.<sup>15</sup>

There are nine garden centers and nurseries listed on NJDA’s *Jersey Grown* website<sup>16</sup> for Warren County (although not all may offer *Jersey Grown* products), and just one certified supplier,<sup>17</sup> eligible to market using the *Jersey Grown* branding. Many of these, plus a number of other nurseries and dealers (including landscape services and floral shops) are listed in the NJDA’s directory of current state certifications, indicating that their stock has been inspected and found to be free from dangerously injurious plant pests (*NJDA*).<sup>18</sup>

A growing non-agriculture population in the County and region provides a ready and expanding market for these products. The County can continue to strengthen and expand this sector of the agriculture economy as opportunities arise. In addition to those strategies listed above where nursery, greenhouse, floriculture and sod products may be applicable, other strategies to follow may include:

- Support efforts by NJDA to ensure plant health and disease-free material;
- Increase consumer awareness of the *Jersey Grown* brand;

- Seek and/or expand contracts with large box store operations such as Home Depot, Lowe’s, and Walmart;
- Reach out to local companies to explore partnerships and growing contracts with County greenhouse operations for plant-based products
- Promote “drive up” operations where consumers can buy directly from the nursery or greenhouse.

The County’s Grow Warren Plan will further discuss future new crop potential for the County.

## Field and Forage Crops

The NJDA *2011 Economic Development Strategies* for field and forage crops intend to ensure plant health, aid development strategies to improve production, yield per acre and management practices; and support organic crop production plans for a green energy initiative involving bio-fuel production that could provide a new local market for New Jersey agricultural products. The NJDA noted that, “due to the state’s high land values, property taxes and labor rates, production costs in New Jersey are higher than in most other production areas. With commodity prices based on national production costs, yields and demand, it can be less profitable to produce commodity items in New Jersey than elsewhere” (*Economic Development Strategies*).

In 2012, the County reported total sales of grains, oilseeds, dry beans and dry peas to be \$19.2 million (ranked second statewide), with hay and other crops totaling \$1.8 million (fifth statewide), together representing approximately 23% of total agricultural sales in Warren County. This is a noteworthy 329% increase over sales in 2002, a drier year in which the grains category sales were \$3.8 million and hay and other crops sales were \$1.1 million (*Census of Agriculture*).

Warren County ranked second in the state for acres devoted to corn for grain and sixth for soybeans in 2012. Grains, peas and beans represented 35% of the County’s crop sales, up 14% from 2002. 60 farms harvested soybeans in 2012, up from 42 in 2002. The number of acres in soybean production grew 10% between 2002 and 2012, but the yield increased by more than 50%, indicating greater efficiency and yields per acre. However, corn for grain was by far the most land-intensive field crop, occupying nearly 3.5 times as much land as soybeans in 2012, with over 19,500 acres harvested. Corn sales in Warren County reached \$15.4 million, easily outstripping 2007 sales of \$8.1 million.<sup>y</sup>

Since 2013, corn, soybean and other grain prices have dropped statewide (*NASS*).<sup>z</sup> One of the main reasons can be attributed to higher grain and feed prices prior to 2013 that hurt the livestock and dairy industry. Livestock and dairy producers sold off stock and meat, and milk production nationwide fell, reducing demand for grain and feed. Prior to 2013, statewide acreages of grain crops had steadily increased and many farmers found it profitable to produce corn, soybeans or grains in place of other crops. This has not been the case in more recent years (*Michelle Infante-Casella*).<sup>19</sup>

<sup>y</sup> Corn sales were not disclosed prior to the 2007 *Census of Agriculture*.

<sup>z</sup> Prices were not available at the county level.

The County ranked third in the state for forage lands used in growing hay/haylage, grass silage and greenchop in 2002, 2007 and 2012. While the number of farms involved in forage crop production fell slightly from 355 farms in 2002 to 347 in 2012, acreages and total yields fell much faster. In 2002, over 15,000 acres yielded nearly 33,000 tons, but in 2012 11,000 acres yielded just 21,000 tons. The majority of farms harvesting hay are smaller than 25 acres, with just 23 farms harvesting 100 acres or more (*Census of Agriculture*). Hay has lower input costs and is not attractive to wildlife. It is a friendlier crop to non-agricultural neighbors because it does not have the level of pesticide spraying requirements, odor or unsightliness of other types of agricultural products, leading to fewer conflicts with non-farmers (*Michelle Infante-Casella*).

In addition to those strategies listed above where field and forage crops may be applicable, other strategies to consider include:

- Educate farmers about any improved management practices and ways to boost yield per acre;
- Alert farmers to any available workshops on cropland and pasture management;
- Encourage diversification to row crops that meet newly emerging markets or markets with increasing demand (such as spelt as a dietary substitute for wheat or switchgrass for pelletized energy) or lend themselves to value-added marketing opportunities (such as sorghum for homemade jams and jellies that can be marketed from roadside stands, at community markets and over the Internet);
- According to RNJAES “there are a number of profitable alternative world crops that can be grown in New Jersey to satisfy the demand for fresh produce by immigrant populations. These crops are suited to diversified small to mid-size farms where high returns per acre is required.”<sup>20</sup> A website called World Crops,<sup>21</sup> of which RNJAES is a sponsor, can point farmers to crops that meet the needs of ethnic populations in the area;
- Reach out to regional pharmaceutical and biotech companies to explore partnerships and growing contracts with County farmers for plant-based pharmaceuticals;
- Encourage transition to certified organic or naturally grown bean and grain crops to increase their value;
- Publicize to farmers the availability of state-sponsored grain marketing sessions, when scheduled;
- Inform producers about the role of crop insurance in mitigating market risk; and
- Assist farmers in investigating alternative crops for local production and new markets (such as hops, specialty small fruits, small-scale animal products).

## **Dairy**

The NJDA *2011 Economic Development Strategies* for dairy included establishing a premium price for New Jersey-produced milk and ensuring stable pricing; increasing the demand for milk through sale and promotion of *Jersey Fresh* milk and milk products at community and retail markets; promoting FIN-PAK and risk-management software programs to producers; implementing dairy-quality benchmarks; and establishing a health and safety standard for sale of raw milk directly to consumers.

The 2012 Census did not disclose total milk revenue, but Warren County ranked second statewide in sales and had 23 farms involved in milk production, down from 45 in 2002. Sales

figures were also not disclosed for 2002 and 2007, but production within the industry has trended downward, largely in part due to higher input costs, low milk prices, and unfavorable weather conditions. Similar trends have been occurring throughout the rest of the state, which has witnessed the closures of more than half its dairy farms in the past decade (*Garden State Dairy Alliance*).<sup>22</sup> However, declines in production within Warren County have leveled off since the early 2000s, holding relatively constant through 2009, the most recent year of data available.

Strategies for augmenting the County dairy industry include:

- Work to ensure the health of the industry, and the quality of raw and processed milk; encourage farmers to license under the Jersey Fresh Quality Grading Program, which allows raw milk to be used in goods bearing the logo *Made With Jersey Fresh Milk*;
- Take advantage of the services offered by the Garden State Dairy Alliance, including disease control, milk quality, marketing and promotion, and technical assistance;
- Explore various additional products, such as cheeses and markets for dairy, including local restaurants and grocery markets;
- Aggressively market value-added dairy products, especially those that can carry the *Made With Jersey Fresh Milk* logo;
- Consider and encourage the NJDA's campaign to establish a process to allow sales of raw milk direct from the farmer to the producer and the positive effects it might have for dairy farmers in Warren County;
- Encourage passage of proposed raw milk legislation that would permit sale of raw milk under certain conditions and establishes a raw milk permit program (A543 and S1285, introduced in the 2014-2015 State Legislative session, both died in committee)<sup>23,24</sup> and
- Consider establishing an Agriculture Enterprise District where discounts and exemptions on taxes and other fees could reduce the expense of dairy farming, making Warren County products more competitive with other regions.

## **Livestock and Poultry**

The NJDA *2011 Economic Development Strategies* for livestock focused on animal health, ensuring safe and legal sales of poultry and eggs at community farmers markets; and supporting youth programs involving livestock.

Operations in Warren County include cattle and calves, sheep and goats, hogs, and poultry and eggs.<sup>aa</sup> Since 1987, livestock has represented an increasingly smaller portion of the County's agricultural industry, representing 40% of sales in 2012, down from 76% in 1987.

The number of farms with livestock operations has remained steady since 1987, until a 20% increase from 2002 to 2007 and a subsequent 20% decline from 2007 to 2012. Cattle stocks, including milk cows and other cattle, have dropped since the 1960s and 1970s before leveling out in the early 2000s. The biggest declines were seen in farms containing greater numbers of

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<sup>aa</sup> In the 2002-2012 *Censuses of Agriculture*, equine species are included under "Livestock and Poultry;" however, for the purposes of this document, and in alignment with the categories put forward by the NJDA in its *2011 Economic Development Strategies*, they are discussed later in this chapter in a separate section on the Equine industry.

cattle. As discussed above, the livestock industry has recently shrunk due to higher grain and feed prices since 2013, reflected in *Figure 13*. Both milk and non-milk cows have fallen at similar rates over time as the number of farms fell from 323 in 1987 to 137 in 2012, but there may be a good market for non-dairy cattle, provided they can be USDA certified<sup>bb</sup> to increase direct sales to consumers (*Bruce Barbour*).

Hog and pig operations have followed a trend similar to cattle, where farms held relatively steady until peaking from 2002-2007, and returning to approximately 2002 levels in 2012. Overall, hog and pig operations have slowly declined since 1987, down 19% from 48 to 39 in 2012. Revenue reached \$90,000 in 2007, and total sales were not disclosed for 2012. Of the 39 farms, 34 had less than 25 animals in stock in 2012, with five farms raising anywhere from 50 to 99 hogs and/or pigs.

Farms with sheep have increased from 69 in 1997 to a peak in 2007 with 114 operations, before falling 11% to 101 in 2012. The *2012 Census* had the highest inventories of sheep, with 2,559 animals in stock. This is up from a low in 2007, where the largest number of farms had 1,887 sheep. In part, the upswing of farms in 2007 may be attributed to a new methodology employed by the USDA, which allowed it to capture more small farms with less than \$10,000 in sales in the data collection process. Also, the high commodity prices in 2007 meant more small operations were able to meet the \$1,000 threshold to qualify as a farm. With the trend towards smaller farms, sheep make good livestock choices for Warren County farmers since they are ideal for operations with small acreage (*USDA Overview*).<sup>25</sup> National prices for wool in 2015 were \$1.45 per pound and the average yield per shorn sheep was 7.4 pounds (*NASS*).<sup>cc</sup> Sheep and lamb prices were up as well. In addition, there is the opportunity for value-added products such as cheeses made from sheep's milk.

Goat farming peaked in 2007 with 44 operations reporting sales, compared to 34 in 2002 and 31 in 2012. However, inventory has grown since 2002, when 681 goats were present. Farmers owned 871 goats in 2007 and 924 in 2012. Goats are another good choice for small farms with limited acreage; they are easier to manage and less costly to raise than many livestock, with a variety of end products: milk, cheeses, mohair or meat, depending on the type of goat. Growing populations of ethnic groups that favor goat meat spur demand, and goat milk can be used to make artisan goat cheeses, soaps and other value-added products (*USDA Overview*).

Similar to sheep and goats, specialty livestock operations peaked in 2007, with 57 farms in operation. 31 farms produced specialty livestock in 2002, and 43 farms were involved in production in 2012. Warren County saw \$130,000 in 2012 sales, ranking 10<sup>th</sup> statewide. This includes 8 farms raising alpaca, 1 raising bison, 6 raising llamas, 20 raising rabbits, as well as other specialty livestock.

Poultry and egg farms have fluctuated over the years, with 105 farms in 1997, peaking in 2007 with 193 operations, before falling 34% to 127 farms in 2012. Sales figures have not been

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<sup>bb</sup> This has been referred to as a “chicken-or-the-egg” dilemma – the USDA generally does not certify cuts of beef for direct sales because they feel there are insufficient numbers of cattle in the county, and farmers cannot sell more cuts for direct sales because the USDA has not come to certify their products.

<sup>cc</sup> Wool prices were not available at the county level or at the state level after 1997.

disclosed in any of these Census reports, but poultry and egg production in Warren County ranked first statewide in 2007 and 2012.

To strengthen and expand its place in the County economy, some cattle, sheep, hog, goat, poultry and specialty livestock strategies may include:

- Ensure animal health;
- Encourage USDA inspections in area farms in order to permit more direct sales of cuts of beef to consumers;
- Explore various additional markets, including local hospitals and assisted-living operations, restaurants and grocery markets, and increased outlets for meat sales at regional community markets (such as the Hackettstown Livestock Auction) and special events (such as the Warren County Farmers' Fair);
- Seek opportunities for production contracts with poultry and livestock processors;
- Investigate outlets for dairy products for goats and sheep, and educate farmers about the benefits of diversifying into these value-added opportunities;
- Explore increased marketing opportunities for goat meat to meet the preferences of growing ethnic populations in the state;
- Encourage passage of proposed raw milk legislation that would permit sale of raw milk under certain conditions and establishes a raw milk permit program;
- Assist farmers with farming techniques, including continued and additional cooperation with the RNJAESCE, NJDA and Natural Resources Conservation Service (NRCS); and
- Promote the agritourism potential of livestock and livestock products in concentrated agricultural areas such as the Route 57 scenic byway corridor, including exotic animals and poultry, such as “looking” or “petting” zoos, on-farm sales of value-added products such as wool and cheeses, and educational school tours.

## **Organic Farming**

The NJDA *2011 Economic Development Strategies* for organic farming included promoting federal cost-sharing funds for certification reimbursement; integrating marketing of *Jersey Organic* brand alongside *Jersey Fresh*; and working with NOFA-NJ (Northeast Organic Farming Association – New Jersey) towards research and technical assistance for organic growers.

Organic crops and animals have the potential to be an important market for Warren County. With an increasing population, potential markets in Pennsylvania, and New York State (including Philadelphia and New York City), and increased consumer awareness regarding food production, organic products and the markets that support them should continue to gain a stronghold and become more mainstream as people demand high quality, readily accessible and affordable organic products. Certification of organic farms is regulated by the U.S. Department of Agriculture via the Organic Food Production Act of 1990 (OFPA) through a National Organic Program (NOP), and can be somewhat costly and time consuming as compared to non-organic farming. This may dissuade some farmers otherwise amenable to this type of farming.

Small organic operations (growers or processors), those with gross sales of less than \$5,000 per year of unprocessed organic product and/or less than \$5,000 of processed organic products (such as jam), can be exempted from the NOP certification process. They can market their products as

organic as long as they follow the national organic standards for production, labeling and recordkeeping, but they cannot use the USDA Organic seal, which can only be used on certified products. They can also sell their products to the retail market, which can sell them as organic as long as the retailer does not re-package or process the product (*NOP*).<sup>26</sup>

Census reporting of organic agriculture is relatively recent and methodologies changed between 2002, 2007 and 2012, making the Census data incomparable. In 2012, the Census reported no Warren County farms with the USDA NOP certification, nor any farms making the transition to NOP certification. However, two farms were listed as exempt from certification. On the state level, 72 farms reported \$3 million in sales of NOP certified or exempt organically produced commodities.

“Natural” farming is another alternative; it is a type of farming that seeks to emulate organic farming, but is not overseen by laws or regulations, as is organic farming. Natural farming is somewhat less costly and time consuming than “organic,” and therefore may be a viable option for some farmers, and their potential customers. Certified Nationally Grown (CNG) is a non-profit organization that offers certification “tailored for small-scale, direct-market farmers and beekeepers using natural methods.” Its standards are based on the NOP standards, but CNG uses a peer-review process, as it is more affordable for small operations than certifying through the state program. Four Warren County farms are certified; three for produce and one for livestock.<sup>27</sup>

Organic certification cost share programs are available that reimburse individual organic operators up to 75% of their certification costs up to a maximum of \$750 per category of certification. These include the National Organic Certification Cost Share Program (NOCCSP), which provides \$11.5 million in assistance each fiscal year through 2018 for all scopes of certification (producers and handlers), and the Agricultural Management Assistance (AMA) Organic Certification Cost Share Program, with \$1.5 million available to producers only, annually through fiscal year 2018. Producers may apply to both programs but not for reimbursement of the same costs.<sup>28</sup>

## **Equine**

The NJDA *2011 Economic Development Strategies* for the equine industry focused on horse health and promotion of the industry through the *Jersey Bred* brand, hosted events, the equine website, including a redesigned New Jersey All Breed Horse Show, and working with youth programs. The 2012 Census of Agriculture indicates that New Jersey produced over \$17 million in sales, with Warren County’s 48 farms contributing \$249,000 towards that total (11<sup>th</sup> statewide). Sales and farm sizes have varied since the category was created in 2002, where 39 farms averaged \$9,380 in sales. 2007 saw a much higher average sales figure, in part to a low of 35 farms, but largely due to a huge spike in total equine revenues, resulting in a \$22,770 sales average per farm. 2012 saw the lowest average sales, dropping to \$5,188 per farm.

Many equine farms in Warren County consist of pasture and stable horses. Part of the value of this small but viable sector comes from services offered, which are not included in total sales figures. The New Jersey Equine Advisory Board reports two equine facilities in Warren County

offering such services, including horse boarding, riding lessons, and therapeutic riding.<sup>29</sup> Those that are breeding farms can make use of the *Jersey Bred* logo when marketing their animals.

On the state level, equine rules adopted August 4, 2008, established Agricultural Management Practices (AMP) for Equine Activities on Commercial Farms (N.J.A.C. 2:76-2A.10) and expanded the list of equine activities eligible for Right to Farm protections (N.J.A.C. 2:76-2B.3). While breeding, raising, pasture and hay production had always been eligible, the following were newly added: boarding, keeping, training, rehabilitation of horses and complementary activities including but not limited to clinics, open houses, demonstrations, educational camps, farm events, competitions and rodeos, as long as these activities are related to the marketing of horses that are raised, bred, kept, boarded, trained, or rehabilitated on the farm, and are in compliance with municipal requirements. This state level support is important to the sustainability and viability of the equine sector in Warren County.

To retain and grow its market share in the state and regional equine industry, Warren County can:

- Ensure the health of equine animals;
- Educate farmers about the benefits of equine rules and educate municipalities about the rights of equine farmers;
- Promote the industry at shows and festivals, such as the Warren County Farmers' Fair;
- Promote the industry through enhanced listings of County equine events in state, regional and County website and print listings;
- Consider encouraging a program such as the 2014 Conservation Innovation Grant awarded to Standard Bioenergy, whose project seeks to convert stall waste (horse manure, hay, and wood shavings) from equine farms into a renewable fuel that can be used in space heaters for greenhouses;<sup>30</sup> and
- Promote the agritourism aspect of the equine industry through farm tours, horse and pony rides, and boarding and riding lessons.

## **Wine**

According to the *2011 Economic Development Strategies*, the state's grape production has not kept pace with its wine production, which, according to the Alcohol and Tobacco Tax and Trade Bureau totaled 1,561,365 gallons in 2012, placing it 10th in the nation for wine production.<sup>31</sup> Strategies focused on expanding the locally grown content of New Jersey wine; supporting licenses to distill fruit-based spirits; expanding the number of eligible retail outlets supporting the ability to sell wines at farmers markets; and promoting New Jersey's wine trails.

In recent years, the wine industry in the Garden State has gotten several boosts. In January 2012, Governor Christie signed into law in a bill permitting direct shipping by New Jersey wineries,<sup>32</sup> and on July 2, 2014, the Governor signed into law another bill that establishes a pilot program through March 1, 2018, to allow wineries on preserved farms to conduct special occasion events under certain conditions as defined by the appropriate CADB.<sup>33</sup>

According to the New Jersey Department of Agriculture, the state has 50 licensed wineries versus 25 in 2007. Three Warren County wineries are listed on the *Jersey Fresh* site<sup>34</sup> and four

on visitnj.org (the Official Tourism Website of New Jersey).<sup>35</sup> A portion of western Warren County, along the Delaware and Musconetcong rivers and their tributaries, has also been designated by the federal government as a wine grape-growing region.<sup>36</sup>

In addition to wine tastings and other events throughout the County, seasonal train rides along the Delaware River make a stop at Villa Milagro Vineyards, where tourists can learn about wine production, sample products, and purchase bottles to take home.<sup>37</sup>

Warren County may consider:

- Exploring the feasibility for additional Warren County farmers to diversify into grape production (or other fruits suitable for wine making);
- Coordinating with wineries from other New Jersey counties, and New York and Pennsylvania, to grow a regional wine industry; and
- Encouraging promotion of Warren County wineries and wines, as they develop, through publicity, expanding a County-wide wine trail or wine tour to multiple vineyards, and encouraging expanded distribution of local wines to local outlets such as retail outlets and restaurants, and at other special events.

## **Aquaculture**

The NJDA *2011 Economic Development Strategies* lists New Jersey as one of the country's largest and most culturally diverse consumer seafood markets. Warren County ranked first statewide in aquaculture revenue in 2012, but total sales were not revealed. Although aquaculture plays a small part in total agricultural activity countywide, it plays a considerable role in New Jersey's aquaculture and seafood industry. In 2007, the County brought in \$1,049,000 in aquaculture sales (third statewide, 16% of total sales in New Jersey). The number of aquaculture operations in Warren County has increased slightly, from 3 in 2002 to 6 in 2012 (*2012 Census of Agriculture*).

To support a growing aquaculture and seafood economy, Warren County may consider:

- Working with the State Division of Animal Health to identify revenue streams to develop testing and certification for finfish species to allow transportation and sale of live farm-raised fish to markets in other states.
- Assist in crafting a supportive policy and regulatory path to allow aquaculture to grow in New Jersey, including revising the aquaculture rule providing for the Aquatic Farmer License Program, developing land-use permitting specifically for aquaculture, and assisting the industry and NJDEP in utilizing Aquaculture Development Zones.

## **Agritourism**

Because of a limited number of potential customers within the Warren County region and high levels of competition among agribusinesses<sup>dd</sup> involved in agritourism, agribusiness owners are forced to spend more of their limited time and money in creating effective marketing strategies

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<sup>dd</sup> Agribusiness refers to the industry of farming, while agritourism is a subsector of tourism drawing visitors to agricultural areas and farm related activities.

for consumer outreach. Despite these limitations, Warren County's close proximity to New York City and Pennsylvania's metropolitan areas provides farmers with millions of potential customers to target. The NJDA *2011 Economic Development Strategies* for agritourism focused on expanding roadside programs, including signage and eligibility for signage, consumer promotion through an agritourism brochure, press releases and promotion of agricultural fairs, along with continued development of njfarms.org.

The strategy to expand roadside promotion included expanding participation of agritourism operations in the Tourist Oriented Destination Signage (TODS) program through the New Jersey Department of Transportation (NJDOT), gaining a discounted agritourism rate and increasing the maximum distance (set at three miles) an operation can be from a state road to be eligible for the signage promotion. At least two of these goals have been achieved: In 2014, the maximum distance for an agritourism operation is 10 miles, and the annual cost per sign is \$400 versus \$800 for other businesses. To be eligible, businesses must be open at least six hours a day, five days a week during its growing or operating season.<sup>38</sup> Further details about the agritourism potential and usage of roadside stands will be reported in the County's *Grow Warren* report.

Visitnjfarms.org, mentioned in the *2011 Strategies*, is a website sponsored by Rutgers, the New Jersey Farmers' Direct Marketing Association and the New Jersey Farm Bureau. Its focus is on agritourism activities provided on commercial farms in New Jersey, and farmers must self-register. It includes a "find farms" option, event listings and a chart showing what's in season. A map on the home page allows the user to click on Warren County and see the farm with listings on the site. In 2011, the Rutgers New Jersey Agricultural Experiment State reported that "...census data shows our state ranks first nationally in the percentage of farm revenue earned from agritourism" and that 1 in 5 New Jersey farms offer agritourism activities.<sup>39</sup>

In April 2014, the state gave further support to agritourism as a recognized sector of the agricultural industry by adopting an Agricultural Management Practices (AMP) for On-Farm Direct Marketing Facilities, Activities and Events into the New Jersey Register (N.J.A.C. 2:76-2A.13). The AMP "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 and pick-your-own operations, and associated activities and events that fit within the scope of the Right to Farm Act. 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" (SADC).<sup>40</sup>

The 2012 Census reports that Warren County had \$2.15 million in direct sales, representing 2% of total agricultural sales for the County. This is an increase of 68% over 1997, even while the total number of farms virtually stayed the same (162 in 1997 versus 161 in 2012) (*Table 21. Direct Sales in Warren County: 1997-2012, p.102*). For the Census, this category includes "the value of agricultural products produced and sold directly to individuals for human consumption from roadside stands, farmers' markets, pick-your-own sites, etc. It also includes livestock sales, but excludes non-edible products such as nursery crops, cut flowers, and wool. Sales of agricultural products by vertically integrated operations through their own processing and marketing operations were excluded."<sup>41</sup>

**Table 21. Direct Sales in Warren County: 1997-2012**

	1997	2002	2007	2012	% Change '97-'12
<b>Farms</b>	162	174	221	161	-0.6%
<b>Sales (\$1,000)</b>	\$1,277	\$1,545	\$1,952	\$2,150	68%
<i>Source: Census of Agriculture</i>					

This is a growing industry, including the wine sector, which has introduced not only tasting rooms and tours, but innovative programs such as music nights and weekend end runs through the vineyards. With continued support from the state, as well as county and local municipality efforts, this sector can benefit local agriculture both for farming as an industry and for the individual farmer as additional income. Agritourism helps change the perspective of the non-farming community and increases visibility, understanding and appreciation of farming by County residents and visitors. Agritourism can be an important contributor toward the long-term sustainability of Warren County’s agricultural industry. According to the *2011 Economic Development Strategies*, “agricultural tourism draws upon two great strengths of the Garden State, a rich agricultural heritage and a large population of affluent consumers,” and “...agritourism is critical to ensuring the future viability of agriculture in the state.” Agritourism can draw its clientele not only from the County and region, but also, across state borders, from nearby Pennsylvania and Delaware.

Agritourism in Warren County is evidenced by the many roadside markets and pick-your-owns, some of which also feature other on-farm activities and special events. Visibility is given to these and other agritourism opportunities through the many websites and publications available (*Table 22. Agritourism Websites and Publications, p.103*).

The weeklong Warren County Farmers Fair and Hot Air Balloon Festival held in July at the County Fairgrounds is one of the County’s main agritourism events. The fair, operating since 1937 and drawing thousands of visitors every year, celebrates local agriculture and attractions, ranging from horse shows and pony rides, to an arts expo to farm stands selling fresh products. The fair also celebrates efforts by local youth, with members of the 4-H club and Future Farmers of America teaming up to host a variety of exhibits.<sup>42</sup>

*The Opportunity for Agritourism Development in New Jersey*, a 2006 report prepared for the NJDA by two independent consultants and personnel from the Food Policy Institute at Rutgers, defines agritourism as “the business of establishing farms as travel destinations for educational and recreational purposes.” The report states that “agritourism represents an opportunity [for the farmer] to generate supplemental income during periods when land and equipment may be underutilized or idle and afford the opportunity for feedback from consumers regarding preferences for various farm products and services.” In addition, it “can create positive interactions between non-farmers and farmers,” helping to “reduce right to farm conflicts and garnering support for farm retention policies;” it also “contributes to and enhances the quality of life in communities” and provides consumers with “direct access to fresh, locally-produced farm products.”<sup>43</sup> In 2004, the New Jersey State Board of Agriculture formally recognized agritourism development as a strategy for “bolstering the viability of New Jersey Agriculture,” and in 2005, New Jersey’s Secretary of Agriculture, Charles Kuperus, convened the New Jersey Agritourism Industry Advisory Council. In 2006, more than one-fifth of New Jersey farms offered some form of agritourism, with 52% deriving at least half their income from it. Plus, for

every dollar in agritourism sales generated on a NJ farm, \$.58 of additional sales are generated in other businesses (e.g., restaurants, construction companies, insurance providers, etc.). This report also noted the importance of clarifying right to farm protections (*Rutgers*).<sup>44</sup>

**Table 22. Agritourism Websites and Publications**

<b>Source</b>	<b>Description</b>
<i>State</i>	
NJDA <i>Jersey Fresh</i> Website	<ul style="list-style-type: none"> <li>• Roadside markets<sup>45</sup></li> <li>• On-farm activities<sup>46</sup></li> <li>• Wineries<sup>47</sup></li> </ul>
Rutgers NJAES	<ul style="list-style-type: none"> <li>• Restaurants<sup>48</sup></li> <li>• Agritourism education<sup>49</sup></li> </ul>
NJDA <i>Jersey Equine</i> Website	<ul style="list-style-type: none"> <li>• Equine events<sup>50</sup></li> <li>• Equine facilities<sup>51</sup></li> </ul>
<i>Visit New Jersey Farms</i> Website <sup>52</sup>	<ul style="list-style-type: none"> <li>• Farms, farm products, activities and events</li> <li>• Ability for website visitor to build itinerary of farms to visit</li> </ul>
Visitnj.org (Office Tourism Website of New Jersey) <sup>53</sup>	<ul style="list-style-type: none"> <li>• Farms &amp; orchards</li> <li>• Wineries &amp; vineyards</li> <li>• Fairs</li> </ul>
<i>Regional</i>	
New Jersey Skylands Website <sup>54</sup>	<ul style="list-style-type: none"> <li>• Calendar of events</li> <li>• Farms, Gardens, Wineries section</li> <li>• Family Attractions section, where several regional farms and wineries are listed</li> </ul>
New Jersey Highlands Region Tourism <sup>55</sup>	<ul style="list-style-type: none"> <li>• Includes farms, farmers markets, and agritourism</li> </ul>
<i>County</i>	
Warren County Website <sup>56</sup>	<ul style="list-style-type: none"> <li>• Tourism page includes links to countywide and regional attractions</li> </ul>
<i>Organizations</i>	
NJ Farmers' Direct Marketing Association, Inc. ( <a href="http://www.njfarmmarkets.org">www.njfarmmarkets.org</a> ) <sup>57</sup>	<ul style="list-style-type: none"> <li>• 10 farms and farm markets</li> </ul>
New Jersey Christmas Tree Growers' Association <sup>58</sup>	<ul style="list-style-type: none"> <li>• 12 farms</li> </ul>

Among the series of recommendations included in this report are:

- Marketing and promotion – centralized promotion system, agritourism marketing website, better inclusion and integration of agritourism on the New Jersey Division of Travel and Tourism marketing materials; stronger links between farmers and Women, Infants and Children (WIC), Senior, and school lunch nutritional programs; and assisting counties with funding for agritourism promotion;

- Liability protection and insurance – develop a New Jersey Agritourism Limited Liability act modeled after laws in Virginia and North Carolina, and explore ways to reduce costs of liability insurance;
- Establish a state level Agritourism Industry Development program with a capacity to support regional agritourism initiatives and assist operators with marketing and promotion;
- Regulatory guidance for operators – include proactive communication about relevant regulations, and education about requirements and protections under the Right to Farm Act; address impediments to signage;
- Municipal outreach – educate municipalities about building agricultural retention elements and regulations supportive of agritourism into their master plans and ordinances;
- Training and information workshops for farmers – include hospitality training, marketing strategies and other issue-specific workshops such as liability, grants, traffic, signage; offer a forum for farmers getting into agritourism to interact with those who already are involved;
- Role of CADB – examine preservation policies to identify and address any restraints to agritourism development; provide outreach to operators and municipal officials; develop model long-term leases for farmers renting preserved farmland; host open houses and tours at agritourism operations such as those offered by the Somerset CADB and County Board of Agriculture; encourage municipal adoption of model Right to Farm ordinance;
- Resources – “how-to” website; innovation fund providing grants or low interest loans; technical assistance for farmers in identifying and obtaining grant funding; and
- School tours – identify and compile farm-related curriculum for different grade levels (as an example of what can be done, see The Farm Institute on Martha’s Vineyard’s website<sup>59</sup> provide opportunities for farmers to participate in school programs; and develop “fast facts” to educate farm visitors.

The study concludes that agritourism is financially beneficial to both the farmer and the economy, farmers have adopted a range of agritourism activities over the years, and that farmers need specific assistance and resources in order to be successful at integrating agritourism activities into their operations. Discussing a potential link between outdoor recreation activities (hiking trails, roads conducive to bicyclist) and farming and farm stand locations should be further explored in the County’s Grow Warren Strategic and Marketing Plan.

Both the Warren County CADB and Department of Land Preservation can pay special attention to these roles defined in the recommendation specific to CADB, as well as take an active interest in the other recommendations and work with the state, other agencies and organizations and County farmers to affect a strong agritourism presence in the County. Strategies may include:

- Establishing additional permanent, three season community markets, which may assist local farmers in selling farm and value-added products, strengthening the business of agriculture within the County;
- Establishing event-specific cooperative farm stands at community events in the County, which would promote and benefit the County’s farming industry and offer additional opportunities for product sales;
- Creating a regional harvest festival in the fall, a horticultural festival in the spring, or a farm itinerary tour of participating farms that could be listed on the Warren County Tourism page;

- Establishing a working farm devoted to public education, similar to The Farm Institute on Martha’s Vineyard; a working farm on preserved land that offers innovative programs that involve children, families and others, such as local chefs who come in to demonstrate recipes that can be prepared using local produce (*The Farm Institute*);
- Working with schools and farmers to develop and promote an expanded curriculum of opportunities for school tours to farms and for farmer visits to schools, maintaining a list of available farmers, and acting as a clearinghouse or coordinating link between schools and farmers;
- Expanding participation in WIC & Seniors Farmers Market Nutrition Program as Certified Farmer Vendors. Four \$5 vouchers are available for each eligible WIC/Senior participant to use June through November to redeem for fresh fruits, vegetables and herbs grown by local farmers.<sup>60</sup>
- Implementing a permanent signage program on a municipal or county level to supplement the NJDOT Tourist Oriented Destination Signage (TODS) program that alerts and directs tourists and local residents to agritourism destinations to help increase business and income for these farming establishments, informing farmers of the availability of these programs and encouraging participation; and
- Exploring growth in other sections of agritourism such as hunting, fishing and trapping. Often farmers do not charge for these privileges, if they offer them, perhaps, in part because of liability issues. Liability has also become an issue for petting zoos, causing some farmers in other areas to repurpose to “looking zoos” to avoid the safety and health issues that can ensue from interaction between farm animals and visitors. If the Limited Liability protection mentioned above were enacted, farmers might feel freer to generate income from these activities.

Potential challenges to successful expansion of agritourism in Warren County include:

- Impediments to farmers making long-term investments in crop diversification (such as the unavailability of long-term leases for farmers who rent rather than own the land);
- Market saturation (too many farmers engaged in any given type of agritourism could cause profitability for individual farmers to fall, even as it contributed more dollars to the overall agricultural sector); and
- Lack of recognition for agriculture in regulations and master plans, including municipal, federal or state regulations that make it difficult or expensive for farmers to participate, such as requiring food products to be processed in federally licensed kitchens or slaughterhouses.

Farmers with direct sales or agritourism activities can post their listings in the following online resources: localharvest.org (CSAs), NOFA-NJ (organic and sustainable), visitnjfarms.org, NJDA websites (Jersey Fresh, Jersey Grown, Made with Jersey Fresh), and Warren County’s tourism page. Farmers who want to learn more about running an agritourism operation can start with the resources available from the Rutgers Sustainable Farming on the Urban Fringe website. Agritourism resources include information on selecting a venture, writing business, marketing and risk management plans, and information on the Right to Farm Act and Agricultural Management Practices.<sup>61</sup> Additionally, the RNJAESCE has publications available on its website on specific agritourism topics, such as how to budget for a corn maze.<sup>62</sup>

## General Strategies

“Many different agencies, councils and organizations, working through a variety of programs, have the common goal of assisting New Jersey’s agricultural community,” according to the *2011 Economic Development Strategies*. “Strengthened communication and coordination between agencies and programs can result in multiple benefits for the agricultural community. In 2011 the Department will continue working on broad strategies and reaching out to better coordinate efforts with other agencies...to ensure the economic viability of the state’s agricultural industry.” Two areas of focus were called out: Farmland Assessment and Crop Insurance and Technical Assistance; and Export Development.

A summary of Farmland Assessment and Crop Insurance and Technical Assistance strategies and accomplishments is as follows:

- Farmland Assessment – 2011 strategy: updating documentation, supporting farmers in filling out applications and supporting tax assessors in determining farmer eligibility; in 2014, the NJDA’s Farmland Assessment page includes an overview dated June 2014, guidelines outlining changes beginning in tax year 2015 and information on productivity values for use in tax year 2014);<sup>63</sup>
- Crop Insurance – 2011 strategy: implementing an education initiative in partnership with the USDA Risk Management Agency and Rutgers Cooperative Extension to increase knowledge and skills among farmers and improve their financial health; in 2014, the NJDA’s Marketing and Development Agricultural Economic Development Services page includes a section on Risk Management and Crop Insurance;<sup>64</sup>
- Technical Assistance – 2011 strategy: offering assistance concerning the New Jersey Uniform Construction Code as it relates to farm buildings and the Real Property Appraisal Manual, Farm Building Section; in 2014, the NJDA’s Marketing and Development Agricultural Economic Development Services page includes a Farm Building Construction; Real Property Appraisal Manual, Farm Building Section;
- Recycling and Food – 2011 strategy: increasing participation in agricultural plastics recycling programs and assisting food processing industry in finding markets for soon-to-expire and expired foods; in 2014, the NJDA’s Marketing and Development Agricultural Economic Development Services page includes a section on Recycling for Agriculture;
- Motor Vehicle Requirements – 2011 strategy: providing information about regulations, license plates for farm vehicles and other vehicle related provisions through a user friendly website in 2014, the NJDA’s Marketing and Development Agricultural Economic Development Services page includes a section on Motor Vehicle Regulations for Agriculture; and
- Financing – 2011 strategy: providing information on federal, state and commercial lending institutions financing for agricultural loans; in 2014, the NJDA’s Marketing and Development Agricultural Economic Development Services page includes a section on Agriculture Credit and Finance.

The NJDA’s Agricultural Economic Development Services also includes information and links on other related topics.

## **Agricultural Industry Retention, Expansion and Recruitment Strategies**

### **Institutional**

#### ***Farmer Support***

Farmers at all levels can benefit from support – from the experienced farmer who owns a multigenerational farm and is concerned about farm succession, to a tenant farmer who seeks ways to maximize his profitability, to a young would-be farmer looking for guidance on how to break into agribusiness. A variety of resources exist at the state level, published on the State Agriculture Development Committee (SADC) website. One such program, *Farm Link*, serves as a resource and referral center for new farmers, farmers seeking access to land and farming opportunities, landowners seeking farmers, and farmers working on estate and farm transfer plans.<sup>65</sup> The linking service lists farmlands for lease, partnership and farm manager opportunities, preserved farms for sale (including auctions of preserved farms), and other farming opportunities.

Two resources available to farmers through the SADC are the New Jersey Farmland Leasing Guidebook,<sup>66</sup> created as part of a Beginning Farmer grant project<sup>67</sup> and a New Jersey Agricultural Mediation Program Handbook, subtitled “A Guide for Farmers, Neighbors and Municipalities.”<sup>68</sup> The SADC, in concert with the Northeast Organic Farming Association of New Jersey also held a leasing networking session for landowners and farmers in July 2014.

In addition, the state, RNJAESCE and supply companies, such as fertilizer and pesticide merchandisers, provide other often-seasonal workshops for farmers, keeping them up-to-date on various issues related to the agricultural community. For example, the Rutgers New Jersey Agricultural Experiment Station delivers three days of concurrent educational sessions at the State Agricultural Convention held each February. Sessions cover many diverse aspects related to commercial agriculture production and marketing.

Another opportunity is the New Jersey Agricultural Society’s New Jersey Agricultural Leadership Development Program (NJALDP), administrated by Burlington County College.<sup>69</sup> NJALDP is “a two-year professional development opportunity, which is designed specifically for individuals in farming and agribusiness to become informed, articulate leaders.” Through a series of seminars and domestic learning experiences, NJALDP participants explore various agricultural topics, debate key issues, sharpen communications skills, particularly through public speaking, and establish and cultivate an extensive agricultural network throughout the state.

Several schools in southern New Jersey have participated in a School Gardens initiative, funded by Team Nutrition Training mini-grants provided by the U.S. Department of Agriculture, the New Jersey Department of Agriculture, and Grow Healthy – a program of the RNJAES Cooperative Extension. This is a hands-on way to educate children about the importance of farming. “We promote teamwork through learning,” said Jill Getsinger, a fifth-grade teacher at Aura School in Gloucester County. “This is literally a community that is surrounded by farms, so here they have gotten to know what the farmer actually does, as well as the economic aspect. We tie it into all aspects of learning” (*NJ.com*).<sup>70</sup> Expanding this program to schools in Warren County would be a great way to increase the awareness of both students and their parents about the benefits and value of the agricultural industry in the County.

According to the RNJAES, the Grow Healthy program is a way to:

- Help children eat more fruits and vegetables;
- Offer nutrition education, physical activity, gardening & agriculture programs to students, families and staff;
- Connect with local farms;
- Serve more local foods; and
- Offer farm-to-school & nutrition trainings for foodservice staff.<sup>71</sup>

The Grow Healthy Initiative in Warren County is run by Sherri Cirignano, Family & Health Sciences Educator (phone: 908-475-6504; email: cirignano@njaes.rutgers.edu).

### ***Marketing, Advertising, Public Relations Support***

Marketing and advertising are critical to profitability. Some County farmers do opt to use paid advertising in local newspapers, but many, particularly those with smaller farms, hesitate to consider advertising, believing that the costs outweigh the benefits. They prefer to take advantage of free or less costly opportunities to market their products, such as state, regional and County public and promotional websites that will “advertise” the products. Several embrace the opportunities of direct marketing, from roadside stands and from their own websites.

Warren County should continue to focus on “selling” agriculture as part of the Warren County “landscape,” as there are competing demands on Warren County’s land base. As total farmland has declined over the years, more farmland becomes preserved and support for agriculture is woven into various sectors of the County’s economy. Farming will indeed become a permanent facet of life in Warren County, diminishing any perceived agriculture impermanence syndrome the general public may have. A coordinated effort to “sell” agriculture as a way of life that is enduring and significant to the County and its economy, will ensure area residents are aware of the enduring benefits of farmland, and solidify public economic support for the agriculture industry. Signage on preserved farms and other outreach mechanisms, such as adult and youth farmer education, the Warren County Farmers Fair, farmer’s markets, farm stands and pick-your-own operations, and Community Supported Agriculture will work to continue enhancing farming throughout the County.

The CADB, the RNJAESCE and the state can help by communicating to farmers the availability of various free promotional channels such as the *Jersey Fresh*, *Jersey Bred*, *Jersey Grown* and *Jersey Equine* websites, Visit NJ Farms website, and the Warren County “Tourism” web page.

For those farmers who want to consider paid advertising or garner free media coverage, web resources can help with the planning. For example, the New Jersey State Horticultural Society website publishes ad rates for its quarterly newsletter, *Horticultural News*.<sup>72</sup> Another website for Community Involved in Sustaining Agriculture (CISA),<sup>73</sup> a nonprofit organization in Western Massachusetts, offers a Basic Marketing Practices manual, and the Agricultural Marketing Resource Center devotes an entire section to promotion, including web promotion, advertising, publicity and promotional materials.<sup>74</sup>

### ***Signage***

Signage promotes visibility and awareness of agriculture in general, as well as benefitting the individual farmers.

Municipal considerations of farming needs when drafting their sign ordinances can be helpful in supporting farmers' efforts to promote their products. Farm stands are often seasonal businesses that need to capture potential sales at harvest time. Signs that give directions to the farm stand and let customers know what's available are vitally important. Warren County municipalities where agriculture is a significant component can review their ordinances to ensure they make allowances for farm signage. Having farm-friendly ordinances in place can make it easier for farmers to promote their products and can minimize right-to-farm complaints in cases where farmers run up against opposition to their signage, whether from neighboring residents or municipal officials. Farm signage can also benefit the municipality by drawing more visitors and dollars to the area, benefitting other businesses in the community as well as the farmer. Signs should conform to local, county, or state right-of-way and sight standards.

For farmers who qualify for the *Jersey* series of marketing programs, signage is available. This ranges from free price cards to banners and stickers, hats and T-shirts. *Jersey Fresh* point-of-sale signs and other materials, both free and fee-based, can be ordered using the point-of-purchase application on the NJDA's Marketing and Development *Jersey Fresh* page. Information on how to participate in the *Jersey Fresh* program is also included.<sup>75</sup>

### ***Getting the Word Out***

The County and the RNJAESCE can play helpful roles in "getting the word out" about agricultural activities and opportunities. Examples include:

- Press releases from the Warren County Board of Chosen Freeholders;
- Development of media contacts at local and online "papers," and follow-up with those contacts to encourage publication of the information;
- The RNJAESCE currently distributes press releases to a media list and publishes them to its website and via a Facebook page titled "Rutgers Agricultural and Environmental Agents;"
- The DLP and the Freeholders can work with the County Public Information Department to promote press releases to the media and post them on the County website;
- Email newsletter titled "Warren County Agriculture Updates;"
- Listings on the RNJAESCE and Warren County websites; and
- Distribution of information to the various state agencies, such as the SADC Farm Link listings, the visitnj.org calendar of events and the Visit NJ Farms website.

### ***Community Supported Agriculture (CSA)***

The Board of Chosen Freeholders, CADB, and RNJAESCE can work to publicize CSA, a system employed by five farms in Warren County, through educational media, or a workshop led by a current CSA farmer or farmers. According to the University of Massachusetts extension, "CSA is a partnership of mutual commitment between a farm and a community of supporters which provides a direct link between the production and consumption of food. Supporters cover a farm's yearly operating budget by purchasing a share of the season's harvest."<sup>76</sup> Additional advantages of CSA include time efficiency, eliminating or minimizing labor and transportation

costs of selling at community markets, or the time and labor of running a farm stand. A CSA farmer can control scheduling of pick-ups to utilize existing farm personnel in labor downtimes (e.g. family members, one day a week, etc.).

A local, grassroots group supporting community agriculture is the Foodshed Alliance (FSA). The FSA is a nonprofit devoted to “promoting profitable sustainable farming and locally-grown, fresh, healthy food in northwestern New Jersey.” The FSA closely links the health of land and communities with the existence of local farms, believing that farmers are the key in connecting people with “food, the land, and our sense of place.” These tenets foster a “self-sustaining ‘food shed’ that supports farmers, nourishes people, respects the land, and strengthens our communities” (*Foodshed Alliance*).<sup>77</sup>

An extension of the FSA’s work is the New Jersey “Buy Fresh, Buy Local” campaign. This is an effort by Sustainable Jersey, a nonprofit that provides tools, training and financial incentives to support communities as they pursue sustainability programs. Local farmers and community leaders build connections between farmers and consumers through food guides, food and farming events, and community outreach, and therefore encourage local residents to buy fresh, local produce.<sup>78</sup>

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

The Freeholders and CADB are aware of the need for farmers to keep up to date with the latest information on agricultural practices and new market opportunities, as they strive to maximize their profitability and achieve their farming goals. Ways these organizations can help include:

- Coordinate with RNJAESCE, Rutgers University Food Policy Institute and NJDA to research and market agricultural education; and
- Seek grants to fund farmer education.

According to the Rutgers NJAES website *Jersey Fresh* Information Exchange, the organization launched an innovative produce distribution and merchandizing pilot project in 2004 to help New Jersey farmers get their products into new retail locations, such as white-table restaurants and grocery chains. The farmers were supported through innovative marketing efforts, including the Information Exchange website.<sup>79</sup> The RNJAESCE of Warren County, Freeholders, CADB and DLP could join efforts in an attempt to activate a similar program that would include Warren County growers, food outlets and restaurants.

The NJAES website offers a wealth of additional information relating to animal agriculture, farm management and safety, pest management, plant agriculture and other elements of interest to those involved in commercial agriculture. The Warren County RNJAESCE traditionally has been a sponsor of workshops, often funded through grants secured by the RNJAESCE, and a helpful resource for local farmers in many other ways.

### **Other Resources and Opportunities**

There are numerous other resources which can be used by the Warren County agriculture industry to assist it in expanding and solidifying its economic base in the County and regionally. Several are listed below.

The New Jersey Department of Agriculture lists on its website numerous roadside markets and pick-your-own farms in order to help solidify agritourism and the agriculture business in the County. The lists indicate farm or market name, contact information, location, and products available (*Jersey Fresh*).<sup>80</sup> Numerous cut-your-own Christmas tree operations<sup>81</sup> and equine operations<sup>82</sup> within Warren County can also be found online. The Warren County agriculture community can work with NJDA to keep these lists updated and current.

The New Jersey Department of Agriculture also lists various informational Agriculture Economic Development Services at its website, and Warren County Farmers should use these resources as appropriate (*Agricultural Development Services*).<sup>83</sup> These include:

- Agriculture credit and finance;
- Business development for agriculture, food manufacturing and related industries;
- Farm building construction;
- Farmland assessment;
- Motor vehicle regulations for agriculture;
- Real property appraisal manual, farm building section;
- Recycling for agriculture;
- Risk management and crop insurance;
- Sales and use tax on farmer's purchases; and,
- Trespassing, vandalism, and liability on farms.

Sustainable Agriculture Research and Education (SARE) is a "United States Department of Agriculture competitive grants program with regional programs and regional leadership. SARE supports research and education that helps build the future economic viability of agriculture in the United States. SARE funding is authorized under Subtitle B of Title XVI of the Food, Agriculture, Conservation and Trade Act (FACTA) of 1990" (*SARE*).<sup>84</sup> SARE funds are used for:

- Farmer/grower grants: These grants have the goal of helping farmers shift to practices that are environmentally sound, profitable, and beneficial to the wider farm community.
- Partnership grants: These grants are for RCE and NRCS personnel, non-profits, and agricultural consultants who work directly with farmers. Grants are used for on-farm research and demonstration projects that address sustainability.
- Professional development grants: These grants fund professional development projects that help RCE educators and other agricultural professionals learn and transmit the knowledge needed to help farmers move toward greater sustainability.
- Research and education grants: These grants fund research and education projects that lead to farmers adopting sustainable practices. The emphasis is on improved farming practices and an enhanced quality of life for farmers (*SARE*).

SARE has the following outcome statement: "Agriculture in the Northeast will be diversified and profitable, providing healthful products to its customers; it will be conducted by farmers who manage resources wisely, who are satisfied with their lifestyles, and have a positive influence on their communities and the environment" (*Northeast SARE*).<sup>85</sup> As defined in FACTA of 1990,

sustainable agriculture is an integrated system of plant and animal production practices having a site-specific application that will, over the long term:

- Satisfy human food and fiber needs;
- Enhance environmental quality and the natural resource base upon which the agricultural economy depends;
- Make the most efficient use of nonrenewable resources and on-farm resources and integrate, where appropriate, natural biological cycles and controls;
- Sustain the economic viability of farm operations; and
- Enhance the quality of life for farmers and society as a whole (*Northeast SARE*).

The Agricultural Marketing Resource Center (AgMRC) brings together agriculture experts from Iowa State University, Kansas State University, and the University of California "...to create and present information about value-added agriculture. The center draws on the abilities, skills and knowledge of leading economists, business strategists and outreach specialists to provide reliability in value-added agriculture." AgMRC provides information to help farmers "assess value-added market opportunities, investigate processing options and understand business and production issues" for agricultural commodities and products such as agritourism, renewable energy, livestock, specialty crops, and numerous others. In general, the goals of the AgMRC are to:

- "Create an electronic web-based library with powerful search capabilities to make value-added market, economic and business information and other resources available to producers." The library can be accessed at <http://www.agmrc.org/>.
- "Provide value-added business and economic analysis tools, including information on business principles, legal, financial and logistical issues."
- "Conduct research and analysis on economic issues facing producers involved in value-added business ventures."
- "Link producers with electronically available information and resources" (*Agricultural Marketing Resource Center*).

The AgMRC website offers numerous business development information links, as well as links to other government and non-government sources for business development. This website can be used by the Warren County agriculture community as a resource when necessary.

## **Businesses**

### ***Input Suppliers and Services***

Warren County farmers obtain farm supplies from a number of sources in and near the County. The RNJAESCE in Salem County has compiled a list of service providers for the agricultural community, which it publishes in the "Green Pages" section of its website.<sup>86</sup>

Very few, if any, large scale agriculture suppliers, which supply medium to large size agriculture operations, exist in Warren County. The several suppliers in the area operate on smaller, more local scales. Many such suppliers are farmers themselves (for instance, selling feed from their corn crops to other local farmers raising animals), without any formal business practices such as advertising (*Bruce Barbour*). Without an adequate amount of suppliers within reasonable

driving distances of farms, the business of farming can become so expensive and time-consuming so as to not be profitable. As agriculture in Warren County becomes more “permanent” through increased preservation efforts, former suppliers who have left the area may return if they sense that a profitable supply business can be operated in the area.

Some farmers in the County are capable of addressing many equipment issues themselves, minimizing the need for repair services. Several of these mechanically-adept farmers may specialize in some repair services and supplement revenues from yields by offering these services to other farmers.

Some farmers now purchase equipment via United Parcel Service, Federal Express, or similar delivery services, often from out-of-state suppliers. This has become more of an option in recent years, and a necessity, as few supply stores are in the area. However, since delivery prices are relatively low, and farmers do not have to take the time to physically drive and pick up parts and supplies, this can actually be an economical way to receive certain parts and supplies. Mail order will not work for delivery of bulk supplies such as feed or fertilizer, which must be picked up at other locations, or delivered for a fee.

Equipment and supply stores in the area include:

- D&R Equipment in Ringoes, Hudson County
- Powerco Inc. in Clinton, Hunterdon County
- 4-T’s Farm in Flemington, Hunterdon County
- Middlesex Power Equipment in Middlesex, Middlesex County
- Tractor Supply in Blairstown and Washington Townships, Warren County
- Farmside Supplies in Sussex, Sussex County
- Warren County Service Center in Columbia, Warren County
- Frank Rymon and Sons in Washington Township, Warren County
- Tickner’s in Hackettstown, Warren County
- Smith’s Tractor in Washington Township, Warren County
- Ernest J. Tomer Trucking in Phillipsburg, Warren County
- Cotner Trailers in Revere, Bucks County (PA)
- Mayberry in Port Murray, Warren County
- S&L Kubota in Belvidere, Warren County

Seed and chemical supplies in the area include:

- Greenway Seed Company in Fair Lawn, Bergen County
- Crop Production Services in Pittstown, Hunterdon County
- Growmark FS in Bloomsbury, Hunterdon County
- Alliance Seed Inc. in Flemington, Hunterdon County
- Garden State Heirloom and Seed Society in Delaware, Hunterdon County
- Levitt’s LLC in Montville, Morris County
- Hoffman’s Supply in Long Valley, Morris County
- Aquarius Supply in Hawthorne, Passaic County
- Mike’s Feed Farm in Totowa, Passaic County

- Country Feed and Grain in Haskell, Passaic County
- Ralph's Feed in Paterson, Passaic County
- Wayne Wholesale Fertilizer Co., Inc. in Wayne, Passaic County
- Neshanic Station Farm Home and Garden Center in Neshanic Station, Somerset County
- Agway-Belle Mead Farmers' Co-Op Association in Hillsborough, Somerset County
- Shurts Feed and Coal in Neshanic Station, Somerset County
- Agway-Belle Mead Farmers' Co-Op Association in Hillsborough, Somerset County
- Somerset Grain and Feed Company in Bernardsville, Somerset County
- Country Road Feed Store in Sparta, Sussex County
- Harmony Dale Farms in Phillipsburg, Warren County
- North Warren Farm and Home Supply in Blirstown, Warren County
- Penwell Mills Feed in Port Murray, Warren County
- Ise Feed in Stewartsville, Warren County

### **Product Distributors and Processors**

Processing facilities such as creameries and lumber mills have become absent from Warren County as well, forcing local farmers to ship their products out of town to be processed. Some farmers have found that reliance upon out-of-state suppliers and non-local processing facilities imposes transportation costs that cut into their operations' profitability (*Bruce Barbour*).

### ***Field and forage crops***

Hay and other forage crops are generally sold locally to cattle and equine operations, landscapers, nurseries and farm stands as baled straw, or kept for the farmer's own livestock and other uses. Small volumes are also sold at the Hackettstown Livestock Cooperative Auction Market. Corn products<sup>ec</sup> are almost entirely sold wholesale, and fluctuate depending on the national market. Small amounts of corn are sold as retail to hunters for bait as well.

### ***Produce***

Produce products are sold through a variety of channels. The majority of produce is sold through retail markets in order to maximize profits, and some are sold either directly to consumers or through roadside stands. Some farmers may travel to metropolitan areas, including New York City, to sell produce at farmers markets and/or greenmarkets. Additionally, some produce is wholesaled to local supermarkets.

### ***Livestock***

Like produce, livestock products have a diverse array of pathways for products to end up. Some animals are sold in their entirety directly to consumers (whether still alive or previously slaughtered); this includes sheep and goats to growing regional ethnic markets. Other animals are sold at the Hackettstown Livestock Cooperative Auction Market. The USDA must certify cuts of cattle before they can be sold directly to the consumer, otherwise they may be sold as a whole without inspection.

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<sup>ec</sup> This does not include sweet corn, which falls into the produce section below.

## Anticipated Agricultural Trends

### *Product Demand*

From a historical perspective, total agricultural sales have increased sharply from \$39.7 million in 2002, to \$75.5 million in 2007 and \$91.2 million in 2012. While livestock and poultry sales rose by 71% over this time, the majority of this growth has been fueled by increased grain, nursery and greenhouse sales, in part due to the consolidation of several large farms and cost-savings through economies of scale. Looking forward, the nursery, greenhouse, grain and vegetables sectors of the agricultural industry should continue to be healthy and viable sectors since they often serve the needs of increasing livestock practices such as sheep, goats, and poultry in the face of a declining cattle industry, as well as a burgeoning population of homes and businesses within the County and the region.

The livestock sector has seen changes to its non-dairy and dairy subsectors, both of which have experienced lengthy declines in cattle stocks but have held fairly constant since the early 2000s. Milk production follows this trend as well, but the future of the County's dairy industry is not promising given how far it has fallen since the 1960s and 1970s. The cattle industry is believed to be trending towards smaller and smaller farming operations, many of which will raise a small amount of cattle as part-time jobs in order to qualify for farmland assessment (*Bruce Barbour*). These declines in cattle have implications for hay and grain producers within the County whom rely on cattle operations as a source of revenue, but growth in other livestock subsectors has helped offset declines in buyers of cattle feed.

Value-added products can bring additional income to farms involved in direct marketing through farm stands and websites. Direct marketers can capitalize on the advantages of selling at retail rather than wholesale, selling from their own location rather than having to pay transport costs, and of generating additional income by developing value-added products such as pies, cheeses, jams, honey, and other products that serve the increasing numbers of customers who want the advantages of ready-made and the appeal of items "home-made" by someone else.

An increased demand for organic products may encourage farmers to adopt more natural farming methods. Since federal certification requires a three-year commitment, many farmers may lean toward "natural" farming methods for food crops and for livestock, such as grass-fed beef raised without hormones or antibiotics.

Another avenue to explore is to determine the viability of increasing wine production in the County to supply the state's growing wine industry, and to capitalize on opportunities for agritourism through wine tastings and other special events. Recent legislation has been passed permitting beer and wine production on farms to be sold off premises. It is hard to tell where this industry will trend because of the time and investments required in setting up such operations, but it is believed to have great potential in the future (*Bruce Barbour*).

Other avenues to explore include:

- Changing the farm operation's mix of products
  - Consider using FINPACK,<sup>87</sup> a computer program that allows the operator to enter his/her production and expense data, then try various alternatives to achieve more

profitability; many participants are surprised that what previously appeared to be the logical choice is not the most effective; some have saved thousands of dollars by acting on the analysis. The County could seek funding to underwrite the cost of brief one- or two-day workshops, perhaps in conjunction with the Warren County RNJAESCE.

- Consider new crop opportunities being researched/promoted by the NJDA, the Rutgers New Jersey Agricultural Experiment Station and the New Jersey Farm Bureau: hops, tree nut crops, organic or low input produce or meat products, aquaculture, biotechnical and pharmaceutical use of farm products or animals (this concept could be introduced to the Warren County Economic Development Advisory Council);
- Value-adding
  - Marketing livestock as dressed meat on a retail basis
  - Fresh herbs, sold at retail, in bunches or as potted plants;
- Economic development through preservation – selling a development right is cashing in a non-performing asset which can create new options for the farm, including transferring property to the next generation, creating new markets, improving the existing operation, or expanding into new ones; a farmer might, for example, use the money from the sale of easements to carry the farm through the three-year period needed to certify for organic production; or a farmer might use the funds to change a dairy operation to grass-fed, increase vegetable production or build a farm stand for direct marketing; and
- Agricultural Enterprise District (AED) – this concept began in Cumberland County and is included in the Cumberland County Farmland Preservation Plan as a potential preservation mechanism. Modeled after Urban Enterprise Zones, the AED would provide economic development advantages, particularly to preserved farms, and use taxes from farmland assessed land to seed the formation of an economic development corporation and development of a program. It can be created by a county or a municipality and is designed and run by farmers, and provides a mechanism to do so through specially conceived agricultural economic development. The list of resources and benefits is developed through the identification of needs by the full agricultural community.

## **Agricultural Support Needs**

### ***Agricultural Facilities and Infrastructure***

Alternative agricultural uses to raising dairy and non-dairy cattle have become more attractive, with implications for support services. Creameries and other processing facilities have disappeared from the County and moved farther away, posing difficulties for farmers in shipping their products for processing or sales. Furthermore, because of the greater convenience in servicing smaller animals such as dogs, sheep and birds, fewer large animal veterinarians are available to service sick or injured cattle.

The County lacks permanent suppliers of items such as seeds, feed, and chemicals required to keep farms productive. The majority of such services involve local farmers selling these items to one another, hampering the stability of these support services. If several of these farmers retire, others may have a harder time finding such supplies from other farmers in the region and may

have to drive longer distances, cutting into productivity and profitability. An increase in permanent agricultural suppliers would work to guarantee the stability of these services, and in turn, the agricultural industry. Preserving additional farmland helps guarantee a greater demand for feed, chemicals and other agricultural supplies in the years to come, which may entice people to set up permanent supply operations in the County and improve the efficiency of farming operations.

### ***Flexible Land Use Regulations***

**State Level** – The *Agricultural Smart Growth Plan for New Jersey (2006)*, prepared by the NJDA, identified flexibility in government regulation as an important component relative to farm viability (*Agricultural Smart Growth Plan*). The state has introduced or is working on several new regulatory tools to help farmers, including the Cluster Development Bill signed into law in August 2013, with enhanced provisions for the use of contiguous and noncontiguous clustering and lot-size averaging for farmland, open space and historic preservation; and Agricultural Management Practices for On-Farm Direct Marketing Facilities, Activities and Events; and Revised Right to Farm Procedural Rules effective April 7, 2014; rules that allow the installation of solar energy systems on commercial farms, effective August 15, 2011, and on preserved farmland effective June 3, 2013, plus, a 44-month pilot program, signed into law in July 2014, to allow wineries on preserved farms to conduct special occasion events (such as weddings) under certain conditions as defined by the governing CADB. The Warren County agriculture community, working with the NJDA, and through advocacy groups such as the New Jersey Farm Bureau and Warren County Board of Agriculture, can ensure regulatory flexibility to the greatest extent possible.

Examples where regulatory flexibility is important are the New Jersey Department of Environmental Protection’s Freshwater Wetlands Protection Act Rules (N.J.A.C. 7:7A-et seq.), which grants exemptions for agricultural activities, and the Flood Hazard Control Act Rules (N.J.A.C. 7:13), most recently amended in February 2015, which now include numerous agricultural permits-by-rule for the following agricultural activities: continuing ongoing agricultural activities that result in no fill, commencing new agricultural activities that result in no fill, undertaking soil conservation practices outside a floodway, and constructing an agricultural building of no more than 1,000 square feet outside a floodway; and seven general permits, which allow the continuation of agriculture activities, including soil erosion control, bank stabilization or bank restoration; channel cleaning, constructing a roadway across a water body, filling a manmade water body for freshwater wetlands restoration, creating a ford across a water body to manage livestock, constructing a fence across or along a water body to manage livestock, and constructing a pump or water intake for livestock, in otherwise regulated areas.<sup>88</sup>

**Municipal level** – The County can work with local municipalities toward understanding the importance of agriculture to the County’s economy and the importance of an agriculture-friendly environment at the municipal level in support of the agricultural movement. Building an awareness of and provisions supportive of agriculture into municipal master plans and zoning ordinances can go a long way towards the kind of support agriculture needs in order to be an economically viable sector. Those communities that could benefit from Right to Farm ordinances but do not yet have them in place should be encouraged to do so.

Other areas where municipal sensitivity to the land use needs of agriculture can be helpful include consideration of the following issues when creating municipal regulations:

- Setting specific buffer standards for non-farm development adjacent to working farms that help to limit trespassing and littering and also protect the residential landowner from dust and spray materials spread during farm activities, thus minimizing potential Right to Farm conflicts;
- Code or ordinance provisions requiring developers to notify purchasers of the proximate existence of active agriculture;
- Exemptions for certain farm structures from building height restrictions;
- Allowing additional principal dwelling units on farms in order to meet the needs of farmers for additional housing for their children or for farm managers;
- Exemptions from setback requirements when farmers seek to expand an existing nonconforming structure;
- Flexible fencing ordinances that make allowances for types of fencing on farms that might not be desirable in residential zones, in consideration of the farmers' needs to prevent wildlife damage; and
- Construction fee reduction for agricultural buildings.

Planning and zoning to maintain and enhance agricultural viability is critical to preserving both farmland and agricultural operations. Towards this end, the SADC website includes a link to a checklist communities can use to rate themselves, called "Is Your Town Farm Friendly?" developed by the New Hampshire Coalition for Sustaining Agriculture and the University of New Hampshire Cooperative Extension.<sup>89</sup>

### ***Agriculture Representation in Economic Development***

**Warren County Economic Development Committee** – Since its inception in 2011, the Warren County Economic Development Advisory Council (EDAC) served as an ad hoc group examining economic development, until the Board of Chosen Freeholders passed a resolution to create an official County body. Thus, the Economic Development Committee (EDC) was created in January 2016. The EDC's mission is to assist the County in promoting economic development, including an increased focus on tourism and agritourism. An established framework will be used in coordinating local, state and federal efforts towards this end, including a major emphasis in laying the basic groundwork necessary for attracting and encouraging sound economic growth within the County.<sup>90</sup> Serving in an advisory capacity to the Board of Chosen Freeholders, Committee members will have more responsibility in making the County more business-friendly and attractive to homeowners.<sup>91</sup> A list of business resources within Warren County is available on the EDC website at <http://www.warrenecdev.com/business-resources.php>.

### **Agricultural Support Implementation**

The RNJAESCE of Warren County has always been a large source of support to local farmers, helping them adapt to new technologies, introducing new farming practices to improve efficiency, and keeping farmers up to date with market trends. With the rise of online shopping, more and more people are choosing to order products, including agricultural products, from the comfort of their own homes. The RNJAESCE can work with local farmers in expanding their presence to the web in addition to traditional advertising such as signage and roadside stands.

The average age of farmers is increasing as well, with a large need for new generations of farmers to come in and take over agricultural operations in the years to come; the RNJAESCE can reach out to those interested in or just beginning their own farming operations, assisting them in reaching the point where their operations become profitable.

The County and other relative parties can also continue to promote agritourism, helping to boost farm revenues and raise local awareness of, and support for, farming operations. This can be done in conjunction with the non-farming community, such as local artists, who can help in attracting people who may primarily be more interested in artwork or music than agriculture, and end up gaining exposure to farming activities and products when visiting art exhibits or concerts.

Ultimately, it comes down to whether or not there are enough opportunities to make money in supporting the County and region's agricultural industry. If those outside the farming community see ways to make profits doing so, then they will feel much more confident in setting up operations, whether they be cattle and equine veterinarians, feed and fertilizer suppliers, or machinery sales and repairs (*Bruce Barbour*).

## **Additional Support Services**

### ***New Jersey Farm Bureau***

The New Jersey Farm Bureau (NJFB) is a private, non-profit membership organization that represents the agricultural producers and enterprises in New Jersey at all levels of government. The NJFB advocates for farmland preservation, environmental regulations, wildlife and water issues, and legislation relating to agricultural labor and the Right to Farm. Through grants, initiatives, and partnerships, the NJFB educates the public about the agricultural industry and participates in farmer training and education programs.<sup>92</sup>

### ***Future Farmers of America and the 4-H program***

Future Farmer of America (FFA) and the Rutgers Cooperative Extension 4-H Youth Development Program are run within Warren County and aid in fostering the future of agriculture within the County. These programs aid youth in developing important life skills that are important for career in agriculture.

Future Farmers of America is a national educational organization that helps prepare youth for careers and leadership in agriculture by aiding students in the development of agricultural skills. Through agricultural education, the organization helps its members develop their own unique talents and explore their interests in a broad range of agricultural careers, while providing pathways to achievement in premier leadership, personal growth, and career success.<sup>93</sup>

The Rutgers Cooperative Extension 4-H Youth Development Program is run for youth in Kindergarten through a year after completing high school. The program uses a learning-by-doing approach to enable youth to develop the knowledge, attitudes and skills they need to become competent, caring and contributing citizens of the world. The 4-H program is led by volunteers that teach about different areas of interest varying from animals, plants, agriculture, and leadership. Within Warren County, all 4-H club members are active in County events such as the Warren County Farmers Fair.<sup>94</sup>

# CHAPTER 7: NATURAL RESOURCE CONSERVATION

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Preservation of farmland is the cornerstone of the New Jersey Department of Agriculture’s (NJDA) *Agricultural Smart Growth Plan*, and the State and County’s Farmland Preservation Program. However, there is more to farmland preservation than the retirement of development rights or the outright purchase of farms. One of the cornerstones of a successful, long-term Farmland Preservation Program is the conservation of natural resources on farms, without which the long-term sustainability and viability of New Jersey’s preserved farmland would be in doubt. The Warren County Agriculture Development Board (CADB) and Department of Land Preservation (DLP) recognize the conservation of these natural resources as a long-term goal, and a necessary part of farmland preservation.

## **Natural Resource Protection Agencies**

There are numerous entities, both public and private, that administer, fund, and provide technical guidance for Warren County farmers relative to natural resource conservation. These entities are in place to assist farmers with natural resource conservation issues and to assist in the management of the land and water upon which their farms depend.

### *Natural Resources Conservation Service*

An important partner in support of natural resource conservation for the agricultural community is the United States Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS). The NRCS “provides assistance to private landowners [including farmers] in the conservation and management of their soil, water, and other natural resources. Local, state and federal agencies and policymakers also rely on [its] expertise.” The NRCS can provide technical assistance suited to the natural resource issues that are specific to a farmer’s needs, with opportunities for cost shares and financial incentives in some cases (*Information for Farmers and Ranchers*).<sup>95</sup>

The local NRCS office serving Bergen, Hudson, Essex, Sussex, Passaic, Warren and Morris Counties is located at 101 Bilby Road, Building 1-H in Hackettstown. Warren County farmers may contact this local NRCS office for assistance with conservation issues. NRCS personnel will also reach out directly to landowners if they know of a farmer who is in need of assistance or can use the guidance of the NRCS staff.

The local NRCS office helps to prepare Conservation Plans for Warren County farmers. The Conservation Plan is a written record of management decisions and conservation practices planned for the farm and larger tracts of privately held property. After soil, water, air, plant and animal resources on the property are inventoried and evaluated, the NRCS Soil Conservationist will review several alternatives for the landowner’s consideration. These Conservation Plans almost always include strategies to conserve soil and water, but also may include conservation practices for flora, fauna and clean air. If all five elements are included, they are referred to as Resource Management Plans (RMPs). The alternatives the landowner chooses to implement are recorded in the Plan. This written plan becomes a primary tool for better management of the natural resources on the property and can be used to direct the landowner to available programs,

such as the Farm Bill Programs (see *Resource Protection Programs and Funding* below), designed to help implement conservation on private lands (*Mona Peterson*).<sup>96</sup>

Within one year of selling their development easement, owners of preserved farms are required to enter into a Conservation Plan. A Conservation Plan is also required in order to apply for natural resource conservation programs such as EQIP (see *EQIP* below). The local NRCS office administers these conservation programs, which offer financial incentives to support conservation projects, including riparian buffers and wildlife habitat. Administration of these programs includes field visits to prepare the Conservation Plans, preparation of program contracts, assistance with installation of contract conservation practices, and inspection of farms to verify contract conservation practices are implemented and maintained. The Warren County Soil Conservation District gives final approval on all Conservation Plans, RMPs and program contracts.

The local NRCS District Conservationist is Dan Mull, who can be reached at (908) 852-2576, extension 114, dan.mull@nj.usda.gov.<sup>97</sup> An additional resource for Warren County farmers is the “Field Office Technical Guide” (Guide), published by NRCS. It contains technical information detailing the development and implementation of soil, water, air, flora and fauna resource conservation practices, and is used to develop conservation and resource management plans. Technical guides used in each field office are localized so that they apply specifically to the geographic area for which they are prepared (*eFOTG*).<sup>98</sup> Conservation practices discussed in the Guide that are pertinent to, and used in, Warren County include:

- Riparian buffers, including necessary buffer widths and appropriate plant species;
- No till and minimum till practices;
- Prescribed grazing and pasture rotation;
- Grassed waterways;
- Nutrient management, including manure and fertilizers;
- Composting facilities; and
- Stormwater runoff control

### ***Warren County Soil Conservation District***

An additional partner in the conservation of agricultural resources is the NJDA Division of Agricultural and Natural Resources. Among its responsibilities, the Division implements the Natural Resource Conservation Program administered by the State Soil Conservation Committee (SSCC), providing “engineering services and regulatory guidance to soil conservation districts, homeowners, engineers, planners and virtually all development activities.” The Division provides technical standards applicable to sites regulated by the New Jersey Soil Erosion and Sediment Control Act program, and policies and procedures associated with the Stormwater Permitting program. Among its objectives are the protection of agricultural lands through farmland retention and productivity improvements, control and prevention of soil erosion and sedimentation on agricultural land, protection of water quality and control, and prevention of storm and flood water damages (*NJDA Agricultural and Natural Resources*).<sup>99</sup>

The SSCC coordinates and supports the work of the state’s 15 local soil conservation districts (SCDs), one of which is the Warren County SCD. The SSCC and its local districts are part of the New Jersey Conservation Partnership, which also includes the USDA Natural Resources

Conservation Service (NRCS) and Rutgers New Jersey Agricultural Experiment Station Cooperative Extension (RNJAESCE). The Warren County SCD is charged with implementing natural resource conservation and assistance programs and services, which include agricultural conservation planning assistance, agricultural conservation cost-sharing programs, application of organic materials on agricultural land, agricultural water supply and management, soil erosion and sediment control, stormwater discharge authorization, and soil surveys (*NJDA Agricultural and Natural Resources*).

The Warren SCD works with the NRCS in providing survey assistance, engineering designs and plans. It also provides administrative support to Conservation Assistance Program (CAP) employees in support of Federal Farm Bill Conservation programs and the New Jersey Farmland Preservation Program, including the preparation and implementation of Conservation Plans. CAP is a joint venture with NJDA and USDA-NRCS. Its goal is to promote best management practices (BMPs) for soil erosion and sediment control, animal wastes, nutrient management, water quality improvement and other natural resource management concerns.

Warren County farmers may approach this local SCD office (as well as the local NRCS office) with a Request for Assistance (RFA) to apply for funds from the State Conservation Cost Share program and federal programs such as EQIP. If approved, the RFA is forwarded to the local NRCS office in Hackettstown for processing. The administration of the RFA includes preparation of a Conservation Plan and program contract. The Warren County SCD is involved in review of Conservation Plans and program contracts and must give final approval to both.

The Warren County SCD office is located at 224 West Stiger Street in Hackettstown. The phone number is (908) 852-2579, and the District Manager is Sandy Myers. She can be reached at [smyers@warrencountyscd.com](mailto:smyers@warrencountyscd.com).

### ***Rutgers New Jersey Agricultural Experiment Station, Cooperative Extension of Warren County***

The Rutgers New Jersey Agricultural Experiment Station, Cooperative Extension (RNJAESCE) of Warren County provides both field and technical research that is focused on best management practices (BMPs) for farmers, to ensure the long term viability of both the agricultural economy and the natural resources upon which it is based.

Relative to natural resource conservation, the RNJAESCE of Warren County offers the Agriculture and Natural Resource Management program. This program provides “non-biased, research-based educational programs and services for both homeowners and commercial producers. Services offered by extension personnel include soil testing, insect identification, plant disease diagnosis, and pest management recommendations for agricultural operations,” as well as educational publications covering a wide range of agricultural topics. Staff members offer programs that are, among other things, designed to reduce environmental impact (*Agricultural Experiment Station*).<sup>100</sup> An example of this service is helping to prepare animal waste management plans so as to reduce impacts to watersheds.

The RNJAESCE of Warren County is located in the Warren County Administration Building, Suite 102, 165 County Road 519 South in White Township (mailing address of Belvidere). Extension personnel include Bruce Barbour, Department Head and Agricultural Agent (848-932-

4211), as well as Kenesha Reynolds-Allie, Agricultural Agent (908-475-6512). The office also includes educational programs, such as SNAP-ed and Family & Community Health sciences.

The SSCC, NRCS, Warren County SCD and RNJAESCE of Warren County are part of the New Jersey Conservation Partnership. This partnership of agencies strives to further soil and natural resource conservation efforts (*NRCS*).

### ***New Jersey Department of Environmental Protection***

The New Jersey Department of Environmental Protection (NJDEP)'s State Forestry Services oversees the *Private Lands Management Program*. The aim of this program is to foster and ensure wise stewardship and management on 1.54 million acres of forest lands owned by 88,700 private landowners, and the retention of these lands in contiguous and productive forests (*NJ Forest Service*).<sup>101</sup> This includes the private woodlands currently under Farmland Assessment, which totaled over 228,000 acres as of 2015 (*NJ Forest Service*).<sup>102</sup> Many farmland assessed properties in Warren County include extensive woodland tracts. Such tracts were added as "farm products" in the 1970s, but there are two classifications: appurtenant (or attached) woodlands and non-appurtenant (or unattached) woodlands. Requirements for non-appurtenant woodland tracts are listed in N.J.A.C. 18:15-2.10. Properties must be utilized by the farmer as a sustainable product and require Woodland Management Plans (WMPs) in order to qualify for reduced local property taxes accorded properties in the farmland tax assessment program (*NJ Forest Service*).

The NJDEP's State Forestry Bureau of Forest Management (BFM) reviews farmland assessment applications that include WMPs prepared for farmers by private consultants. The BFM maintains a list of foresters approved for this purpose. Once a WMP is in place, a Woodland Data Form (WD-1) must be submitted with the farmland assessment application yearly to certify compliance with the WMP. However, the NJDEP/BFM is an important partner for Warren County's farmland preservation efforts.

Non-appurtenant woodlands are woodland acreage on a farm over and above total farmed acreage (tilled and pasture). For example, if 50 acres of a farm are tilled and pastured, and there are 125 acres of woodlands on the farm, 75 acres of woodlands would be non-appurtenant (125 woodland acres minus 50 farmed acres) (*NJ Forest Service*). In Warren County in 2015, there were 30,707 non-appurtenant woodland acres in farmland assessment.<sup>103</sup> This is a 54% increase from 19,961 acres in 1990 (*Warren County Agricultural Profile*).<sup>104</sup>

Appurtenant woodlands are woodland acreages on a farm less than or equal to farmed acreage. In the preceding example, 50 of the 125 woodland acres would be appurtenant. Appurtenant woodland acreage in farmland assessment totaled 13,474 acres in 2015, down 30% from 1990, where 19,229 acres were considered appurtenant woodlands (*Warren County Agricultural Profile*). Appurtenant woodlands do not require a WMP to qualify for farmland assessment.

### ***USDA/NJDEP Forest Service Forest Stewardship Program***

The United States Forest Service sponsors the Forest Stewardship Program, administered locally by the NJDEP's State Forestry Services Bureau of Forest Management (BFM). The New Jersey Forest Stewardship Program (FSP) provides cost-share assistance for developing forest stewardship plans. As of 2014, more than 1,600 landowners have participated in the FSP, covering 130,000 acres of nonindustrial private forest lands (*NJDEP*).<sup>105</sup> This program supports

landowners whose property has a FSP 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 of up to 75% of the cost of a new or revised FSP to allow the landowners to fully follow the guidelines in their plan (*Forest Stewardship Program*).<sup>106</sup>

In Warren County, as of 2016 there are 10,139 acres of farmland on 172 different properties enrolled in the Forest Stewardship Program. This has steadily increased since 2003, when there were 3,198 acres on 59 properties (*Michael Hart*).<sup>107</sup>

### ***Private Nonprofit Groups and Local Community Support***

Preservation of agricultural resources requires not only the broad support of state, county and local governments but also the help of private nonprofit groups and local citizens. Indeed, without their support, government programs and support for agriculture would fall short of what is needed to protect the natural resource base of the agricultural landscape. These organizations and individuals spend countless hours providing and sharing their expertise, as well as raising and contributing money. They are an invaluable asset for Warren County's agricultural community and landscape, including natural resource conservation and stewardship.

Warren County's agricultural community has the support of a variety of organizations, including the Warren County Board of Agriculture, New Jersey Farm Bureau, 4-H, Future Farmers of America, and the Warren County Farmers Fair. Local, regional and statewide non-profit organizations also contribute to the permanent protection of farmland. These groups include The Land Conservancy of New Jersey, the Nature Conservancy, New Jersey Audubon Society, New Jersey Conservation Foundation, Ridge and Valley Conservancy, and the Musconetcong Watershed Association.

The Warren County agriculture community, via the CADB and County Freeholders, can work with non-profit organizations and private citizens in a coordinated fashion to further the Farmland Preservation Program in Warren County. Warren County has partnered with the Ridge and Valley Conservancy and The Land Conservancy of New Jersey on the completion of several farmland projects.

### **Sustainable Agriculture**

"Sustainable agriculture" can mean something different to every farmer in the agriculture community. The issue was first referenced in the 1990 Farm Bill, which defined it in terms of an integrated system of plant and animal practices having site-specific applications. Practices such as integrated pest management (IPM), rotational grazing, soil conservation, cover crops, planting riparian buffers, management of agricultural impervious cover, and improving crop and landscape diversity are some methods for farmers to help protect the quality of the environment and conserve the resources that sustain agriculture. A nationwide *Sustainable Agriculture Research and Education* report points out that "sustainable agriculture does not refer to a prescribed set of practices...a key goal is to understand agriculture from an ecological perspective – in terms of nutrient and energy dynamics and interaction of plants, animals, insects and other organisms in agri-ecosystems, and then balance it with profit, community and consumer needs" (*SARE*).

Sustainable agriculture is also grounded by the premise of creating an environment that is supportive of agriculture as an industry by blending:

- Value-added farming, though product diversity, both in terms of what is grown and how it is grown;
- Innovative marketing strategies, such as “buy local” programs and community supported agriculture; and
- Good comprehensive planning, economic development and natural conservation practices.

Strategies in use at the local level by various Warren County communities include agriculture-friendly zoning, clustering and Transfer of Development Rights. The County and its municipalities can incorporate agriculture into their economic development plans by engaging and integrating agriculture into traditional business-support systems through local Chambers, downtown district management organizations, the Warren County Economic Development Advisory Council, the Regional Chamber of Commerce, and by creating economic development incentives to support farm-related businesses.

## **Resource Protection and Funding**

### **Highlands Open Space Partnership Funding Program**

The New Jersey Highlands Water Protection and Planning Council created the Highlands Open Space Partnership Funding program (N.J.A.C. 7:70), which took effect in April 18, 2016 and is set to expire on April 18, 2021. This funding initiative intends to support the acquisition of property for the protection of resources within the Highlands Region, and to further land preservation goals as stated in the Highlands Act and Highlands Regional Master Plan. Farmland preservation and the protection of natural resources and/or agricultural preservation priority areas are included in lands eligible for the acquisition of conservation easements for conservation purposes. Any of the seven counties and 88 municipalities within the Highlands Region, as well as charitable conservancies, are eligible to apply for funding. A single entity may submit as many applications as it wants, and multiple projects cannot be ranked.

The Highlands Council will provide maximum grants of 50% of the total purchase price of the property, with higher priority given to applicants providing higher proportions of outside matching funds. Higher priority will also be assigned to lands labeled as moderate or high conservation and/or agricultural priority areas as indicated in the Highlands Regional Master Plan, as well as lands adjacent to existing open space, preserved farmland, and/or recreational facilities. For more information, contact James Humphries, Highlands Open Space Coordinator, at (908) 879-6737, james.humphries@highlands.gov.<sup>108</sup> Program details and applications are available at <http://www.nj.gov/njhighlands/grantprograms/>.

### **Farm Bill Programs**

The Farm Security and Rural Investment Act of 2002 (2002 Farm Bill) was a landmark piece of legislation, with much of its focus on conservation funding and environmental issues. Conservation provisions were designed to assist farmers in being good stewards of the land through grants and technical assistance. Conservation programs were continued through the Food, Conservation and Energy Act of 2008 (2008 Farm Bill), with significant gains in the area

of conservation practices, including increased funding through fiscal year 2012. The Agricultural Act of 2014 (2014 Farm Bill), in effect since February 2014, made the following changes regarding conservation programs administered by the Natural Resources Conservation Service (NRCS) and the Farm Service Agency (FSA):

- Consolidates conservation programs for flexibility, accountability, and adaptability at the local level;
- Links basic conservation practices to crop insurance premium subsidies for highly erodible lands and wetlands; and
- Builds upon previous successful partnerships and encourages agricultural producers and partners to design conservation projects that focus on and address regional priorities.<sup>109</sup>

Following is a synopsis of the conservation programs funded by the 2014 Farm Bill that are applicable to New Jersey and Warren County. They are implemented and administered by the NRCS, Warren County SCD, and the Farm Service Agency (FSA), also part of the USDA. These programs are the backbone of natural resource conservation efforts in Warren County (NRCS).<sup>110</sup>

### **Financial Assistance**

#### *Agricultural Management Assistance Program (AMA)*

The Agricultural Management Assistance (AMA) Program targets beginning and limited resource farmers, small farms, and producers who have had limited participation in other USDA financial assistance programs. AMA provides financial and technical assistance to agricultural producers to address issues such as water management, water quality, and erosion control by incorporating conservation into their farming operations.

Producers may improve water use efficiency through the construction of efficient irrigation systems and irrigation water management practices, reduce non-point source pollutants through filter strips and nutrient management, and improve habitat conservation through conservation cover and windbreak establishment. Payments can be up to 75% of project costs and are limited to up to \$50,000 per participant per year.<sup>111</sup>

#### *Conservation Reserve Enhancement Program (CREP)*

An offshoot of the Conservation Reserve Program (CRP), the NJ CREP program is a partnership between the USDA and the state targeted to address environmental impacts related to agricultural practices. The program's goals are to maintain and improve water quality by reducing agricultural pollutants into streams, enhance farm viability, and contribute to the state's open space goals. In exchange for removing environmentally sensitive lands from production and introducing conservation practices, agricultural landowners are paid an annual rental rate. Participation is voluntary, and the contract period is typically 10-15 years. The program targets 30,000 acres of agricultural lands throughout the state, requesting \$100 million in federal funds and a state match of \$23 million over the life of the program. 100% of the cost is paid to establish the conservation practices and annual rental and incentive payments to the landowner.<sup>112</sup>

### *Conservation Innovation Grant (CIG)*

Funded by the EQIP program (see below), the aim of the CIG is to stimulate the development and adoption of innovative conservation approaches and technologies in conjunction with agricultural production. Funds are awarded as competitive 50-50 matching grants to non-governmental organizations, tribes, or individuals for projects with a one to three-year duration. Each year, the NRCS announces a new round of competitive grants; the Musconetcong Watershed Association was the most recent recipient of such a grant within Warren County – in 2012, it was awarded over \$12,000 to assist in evaluation of in-stream restoration successes along the Musconetcong River.<sup>113</sup>

### *Conservation Stewardship Program (CSP)*

The CSP, initiated in 2007, provides technical and financial assistance to manage and maintain existing conservation systems, implementing additional conservation activities on land currently in production. CSP provides two types of payments through five-year contracts: annual payments for installing new conservation activities and maintaining existing practices; and supplemental payments for adopting a resource-conserving crop rotation. Participants earn payments for conservation performance – the higher the performance, the higher the payment. Participants can apply for renewal at the end of the five-year contract. The program is capped at \$200,000 through the fiscal years 2014 through 2018. New in 2014, there is no limit on the number of nonindustrial private forestland acres that can be enrolled. The local NRCS administers this program.<sup>114</sup>

### *Environmental Quality Incentive Program (EQIP)*

EQIP provides financial and technical assistance to agricultural producers in order to address natural resource concerns and deliver environmental benefits such as improved water and air quality, conserved ground and surface water, reduced soil erosion and sedimentation or improved or created wildlife habitat.<sup>115</sup> As of 2014, portions of the Wildlife Habitat Incentives Program (WHIP), which was not reauthorized in the 2014 Farm Bill, have been folded into the EQIP program; anyone interested in applying for wildlife projects should apply through EQIP.<sup>116</sup>

EQIP is one of the most widely used and popular conservation programs in Warren County, with 15,975 acres under 200 contracts since 2005 (*Dan Mull*).<sup>117</sup> Currently, sufficient EQIP funds are available for implementation of conservation practices in Warren County, however, landowner costs of implementing these practices is high. It is recommended that additional funding sources for landowner out-of-pocket costs be sought (*Corey Tierney*).

### **SADC Soil and Water Conservation Grants**

The New Jersey Department of Agriculture, State Agriculture Development Committee (SADC) has in the past provided grants to farms that are permanently preserved, or are enrolled in the eight-year preservation program, with priority for preserved farms. The purpose of the grants and the eight-year program is to protect Warren County agricultural lands from soil erosion.

These grants fund soil and water conservation projects approved by the Warren County SCD, with the program administered by both the SCD and the local NRCS office in Hackettstown. Once the SCD deems the conservation project necessary and feasible, applications are forwarded to the New Jersey State Soil Conservation Committee, which recommends projects to the SADC for funding approvals (*Soil and Water Conservation Grants*).<sup>118</sup> Generally, up to 50% of the

approved costs for a project, based on established cost tables, are paid with grant funds. It is important that a permanent source of funding be put in place in order to ensure that farmers can continue to participate in these beneficial programs.

The types of soil and water conservation projects funded by SADC include soil erosion and sediment control systems (terrace systems), control of farmland pollution (stream protection, sediment retention, erosion or water control systems, animal waste control facilities, and agricultural handling facilities), the impoundment, storage and management of water for agricultural purposes (diversions, water impoundment reservoirs, irrigation systems and drainage systems), and management of land to achieve maximum agricultural productivity (land shaping or grading) (*Soil and Water Conservation Grants*).

### **Easements**

#### *Agricultural Conservation Easement Program (ACEP)*

The ACEP is a new program administered by the local NRCS that consolidates three former programs – Wetlands Reserve Program (WRP), Grassland Reserve Program (GRP), and Farm and Ranch Lands Protection Program (FRPP). It has two components:

- Agricultural Land Easements – prevent the loss of working agricultural lands to non-agricultural uses. NRCS may contribute up to 50% of the fair market value of the easement.
- Wetland Reserve Easements – provide habitat for fish and wildlife and improve water quality through restoration and enhancement, and may provide opportunities for limited recreational activities. There are two types available in New Jersey: permanent (100% of the value and 50-75% of restoration costs) and 30-year easements (50-75% of the value and of the restoration costs).<sup>119</sup>

### **Partnerships**

#### *Regional Conservation Partnership Program (RCPP)*

A new program introduced as part of the 2014 Farm Bill is the RCPP. The program encourages the formation of partnerships to increase the restoration and sustainable use of soil, water, wildlife and related natural resources on regional or watershed scales. The partnerships can be formed by agricultural producer associations, farmer cooperatives, municipal entities, and non-government organizations. NRCS supports locally driven projects and encourages landowners and producers to get involved in the design of project proposals. RCPP assistance is also available independent of a partner if the land is located in a partner project area.

Partnerships must apply for a project grant on a competitive basis during the grant application period. There are three funding categories: critical conservation areas (NJ does not fall in one of these eight areas), state, and multi-state/national. The USDA has targeted \$1.2 billion for the five-year life of the 2014 Farm Bill. 25% of that will be available for projects in a single state. To apply for state funding, the project must address at least one of the national or state priorities. The state priorities are: soil erosion, soil quality, water quality, and wildlife habitat. Two projects were awarded funding in 2015:

- The American Farmland Trust received \$13 million for the Delaware River Watershed Working Lands Conservation and Protection Partnership (a national project)

- The New Jersey Conservation Foundation received \$700,000 to assist in its Delaware Bay Soil and Water Quality Protection Initiative.<sup>120</sup>

## **Water Resources**

### ***The Importance of the Water Resource***

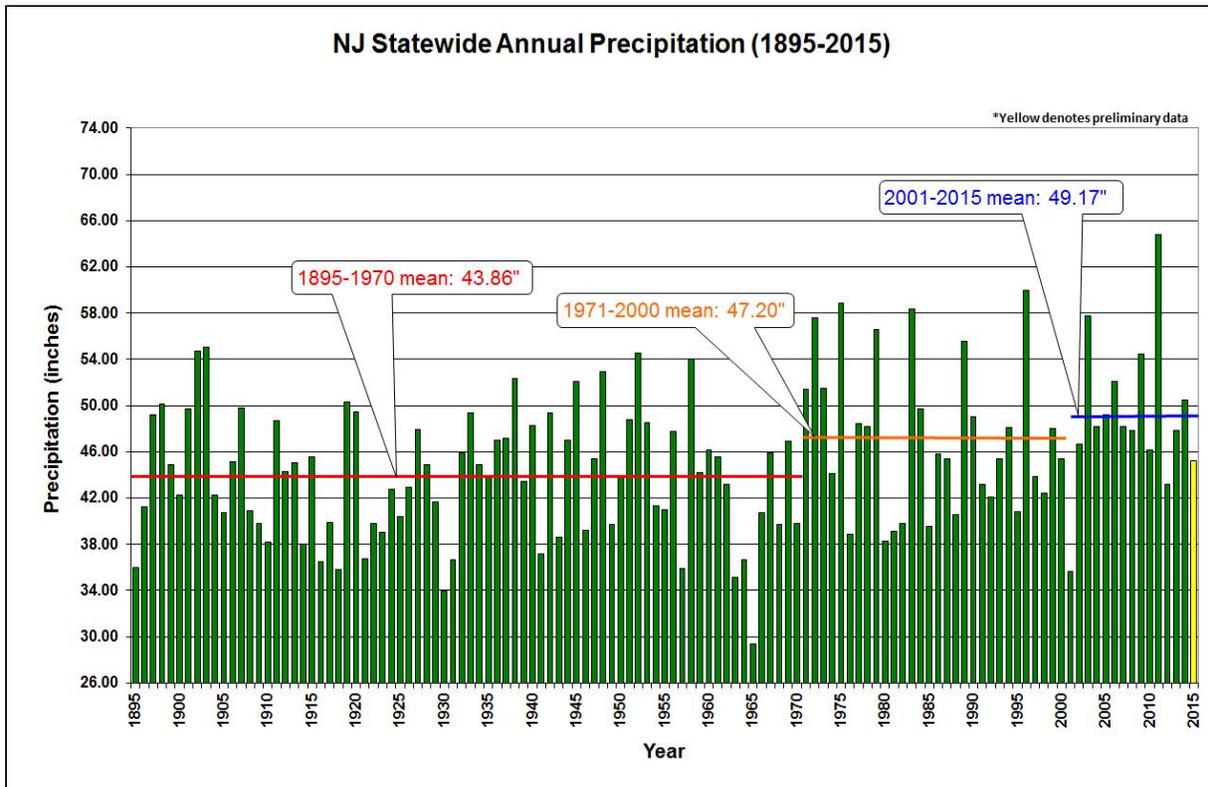
The protection of water resources as they relate to agriculture and farmland preservation in Warren County cannot be overstated. Quite simply, without a consistent, plentiful, and clean water source, agriculture cannot exist. In addition, some farms are critical as open space areas to provide aquifer water recharge. To a certain extent, some aspects of ensuring clean and plentiful water can be controlled at the individual farm level. These include:

- Minimizing the use of synthetic chemicals such as fertilizers, herbicides, pesticides and fungicides so as to lessen impacts to groundwater;
- Providing adequate riparian buffers along watercourses, so as to protect streams from the above mentioned synthetic chemicals, and from soil erosion;
- Practicing organic farming methods when possible;
- Practicing appropriate timing of chemical application, so as to minimize its use;
- Practicing water conservation techniques, such as drip irrigation and water re-use for certain types of farming where feasible, such as smaller-scale vegetable and fruit operations.

Both population increases and agricultural irrigation can affect this water supply. Since 1987, the County has experienced a net increase in irrigation; peaking in 2002 with 3,339 acres (4% of all County farmland) (see *Table 2. Warren County Farms With Land In Irrigation, p.10*). However, the County has seen a 48% drop in irrigated farmlands since then, to 1,726 acres in 2012 (2% of all County farmland). While residential building permit data indicates that the number of issued permits have declined considerably from 2000-2008, they have increased slowly since then (*Figure 16. Warren County Total Residential Building Permits: 2000-2014, p.28*). Increased development pressure and the concomitant demands on water supplies are being felt by Warren County farmers. Increased development exacerbates water supply concerns, not only by increased water usage, but also by creating more impervious surface, causing more stormwater runoff (which often washes pollutants into waterways) and less opportunity for aquifer recharge. Lack of sufficient water recharge areas means less water stays in the area and flows away to other areas, such as the river, the bay and the ocean.

Increasing development and greater impervious surface coverage becomes a larger concern when taking into account shifts in long-term hydrological patterns across the state. The Office of the New Jersey State Climatologist (ONJSC) at Rutgers University reports an upward trend in annual rainfall over the northern half of the state since 1895, particularly after 1970 (*Figure 22. New Jersey Statewide Annual Precipitation: 1895-2015*) (ONJSC).<sup>121</sup> Warming weather as a result of greenhouse gas emissions results in greater evaporation and the atmosphere's ability to hold more moisture. Unfortunately this promotes more frequent precipitation events in certain areas, including northern New Jersey (NJDEP).<sup>122</sup> In general, the likelihood and intensity of flooding events grows as an area's average annual rainfall increases.

Land development often involves removing vegetation and making changes to ground cover, further increasing flooding risks. As it rains, much of the runoff is normally slowed by plants and seeps into soils instead of waterways, resulting in lower peak stormwater flows. Rainfall washes away in larger quantities quicker in developed areas where vegetation is removed, and the more these braking mechanisms are disturbed, the likelier storms result in flooding. Preserving and properly managing farmlands in key areas may not only promote Warren County’s agricultural industry and rural character, but can work to diminish the consequences of increasingly large amounts of rainfall over time, including reduced nutrient and sediment runoff, and downstream damage from floodwaters.



**Figure 22. New Jersey Statewide Annual Precipitation: 1895-2015**

*Source: Office of the New Jersey State Climatologist, Rutgers University*

The necessity of clean and plentiful water, and its precariousness, is clearly stated in the *2005 Warren County Strategic Growth Plan*. The Plan indicates that “groundwater and surface water quality in Warren County is generally good. Groundwater accounts for all drinking water in the County. While groundwater quality is good, there are some areas identified for actual or potential well contamination” (*Warren County Planning Department*).<sup>123</sup> Some potential contamination sources are pesticides, which are used in agriculture and at private residences, and underground storage tanks for various substances such as gasoline and diesel fuel. Underground storage tanks are sometimes used on farms as fuel sources for equipment (*Warren County Planning Department*).

In addition, the *2008 update* to the *1999 Warren County Open Space Plan* indicates the importance of agriculture to the water resource, stating “Sixty percent of Warren County is deep,

non-stony soil, well suited for farming and community development etc. These areas also provide scenic vistas and watershed protection for multi-use practices like farmland preservation and hiking/bicycling trails. Agricultural landowners should be encouraged to participate in the Farmland Preservation Program, to help ensure the viability of agriculture as a land use and economic activity while preserving them as open or undeveloped land areas” (*Warren County Open Space Plan 2008 Update*).<sup>124</sup>

The *State Development and Redevelopment Plan* also discusses the importance of the water resource. The Plan indicates that Warren County’s farmland is found in Planning Areas mapped as Rural, Rural-Environmentally Sensitive, or Environmentally Sensitive (see *Map 2*). The Plan’s goals include support for maintenance and improvement of the agricultural industry’s economic viability. The goal of the Rural Planning Area for agriculture is to “guide development to ensure the viability of agriculture and the retention of farmland in agricultural areas; encourage farmland retention and minimize conflicts between agricultural practices and the location of Centers; ensure the availability of adequate water resources and large, contiguous tracts of land with minimal land-use conflicts...” (*New Jersey State Development and Redevelopment Plan*).<sup>125</sup>

Agricultural goals in Rural-Environmentally Sensitive Planning Areas and Environmentally Sensitive Planning Areas include “...guiding development away from agriculture, minimizing conflict between agriculture and Centers, ensuring adequate water supply, protecting large tracts of land, and promoting more intensive, new-crop agriculture” (*New Jersey State Development and Redevelopment Plan*).

Finally, emphasis is also given to the importance of the water resource, via the NJDA which “...is working with the Rutgers Cooperative Extension, the Natural Resources Conservation Service, the United States Geological Survey, the New Jersey Department of Environmental Protection and the farm community to assess the water needs of agriculture and to assist in the development of essential rules, policies and guidelines to ensure an adequate water supply to meet the current and future needs of the agricultural industry” (*Smart Growth Plan*).<sup>126</sup>

### ***Physical Features and Water Aquifer Supply Characteristics***

Warren County is located within two physiographic provinces of New Jersey. These are the New Jersey Highlands physiographic province and the Valley and Ridge physiographic province. As discussed on the Warren County Environmental Commission’s website:

*“The New Jersey Highlands is part of the southern extension of the New England Uplands Physiographic Province. Its topography is characterized by a series of nearly parallel ridges, trending northeast-southwest, that are separated by broad-to-narrow valleys in which Lower and Middle Paleozoic rocks overlie the Precambrian rocks that characterize the province. The mountains on Warren County’s eastern border belong to the Highlands.”*

*“The New Jersey Highlands is underlain by granitic and metamorphic rocks, known collectively as crystalline rocks. Geologic structures and weathering affect the occurrence of ground water in these Proterozoic rocks. The primary porosity, or intergranular space, of the crystalline bedrock is limited, due to their tight, interlocking texture. Therefore, the hydrogeologic (water-*

bearing) characteristics of these rocks are controlled by their secondary porosity, that is, openings created by weathering and fracturing.”

“Weathered crystalline bedrock of the Highlands is referred to as saprolite. Saprolite that developed on crystalline rocks of low quartz content generally forms a low-permeability clay and silty clay, whereas saprolite that developed on rock with abundant quartz consists of more permeable sands and silty sands. Weathering of fractures in marble bedrock often creates cavities or solution channels that transmit water freely. Saprolite thicknesses of up to 50 feet are typically found in non-glaciated regions, south of the Wisconsinan terminal moraine.”

“Joints and fractures also strongly affect the movement of ground water in the Middle Proterozoic bedrock aquifers by acting as conduits for flow. Studies of the hydrology of fracture systems have shown that most ground water moves through a few fractures. The number of fractures, their spacing, and the amount of mineral matter within them are important in assessing the hydrogeologic characteristics of crystalline bedrock aquifers.”

“Studies of crystalline rock elsewhere have shown that fracture permeability, width, and abundance diminish with depth below land surface. In the New Jersey Highlands, these studies are partly supported by data on well yields.”

“The occurrence of joints and fractures is influenced by faults and folds. Most faults in the northern and central Highlands trend northeast and dip southeast at moderate-to-high angles. Smaller northwest-southeast and east-west cross faults are also common. In the southwestern Highlands, thrust faults that dip gently to steeply southeast are fairly common. Fracture density increases near fault zones and in the axes of folds. Fractures and joints sometimes are filled with secondary minerals, which can reduce their permeability.”

“The Valley and Ridge Province occupies the extreme northwestern part of New Jersey and makes up the majority of Warren County. It is composed of the Lower Paleozoic rocks of the Kittatinny Valley and the Middle Paleozoic rocks of Kittatinny Mountain. The Kittatinny Valley is the northeast extension of the Great Valley of the Appalachian Mountains.”

“A wide variety of sedimentary rocks occurs in this region, including conglomerate, dolomite, limestone, siltstone, quartz sandstone, graywacke, and claystone slate.”

“As with the rocks of the Highlands, geologic structures have a profound influence on ground-water occurrence and movement in the Paleozoic rocks. All of these rocks have been folded and faulted; and the older, Cambrian and Ordovician rocks were deformed during both the Taconic and Alleghanian mountain-building episodes.”

“The amount of fracturing is greatest in the southeast part of the Great Valley, which was nearest to the intercontinental collisions that caused the faulting and folding characteristic of the province. The northwestern part of the Valley and Ridge is folded but lacks abundant large-scale faulting at the surface. Major faults in the Valley and Ridge generally strike northeast to southwest, dip steeply near the surface, and have offshoot faults.”

“The primary--or intergranular--porosity and permeability of the Paleozoic rocks is minimal, owing to compaction and cementation during formation of the rock units and to other rock-

*forming processes associated with later mountain building. As a result, the hydrologic properties of these sedimentary rocks are controlled by the number, size, and interconnection of fractures. Fractures that hold ground water in these rocks consist mainly of planar openings (including partings between layers or strata), joints caused by the stress of folding and faulting, and other structural defects. In the carbonate rocks, such as limestones, these fractures are enlarged by the dissolving action, or solutioning, of ground water” (Aquifers of Warren County).*<sup>127</sup>

The physiographic and geologic layout of Warren County dictates water supply, availability and recharge, as well as locations of agriculture. As discussed in the Warren County Agriculture Development Board’s 1998 Long Range Plan:

*“Prime farmland by conventional standards is in short supply in Warren County. The physical nature of the county consists of valleys and ridges oriented roughly northeast to southwest. Sandstone and quartzite dominate the Kittatinny Mountains to the northwest and alternating ridges underlain by shale and sandstone, and valleys underlain by limestone can be found to the southeast. A terminal moraine left by the Wisconsin Glacier occupies much of the center of the county. To the southwest from the moraine can be found an area of broad topped ridges underlain by granitic gneiss and valleys underlain by deeply weathered limestone” (Warren County Agriculture Development Board) (Long Range Plan).*<sup>128</sup>

*“The farmlands are located predominantly in the valleys along the streams and rivers, except in the areas of broad ridges, which also support considerable acreage of excellent farmland. Early settlers cleared the broad expanses along the rivers where the soils were rich and loamy and there were ample supplies of water. Unfortunately, river valleys are also the primary corridors used for travel and commerce and almost all of our towns are situated in those areas where the soils will support an agricultural industry. The result has placed many of the “growth” areas within the county next to, or surrounded by, some of the county’s best soils” (Long Range Plan).*

### **Water Allocation**

Obtaining access to water in Warren County that is adequate and necessary for farming is becoming more challenging because:

- Obtaining permits for new wells from the NJDEP, and then approval from municipalities, is becoming increasingly difficult. There is a limiting factor for farmers who may want to diversify their operations on existing acreage from field to nursey crops (a growing sector), or who may be renting, leasing or purchasing farmland formerly used for crops that did not require irrigation and seeking to introduce crops that require irrigation. The NJDEP Division of Water Supply, Bureau of Water Allocation requires that an Agricultural Water Usage Certification or Agricultural Water Use Registration be obtained from the County agricultural agent “if a person has the capability to withdraw ground and/or surface water in excess of 100,000 gallons per day for agricultural, aquacultural or horticultural purposes.”
- Farmers are competing with a growing residential base for existing water resources; between 1990 and 2010, Warren County’s population has grown by more than 17,000 people (19% increase) (see *Chapter 3*).

### ***Water Conservation Strategies***

An adequate water supply is important to successful agriculture operations in Warren County. Droughts in recent years have highlighted the precarious nature of the agricultural (and general) water supply, and the need for water conservation systems and regimens.

The State Agriculture Development Committee, through its *Agricultural Smart Growth Plan*, encourages farmers to “work to accelerate the use of efficient water conservation technologies, such as drip irrigation. Identify and promote new and efficient methods to conduct water distribution on farms, utilizing farm ponds and water reuse options.”

The dominant crops in Warren County are corn, nursery and greenhouses, and hay. Corn and hay rely on rain and some groundwater for water needs, and as such, water conservation strategies per se are difficult to implement, given that water usage largely depends on the amount of rainfall during a given growing season. With the more water-intensive nursery and greenhouse, and produce farming, it is possible to implement conservation strategies such as drip irrigation, water reuse, or watering crops in the cooler parts of the day. However, since vegetable, fruit, and nursery agriculture are minor in terms of acreage when compared to corn and hay, the positive effects of countywide water conservation efforts are minimized.

The faculty of RNJAESCE publishes annual crop production recommendation guides for multiple crop groups that include irrigation guidelines and recommendations. These guides include tips for maximizing irrigation efficiency, such as optimizing irrigation scheduling, selecting appropriate growing mediums, planning and installing irrigation systems that provide efficient water use, managing stormwater runoff, and collecting and recycling irrigation water. The information can be found at <http://njaes.rutgers.edu/pubs/>.

For livestock, floats and timers in watering troughs can conserve water by negating the need for constantly running water to keep troughs full.

The Office of the New Jersey State Climatologist at Rutgers University, School of Environmental and Biological Sciences, operates the NJ Weather and Climate Network of weather monitoring stations. Farmers can use the information from stations near them to assist with irrigation water scheduling, as well as pest management and other conservation issues. There are several stations in Warren County that can provide weather data such as air temperature, precipitation, wind speed and gusts. Other stations measure barometric pressure and New Brunswick measures soil temperatures as well. Farmers can set favorite locales and view charts and tabular data (*ONJSC*).<sup>129</sup>

### **Waste Management and Recycling**

Management of livestock waste has serious implications for the quality of ground and surface waters. Unchecked, or poorly managed, these wastes can cause serious water quality problems by the introduction of unwanted microorganisms into natural systems. Poor management of animal waste can also cause disease among farm animals. Proper animal waste management is not only required but is also a good sign of good environmental stewardship, as is recycling of farm byproducts whenever possible.

Livestock farmers in Warren County may opt to participate in SCD/NRCS conservation programs that cost-share the creation of animal waste facilities on their farms. By building these temporary holding tanks, usually concrete, the farmer accomplishes two purposes: preventing the waste from mixing with runoff and polluting streams and other water bodies, and providing a ready source of manure or fertilizer for farm fields. When convenient, the waste can be removed from the temporary storage facilities and applied to the fields, following best management practices (BMPs) (*Dan Brown*).

### ***Waste Management in Warren County***

As reported in the *2008 Comprehensive Farmland Preservation Plan*, the local NRCS office in Hackettstown and the Warren County Land Preservation Department have indicated the following regarding animal and crop waste management within the County:

- Many farmers have “Nutrient Management Plans” to manage the manure generated on their farms. Nutrient Management Plans contain information on crop requirements, nutrient availability, proper timing and amounts of application, and environmental considerations. Such plans require farmers to have a good understanding of crop requirements, soil types and sensitive areas on/near the farm (such as wetlands and shallow aquifers); nutrient management incorporates this knowledge with site-specific sets of management practices (*NJDA*).<sup>130</sup>
- Horse waste on farms can be a problem. This is due in part to the relatively small land area of horse farms, making the manure more difficult to effectively and safely distribute on fields. This can spread diseases from the horse manure.
- Relative to disease, cattle manure is not as serious a problem as horse manure. This is due in part to the relatively large land area of dairy farms, making it easier to safely and effectively distribute the manure on fields. This helps to control the spread of disease.
- Ag Choice LLC in Andover Township, Sussex County picks up and accepts and then composts food and livestock waste on a commercial scale. It is then available as bulk pickup, sold to landscapers and garden centers, or bagged and sold at retail outlets. This type of operation not only helps control the problem of livestock waste on farms, but is also a good revenue source for the owners. Warren County farmers can review the Ag Choice operation to determine if similar operations might be beneficial to them. The Ag Choice website is <http://www.ag-choice.com/>.

### ***Animal Feeding Operations***

Animal feeding operations (AFOs) have the potential to cause water pollution, since mismanagement of the animal waste may cause soil and water contamination via introduction of organic matter, nitrogen, phosphorus, and bacterial pathogens into nearby surface waters. Proper management is essential. The New Jersey Department of Environmental Protection (NJDEP) has outlined a statewide strategy to manage and regulate these operations. The strategy calls for NJDEP to administer permits for the few, large Concentrated Animal Feeding Operations (CAFOs) in the state, and the NJDA to administer appropriate measures for other farms with animals, using the Criteria and Standards for Animal Waste Management, adopted March 16, 2009. This strategy emphasizes the use of cost-effective voluntary measures, limiting the need for permits (*Michael Westendorf*).<sup>131</sup>

The Criteria and Standards for Animal Waste Management (N.J.A.C 2:91) set forth requirements for the development and implementation of self-certified Animal Waste Management Plans (AWMPs), high-density AWMPs and Comprehensive Nutrient Management Plans (CNMPs) for farms that generate, handle or receive animal waste. All farmers with livestock were required to be in compliance with these regulations by March 16, 2012. All producers, regardless of size, must meet the general requirements, which are:

- Agricultural animal operations shall not allow animals in confined areas to have uncontrolled access to the water of the state;
- Manure storage areas shall be located at least 100 linear feet from surface waters of the state;
- The land application of animal waste shall be performed in accordance with the principles of the NJDA Best Management Practices Manual;
- Dead animals and related animal waste resulting from a reportable contagious disease or an act of bio-terrorism shall not be disposed of without first contacting the State Veterinarian; and
- Any person entering a farm to conduct official business related to these rules shall follow bio-security protocol (*NJDA Animal Waste Management Rules*).<sup>132</sup>

Additional requirements are either voluntary or mandatory, depending on the number and density of animals. Generally:

- Operations with 7 or fewer animal units (AU=1,000 pounds) or receiving or applying less than 142 tons of animal waste per year are encouraged, but not required, to develop a self-certified Animal Waste Management Plan (AWMP);
- Operations receiving or applying 142 or more tons of animal waste per year are required to develop and implement a self-certified AWMP;
- Operations with 8 to 299 AUs at densities of equal to or less than 1 AU per acre are required to complete a self-certified AWMP;
- Operations with 8 to 299 AUs at densities greater than 1 AU per acre are required to complete an AWMP, which must be reviewed by a conservation professional; if the standards are met, the SCD will approve the plan; and
- Operations with 300 or more AUs are required to develop a Comprehensive Nutrient Management Plan (CNMP), which must be certified by the NJDA (*Criteria and Standards*).

In general, self-certified waste management plans will be coordinated through the Rutgers New Jersey Agricultural Experiment Station Cooperative Extension (RNJAESCE), which continues to offer assistance to farmers who have not yet completed AWMPs or implemented environmental BMPs on their farms. Farmers who have not yet complied may face penalties as outlined in N.J.A.C. 2:91-4.1 (*RNJAESCE*).<sup>133</sup> Farmers can apply for funding through the Environmental Quality Incentive Program (EQIP) to obtain a CNMP for their operation. Any livestock operation receiving EQIP funds for waste management practices such as a Heavy Use Area Protection (HUAP) site or waste storage facility must have a CNMP (*Michael Westendorf*).

## ***Recycling***

Recycling should be an important part of natural resource conservation for the agriculture industry. Recycling saves natural resources, and can also save farmers money through creative reuse, such as using leaves and grass clippings to mulch and fertilize farm fields, and saving on solid waste disposal costs. Recycling reduces the amount of refuse finding its way to limited landfill space. Corn and hay, the dominant farm byproducts by acreage in Warren County, use limited products which can be recycled, and as such limit recycling opportunities.

However, a variety of services are offered within the County that farmers may be able to take advantage of (depending on the type and scale of operation), including automotive tires, used motor oil, and large vehicle parts.<sup>134</sup> The County specifically encourages farmers to partake in recycling practices, for example, a “Tire Amnesty Day,” during which time farmers can discard used tires free of charge rather than pay a fee.<sup>135</sup>

The New Jersey Department of Agriculture has run a nursery and greenhouse plastic film recycling program since 1997, with two regional collecting sites, including one run by the Cumberland County Improvement Authority.<sup>136</sup> The program has seen tremendous success in recent years, including over 1 million pounds recycled in 2011, saving farmers thousands of dollars in landfill tipping fees. Not only can these savings be reinvested back into farms, recycling these plastic films has increased landfill space and provides manufacturers with a source of plastics to recycle into new products.<sup>137</sup> Warren County may consider creating a similar program to support recycling efforts within the greatly expanded nursery and greenhouse business, perhaps in conjunction with neighboring counties to save money and .

## **Energy Conservation**

Energy conservation makes economic sense for Warren County agricultural businesses. The less energy a farmer uses, the less money spent on energy, and the more money that can be invested elsewhere or realized as profit. However, energy conservation and the use of alternate technologies also make environmental sense. They help keep the air, water and soil clean, and minimize or eliminate further pollution to these critical agricultural resources. Energy conservation and the use of alternative energy sources may help to slow the threat of global warming due to excessive carbon dioxide and other greenhouse gas emissions into the atmosphere. A 2015 poll conducted by Fairleigh Dickinson University indicates widespread bipartisan support within the state for an increased focus in renewable energy sources. Nearly 80% of respondents favored investment in renewable sources such as wind and solar and reduced reliance on fossil fuels, with 62% arguing that the state is not developing and adopting renewable alternatives fast enough.<sup>138</sup>

The County Board of Chosen Freeholders, in concert with the Department of Land Preservation, the Rutgers New Jersey Agricultural Experiment Station Cooperative Extension and the Natural Resource Conservation Service, can reach out to the farm community and work with the NJDA and industry experts to address questions regarding energy usage, methods to reduce energy consumption and other energy-related strategies. There are also a number of promising alternatives, ranging from solar panels to wind turbines, which provide farmers a balance of economic and environmental benefits. Identifying which technologies make the most sense for Warren County farms, educating farmers, and encouraging their application are important

implementation action steps. Creating a stable and predictable regulatory environment, both at the state and local level, is also critical and one that the County can strongly promote.

As tracked by Farmland Assessment data, renewable energy acreage totaled 45 acres in 2015, an increase from 23 acres in 2012, when renewable energy became a category for assessment. As of 2015, Allamuchy Township contained 10 acres devoted to renewable energy, Harmony Township 20 acres, and White Township 10 acres. Smaller renewable energy operations are also found in Franklin Township (2 acres), Frelinghuysen Township (1 acre), Hope Township (1 acre), and Pohatcong Township (1 acre) (*New Jersey Farmland Assessment*).<sup>139</sup> At least five municipalities in Warren County have passed ordinances regulating solar and/or wind facilities, including Blairstown, Franklin, Frelinghuysen, Hardwick and Hope Townships.<sup>140</sup>

In its *Agricultural Smart Growth Plan*, the NJDA emphasized the importance of energy conservation and alternative energy use. The Plan indicates 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.” Also, the NJDA indicated that “Through [these] numerous efforts coordinated between the state and federal levels, New Jersey’s agricultural community is proving itself to be an important player in protecting our state’s natural resources. Clearly, there is more work to be done, and the agricultural community has shown initiative in pursuing alternative energy sources, such as solar, wind and biogas in running farm operations, and by being a leader in the pursuit of ethanol and bio-diesel fuel markets” (*Agricultural Smart Growth Plan*).

In January 2010, a law (P.L. 2009, c.213) was enacted allowing for the construction, installation, and operation of biomass, solar, or wind energy generation facilities, structures, and equipment on commercial farms, including preserved farms, with certain caveats regarding interference with agricultural productivity, valuation for farmland assessment, amount of farm acreage that can be devoted to such facilities, local and State approvals, etc. (P.L. 2009, c.213).<sup>141</sup> Rules that implement the 2010 legislation for solar energy on preserved farms came into effect in June 2013. Rules for wind energy on preserved farms are available on the SADC website, and the SADC has developed an Agricultural Management Practice (AMP) to help determine specific system design criteria for solar and wind systems seeking Right to Farm protection.<sup>142</sup>

Through EQIP, farmers can develop Agricultural Energy Management Plans – farm energy audits – and can then apply for help implementing the Energy Audit recommendations. This is usually done with one of the new NRCS Technical Guide Conservation Practices, such as Farmstead Energy Improvement.<sup>143</sup> Farmers seeking assistance in implementing renewable energy practices can contact the local NRCS office in Hackettstown for more information.

### ***Solar Energy***

Solar energy can be harnessed via the installation of solar panels. This harnessed or stored energy can then be used to create electricity and provide heat. If excess electricity is generated, it can be sold back to the electric grid for a profit. The overall use of solar panels has increased greatly in New Jersey,<sup>144</sup> with the SADC approving the first rooftop solar energy project on a preserved farm in 2011.<sup>145</sup>

New Jersey's Clean Energy Program offers registration in the Solar Renewable Energy Certificate (SREC) Registration Program (SRP), which allows owners of registered, installed systems to enter energy generated into a SREC tracking system; these SRECs can be sold to generate revenue during the first 15 years of the solar operation. In the last year, the program has been receiving more and more SRPs each month.<sup>146</sup> Solar energy is one of the fastest-growing sectors in the alternative energy market, and Warren County farmers can take advantage of these energy and money saving technologies.

### ***Wind Energy***

The power of a strong wind can be captured by turbines or windmills, turning such power into electricity. Expanding and evolving technology is making this option more attractive to farmers as a way to cut energy costs, but adequate wind speeds are requisite to make this a successful alternative. New Jersey farmers might take advantage of a distributed or "small" wind system, which uses turbines of 100 kilowatts or smaller to directly power a home, farm or small business. New Jersey's Clean Energy Program provides a model small wind ordinance for municipal adoption. Although this is a first step towards encouraging wind energy, New Jersey's Clean Energy Program incentives for wind energy installations have been on hold since 2011.<sup>147</sup>

The National Renewable Energy Laboratory has identified annual average wind speeds at 30 meters above ground, the general height for residential-scale turbines, throughout the country. Warren County lands meeting the 4m/s threshold for average wind speeds recommended for residential installation fall along the eastern portion of the County, running along the border of Morris and Hunterdon Counties. Additionally, a small pocket of land just northeast of Merrill Creek Reservoir appears to best meet this threshold. However, the model-derived wind speeds may not represent true wind speeds at any given location, as small terrain features, vegetation, buildings and atmospheric effects may cause localized wind speeds to depart from map estimates. Interested farmers should seek expert advice for siting wind turbines and estimating energy production.<sup>148</sup>

### ***Bio-Fuels***

According to the U.S. Department of Energy's Biomass Program, "after hydropower, biopower provides a larger share of the world's electricity than any other renewable energy resource." It has the advantages of providing a clean, domestic renewable source of power for the nation, revitalizing rural economies and reducing impacts on the environment and climate, among others. Biopower can be used in combined heat and power (CHP) systems to generate both heat and electricity, and it can be sourced from any organic matter such as wood, plants, agricultural waste, and other materials.<sup>149</sup> Agricultural producers can serve as a source for biomass fuels and, potentially an end user.

### ***Ethanol***

Ethanol is a renewable fuel "made by distilling the starch and sugar in a variety of plants" (*Agriculture and Green Energy*). It can then be blended into gasoline as an "oxygenate," reducing air pollution. Its use may also reduce dependence on foreign oil and the harmful environmental effects of oil drilling. Also, unlike the gasoline additive MTBE, ethanol will not contaminate groundwater (*Agriculture and Green Energy*). Corn, used to produce ethanol, is the dominant field crop in Warren County. Because the County leads the northern half of the state in

corn production (as of the 2012 Census), it can sell itself as a regional producer should nearby demands for ethanol ever arise.

### **Bio-diesel**

Petroleum diesel is an emitter of sulfur emissions, a major air pollutant. Bio-diesel, made from the oils of soybeans, is an alternative to petroleum diesel. This organic fuel can be blended and used in diesel engines without modification. The result is a significant reduction of the harmful fumes produced by pure petroleum diesel (*Agriculture and Green Energy*). The US Environmental Protection Agency reported a record 2.1 billion gallons of biofuel were consumed in 2015, a new record. However, bio-diesel imports have increased, undercutting relatively constant levels of domestic production.<sup>150</sup>

Countywide soybean production has nearly doubled since 2011, from 221,000 bushels to 430,000 bushels in 2015 (*NASS*). While Warren County ranks third in statewide soybean production, it still leads northern New Jersey counties in production.<sup>ff</sup> The County can sell its recent growth and status as a regional leader in soybean production to potential customers. While no bio-diesel producers are available nearby, several retailers operate within the region, including:

- Wooley Fuel Co., Maplewood, Essex County
- Dixon Energy, Rockaway, Morris County
- Sunoco – ZSA Petroleum, Spring Valley, Rockland County (NY)<sup>151</sup>

### **Biogas**

Agricultural waste and manure are among the variety of waste that could be used to create energy through anaerobic digestion, with the added benefits of reducing landfills and producing a nutrient-rich fertilizer that could be used by farmers. Fats, oils and greases, and food waste produce the most biogas. Because of this, many dairy farms with digesters add local food scraps and agricultural waste to their digesting manure to increase the amount of biogas produced (*American Biogas Council*).<sup>152</sup>

In 2015, New Jersey ranked 18<sup>th</sup> nationwide in methane production potential from biogas sources, with 62 operational systems (33 wastewater and 29 landfill systems). While the American Biogas Council has identified over 120 potential new projects statewide, unfortunately they see little potential for agriculture-based biogas systems; the vast majority of potential projects deal with wastewater and food waste. However, the American Biogas Council identifies numerous statewide organizations committed to sustainability and funding opportunities that could be dedicated to biogas facility construction, as well as several biogas companies located within the state (*American Biogas Council*).<sup>153</sup>

### **Switchgrass Pellets**

Switchgrass pellets can replace oil, gasoline or coal as a fuel to heat greenhouses, save money, reduce petroleum use, and cut greenhouse gas production in the process.<sup>154</sup> The pellets are made

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<sup>ff</sup> Warren County's 430,000 bushels in 2015 were third to Salem County (778,000 bushels) and Burlington County (707,000 bushels). Hunterdon County, the second-largest producer in the northern half of the state, came in fifth overall with 259,000 bushels.

from hay cut from perennial warm-season grasses, pulverized into a sawdust product that is heated, milled into pellets. The perennial grasses can be cut for 20 years or so before needing to be replanted. Plainview Growers, a nursery operation in Allamuchy Township, is using this process to heat its greenhouses. Its long-range plan is for the facility to be energy self-sufficient by also generating electricity using this same bio-fuel, and to produce enough pellets to sell to others.<sup>155</sup>

Selling switchgrass as a raw material is the easiest, and often most reliable, use of the crop when it comes to renewable energy production. Processing raw switchgrass into ethanol or ethane can be costly, but incorporating raw switchgrass into traditional coal-based power plants may be an attractive option for farmers. Because raw switchgrass can be combined with coal, few alterations to the crop are needed, keeping growing costs low. Furthermore, switchgrass incorporation assists utilities in reducing carbon demand and meeting renewable portfolio standards.<sup>156</sup>

### ***Renewable Energy Grant Programs***

The NJDA provides the following information on renewable energy grant programs, which can help encourage the use of these energy sources:

*New Jersey's Clean Energy Program:* Administered by the New Jersey Board of Public Utilities, this program provides financial incentives to install clean energy systems, including fuel cells, photovoltaics (solar energy), small wind and sustainable biomass equipment. Financial incentives are in the form of rebates, grants and loans. Additional information is available at [www.njcep.com](http://www.njcep.com).<sup>157</sup>

*New Jersey Smart Start Buildings:* Run by the New Jersey Board of Public Utilities, this program provides financial incentives and technical assistance to help those creating a commercial or industrial project, renovating existing space, or upgrading equipment to become more energy-efficient. However, incentives are only available for projects in areas designated for growth under the State Development and Redevelopment Plan: Metropolitan Planning Areas (PA1) and Suburban Planning Areas (PA2). This would render the majority of farms in the County ineligible, but organizations such as the New Jersey Farm Bureau support changing eligibility criteria to become more available to any farm seeking to improve energy efficiency.<sup>158</sup> As of 2015, Warren County has 39 acres of farmland in Metropolitan Planning Areas and 677 acres in Suburban Planning Areas.

*USDA Rural Energy for America Program (REAP):* Authorized under the Agricultural Act of 2014 (Farm Bill), the REAP Renewable Energy System and Energy Improvement Guaranteed Loan and Grant Program provides financial assistance to agricultural producers and rural small businesses to purchase, install and construct renewable energy systems; make energy efficiency improvements to non-residential buildings and facilities; use renewable technologies that reduce energy consumption; and participate in energy audits and renewable energy development assistance. For agricultural producers, a guaranteed loan and grant program can provide financial assistance with the installation of renewable energy systems (*USDA*).<sup>159</sup>

## **Outreach and Incentives**

The Warren County CADB, the RNJAESCE of Warren County and regional agencies such as the NRCS, SCD and FSA local service centers stand ready to educate and assist farmers regarding natural resource conservation and agricultural productivity. The CADB supports and encourages the implementation of programs to aid in natural resource conservation in the County.

# CHAPTER 8: AGRICULTURAL INDUSTRY SUSTAINABILITY, RETENTION, AND PROMOTION

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## Existing Agricultural Industry Support

### *Right to Farm*

The Right to Farm Act was enacted by the State Legislature in 1983 and amended in 1998, ensuring farmers have the ability to continue accepted agricultural operations. The Act provides “protection of commercial farm operations from nuisance action, where recognized methods and techniques of agricultural production are applied, while, at the same time, acknowledging the need to provide a proper balance among the varied and conflicting interests of all lawful activities in New Jersey” (4:1C-2). Another critical piece of legislation in support of agriculture was the 1983 Agriculture Retention and Development Act. This Act created the State Agriculture Development Committee (SADC), and authorized counties to create County Agriculture Development Boards (CADBs) to establish agriculture retention and development programs. At present, there are eighteen CADBs. Both the SAC and CADB implement the Right to Farm Act on the State and local levels (*Right to Farm Program*).<sup>160</sup>

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 reviewing rules proposed by other state agencies to assess the impact they may have on agriculture. 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 AMPs recommended by the SADC, or site-specific AMPs developed by the Warren County Agriculture Development Board (CADB) at the request of a commercial farmer. It 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 July 2, 1998 (*Eligibility Criteria for RTF Act Protection*).<sup>161</sup>

As of 2015, the SADC had 12 AMPs in place, the latest being an AMP for On-Farm Direct Marketing Facilities, Activities and Events, adopted April 7, 2014. The SADC lists 15 site-specific AMPs for Warren County, all of which have been resolved by the Warren CADB.<sup>162</sup>

All right to farm complaints or issues brought before the Warren CADB are first handled with fact finding and efforts to resolve differences between the parties. The mediation can be informal, or, if the parties agree, the SADC will provide mediation or conflict resolution at no cost to the participants through its Agricultural Mediation Program. If a formal complaint is filed with the Warren CADB, it is sent to the SADC for a determination as to whether the farm qualifies as a commercial farm (N.J.S.A. 4:1C-3) and whether the operation or activity is eligible for Right to Farm protection. The CADB and/or SADC typically conducts a site visit for additional fact finding, sometimes consulting with agricultural experts and municipalities (in cases where municipal regulations are involved in right to farm disputes. Depending on the nature of the issues, either the CADB or SADC (or both in some cases) holds a public hearing at the County level. Decisions made by the Warren CADB may be appealed to the SADC, and

final SADC determinations may be appealed to the New Jersey Superior Court, Appellate Division.<sup>163</sup>

Municipalities can and should limit the number of right to farm complaints and encourage farming as an industry by:

- Working to better understand the Right to Farm process in order to adopt or update comprehensive Right to Farm ordinances as outlined by the SADC, as some believe that many municipalities are not familiar enough with the process;<sup>164</sup>
- Making agriculture a permitted use in all appropriate zones;
- Requiring buffers between new non-agricultural development and adjacent existing farmlands; and
- Requiring notification to homeowners purchasing a home in a new subdivision where active agriculture occurs on adjacent property.

Right to Farm ordinances are necessary for municipalities that wish to enter into the Farmland Preservation Program. Therefore, all municipalities within Warren County with commercial farms are encouraged to adopt a Right to Farm ordinance, and to update their existing ordinances to be consistent with the SADC model ordinance. If a municipality has a Right to Farm ordinance on file with the CADB, that ordinance is referenced during any Right to Farm hearings. If the municipality does not have such an ordinance, the CADB references the State's language. The CADB contacts County municipalities on a periodic basis regarding Right to Farm ordinances. Those who have an agricultural base but do not yet have a Right to Farm ordinance are encouraged to create one. For those who do have a Right to Farm ordinance, the CADB checks to make sure the copy it has on file is the municipality's most current one.

Of the 22 municipalities in Warren County, 15 have established a Right to Farm ordinance. *Table 23. Municipal Right to Farm Ordinances (RTFO)* lists municipalities within Warren County that have Right to Farm ordinances, along with summary information on the ordinance.

The SADC model ordinance, is on the state's website. (*Model Right to Farm Ordinance*).<sup>165</sup> (<http://www.nj.gov/agriculture/sadc/rtfprogram/resources/modelrtfordinance.pdf>) The sections of the SADC's model ordinance are listed below, along with a brief analysis of how the Warren County's municipal Right to Farm ordinances align with the state's model:

- A. *Definitions* – most of the municipal ordinances do not include the SADC model's definitions of “farm market,” “commercial farm,” “farm management unit,” or “pick-your-own operation.” Frelinghuysen and Mansfield are the exceptions defining all four terms, with three other municipalities providing partial lists of terms.
- B. *Recognition of Right to Farm as permitted use in all zones, including a list of 18 noninclusive practices and activities* – Most municipal ordinances are not as specific or comprehensive in their permitted uses as section B of the SADC model. For example, they do not address the operation of farm markets as part of their RTF code or reference on-site disposal of organic agricultural wastes. While several address the employment of farm laborers, few specifically address farm labor housing. Many address farm equipment, but not all address slow-moving farm machinery over roads within the municipality. Frelinghuysen and Mansfield are the only two that provide complete lists

of practices listed in the SADC model, save for renewable energy generation consistent with the provisions of P.L. 2009, c.213; this final activity is a relatively new addition to the SADC Model Ordinance and codes have not been updated to reflect this.

- C. *Recommendation that farm operators adhere to generally accepted agricultural management practices* – Most municipalities reference accepted agricultural management practices, although not in the detail or using the language of the model ordinance. Some reference countywide or local farming practices.
- D. *Conformance to applicable State and Federal law* – Most municipalities do not include this item as stated, although several reference conformance to county and/or municipal laws, rules, statutes or regulations.
- E. *Allows permitted uses on holidays, weekdays, weekends, day or night, including attendant or incidental noise, odors, dust and fumes* – All municipalities include a version of this item; Blairstown and Washington Township do not acknowledge permissible days or hours of farming operations.
- F. *Recognizes benefits of farming* – The majority include a version of this item.
- G. *Complaint processes through CADB or SADC* – Only five municipalities expressly mention this: Frelinghuysen, Hardwick, Liberty, Mansfield, and White Townships.
- H. *Agricultural Mediation Program* – Frelinghuysen is the only municipality that mentions this program.
- I. *Notice to purchasers and users of adjacent property* – the majority of municipalities include a notice requirement, although they may not directly follow the model’s language. Allamuchy, Franklin, and Harmony do not include such notice requirements.

Table 23. *Municipal Right to Farm Ordinances (RTFO)* lists municipalities within Warren County that have Right to Farm Ordinances, along with summary information on the ordinance, its enactment, where known, and a comment on its consistency with the model ordinance developed by the SADC.

**Table 23. Municipal Right to Farm Ordinances (RTFO)**

<b>Township/Borough</b>	<b>RTFO (letter in parentheses indicates where Ordinance topic coincides with the SADC’s Model Ordinance)</b>
<p>Allamuchy</p> <p><b>Code #:</b> 144-1 to 144-4</p>	<p>(B) <i>Where Zoned and Where Existing.</i> The right to farm is recognized as a right of the farmer to utilize his land and properties in such a manner as to pursue his livelihood. This right to farm recognizes the use of large irrigation pumps and equipment, aerial and ground seeding and spraying, large tractors and the application of fertilizers, insecticides and herbicides, as well as other farm equipment utilized by the farmer for the purpose of producing from the land agricultural products, such as vegetables, grains, hay, fruits, fibers, wood, trees, plants, shrubs, flowers and seeds.</p> <p>(D) The right to farm those lands and properties zoned for that use and properties currently being farmed within the Township of Allamuchy is recognized to exist as a right of the farmer to utilize his land and properties in such a manner as to pursue his livelihood, subject only to restrictions set forth in the township, county and state health codes and regulations. The right to farm also includes the right to utilize land for</p>

**Table 23. Municipal Right to Farm Ordinances (RTFO)**

<b>Township/Borough</b>	<b>RTFO (letter in parentheses indicates where Ordinance topic coincides with the SADC’s Model Ordinance)</b>
	<p>animal grazing, subject to restrictions for intensive fowl or livestock farms or such restrictions as may be required by county, state and federal laws.</p> <p>(E) Farming activities may occur on holidays, Sundays and weekdays and at night and during the day. The noise, odors, dust and fumes that are caused by these activities are recognized as ancillary to the permitted activities set forth in the right to farm.</p> <p>(F) The township finds that whatever burden may be caused to contiguous property owners it is offset by the benefits from farming to the township, county and state.</p> <p><i>Consistency.</i> This ordinance does not include definitions (A), does mention “generally accepted agricultural practices” but does not detail those advocated by the SADC’s model ordinance (C), does not mention complaint processes (G), Agricultural Mediation Program (H), nor a “good neighbor” notification policy (I).</p> <p><i>Enactment.</i> Adopted by the Township Council of the Township of Allamuchy 12-4-1980 (Ch. 77 of the 1981 Code).</p>
<p>Blairstown</p> <p><b>Code #:</b> 153-1 to 153-6</p>	<p>(A) A “commercial farm” is defined as 1) A farm management unit of no less than five acres producing agricultural or horticultural products worth \$2,500 or more annually and satisfying the eligibility criteria for differential property taxation pursuant to the Farmland Assessment Act of 1964; or 2) A farm management unit less than five acres producing agricultural or horticultural products worth \$50,000 or more annually and otherwise satisfying the eligibility criteria for differential property taxation pursuant to the Farmland Assessment Act of 1964.</p> <p>(B) <i>Where Zoned.</i> The owner and operator of a commercial farm may engage in all agricultural activities permitted by N.J.S.A. 4:1C-9.</p> <p>(C) Farmland activities shall not constitute a nuisance, provided that the operation conforms to agricultural management practices recommended by the SADC and adopted to the provisions of the Administrative Procedure Act, or whose specific operation or practice has been determined by the Warren County Agricultural Development Board to constitute a generally accepted agricultural operation or practice.</p> <p>(D) Farming operations are protected provided they are consistent with Federal and State law.</p> <p>(E) No discussion is given to days and hours of operation, but does acknowledge the possibility of noise, odors, dust and fumes associated with agricultural practices.</p> <p>(I) Purchasers of real estate where agriculture is permitted shall be notified of the importance of the farming community, and grantees are given notice that there is, or may be, farm use near the premises described in this deed, from which may emanate noise, odors, dust and fumes associated with agricultural practices permitted under the Ordinance.</p>

**Table 23. Municipal Right to Farm Ordinances (RTFO)**

<b>Township/Borough</b>	<b>RTFO (letter in parentheses indicates where Ordinance topic coincides with the SADC’s Model Ordinance)</b>
	<p><i>Consistency.</i> “Commercial farm” and “farm management unit” are defined, but “farm market” and “pick-your-own operation” are not; the Ordinance does include its own definition of “agriculture” (A). This ordinance does not discuss benefits outweighing nuisances (F), complaint processes (G), nor the SADC Agricultural Mediation Program (H).</p> <p><i>Enactment.</i> Adopted by the Township Committee of the Township of Blairstown 10-11-2000 by Ord. No. 2000-11.</p>
<p>Franklin</p> <p><b>Code #:</b> 73-1 to 73-3</p>	<p>(B) <i>Everywhere.</i> Farming and all farming agricultural uses are permitted in all zoning districts within the township. All residents in pursuit of agricultural livelihood shall be allowed to continue previous practices established as good farming techniques with regard to all aspects of farming, including but not limited to plowing, seeding, fertilizing and spraying by the use of tractors or air spraying, the right to use the large equipment and tractors, including the application of fertilizers, insecticides and herbicides, as well as other customary farm equipment for the purpose of producing agricultural products, including vegetables, grains, feed, crops, fruits, fibers, wood, trees, plants, shrubs, flowers and seeds. The right to farm shall further include the right to utilize the land for grazing of all animals, subject to all health restrictions for intensive livestock farms or other restrictions in regard to spreading of manure.</p> <p>(E) Agricultural uses and good farming practices may occur seven days a week, including Sundays, holidays and on a twenty-four-hour daily basis. Further, said activities and farming rights shall not be hindered, abated or interfered with in regard to the reasonable common farming practices of noise, odors and dust related to those activities.</p> <p><i>Consistency.</i> Farming activities must conform with State law, but Federal laws are not addressed (D). Definitions (A), recommended agricultural management practices (C), mentions of benefits outweighing nuisances (F), complaint processes (G), Agricultural Mediation Program (H), and “good neighbor” notification policies (I) are not mentioned.</p> <p><i>Enactment.</i> Adopted 12-8-1980 by Ord. No. 80-15.</p>
<p>Frelinghuysen</p> <p><b>Code#:</b> 15-1.1 to 15-1.4</p>	<p>(A) All four definitions found in the SADC model ordinance are listed.</p> <p>(B) <i>Everywhere.</i> The right to farm is hereby recognized to exist in this and is hereby declared a permitted use in all zones. All practices found in part (B) are listed in Frelinghuysen’s ordinance except for the permission to engage in the generation of renewable energy (18).</p> <p>(C) Commercial farm operators are advised to adhere to all four accepted agricultural management practices listed in the SADC model ordinance.</p> <p>(D) All activities must conform to applicable Federal and State laws.</p> <p>(E) Practices and activities may occur on holidays, weekdays and weekends by day or night and shall include the attendant or incidental noise, odors, dust and fumes associated with these practices.</p>

**Table 23. Municipal Right to Farm Ordinances (RTFO)**

<b>Township/Borough</b>	<b>RTFO (letter in parentheses indicates where Ordinance topic coincides with the SADC’s Model Ordinance)</b>
	<p>(F) Whatever nuisance may be caused to others by farming activities is more than offset by the benefits of farming to the neighborhood, community and society in general.</p> <p>(G) Any person aggrieved by operation of a commercial farm shall file a complaint with the Warren CADB prior to filing an action in court.</p> <p>(H) The SADC Agricultural Mediation Program is detailed.</p> <p>(I) Includes a “good neighbor” policy of notifying purchasers and users of property adjacent to or near commercial farms of accepted activities or practices associated with those neighboring farms.</p> <p><i>Consistency.</i> Frelinghuysen’s Ordinance is in essence an exact replica of the SADC Model Ordinance.</p> <p><i>Enactment.</i> 2007, with ordinance history including portions of Ordinance No. 2/16/81.</p>
<p>Greenwich</p> <p><b>Code #:</b> 16-20.1 to 16-20.5</p>	<p>(B) <i>Where Zoned.</i> The right to farm lands and properties zoned for that use within the Township of Greenwich is hereby recognized to exist as a right to the farmer. The right to farm includes numerous practices similar to those listed in the SADC model ordinance, including the application of fertilizers, herbicides and insecticides, fence construction, the operation of slow-moving equipment over roads within the Township, grazing for animals and the use of range for fowl, and the employment of laborers.</p> <p>(E) Farming practices may occur on holidays, Sundays and weekdays, at night and during the day. Noises, odors, dust and fumes caused by these activities are recognized as ancillary to those set forth in the right to farm.</p> <p>(F) Whatever nuisance may be caused to others is offset by the benefits from farming to the neighborhood, community and society in general.</p> <p>(I) The Planning Board shall require an applicant for a subdivision to include the following notice to buyers of the existence of any farming activities: "Grantee is hereby NOTICED there is, or may in the future be, farm use near the described premises from which may emanate noise, odors, dust and fumes associated with agricultural practices permitted under the 'Right to Farm' section (Section 16-20) of the Greenwich Township Zoning Ordinance."</p> <p><i>Consistency.</i> The following SADC model ordinance sections are not included in Greenwich’s ordinance: Definitions (A), not all examples of activities under the SADC’s RTFO are mentioned but the ordinance includes others such as buffer zones near schools when applying poultry manure, requirements for plan and approval but the County Soil Conservation District regarding land slope applications above an 8% grade, and forbidding the stockpiling of poultry manure in a field (B), does mention “generally accepted agricultural practices” but does not detail those advocated by the SADC’s model ordinance (C), farm activities are subject to restrictions in State laws but no reference to</p>

**Table 23. Municipal Right to Farm Ordinances (RTFO)**

<b>Township/Borough</b>	<b>RTFO (letter in parentheses indicates where Ordinance topic coincides with the SADC's Model Ordinance)</b>
	Federal laws are given (D), and, complaint processes (G), nor the SADC Agricultural Mediation Program (H) are mentioned. <i>Enactment.</i> Ord. #1980-18.
<p>Hardwick</p> <p><b>Code #:</b> 14-1 to 14-3 and 23-1 to 23-5</p>	<p>(B) <i>Where Zoned and Where Existing.</i> The right to farm lands and properties zoned for that use and properties currently being farmed within the township are recognized to exist as a right of the farmer. Several examples of practices listed by the SADC's model ordinance are found, including processing and packaging agricultural outputs of the commercial farm, controlling pests, predators and diseases, and the conduction of on-site disposal of organic agricultural wastes.</p> <p>(C) Commercial farm owners and operators may partake in numerous agricultural activities provided they comply with several regulations, including agricultural management practices recommended by the SADC.</p> <p>(D) Commercial farm owners and operators may partake in numerous agricultural activities provided they comply with several regulations, including all relevant Federal and State statutes or rules.</p> <p>(E) Agricultural activities may occur on holidays, Sundays and weekdays and at night and during the day. The noise, odors, dust and fumes that are caused by these activities are recognized as ancillary to permitted activities and the right to farm.</p> <p>(G) Aggrieve persons shall file a complaint with the Warren CADB prior to filing an action in court of competent jurisdiction. In the event the dispute concerns activities addressed by an agricultural management practice recommended by the SADC, the CADB shall hold a public hearing and issue findings and recommendations within 60 days.</p> <p>(I) Each deed of conveyance of land, and subsequent deed or conveyance of land, in any zone, shall contain a recital as follows: "Hardwick Township acknowledges that a substantial quantity of land is devoted to active agricultural uses and a right to farm exists in the township. Therefore, the grantee, his or her heirs and assigns are hereby on notice that lands in any zone in the township may be actively farmed and that the farmer of these lands has the continued right to farm under the provisions of the land use regulations of Hardwick Township." This recital shall be included in all deeds as above-noted until such time as the lands being conveyed are no longer adjacent, abutted or reasonably contiguous to any lands which would qualify for protection under this act.</p> <p><i>Consistency.</i> The ordinance is largely consistent with the SADC's model, however, the model's four definitions are not discussed (A), not all examples of practices are listed (B), the township acknowledges the farming benefits but does not mention benefits outweighing nuisances (F), and, the Agricultural Mediation Program is not expressly mentioned (H).</p> <p><i>Enactment.</i> Ord. No. 2002/15 § 5; Ord. No. 2003/05 § 1.</p>

**Table 23. Municipal Right to Farm Ordinances (RTFO)**

<b>Township/Borough</b>	<b>RTFO (letter in parentheses indicates where Ordinance topic coincides with the SADC’s Model Ordinance)</b>
<p>Harmony</p> <p><b>Code #:</b> 165-20.1</p>	<p>(B) <i>Everywhere</i>. The right to farm lands within the township is recognized to exist as a right of the farmer, subject only to the restrictions and regulations set forth in the township, county and state health codes and regulations. The right to farm recognizes the use of large irrigation pumps and equipment, aerial and ground seeding and spraying, large tractors, the application of chemical fertilizers, insecticides and herbicides, as well as other customary farm equipment utilized by the farmer for the purpose of producing agricultural products such as vegetables, grains, hay, fruits, fibers, wood, trees, plants, shrubs, aquaculture, flowers and seeds. The right to farm shall also include the right to utilize the land for animal grazing, as well as activities such as the use of necessary farm laborers, the transportation of large slow-moving equipment over roads within the township, and the construction of fences for animals and livestock.</p> <p>(D) The right to farm is granted when State health codes and regulations are followed, as well as Federal laws concerning the grazing of lands.</p> <p>(E) Agricultural practices may occur on holidays, Sundays and weekdays and at night and during the day. Noises, odors, dust and fumes caused by these activities are recognized as ancillary to the right to farm.</p> <p>(F) Whatever burden may be caused to contiguous property owners is offset by the benefits from farming to the township, county and state.</p> <p>(I) The Planning Board shall require an applicant for a major or minor subdivision to include the following notice: “Grantee is hereby noticed that there is, or may in the future be, farm use near the described premises from which may emanate noise, odors, dust and fumes associated with agricultural practices permitted under § 165-20.1, Right to farm, of the Harmony Township Zoning Ordinance.”</p> <p><i>Consistency</i>. Definitions as given by the SADC’s model ordinance are not mentioned (A), “generally accepted agricultural practices” are mentioned but not those advocated by the SADC’s model (C), and complaint processes (G) nor the Agricultural Mediation Program (H) are mentioned.</p> <p><i>Enactment</i>. Added 5-5-1992 by Ord. No. 0:92-6; amended 11-8-2001 by Ord. No. 01-7.</p>
<p>Hope</p> <p><b>Code #:</b> 20-29.1 to 20-29.8</p>	<p>(B) <i>Where Permitted</i>. The right to farm is applicable in all zones within the township in which “agriculture” is a permitted use. Protected agricultural uses and activities shall include, but not be limited to the following: produce agricultural and horticultural crops, trees and forest products, livestock, poultry and other related commodities, process and package agricultural outputs of the farm, the use of land for grazing, replenish soil nutrients, including the spreading of manure and applying federally approved chemical and organic fertilizers, use federally approved products in accordance with labeled instructions as</p>

**Table 23. Municipal Right to Farm Ordinances (RTFO)**

<b>Township/Borough</b>	<b>RTFO (letter in parentheses indicates where Ordinance topic coincides with the SADC’s Model Ordinance)</b>
	<p>recommended by State, Federal or County bodies such as the New Jersey Agricultural Experiment Station and the U.S. EPA for the control of pests, predators, varmints, diseases affecting plants and livestock, and for the control of weed infestation, clear woodlands using open burning and other accepted techniques, use irrigation pumps and equipment and aerial and ground seeking and spraying, hire necessary farm labor, construct fences, conduct of on-site disposal of organic and agricultural waste, in accordance with guidelines issued by the NJDA and NJDEP, and the utilization of tractors and other equipment, and the transport of tractors and other large slow-moving equipment on public roads.</p> <p>(C) Uses, activities and structures associated with agriculture shall be protected provided they conform to acceptable management practices. These practices include those recommended by the NJDA, Rutgers University Extension Service, SADC, NJDEP, and relevant Federal or State statutes, rules and regulations.</p> <p>(D) Agricultural uses, activities and structures are acceptable, provided they are consistent with relevant Federal and State laws.</p> <p>(E) Farming activities may be conducted on holidays and Sundays as well as weekdays, in the evening and during the day, notwithstanding the production thereby of normal but unavoidable noise, dust, odors and fumes caused by such necessary farming activities.</p> <p>(I) Includes a “good neighbor” policy of notifying purchasers and users of property adjacent to or near commercial farms of accepted activities or practices associated with those neighboring farms.</p> <p><i>Consistency.</i> The ordinance lists several definitions, none of which include those given by the SADC’s model. The township chooses to define the following terms: “Acceptable Agricultural Management Practices,” “Agriculture,” “Farm,” “Nuisance,” and “Permanent Farm Stand” (A), 10 of 18 examples of acceptable practices listed by the SADC’s model are listed in the ordinance (B), The social, environmental and economic benefits of farming are acknowledged, but the ordinance does not explicitly mention that these benefits far outweigh any nuisances that may be created (F), complaint processes are not addressed (G), and the SADC’s Agricultural Mediation Program is not addressed (H).</p> <p><i>Enactment.</i> Ord. #98-13, § I.</p>
<p>Independence</p> <p><b>Code #:</b> 203-1 to 203-4</p>	<p>(B) <i>Everywhere.</i> The right to farm is subject only to the restrictions and regulations set forth in the township, county and state health codes and regulations. This recognizes the use of large irrigation pumps and equipment, aerial and ground seeding and spraying, large tractors, the application of chemical fertilizers, insecticides and herbicides, as well as other customary farm equipment utilized by the farmer for the purpose of producing agricultural products such as vegetables, grains, hay, fruits,</p>

**Table 23. Municipal Right to Farm Ordinances (RTFO)**

<b>Township/Borough</b>	<b>RTFO</b> (letter in parentheses indicates where Ordinance topic coincides with the SADC’s Model Ordinance)
	<p>fibers, wood, trees, plants, shrubs, aquaculture, flowers and seeds. This right shall also include the right to utilize the land for grazing, subject to the restrictions for intensive fowl or livestock farms or such restrictions as may be required by county, state and federal laws.</p> <p>(E) The right to farm may occur on holidays, Sundays and weekdays and at night and during the day. Noises, odors, dust and fumes that are caused by these activities are recognized as ancillary to the permitted activities.</p> <p>(F) Whatever burden may be caused to contiguous property owners is offset by the benefits from farming to the township, county and state as well as the preservation of open space areas within the township.</p> <p><i>Consistency.</i> No definitions, from the SADC or otherwise, are included in the ordinance (A), the majority of activities listed as examples under the SADC model are not listed in the ordinance (B), the ordinance does mention “generally accepted agricultural practices” but does not detail those advocated by the SADC’s model ordinance (C), the ordinance states that the right to farm is subject to State health codes and regulations, but Federal laws are only referenced in terms of restrictions on grazing (D), complaint processes are not discussed (G), no reference is given to the SADC’s Agricultural Mediation Program (H), nor is the “good neighbor” policy of notifying purchasers and users of properties adjacent to or near commercial farms of accepted activities or practices mentioned (I).</p> <p><i>Enactment.</i> Adopted 8-10-1981 (Ch. 97, Art. I of the 1984 Code)</p>
<p>Knowlton</p> <p><b>Code #:</b> 11-367 to 11-369</p>	<p>(B) <i>Everywhere.</i> Farming is a permitted use in all zones. Farming practices include, but are not limited to, use of irrigation pumps and associated equipment, tillage, seeding and harvesting equipment, spraying of crops, the employment and housing of farm laborers, the application of chemical fertilizers, manure, insecticides and herbicides, the grazing of animals and use of range, the production of agricultural products such as vegetables, grains, trees, seeds and livestock, construction of fences, the use of large, slow-moving equipment over roads within the township, the control of vermin and pests, permitting the stacking of manure in certain areas, the right to market produce either in a farm market or truck the produce out of the farm to market, and permitting recreational farmland usage only with the permission of the owner or lessee of the farmland.</p> <p>(C) Farming activities shall follow standards set forth in the Best Management Practices as defined by the Rutgers Agriculture Experiment Station, the NRCS, and the NJDA.</p> <p>(E) Farming practices may occur on holidays, Sundays, weekends and weekdays by day and night and shall include attendant or incidental noise, odors, dust and fumes associated with these practices.</p> <p>(F) The township finds that whatever nuisance may be caused to others by farm uses is more than offset by the benefits from farming to the</p>

**Table 23. Municipal Right to Farm Ordinances (RTFO)**

<b>Township/Borough</b>	<b>RTFO (letter in parentheses indicates where Ordinance topic coincides with the SADC’s Model Ordinance)</b>
	<p>neighborhood, community and society in general.</p> <p>(I) Each deed of conveyance of land shall contain a recital as follows: “Knowlton Township acknowledges that a substantial quantity of land is devoted to active agricultural uses and a right to farm exists in the township. Therefore, the grantee, his or her heirs and assigns are hereby on notice that lands in any zone in the township may be actively farmed and that the farmer of these lands has the continued right to farm under the provisions of the land use regulations of Knowlton Township.”</p> <p><i>Consistency.</i> Definitions as given by the SADC model are not listed in the ordinance (A), some, but not all, of the example farming practices included in the SADC model are listed in this ordinance (B), generally accepted agricultural management practices are acknowledged, but no reference is given to those set forth by the SADC, CADB, nor the local Soil Conservation District and the NRCS (C), no reference is given to Federal or State laws (D), complaint processes are not discussed (G), nor is the SADC Agricultural Mediation Program (H).</p> <p><i>Enactment.</i> Ordinance 97-13.</p>
<p>Liberty</p> <p><b>Code #:</b> 58-1 to 58-7</p>	<p>(B) <i>Where Zoned and Where Existing.</i> The right to farm lands and properties zoned for that use and properties currently being farmed within the township is recognized to exist as a right of the farmer. This recognizes the use of large irrigation pumps and equipment, aerial and ground seeding and spraying, large tractors, trucks and trailers and the application of chemical fertilizers, insecticides and herbicides, as well as other customary farm equipment utilized by the farmer for the purpose of producing agricultural products, such as vegetables, grains, hay, fruits, fibers, wood, trees, plants, shrubs, flowers and seeds. The right to farm shall also include the right to utilize the land for grazing, subject to the restrictions for intensive fowl or livestock farms or such restrictions as may be required by county, state and federal laws, and the right to use and park motor vehicles actively used and necessary in the seasonal operation of a farm where farming is the primary activity conducted on the property.</p> <p>(D) The ordinance lists numerous permissible practices, provided farmers are in conformance with all relevant Federal or State laws.</p> <p>(E) Farming practices may occur on holidays, Sundays and weekdays and at night and during the day. Noises, odors, dust and fumes that are caused by these activities are recognized as ancillary to permitted activities.</p> <p>(F) The township finds that, whatever burden may be caused to contiguous property owners, it is offset by the benefits from farming to the township, county and state, as well as the preservation of open space.</p> <p>(G) Those aggrieved by the operation of a commercial farm shall file a complaint with the Warren CADB prior to filing an action in court of competent jurisdiction.</p>

**Table 23. Municipal Right to Farm Ordinances (RTFO)**

<b>Township/Borough</b>	<b>RTFO (letter in parentheses indicates where Ordinance topic coincides with the SADC's Model Ordinance)</b>
	<p>(I) Whenever a commercial farm is subdivided or a new subdivision abuts a commercial farm or subdivision contains space which was not owned by an individual homeowner or homeowners association, then the deed shall notify the grantee of the possibility of nearby noise, odors, dust and fumes associated with agricultural practices as permitted under the right to farm.</p> <p><i>Consistency.</i> The ordinance is largely consistent with the SADC's model. However, definitions as given by the SADC's model are not included (A), the ordinance acknowledges management practices as recommended by the SADC and CADB, but does not refer to the Rutgers Agricultural Experiment station nor the Soil Conservation District and NRCS (C), the SADC Agricultural Mediation Program is not mentioned (H).</p> <p><i>Enactment.</i> Adopted by the Township Committee of the Township of Liberty 10-3-1983.</p>
<p>Mansfield</p> <p><b>Code #:</b> 19A-1 to 19A8</p>	<p>(A) Definitions provided by the SADC's model ordinance are included.</p> <p>(B) <i>Everywhere.</i> The right to farm is recognized to exist in Mansfield Township and is declared a permitted use in all zones. The right to farm includes all example activities provided in the SADC model, save for power generation through renewable energy (18).</p> <p>(C) Commercial farm operators are strongly advised to adhere to all accepted practices endorsed by each agency listed in the SADC's model.</p> <p>(D) Activities must conform to applicable Federal and State law.</p> <p>(E) Practices and activities may occur on holidays, weekdays and weekends by day or night and shall include the attendant or incidental noise, odors, dust and fumes associated with these practices.</p> <p>(F) Whatever nuisance may be caused to others by agricultural uses and activities is more than offset by the benefits of farming to the neighborhood community and society in general.</p> <p>(G) Any person aggrieved by the operation of a commercial farm shall file a complaint with the Warren CADB.</p> <p>(I) The SADC's "good neighbor" policy of notifying purchasers and users of properties adjacent to farmlands of any nearby agricultural activities and practices is included in the ordinance.</p> <p><i>Consistency.</i> Mansfield's ordinance is in essence an exact replica of the SADC model ordinance. The only aspect of the SADC's model that is not discussed is the SADC Agricultural Mediation Program (H).</p> <p><i>Enactment.</i> Adopted by the Township Committee of the Township of Mansfield 9-12-2007 by Ord. No. 2007-21.</p>
<p>Pohatcong</p> <p><b>Code #:</b> 285-31</p>	<p>(B) <i>Where Zoned.</i> The right to farm lands and properties zoned for that use within the Township of Pohatcong is recognized to exist as a right to the farmer to utilize his land in such manner as to pursue his livelihood, and is declared to be a permitted use in all zones of the township, notwithstanding specific and prohibited uses set forth elsewhere in the</p>

**Table 23. Municipal Right to Farm Ordinances (RTFO)**

<b>Township/Borough</b>	<b>RTFO (letter in parentheses indicates where Ordinance topic coincides with the SADC’s Model Ordinance)</b>
	<p>land use regulations of the township. Examples of activities include, but are not limited to, usage of irrigation, seeding and spraying equipment, tractors and other slow-moving vehicles over township roads, use of farm laborers, the application of chemical fertilizers, insecticides, herbicides and manure, the grazing of animals and use of range for fowl, construction of fences for animals, and the control of vermin and pests.</p> <p>(E) Agricultural practices may occur on holidays, Sundays and weekdays, at night and during the day. Noises, odors, dust and fumes that are caused by these activities are recognized under the right to farm.</p> <p>(F) Whatever nuisance may be caused to others by farm uses and activities is more than offset by the benefits from farming to the neighborhood, community and society in general.</p> <p>(I) A notice of right to farm shall read “Grantee is hereby noticed that there is, or may in the future be, farm use near the described premises from which may emanate noise, odors, dust and fumes associated with agricultural practices permitted under this section of the Township of Pohatcong Zoning Ordinance.”</p> <p><i>Consistency.</i> Definitions provided by the SADC’s model ordinance are not listed (A), 8 of 18 agricultural practices listed as examples by the SADC model are discussed (B), the ordinance mandates that the storage of manure be accomplished in accordance with agricultural management practices as suggested by the Rutgers Agricultural Extension service and Soil Conservation Service, but does not advise adherence to agricultural management practices as suggested by the SADC, CADB, nor the NRCS (C), the right to farm is subject to State health codes and regulations but Federal laws are not mentioned (D), complaint processes are not mentioned (G), nor is the SADC Agricultural Mediation Program (H).</p> <p><i>Enactment.</i> Ordinance 285-31.</p>
<p>Washington Twp.</p> <p><b>Code #:</b> 98-1 to 98-5</p>	<p>(A) The ordinance defines “commercial farm” and “farm management unit” as outlined in the SADC model ordinance.</p> <p>(B) <i>Where Zoned.</i> The right to engage in agriculture shall be permitted in the township as permitted by zoning and other land use regulations.</p> <p>(C) The right to farm is permitted, provided the operation conforms to management practices recommended by the SADC and CADB.</p> <p>(D) The right to farm is permitted where best management practices are applied and are consistent with relevant Federal and State law.</p> <p>(I) The purchaser of any real estate in any zoning district where agriculture is a permitted principal use should be notified of the importance of Washington Township’s farming community and be provided with a copy of the ordinance.</p> <p><i>Consistency.</i> “Farm market” and “pick-your-own operation” are not defined Washington Township’s ordinance (A), examples of acceptable</p>

**Table 23. Municipal Right to Farm Ordinances (RTFO)**

<b>Township/Borough</b>	<b>RTFO (letter in parentheses indicates where Ordinance topic coincides with the SADC’s Model Ordinance)</b>
	<p>farming practices found in the SADC’s model are not expressly mentioned in the ordinance (B), the ordinance refers to agricultural management practices endorsed by the SADC and CADB, but no other agencies (C), the ordinance permits noise, odors, dust and fumes, but does not refer to any times or days of the week when farming activities are permitted (E), no references to benefits of farming outweighing nuisances are found (F), complaint processes are not mentioned (G), nor is the SADC Agricultural Mediation Program (H).</p> <p><i>Enactment.</i> Adopted by the Township Committee of the Township of Washington 12-21-1999 by Ord. No. 99-14.</p>
<p>White</p> <p><b>Code #:</b> 217-1 to 217-5</p>	<p>(A) “Commercial farm” is the only SADC model definition listed under definitions provided by White’s ordinance.</p> <p>(B) <i>Where Existing.</i> Commercial farms or agricultural uses, structures, or activities located within the township conforming to acceptable agricultural management practices shall be given the right to farm.</p> <p>(D) Farming operations are permitted provided they follow State and Federal regulations.</p> <p>(E) The ordinance acknowledges that activities may occur on holidays, weekends, and at all times of the day, including early morning, evening and nighttime hours, and emit noise, odors, dust and fumes, in notifications provided to purchasers or occupiers of adjacent properties.</p> <p>(G) A complaint process is given in which the Township Committee may refer the complaint to the Agriculture Advisory Committee for mediation.</p> <p><i>Consistency.</i> “Commercial farm” is the only SADC model definition provided, but the ordinance also defines “acceptable management practices” and “nuisance” (A), the ordinance lists numerous permitted activities, few of which are provided by the SADC’s model (B), “agricultural management practices” are defined in the SADC’s model but no acknowledgement is given to agencies providing their own agricultural management practices (C), the ordinance gives no mention to benefits of farming outweighing nuisances (F), the Agricultural Mediation Program provided by the SADC is not expressly mentioned (H).</p> <p><i>Enactment.</i> Adopted by the Township Committee of the Township of White 8-8-1997 (Ch. 65, Art. I, of the 1977 Code).</p>

***Farmland Assessment***

The Farmland Assessment program is a tax incentive that reduces property taxes on active commercially farmed land, thereby assisting farmers with a critical financial aspect in helping to keep land in farms. This tax incentive is made possible by the Farmland Assessment Act of 1964, N.J.S.A. 54:4-23.1 et seq. Its provisions were recently updated by legislation that was signed into law in 2013, becoming effective in tax year 2015. Basic eligibility requirements include:

- The applicant must own the land;
- The property owner must apply annually for Farmland Assessment on or before August 1 of the year immediately preceding the tax year, and effective as of tax year 2015 must submit proof of sales or clear evidence of anticipated gross sales along with the FA-1 application form;
- Land must be devoted to agricultural and/or horticultural uses for at least two years prior to the tax year;
- 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;
- Effective as of tax year 2015, 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 is \$500 for the first five acres and \$.50 per acre for any acreage over five. Dependent on the agricultural or horticultural products being produced, the farmer also can offer clear evidence of anticipated yearly gross sales, payments, or fees within a reasonable period of time; and
- The property owner must represent that the land will continue in agricultural or horticultural use to the end of the tax year (*NJDA Farmland Assessment Overview*).<sup>166</sup>

The Farmland Assessment program does not apply to farm structures, such as barns and storage facilities. It has been proposed that additional tax incentives are necessary to encourage farmers to maintain their buildings in good working order as part of active farm operations, and that do not financially penalize them for renovating, or replacing, old or unsafe structures. Maintained buildings are not only critical to the farmer but also add to farm “aesthetics” for the larger community, helping to support agritourism, an important element of agricultural sustainability in Warren County.

Warren County is 363 square miles, or 232,272 acres, including water and other geographical features (*NRCS Web Soil Survey*). Of this, 105,495 acres, or 45% of the County, was under farmland assessment in 2015. General trends indicate an upward trend in farmland assessed acres since 100,213 acres in 1983, but acreages have been on the decline in recent years. For instance, the County held 110,599 acres in farmland assessment in 2004, 4.6% higher than the most recent farmland assessment acreage totals.

#### **Active Agricultural Acreage**

- Harvested croplands in farmland assessment totaled 49,033 acres in 1983, decreasing to 43,701 acres in 2015 (-11%);
- Pastured cropland was at 5,865 acres in 1983, decreasing to 3,761 acres in 2015 (-36%);
- Permanent pasture acreage fell from 13,513 acres in 1983 to 9,982 acres in 2015 (-26%);
- The active agriculture subtotal decreased correspondingly, from 68,411 acres in 1983 to 57,444 acres in 2015 (-16%).

#### **Woodlands and Equine**

- Equine acreage, which is defined in farmland assessment as boarding, rehabilitation and training acreage, has increased since it was first measured in 2000, from 403 acres to 737 acres in 2015 (83%);

- Non-appurtenant woodland/wetlands totaled 19,961 acres in 1990, increasing to 30,707 acres in 2015 (54%);
- Appurtenant woodlands totaled 19,229 acres in 1990, decreasing to 13,474 acres in 2015 (-30%);
- Renewable energy acreage is now tracked in the farmland assessment reports, accounting for 23 acres in 2012 and 45 acres in 2015 (96%).

### **Totals**

- The total County farmland assessed acreage (including active agricultural use, woodlands and equine) has increased 5% since 1983, to 105,495 acres in 2016. Despite net gains in total farmland assessed acreages over time, such acreages have fallen in recent years (*New Jersey Division of Taxation*).<sup>167</sup>

It is important to sustain and expand tax incentives such as Farmland Assessment to keep land in farms, and to encourage the development or extension of other tax incentives for the agricultural industry. By making agriculture more profitable and viable, tax incentives will help ensure a steady, permanent source of agricultural lands for the County's farmland preservation efforts.

## **Additional Strategies to Sustain, Retain, and Promote Agriculture in Warren County**

### ***Regulatory Flexibility***

Municipalities play a key role in the preservation of farming as an industry. Without strong and active support from municipal governments, farming can be too costly and burdensome to be profitable or worthwhile. In towns with sizeable farmland assessed acreages, zoning powers can be utilized to require buffers between agriculture and other land uses to minimize conflict. The aforementioned Right to Farm Ordinances are active examples of municipalities' support for agriculture. However, the support of municipal governments must not only be on paper but also actively practiced so that agriculture is seen as an important and permanent part of the community.

The viability of farming in New Jersey is impacted by many issues, including government regulation, development pressures and the economics of the marketplace. While land preservation is vital for maintaining a sufficient land base suitable for farming, sustaining Warren County's strong agricultural base requires support on many fronts, one of which is flexibility on government regulation (*Agricultural Smart Growth Plan*). The Warren CADB, Land Preservation Office, Board of Agriculture, County Freeholders, Soil Conservation District, Natural Resource Conservation Service, Rutgers Cooperative Extension, municipal planning and zoning boards, chambers of commerce, private farm preservation groups, and other interested entities and individuals, can work together to present a united front in issues regarding government regulation and permits as they relate to agriculture. The *Agricultural Smart Growth Plan* for New Jersey identified the following as important relative to regulatory flexibility and priority, which can also serve as goals toward which the aforementioned entities can work to ensure proper advantage for agriculture in Warren County:

- *Positive and supportive public policy:* This includes legal protection (right to farm), priority in decisions on taxation (farmland assessment), regulation exemptions, and financial incentives (Planning Incentive Grants). These need to be strengthened and modified if, and when, necessary;
- *Exemptions:* State, county and municipal regulations must be responsive to the needs of farmers. Minor changes to, or exemptions from, certain local and state regulations, rules and ordinances help to buffer agricultural operations from burdensome costs, creating a farmer-friendly environment. Pertinent examples include the Right to Farm Ordinances adopted by 15 of the 22 municipalities within the County. At the state level, the Department of Environmental Protection (NJDEP) “Freshwater Wetlands Protection Act Rules” (N.J.A.C. 7:7A-et. seq.) and “Flood Hazard Area Control Act Rules” (N.J.A.C. 7:13) grant exemptions, permits-by-rule, or general permits for agricultural activities. In addition, for the NJDEP’s “Highlands Water Protection and Planning Act Rules” (N.J.A.C. 7:38), exemptions are allowed for activities conducted in accordance with an approved woodland management plan issued pursuant to the Farmland Assessment Act. The Warren County agriculture community must work to ensure that exemptions are adequate and reasonable;
- *Flexibility:* State agencies such as the NJDEP, Department of Transportation, Department of Community Affairs, Department of Labor, and New Jersey Commerce Commission, can consider the NJDA *Agricultural Smart Growth Plan* when making important decisions regarding existing and proposed infrastructure; developing and amending regulations and programs, and protecting environmental and historical resources. These agencies should coordinate with the NJDA to ensure that regulations, programs, etc. are attuned to the needs of Warren County Farmers;
- *Agriculture-Friendly Zoning:* this refers to a comprehensive land use practice that coordinates zoning and land use policy in a proactive way. The desired result is that it encourages agribusiness, while at the same time reducing the incidence of farmer-homeowner nuisance issues. In other words, it seeks to harmonize potentially conflicting land use policies. This strategy would be done mostly at the local and county levels (*Agricultural Smart Growth Plan*). Examples of such zoning include:
  - Agriculture as a permitted use either in an entire municipality or at least in a large enough portion of it to ensure agricultural viability;
  - Farmland Cluster or Open Lands Ratio zoning, which gives a bonus density for clustering development on a small portion of large tracts of developable land, either contiguous or noncontiguous, while leaving a high percentage as open land (often 65%-75% to be eligible for the density bonus) and deed restricting that land to ensure that it continues in agricultural use; and
  - Transfer of Development Rights (TDR), which allows development credits to be transferred from a sending area to a higher density receiving area, thus protecting lands in certain areas from being developed, while encouraging development in areas targeted for growth.

### ***Agriculture Vehicle Movement***

In recent years, as many portions of the rural New Jersey landscape have become developed with residential subdivisions and shopping malls, the sometimes conflicting lifestyles of farmers and suburban residents clash. Warren County farmers need to move heavy, slow-moving agricultural

equipment over local, county and sometimes state roads to access unconnected fields and barns. The County's residents also need to commute to workplaces, or drive to area destinations for shopping, town sports and social activities, at a pace much faster than the slow-moving agricultural equipment. These different paces can, and do, cause conflict between Warren County's farmer and suburban dwellers, while creating unsafe road conditions as residents and farmers "compete" for road space.

Since many farm vehicles travel over local municipal roads, municipalities should continue to support local agricultural business' right to do so. The SADC model Right to Farm ordinance recognizes as a specific right the operation and transportation of large, slow-moving farm equipment over roads. However, of the 15 Warren County municipalities with Right to Farm Ordinances, Frelinghuysen, Greenwich, Harmony, Hope, Knowlton, Mansfield and Pohatcong specifically protect the right to transport tractors and other slow-moving farm equipment on local roads. The remaining towns with Right to Farm Ordinances should consider changing their ordinances to specifically protect the movement of farm equipment on local roads.

Signage alerting fast-moving cars to the possible movement, and road crossing, of slow-moving farm vehicles is an additional, effective tool to protect farmer (and automobile passenger) safety. Signage also informs the public at large that agriculture is an important, equal and permanent fixture of Warren County life. Where absent or inadequate, appropriate signage can be posted. Local Warren County governments may consult with farmers as to what adequate signage is, and where it should be posted.

State motor vehicle regulations also affect farmers. The RNJAESCE includes on its website a link to an *Overview of Motor Vehicle Statutes and Regulations Impacting NJ Farmers*.<sup>168</sup>

### ***Farm Labor in Warren County***

An adequate labor supply is integral to harvesting fruits, vegetables and berries. Measured in farmed acreage, Warren County has a relatively small industry for these products compared with field crops such as corn and hay, and also dairy, goat, sheep and nursery products. For instance, corn crops alone were 89% larger than total fruit, vegetable and berry acreages in 2012 (*2012 Census of Agriculture*). Much of the fruit, berry and vegetable growing is concentrated in the Great Meadows area, a fertile valley area of a former glacial lake. The Great Meadows' fertile soils and adequate water supply make it more amenable to fruit and vegetable farming, although increasing development has paved the way for sod production in the area to meet landscaping demands (*Bruce Barbour*).

The limited amount of farm labor in Warren County generally lives on the farm where they work. Since the overall acreage devoted to labor-intensive farming is minimized in the County, farm labor housing, a large issue in counties with high farm labor populations is, for the most part, not an issue in Warren County (*Corey Tierney*). While the number of farms hiring workers has held steady since 2002 (178 farms in 2002 and 179 in 2012), the number of hired workers fell from 948 to 807 in 2012. However, the total payroll for these laborers in 2012 was over \$14,300,000, versus \$9,300,000 in 2002. This is in part due to a greater proportion of laborers working at least 150 days out of the year (36% in 2002 and 52% in 2012), meaning more hours worked and more income. Larger payrolls and people working more throughout the year resulted in increasing average annual wages, up 46% from \$9,180 per worker in 2002 to \$17,753

per worker in 2012 (*Census of Agriculture*). Furthermore, farm labor expenses comprised 15% of total production expenses in 1997, before jumping to 23% in 2002 and 2007, then falling slightly to 19% in 2012.

The RNJAESCE provides resources to farmers for labor issues by posting a page listing important farm labor phone numbers on its website.<sup>169</sup> It also sponsors a seminar on farm labor every spring, in conjunction with the New Jersey Farm Bureau. The seminar brings farmers up to date on new issues regarding regulations.

### ***State Initiatives Regarding Farm Labor***

As reported in the *2008 Comprehensive Farmland Preservation Plan*, farm workers are one of the most economically disadvantaged groups in the United States due to low wages, seasonal employment, and limited participation in the non-farm labor market. Therefore, as an important statewide resource to the agricultural industry, the New Jersey Department of Labor recommends that more must be done to ensure a well-trained, educated farm labor workforce with adequate living conditions, and is trained in worker safety (*Agricultural Smart Growth Plan*).

The New Jersey Department of Labor recommends the following to address farm labor issues at the state and local levels:

- Work with the U.S. Department of Agriculture’s Rural Development program to reexamine program criteria to enable New Jersey’s rural communities to qualify for more programs. The current focus of the program, such as rural area infrastructure, is not applicable to Warren County (and New Jersey);
- Link neighborhood revitalization efforts with housing opportunities for farm workers and, where appropriate, establish on-site housing, to ensure a safe and stable workforce;
- Develop and promote comprehensive and ongoing training opportunities for farm workers;
- Work with the New Jersey Department of Labor, the RNJAESCE and others to provide farm safety training; and Join other agricultural stakeholders in supporting ongoing efforts at the federal level to streamline and modernize the immigration process (*Agricultural Smart Growth Plan*).

In January 2006, the “Agriculture Transition Policy Group” (Group), composed of government and agriculture industry representatives, submitted a report to then Governor-elect Jon Corzine, with recommendations to keep agriculture strong and viable in the Garden State. The Group reported many serious problems facing New Jersey farm employers. Two of these are the impacts of the new state minimum wage [now \$8.38 per hour versus the federal minimum wage of \$7.25 still used by some other states], and the ever-looming issue before the U.S. Congress regarding immigration and undocumented workers. The Group reports that the sponsor of the minimum wage legislation has promised “to re-visit the issue for agriculture to find some off-sets that will protect farm viability and keep the industry at a competitive level” (*Agriculture Transition Policy Group*).<sup>170</sup> The cost of labor in New Jersey is a significant issue for some farming sectors such as produce, and one that needs further consideration for its effect on agriculture in Warren County and New Jersey. This is because as labor costs increase, so does the cost to farmers of producing commodities, reducing overall profits. Though a farmer may wish to raise his/her prices to cover increased production costs, this is often not feasible due to

competition from neighboring states with lower labor and other production costs. The result is lower profits for Warren County and New Jersey Farmers, making the business of farming less profitable, and therefore more difficult.

The NJ Department of Labor issued an Agricultural Outreach Plan for Program Year 2014 (July 1, 2014 – June 30, 2015), which includes an overview of the activities, strategies and services planned for the program year. Many of these are effected through two South Jersey One-Step Career Centers, one in Vineland (Cumberland County) and Hammonton (Atlantic County), servicing 300 and 130 farm employers, respectively, as well as H2A and Agricultural Recruitment System (ARS) applications. They also serve as Farm Labor Contractors registration sites, and are tasked with making outreach visits to the agricultural community. These centers provide services to migrant seasonal farm workers (MSFWs) in terms of helping them find agricultural and non-agricultural jobs. MSFWs include seasonal and migrant (intrastate, interstate and H2A foreign labor certified) workers (*Agricultural Outreach Plan*).<sup>171</sup>

### ***Agriculture Education and Training***

To sustain a modern, diverse and stable food and agricultural industry, education and progressive, ongoing training for farmers will promote a more efficient and productive business environment. This includes programs covering “farmer risk management education, labor education including worker safety, agricultural leadership training, secondary school and college agricultural education” (*Agricultural Smart Growth Plan*).

One educational link for Warren County agricultural landowners and operators is to collaborate with the Rutgers New Jersey Agricultural Experiment Station, Cooperative Extension of Warren County. There is no minimum or maximum size farm to which the RNJAESCE will lend assistance, so long as it is farmland assessed. During the growing season, RNJAESCE of Warren County can provide one-on-one, on-site consultations with farmers to assist with control of insect infestations and plant diseases for fruits, vegetables, greenhouse nurseries and ornamentals, Christmas trees, and also for field crops. Similar farm animal consultations can be provided on a year round basis. During these one-on-one consultations, technical scientific research is relayed to the farmer in a useful and applicable manner. The RNJAESCE of Warren County also conducts “twilight meetings” for fruits and vegetables at local farms to discuss a wide range of issues relative to these agricultural products (*Bruce Barbour*).

In the winter months, regional and local classes are conducted by RCE of Warren and Hunterdon and Morris Counties on a diverse set of agricultural topics. The Snyder Farm in Hunterdon County serves as a research facility where Cooperative Extensions conduct studies and host demonstrations with regional farmers. Classes are also conducted with the North Jersey Vegetable and Fruit Growers Association.

RNJAESCE of Warren County also provides practical assistance to farmers. Examples include assistance in obtaining pesticide application licenses (necessary to buy and apply pesticides), and water certification and registration permits from the NJDEP for groundwater and/or surface water allocations. Finally, the RNJAESCE performs applied research on area farms to further knowledge on a wide range of issues pertaining to agricultural plants and animals. Results of any research are used to advise local farmers on an as-needed basis. All of the aforementioned available programs and assistance offer an individual farm operator the opportunity to gain the

latest information on numerous and pertinent agriculture topics, which are important to agricultural sustainability.

As reported in the *2008 Comprehensive Farmland Preservation Plan*, discussions with Warren County Community College indicated that no agriculture-related Programs of Study are offered, but the College would be willing to explore the possibility of setting up college-level or continuing education course(s) of requested to do so by the Warren County Agriculture Development Board, or the wider agriculture community (*Lisa Summins*).<sup>172</sup> However, a “Fundamentals of Horticulture” class is offered amongst their Industrial Training courses, totaling 24 hours over three sessions. The course provides information such as soil composition, important nutrients, and the role of composting and proper fertilizing.<sup>173</sup> The Warren CADB can inquire among Warren County farmers, and also coordinate with CADBs from neighboring counties, on the interest level for agricultural college and continuing education courses. If enough interest is found, the CADB can contact Warren County Community College to discuss agriculture education opportunities that may be developed.

The Northeast Organic Farming Association (NOFA) of New Jersey offers educational programs for farmers of all ages and skill sets, including a Beginning Farmer Program that may be beneficial for Warren County in attracting and developing a new generation of farmers to work on the thousands of preserved acres throughout the County. Other educational programming includes organic gardening, permaculture design certification, business courses, technical assistance, and farm-to-table workshops.<sup>174</sup> The NOFA-NJ office is located in Hillsborough, Somerset County, and can be reached at (908) 371-1111.

Through its Natural Resources Conservation Program, the NJDA Division of Agriculture and Natural Resources offers technical, financial, and regulatory assistance, and provides educational outreach to landowners throughout the state. The Department also offers, in conjunction with the Risk Management Agency of the U.S. Department of Agriculture (USDA) and the Salem County RNJAESCE, farm risk management and crop insurance education programs (including the Garden State Crop Insurance Education Initiative) to assist farmers in understanding what assistance is available to reduce agricultural risks. An 800 number and an online form are provided on the Salem County RNJAESCE website (*NJDA*).<sup>175</sup>

Agriculture labor education and training funding may be available through the New Jersey Department of Labor and Workforce Development Programs. These programs can help to assist in upgrading the skills and productivity of the agricultural workforce (*Training*).<sup>176</sup> Some of the programs that may be applicable include Customized Training Initiative, Basic Skills Program, and Occupational Safety and Health Training Program.

The NJDA hosts a web page with links and information on Agricultural Education, geared mostly toward teachers but also listing conferences and other information of potential education interest to farmers.<sup>177</sup>

The New Jersey Farm Bureau also hosts educational meetings and provides educational information for farmers on its website about legislative issues, such as the new Farmland Assessment provisions effective in tax year 2015, regulatory issues, and other topics that affect farmers (*New Jersey Farm Bureau*).<sup>178</sup>

Finally, as a form of “education,” government agencies at the state and county levels can provide continuous outreach information to farmers to ensure they take full advantage of all federal and state loan, grant, education, and technical assistance programs. This is especially important since these programs are meant to aid the farming business to thrive and survive. Due to the complexity and vast array of the programs, they may be unknown to many farmers.

### ***Youth Farmer Education Programs***

Due to the aging farmer population in Warren County (50.3 years in 1982, as compared to 55.8 years in 2002 and 59.3 in 2012) (*Census of Agriculture*), the next generation of the County’s farmers need to become interested in, and exposed to, the business of agriculture, and be prepared to enter the industry. Educational programs in agriculture, offered as an optional and viable opportunity for the youth of Warren County, can assist those interested in pursuing such careers. Creating new opportunities via secondary and post-secondary education programs in Agriculture, Food and Natural Resources can reassure students that opportunities exist for them in Warren County (*Agricultural Smart Growth Plan*).

At the post-secondary level, neither Centenary College nor Warren County Community College offer agriculture education courses, but Centenary College does offer programs in Equine Sciences and Equine Studies.<sup>179</sup> Additionally, the School of Environmental and Biological Sciences at Rutgers, the State University of New Jersey, offers courses of study in agriculture sciences, animal science and plant science, among others.<sup>180</sup> Furthermore, the NJDA Agricultural Education Bulletin Board hosts a Directory of NJ Agriculture, Food and Natural Resources Education Programs and Related Organizations that lists agriculture-related programs at high schools and institutions offering post-secondary and associate degree programs (*NJDA*).<sup>181</sup>

The National Future Farmers of America (FFA) Organization “operates under a Federal Charter granted by the 81<sup>st</sup> Congress of the United States, and is an integral part of public institution in agriculture” (*National FFA Organization*).<sup>182</sup> The National FFA Organization was founded in 1928, and currently has 629,327 members, aged 12-21, in 7,757 chapters in all 50 states, Puerto Rico and the U.S. Virgin Islands (*National FFA Organization*). The FFA website identifies several local chapters in Warren County:<sup>183</sup>

- NJ00003 - Belvidere High School (809 Oxford Street, Belvidere, NJ 07823)
- NJ00009 – Hackettstown High School (701 Warren Street, Hackettstown, NJ 07840)
- NJ0041 – Northern Warren Regional High School (P.O. Box 410, 10 Noe Road, Blairstown, NJ 07825)
- NJ0029 – Phillipsburg High School (200 Hillcrest Boulevard, Phillipsburg, NJ 08865)
- NJ0022 – Warren Hills Regional High School (41 Jackson Valley Road, Washington, NJ 07882)

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The Warren County agriculture community can look to expand agriculture education to more schools, including elementary schools, which do not offer classes or programs within the County.

The National Agriculture in the Classroom program helps K-12 students become aware of the importance of agriculture, providing an opportunity to cultivate young people’s interest in the field.

4-H is an informal, practical educational program for youth, which assists young people interested in farm animals through livestock projects. The New Jersey Agricultural Society’s (NJAS) Agricultural Leadership Program provides young professionals in agriculture with leadership development skills and opportunities (*Agricultural Smart Growth Plan*). The 4-H Youth Development Program is overseen by the Warren County RNJAESCE. Information about membership and events is available on the RNJAESCE website (*RNJAESCE*).<sup>184</sup> The New Jersey Agricultural Leadership Development Program is administered by Burlington County College (*NJAS*).<sup>185</sup>

In addition, the New Jersey Department of Agriculture offers an “Agricultural Education” program. This is “a systematic program of instruction available to students desiring to learn about the science, business, and technology of plant and animal production and/or about the environmental and natural resources systems. A complete Agricultural Education program is composed of three components: class/lab instruction, supervised agricultural experience, and FFA, which provide a well-rounded and practical approach to student learning” (*NJDA*).<sup>186</sup>

### ***Farm Link Program***

In 2015, the State Agriculture Development Committee launched “NJ Land Link,” an interactive website connecting farmers seeking land or farming opportunities with those who have existing farmland or farming opportunities. The site was developed by the SADC and the Northeast Organic Farming Association of New Jersey through a USDA Beginning Farmer and Rancher Development Program Grant, and designed by the Rutgers Office of Research Analytics. Farmers interested in land or partnership/job opportunities, as well as those wanting to advertise available land and opportunities, can sign up and create and manage their own listings. To date, approximately 200 people have registered (*SADC*).<sup>187</sup>

### ***Public Outreach***

Over the last 50 years, New Jersey has transformed from a largely rural and agricultural landscape to a more urban and suburban landscape. However, farming remains strong and viable in many portions of the state, including Warren County. If the County’s remaining agricultural areas are to survive and prosper then the non-farming public needs to be aware of, and financially supportive of, the continuing economic, cultural, scenic and agricultural contributions made by Warren County’s farming community. They must also realize that if they want to continue to enjoy the scenic vistas, fresh produce, clean air and limited traffic congestion that Warren County’s agriculture provides, they must be tolerant of the farming community. Public education and outreach can increase the recognition of the farm industry’s importance to the non-agriculture resident, and should be continued and expanded wherever possible.

Marketing, advertising and agritourism initiatives by individual farmers all provide visibility for the agricultural community and are positive forms of public outreach. This outreach can be supported and built on by county, state and municipal-level organizations that promote the farming community as a whole. Expansion of agriculture and agritourism-related signage at the municipal and county levels is one way to increase visibility. Another is to promote an

agricultural presence at fairs, festivals and other community events by having agricultural organizations set up informational tables or cooperative farm stands. These initiatives would complement and expand on what is already happening, such as the annual Warren County Farmer's Fair. Public outreach efforts can also be regionally coordinated. A good example of such regional coordination is a brochure titled "Enjoy Four Seasons of Agriculture in the New Jersey Skylands." This brochure lists names, addresses, and telephone numbers of farms within the seven counties of Bergen, Hunterdon, Morris, Passaic, Somerset, Sussex and Warren. The brochure is available at [www.njskylands.com](http://www.njskylands.com). As competing uses impact farmers in Warren County, education, outreach and regional coordination will become more and more integral to the success of farming operations.

### ***Management of Nuisance and Crop Damaging Wildlife***

Management of nuisance and crop damaging wildlife is critical to the short and long-term sustainability of Warren County's agriculture industry. Crop damage from wildlife leads to economic loss for the farmer and/or landowner. Deer, turkeys and groundhogs are major contributors to the ever-increasing problem. So is development, which narrows the habitat for the nuisance animals and their predators, increasing densities of the unwanted animals and pushing the predators to seek other territories. At present, hunting is about the only method available to farmers. Although many farmers are avid hunters and a few do apply for depredation permits (issued by the New Jersey Department of Environmental Protection Fish and Wildlife program) that allow them to hunt out of season, even hunting is becoming a less available solution. The development that takes away territory for these animals also limits the farmers' ability to hunt. As farms become smaller and more developments are built adjacent to farms, areas can no longer be hunted, even by the farmers who own the land, because they would be hunting too close to a neighboring dwelling.

State, county, and local government units must be sensitive to the negative economic impacts caused by crop damage, and support efforts to control it through education, technical and financial assistance, and regulatory flexibility. Warren County farmers can continue to work with the NJDEP and NJDA, as well as the County and municipalities, to develop and implement wildlife control strategies on privately and publicly owned lands (*Agricultural Smart Growth Plan*).

Insects are another nuisance causing crop damage. The pesticides used to control them can cause other kinds of damage, possible health concerns for the end user of the product, and pollution of the County's water supply. At the county level, studies undertaken by the RNJAESCE, like a perimeter trap study on insects and pumpkins undertaken several years ago and the integrated pest management resources already available through the RNJAESCE, are attempts to help solve these problems in ways that work for both the farmer and the environment.<sup>188</sup>

At the state level, the NJDA's Division of Plant Industry works to safeguard New Jersey's plant resources from injurious insect and disease pests. The Division implements several programs for detection, inspection, eradication and control of insect pests, which helps to ensure that the public can enjoy high quality, pest-free agricultural products (*NJDA*).<sup>189</sup> In addition, the Division "oversees programs that certify plant stock for interstate and international shipments, protects forested communities from tree loss caused by the gypsy moth and Asian longhorned beetle, inspects honeybees for harmful bee diseases and pests, regulates the quality of plant

seeds, and produces and releases beneficial insects to reduce crop and environmental damage and decrease dependence on chemical pesticides (*NJDA*). Protection of forest resources is important for Warren County farmers who harvest wood as part of Woodland Management Plans on their farmland assessed properties; over 44,000 acres were farmland assessed as woodlands in 2015, and more than 30,000 of those acres were unattached or non-appurtenant acres, which require Woodland Management Plans (*Farmland Assessment Data*).

One important example of the Division of Plant Industry's work is in control of the gypsy moth. The gypsy moth is considered the most destructive defoliation forest insect pest in New Jersey. The Division's Gypsy Moth Suppression Program is a voluntary cooperative program involving local governments, county and state agencies, as well as the USDA Forest Service. The Division promotes an integrated pest management approach, which "encourages natural controls to reduce gypsy moth feeding and subsequent tree loss" (*Gypsy Moth Suppression*).<sup>190</sup> However, aerial spray treatments of *Bacillus thuringiensis* are utilized when gypsy moth cycles are at a peak and natural controls are not sufficient to control defoliation. Because of a large proliferation of gypsy moth caterpillars in the spring of 2015, the state has proposed increasing its aerial spraying program tenfold for 2016, including several municipalities within Warren County. Qualifying towns and acreage include Hardwick, 1,271 acres; Blairstown, 590 acres; Frelinghuysen, 214 acres, Knowlton, 183 acres, White, 102 acres; and Liberty, 83 acres.<sup>191</sup>

The federal government is a key partner in supporting Warren County agriculture. There are several federal programs that support, or could support, the agricultural industry in Warren County. A discussion of these programs follows below.

#### ***USDA Rural Development Program***

The United States Department of Agriculture (USDA) has an extensive array of loans and grants, known as the Rural Development Program, to assist residents in rural areas of the country to support essential public facilities and services such as water and sewer systems, housing, health clinics, emergency service facilities, and electric and telephone service. The Agricultural Act of 2014 (Farm Bill) updates the Rural Development Program in several ways, including:

- Makes areas with populations up to 35,000 and rural in character eligible (formerly eligibility cutoff was 10,000 municipality and 50,000 city);
- Simplifies application processes;
- Provides new funding for value-added producer grants, including local foods, and for the Rural Micro-entrepreneur Assistance Program; and
- Allows use of funds for technical assistance and training grants.

Through the program, the USDA offers technical assistance and information to agricultural cooperatives, as well as to communities, for empowerment programs. With a multi-billion dollar portfolio of loans, loan guarantees and grants, the USDA is an effective partner to assist the agricultural community. Grants and loans are available in three key areas: Business-Cooperative, Housing and Community Facilities (including farm labor housing), and Utilities (including Broadband) (*USDA*).<sup>192</sup>

The New Jersey Department of Agriculture, State Agriculture Development Committee, and Warren County Agriculture Development Board, along with other relevant Warren County

agriculture entities, can work with and lobby the USDA to reexamine program criteria to enable New Jersey's rural communities to qualify for more program dollars.

### ***Income Averaging for Farmers***

The U.S. Taxpayer Relief Act of 1997, administered by the U.S. Department of Treasury's Internal Revenue Service, includes a provision that is meant to smooth out economic disparities that farmers experience from year to year due to the cyclical nature of agriculture. It is known as Farm Income Averaging and can be used by qualifying farmers when farm income for the current year is high and taxable income from one or more of the three prior years was low. Substantial tax dollars can be saved by income averaging (*Internal Revenue Service*).<sup>193</sup>

The New Jersey Legislature has considered bills that would provide income averaging similar to the federal program described above. Assembly Bill A1965 was introduced on 1/16/14 and referred to the Assembly Agriculture and Natural Resources Committee, and Senate Bill S912 was introduced in the Senate on 7/29/13 and referred to the Senate Budget and Appropriations Committee, but both bills died in their respective committees. The New Jersey Department of Agriculture, State Agriculture Development Committee, Warren County Board of Chosen Freeholders, and Warren County Agriculture Development Board can work with, and encourage, the New Jersey Legislature to reintroduce similar bills. This would greatly assist Warren County farmers, and farmers statewide, in remaining economically viable.

### ***USDA Farm Service Agriculture Program***

Farming is a business that can be cyclical and unpredictable, with factors that are not in the farmer's control, such as weather and market conditions, affective crops and profitability. Farmers often need short-term assistance to make ends meet, to stay profitable, and to stay in business. Many times federal government loan programs are available, and Warren County farmers can take advantage of these loans as a tool in running their farm business.

The New Jersey Farm Service Agency (FSA) has both Direct and Guaranteed Farm Ownership loans available for New Jersey farmers, including those in Warren County. FSA also has Beginning Farmer Down Payment loans and Participation loans available for qualified applicants. Direct Farm Ownership Loans are available up to \$300,000, and guaranteed loans can go up to \$1,355,000. Beginning Farmer Down Payments may not exceed 45% of the appraised value or \$300,000, whichever is less.

The Hackettstown Service Center handles loans for Warren County. Kevin Murphy, Farm Loan Manager, is the contact person there and he can be reached at (609) 587-0104, kevin.murphy@nj.usda.gov.<sup>194</sup>

FSA loans can be used for most agriculture necessities such as purchasing land, livestock, equipment, feed, seed, supplies, and also for construction of buildings, or to make farm improvements.

## **Warren County's Vision for Farmland Preservation**

### ***The Mission Statement of the Warren CADB:***

The Warren CADB is dedicated to the preservation of farmland, farms, and farmers. The CADB actively seeks to expand the County's base of preserved farms and provides support to the farming community.

### ***Goals of the Warren CADB:***

Warren County has 72,250 acres of active agricultural land, and of this, has preserved 23,268 acres in 259 farms since the inception of the farmland preservation program. While this represents a significant achievement, it is the goal of the CADB, working with municipalities and the State Agriculture Development Committee, to increase preserved farmland by 9,000 acres over the next ten years. The CADB will continue to support and develop program to encourage economically successful farming in Warren County.

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Map 19. Targeted Farms: PIG Program

Map 20. Targeted Farms: Competitive Grant Program

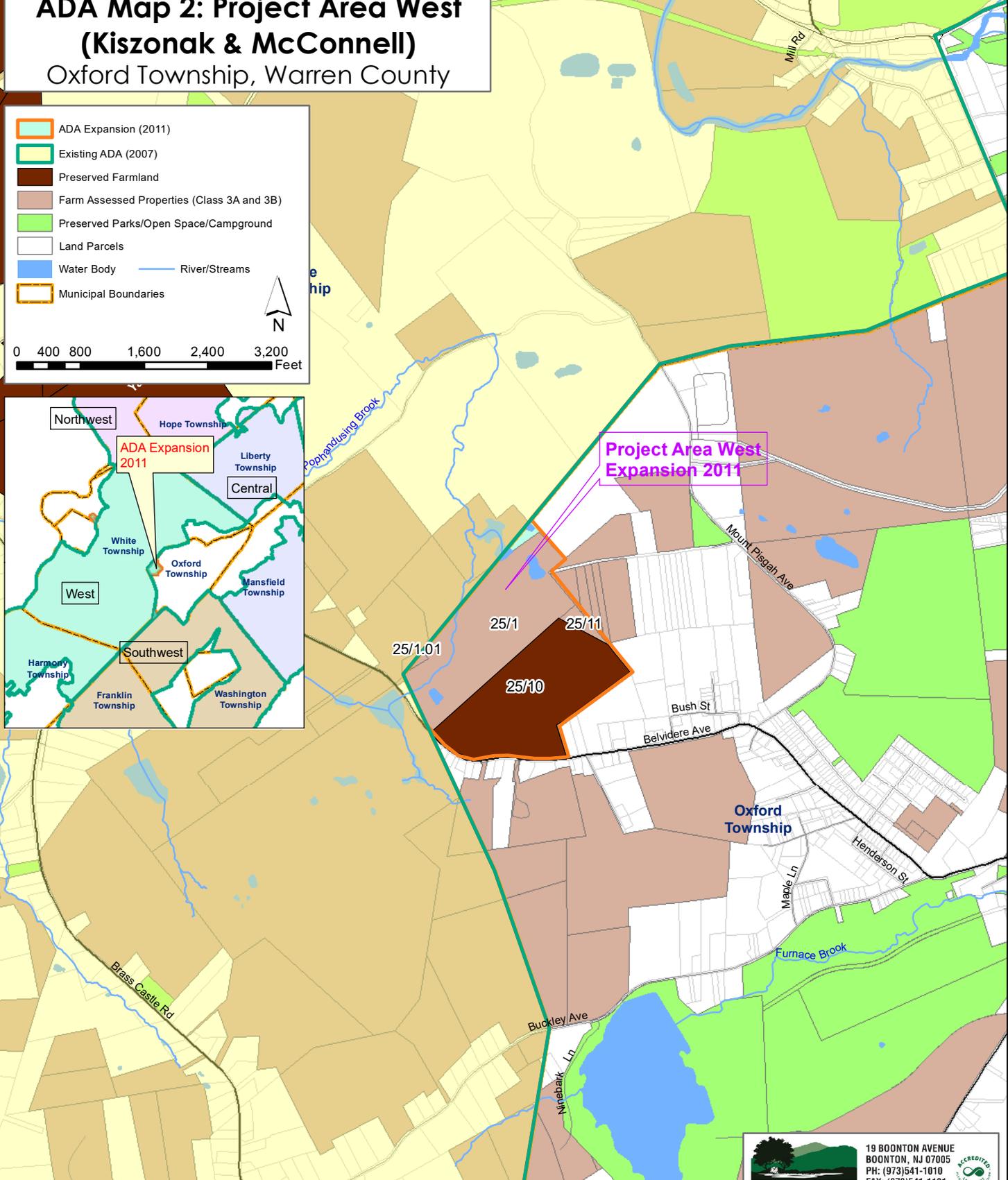
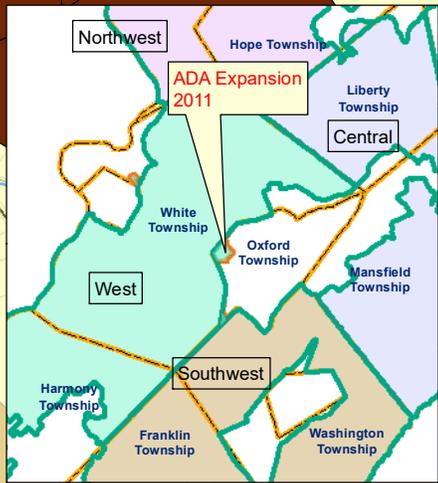


# ADA Map 2: Project Area West (Kiszonak & McConnell) Oxford Township, Warren County

ADA Expansion (2011)  
 Existing ADA (2007)  
 Preserved Farmland  
 Farm Assessed Properties (Class 3A and 3B)  
 Preserved Parks/Open Space/Campground  
 Land Parcels  
 Water Body      River/Streams  
 Municipal Boundaries

N

0   400   800   1,600   2,400   3,200 Feet



Proposed ADA Expansion					
Municipalities	Block	Lot	Owner	Acres	Targeted Farm
Oxford	25	1	KISZONAK, ANDREW & JANET	52.15	No
Oxford	25	10	MCCONNELL, EDWARD R & PATRICIA A	51.70	Preserved
Oxford	25	1.01	KISZONAK, ANDREW & JANET	0.44	No
Oxford	25	11	MCCONNELL, EDWARD R & PATRICIA A	2.07	No


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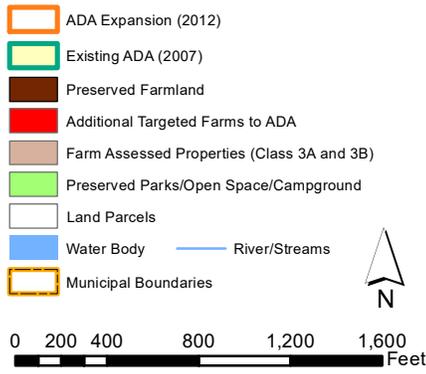


Map Prepared September 28, 2016

Data Sources: County of Warren Office of GIS Management, County of Sussex Office of GIS Management, Hunterdon County Division of GIS, NJDEP, NJGIN Road Centerline 2014  
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# ADA Map 3: Project Area West (Raub Farm)

Lopatcong Township, Warren County



Project Area West  
Expansion 2012

Proposed ADA Expansion					
Municipalities	Block	Lot	Owner	Acres	Targeted Farm
Lopatcong	2	5	RAUB, III, RAYMOND & GAIL A	5.72	Preserved

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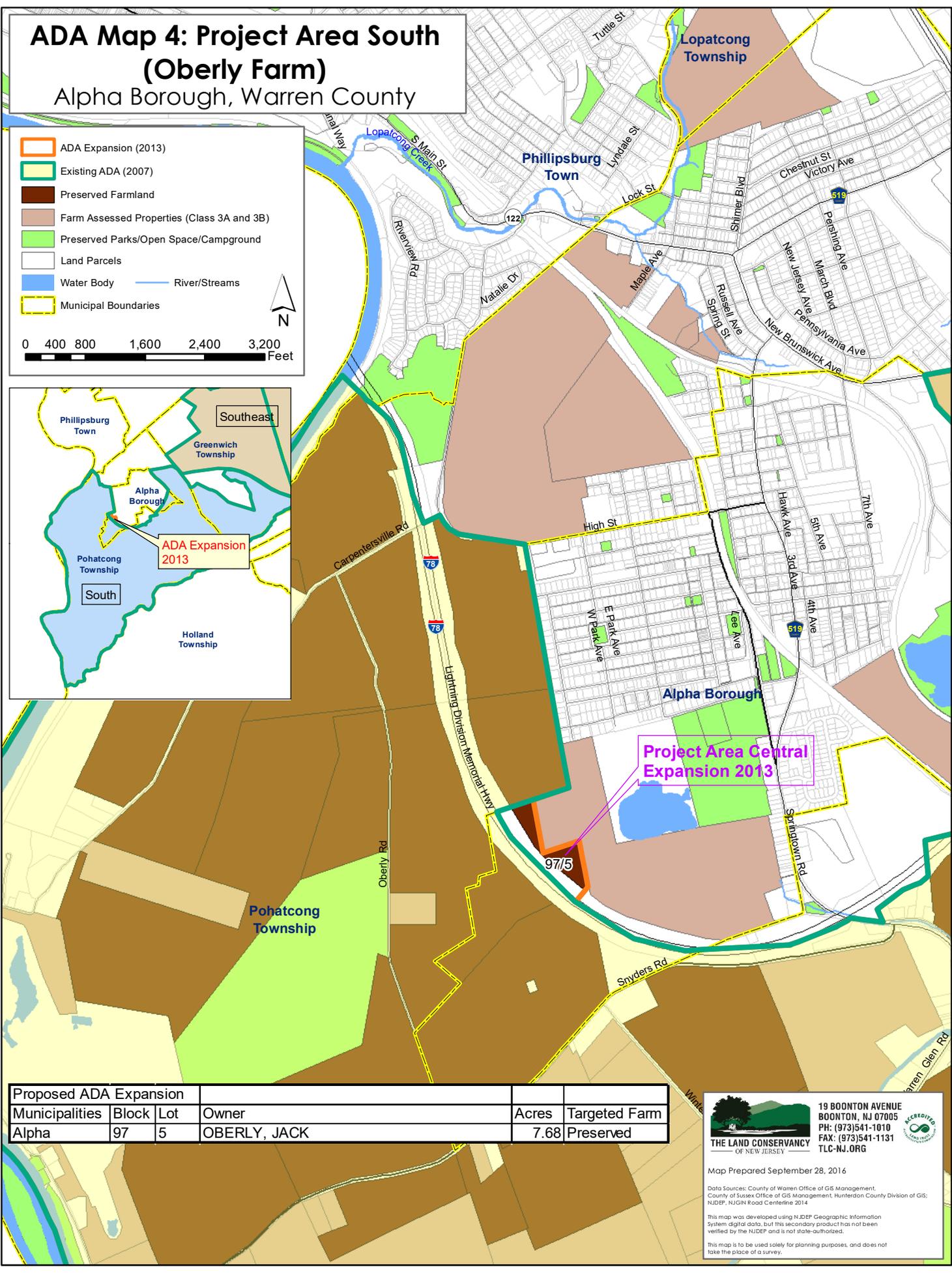
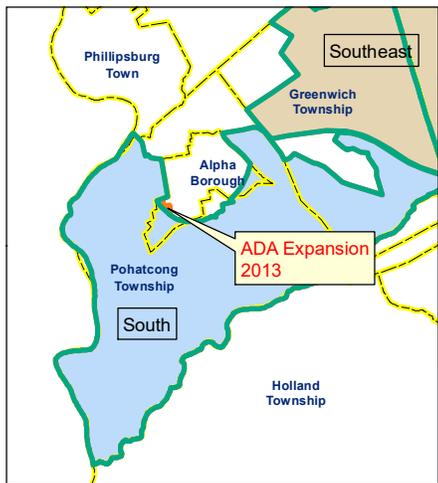
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# ADA Map 4: Project Area South (Oberly Farm) Alpha Borough, Warren County

ADA Expansion (2013)  
 Existing ADA (2007)  
 Preserved Farmland  
 Farm Assessed Properties (Class 3A and 3B)  
 Preserved Parks/Open Space/Campground  
 Land Parcels  
 Water Body     — River/Streams  
 Municipal Boundaries

0 400 800 1,600 2,400 3,200 Feet



Proposed ADA Expansion					
Municipalities	Block	Lot	Owner	Acres	Targeted Farm
Alpha	97	5	OBERLY, JACK	7.68	Preserved

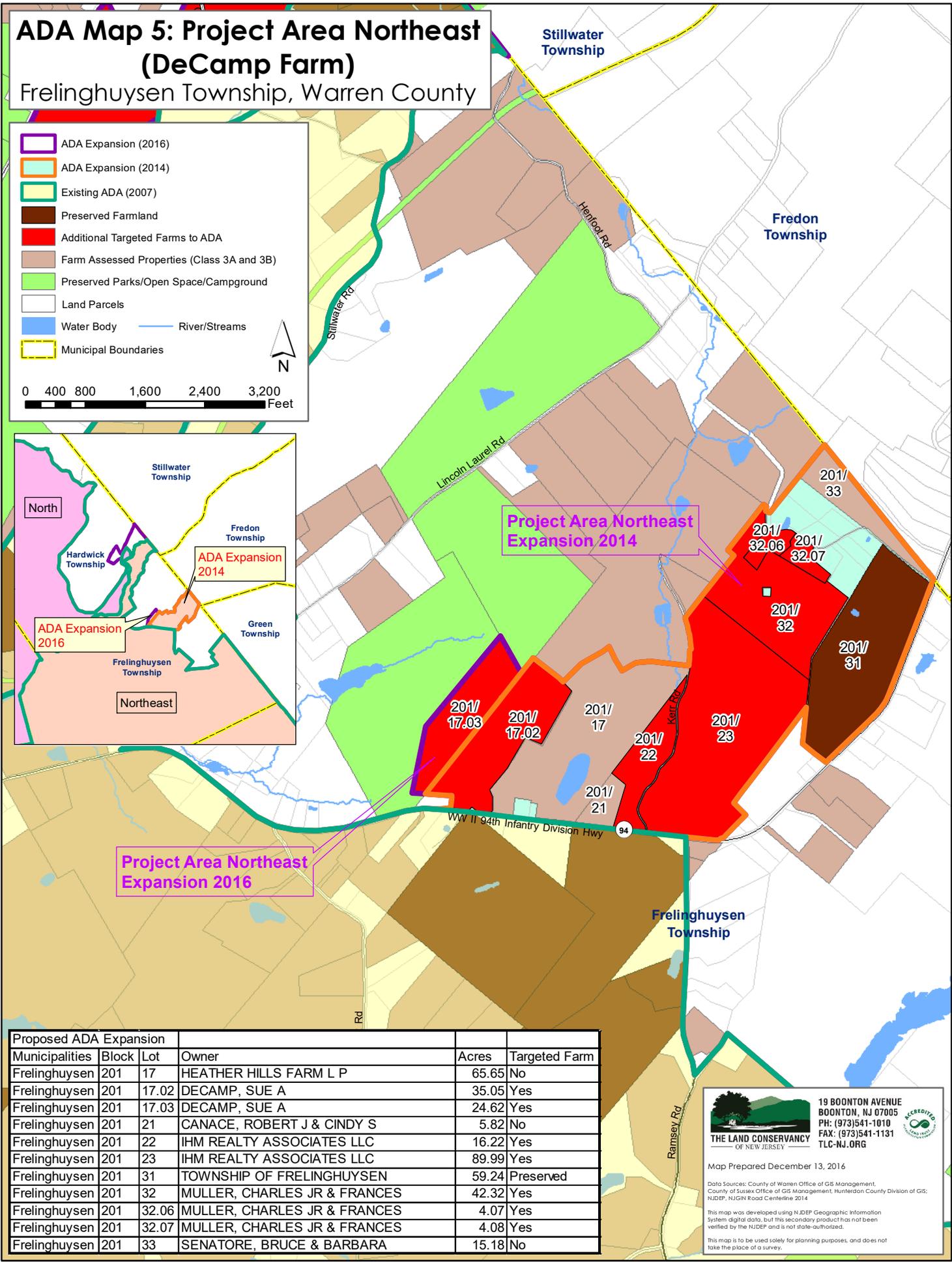
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# ADA Map 5: Project Area Northeast (DeCamp Farm)

Frelinghuysen Township, Warren County



Proposed ADA Expansion					
Municipalities	Block	Lot	Owner	Acres	Targeted Farm
Frelinghuysen	201	17	HEATHER HILLS FARM L P	65.65	No
Frelinghuysen	201	17.02	DECAMP, SUE A	35.05	Yes
Frelinghuysen	201	17.03	DECAMP, SUE A	24.62	Yes
Frelinghuysen	201	21	CANACE, ROBERT J & CINDY S	5.82	No
Frelinghuysen	201	22	IHM REALTY ASSOCIATES LLC	16.22	Yes
Frelinghuysen	201	23	IHM REALTY ASSOCIATES LLC	89.99	Yes
Frelinghuysen	201	31	TOWNSHIP OF FRELINGHUYSEN	59.24	Preserved
Frelinghuysen	201	32	MULLER, CHARLES JR & FRANCES	42.32	Yes
Frelinghuysen	201	32.06	MULLER, CHARLES JR & FRANCES	4.07	Yes
Frelinghuysen	201	32.07	MULLER, CHARLES JR & FRANCES	4.08	Yes
Frelinghuysen	201	33	SENATORE, BRUCE & BARBARA	15.18	No

Map Prepared December 13, 2016

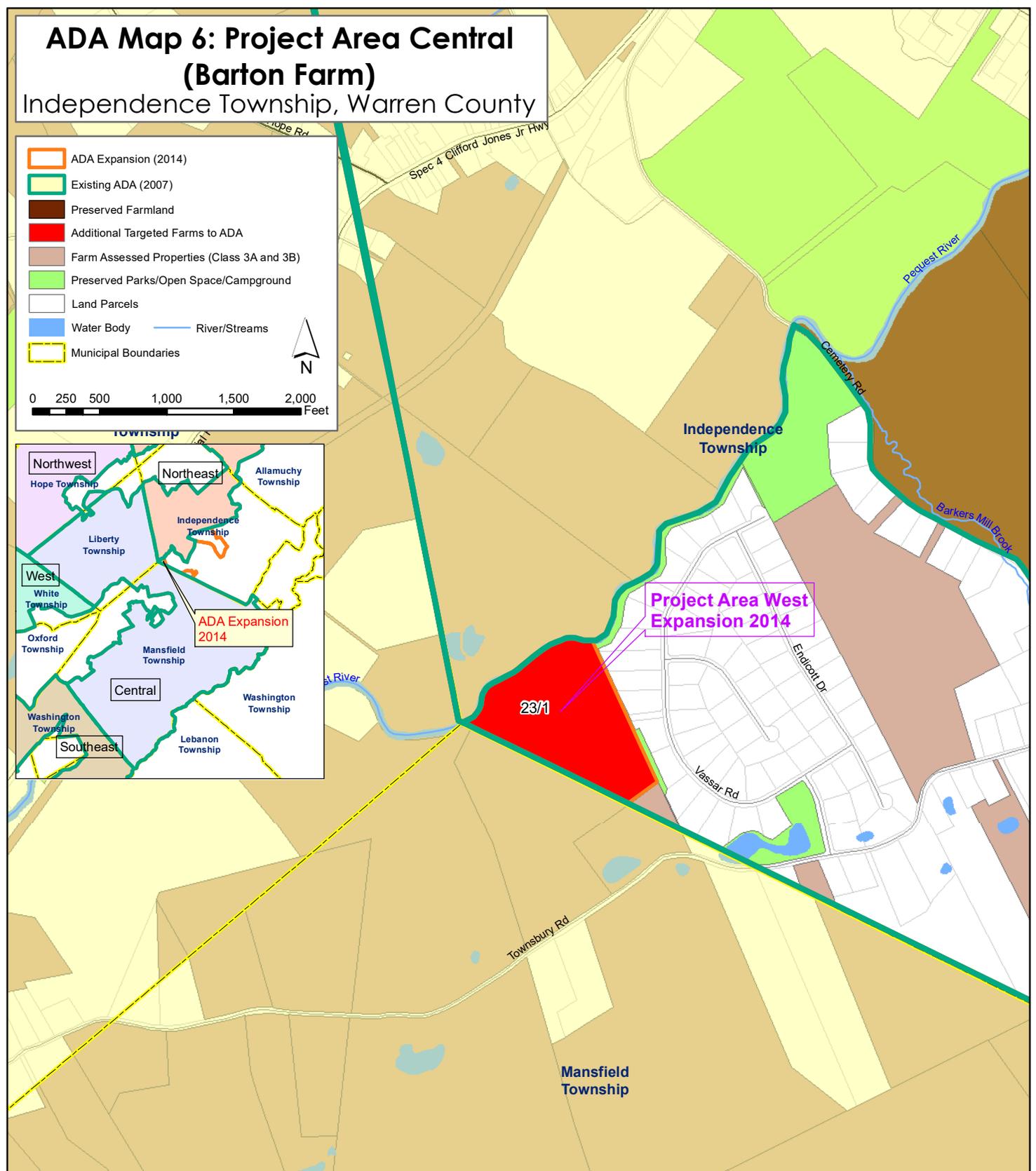
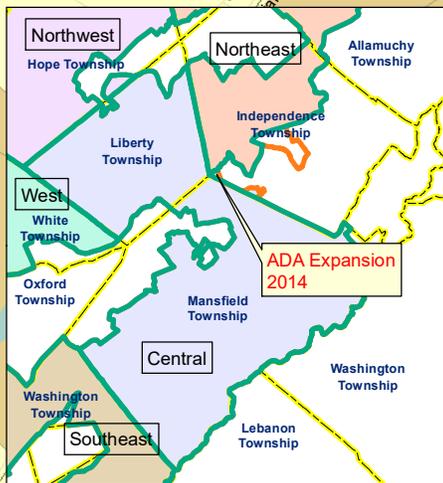
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# ADA Map 6: Project Area Central (Barton Farm)

Independence Township, Warren County



Proposed ADA Expansion					
Municipalities	Block	Lot	Owner	Acres	Targeted Farm
Independence	23	1	BARTON, JOHN M	21.85	Yes

Map Prepared September 28, 2016

Data Sources: County of Warren Office of GIS Management, County of Sussex Office of GIS Management, Hunterdon County Division of GIS, NJDEP, NJGIN Road Centerline 2014

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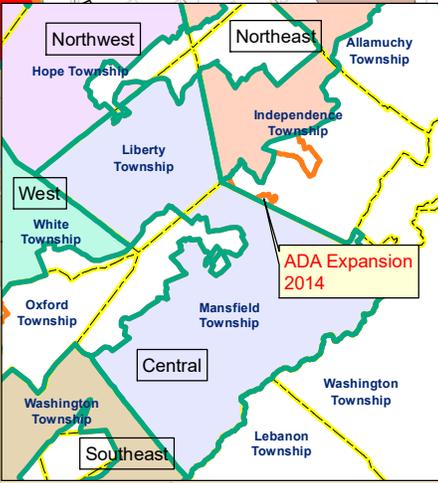
# ADA Map 7: Project Area Central (Klimas Farm)

Independence Township, Warren County

- ADA Expansion (2014)
- Existing ADA (2007)
- Preserved Farmland
- Additional Targeted Farms to ADA
- Farm Assessed Properties (Class 3A and 3B)
- Preserved Parks/Open Space/Campground
- Land Parcels
- Water Body
- River/Streams
- Municipal Boundaries

N

0 300 600 1,200 1,800 2,400 Feet



**Project Area Central  
Expansion 2014**

14/10

14/12.01

Proposed ADA Expansion					
Municipalities	Block	Lot	Owner	Acres	Targeted Farm
Independence	14	10	KLIMAS, GABRIELLA	43.96	Yes
Independence	14	12.01	KLIMAS, GABRIELLA	5.04	Yes

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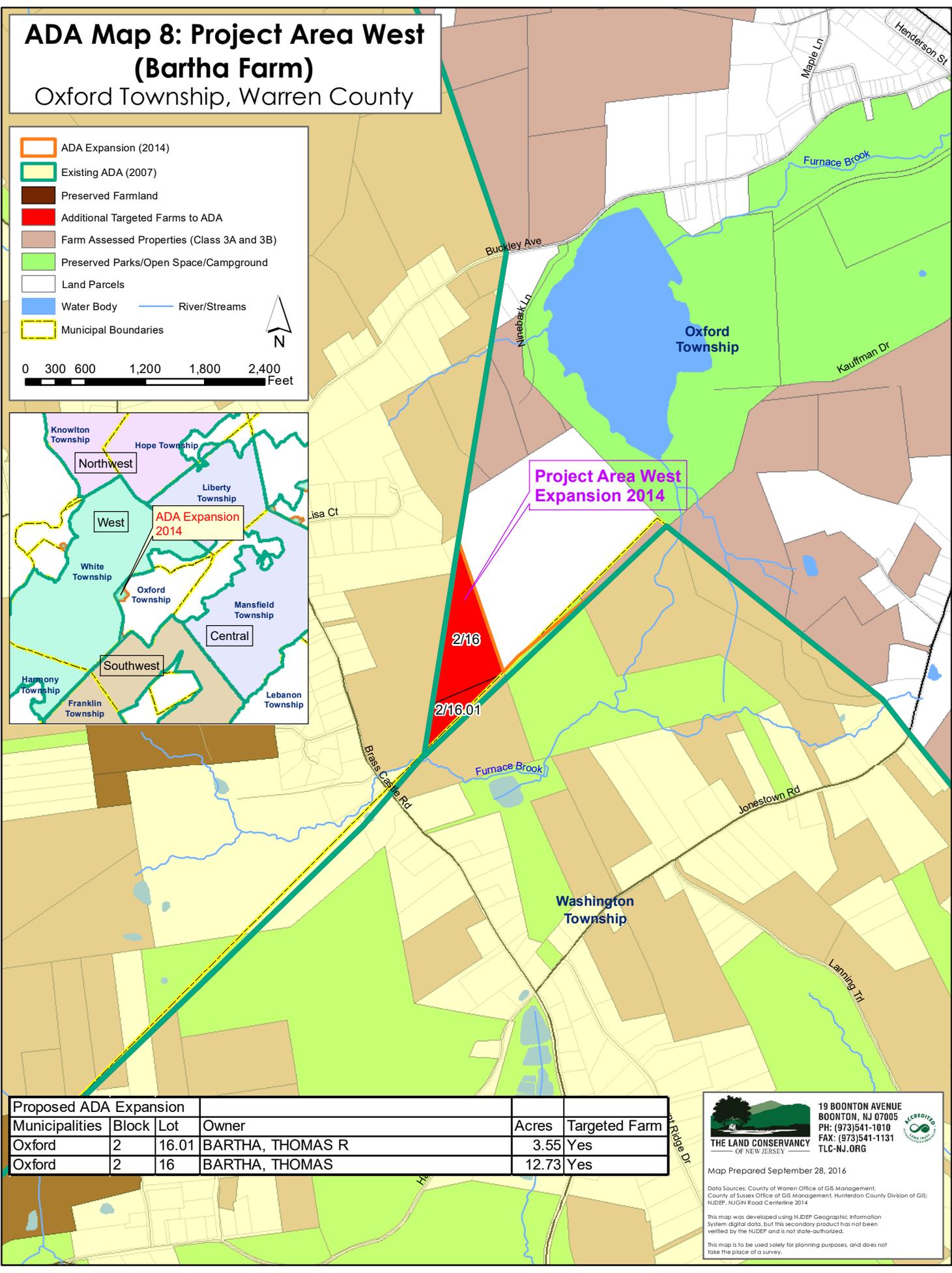
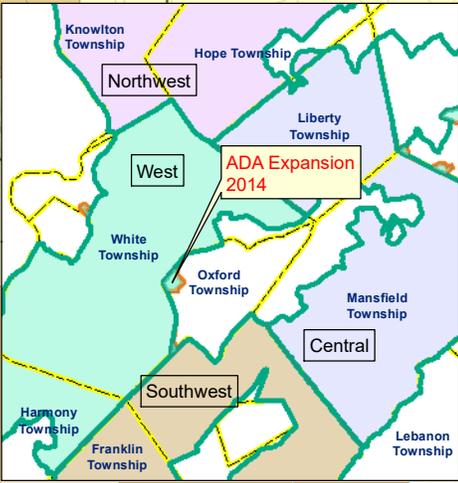
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# ADA Map 8: Project Area West (Bartha Farm)

Oxford Township, Warren County

- ADA Expansion (2014)
- Existing ADA (2007)
- Preserved Farmland
- Additional Targeted Farms to ADA
- Farm Assessed Properties (Class 3A and 3B)
- Preserved Parks/Open Space/Campground
- Land Parcels
- Water Body
- River/Streams
- Municipal Boundaries

0 300 600 1,200 1,800 2,400 Feet



Proposed ADA Expansion					
Municipalities	Block	Lot	Owner	Acres	Targeted Farm
Oxford	2	16.01	BARTHA, THOMAS R	3.55	Yes
Oxford	2	16	BARTHA, THOMAS	12.73	Yes

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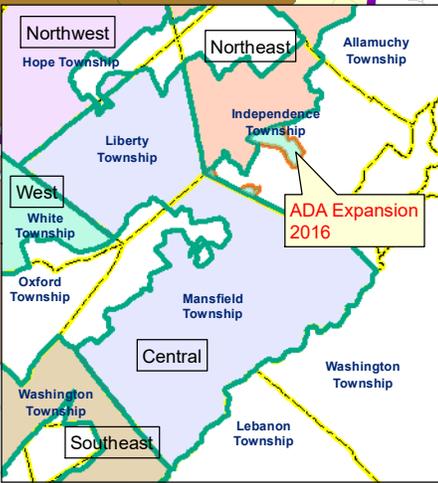
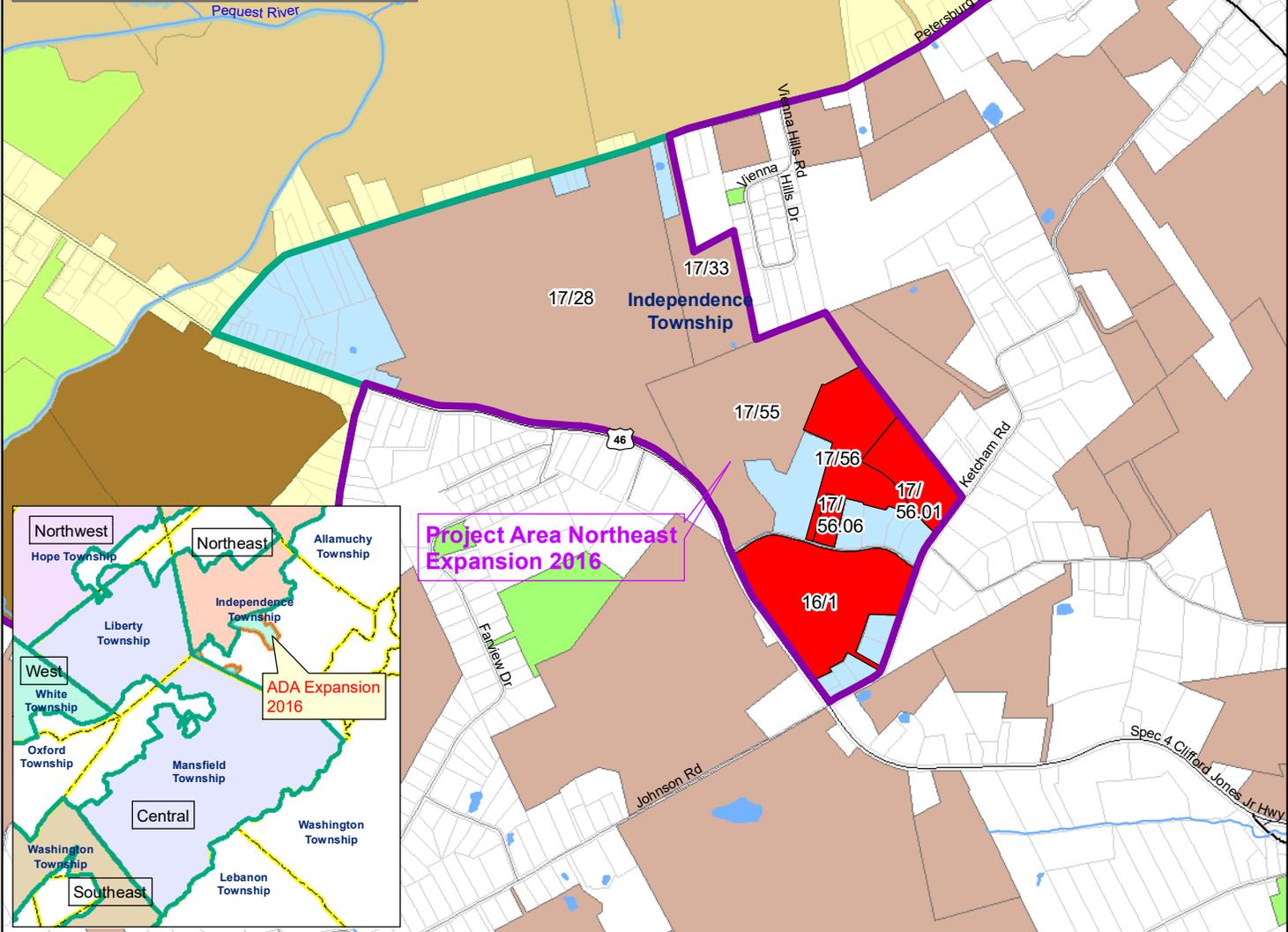
Data Sources: County of Warren Office of GIS Management, County of Sussex Office of GIS Management, Hunterdon County Division of GIS, NJDEP, NJGIN Road Centerline 2014

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# ADA Map 9: Project Area Central (Greco Farm)

Independence Township, Warren County



Proposed ADA Expansion					
Municipalities	Block	Lot	Owner	Acres	Targeted Farm
Independence	16	1	GRECO, CARMEN	34.15	Yes
Independence	17	28	KLOBOCISTA, EKREM %TIM KLOBOCISTA	152.38	No
Independence	17	33	CHOE, SUN CHU	19.31	No
Independence	17	55	PITEO, LAUREL L D	52.31	No
Independence	17	56	GRECO, CARMEN	19.56	Yes
Independence	17	56.01	GRECO, JEAN M	11.31	Yes
Independence	17	56.06	GRECO, CARMEN	2.32	Yes

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# ADA Map 10: Project Area North

## Hardwick Township, Warren County

Proposed ADA Expansion					
Municipalities	Block	Lot	Owner	Acres	Targeted Farm
Hardwick	1201	1	7 OLD ORCHARD ROAD LLC	76.37	Yes
Hardwick	1201	5	MALTON FARMS ASSOCIATES	35.39	Yes
Hardwick	1201	5.01	MALTON FARMS ASSOCIATES	5.47	Yes
Hardwick	1201	6	MALTON FARMS ASSOCIATES	3.27	Yes
Hardwick	901	2	DON CON ENTERPRISES LLC	61.76	Yes
Hardwick	201	12.07	YMCA CAMP RALPH S MASON INC	2.91	No
Hardwick	201	9	GRANDIN, JASON L	24.71	No
Hardwick	201	9.05	CARPENTER MICHAEL P / POLOWY MICH	27.21	No
Hardwick	202	1	WITTE, JOHN A JR & BETH A	21.25	No
Hardwick	202	1.03	HILBERT, JOHN H & MARY T	36.51	No
Hardwick	202	1.04	DEGWITZ, ROBERT J & KATHLEEN	2.85	No
Hardwick	202	1.06	DEGWITZ, ROBERT J & KATHLEEN	3.12	No
Hardwick	202	3.01	OLESZEK, WALTER	7.96	No
Hardwick	202	3.06	OLESZEK, WALTER	12.59	No
Hardwick	202	6	GRANDIN, FREDERICK KYLE	7.59	No
Sub-Total Acres				328.95	
Percent of Agricultural Lands in ADA				86.61%	

- ADA Expansion (2016)
- ADA Expansion (2014)
- Existing ADA (2007)
- Preserved Farmland
- Additional Targeted Farms to ADA
- Farm Assessed Properties (Class 3A and 3B)
- Preserved Parks/Open Space/Campground
- Land Parcels
- Water Body
- River/Streams
- Municipal Boundaries

Scale: 0 0.175 0.35 0.7 1.05 1.4 Miles

ADA Expansion 2016 (North)

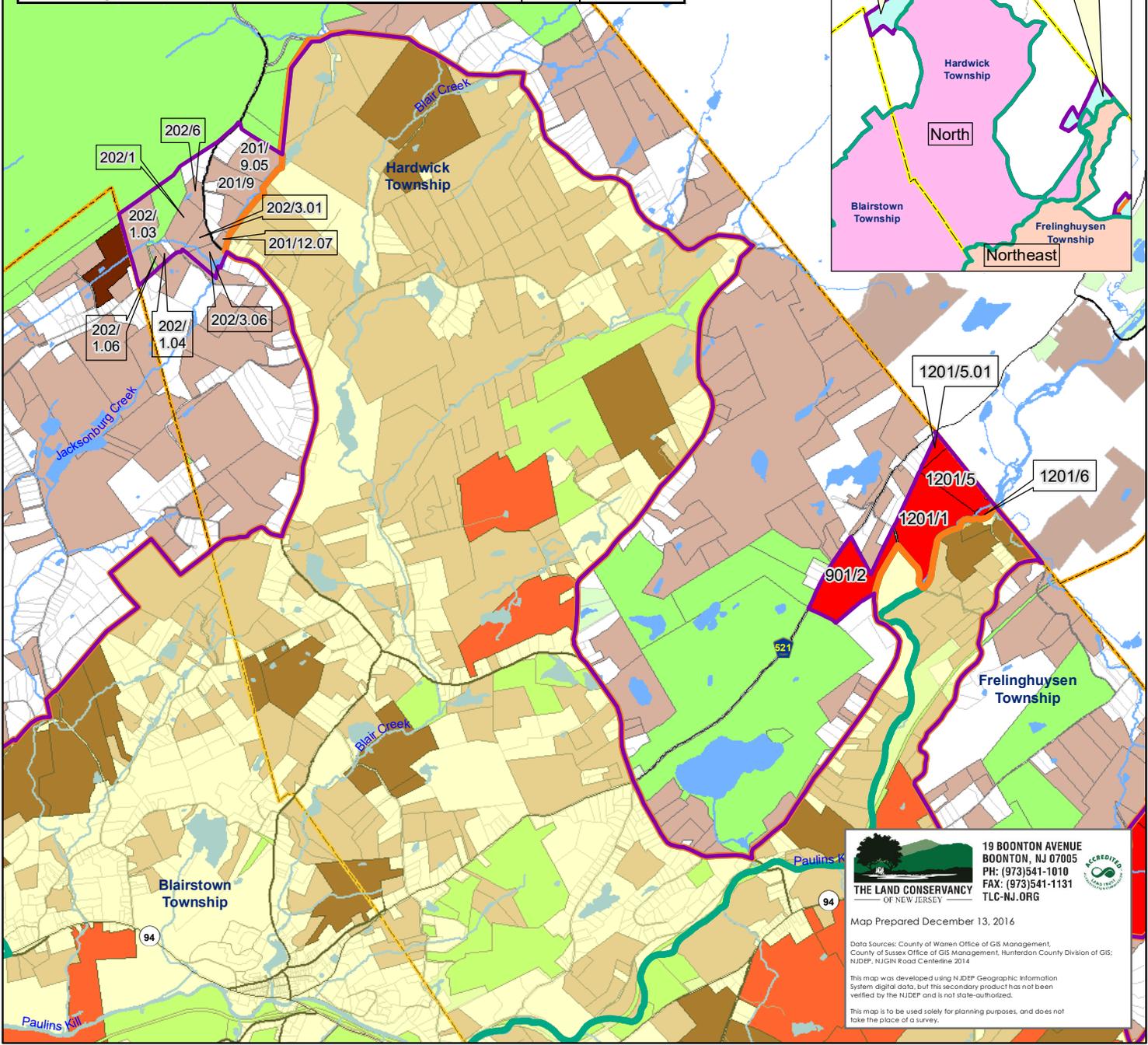
ADA Expansion 2016 (North)

Hardwick Township North

Blairtown Township

Frelinghuysen Township

Northeast



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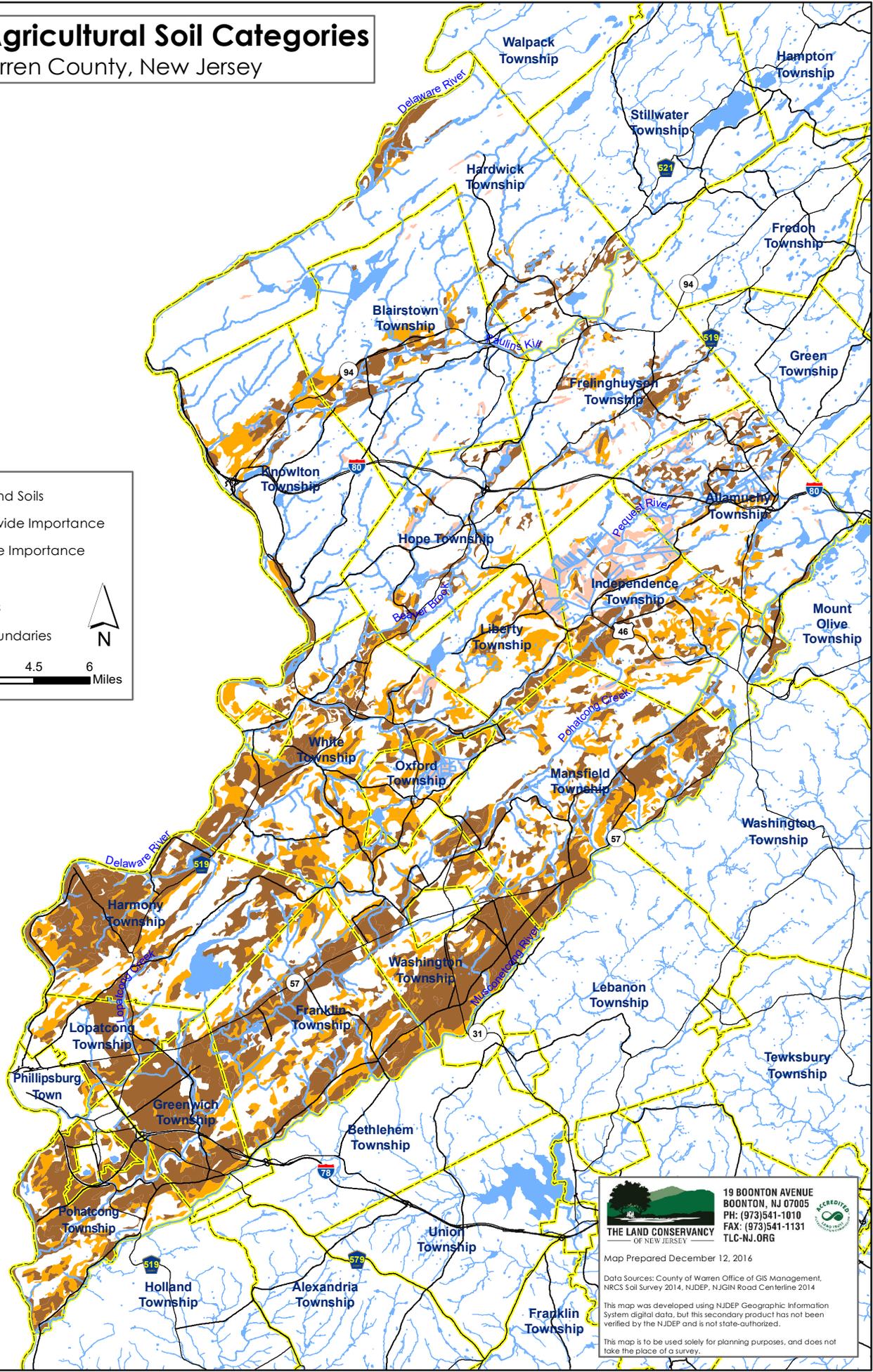
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# Map 11: Agricultural Soil Categories

Warren County, New Jersey

Prime Farmland Soils  
 Soils of Statewide Importance  
 Soils of Unique Importance  
 Water Body  
 River/Streams  
 Municipal Boundaries

0 0.75 1.5 3 4.5 6 Miles



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Data Sources: County of Warren Office of GIS Management, NRCS Soil Survey 2014, NJDEP, NJGIN Road Centerline 2014

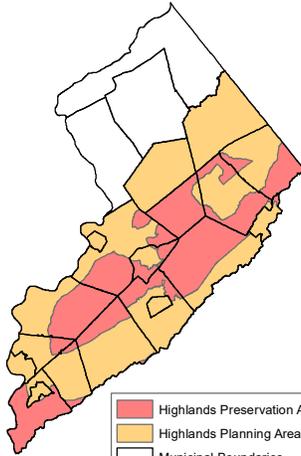
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# Map 12: Farmland

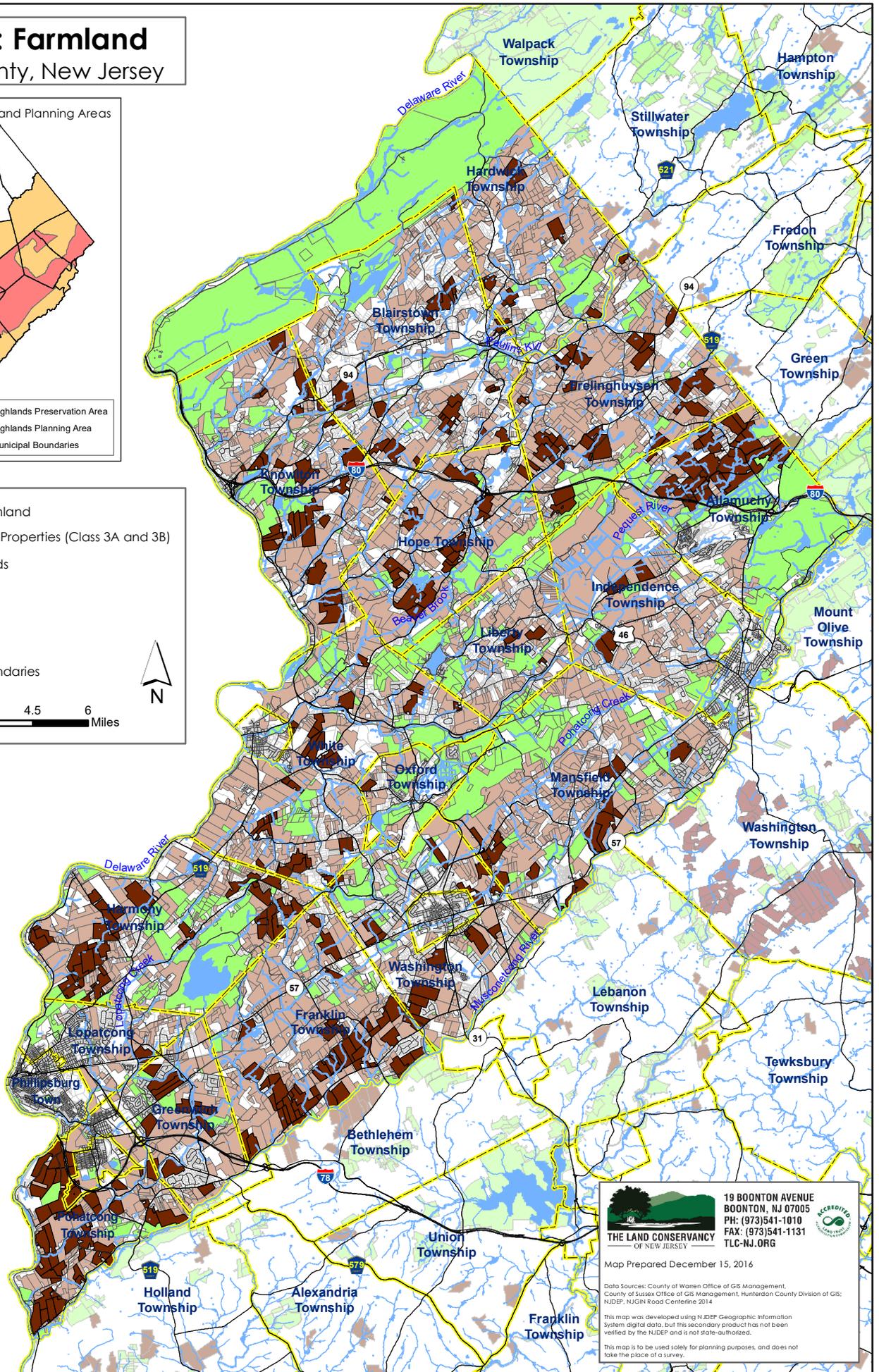
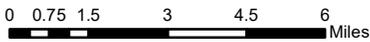
## Warren County, New Jersey

Highlands Preservation and Planning Areas



- Highlands Preservation Area
- Highlands Planning Area
- Municipal Boundaries

- Preserved Farmland
- Farm Assessed Properties (Class 3A and 3B)
- Preserved Lands
- Land Parcels
- Water Body
- River/Streams
- Municipal Boundaries



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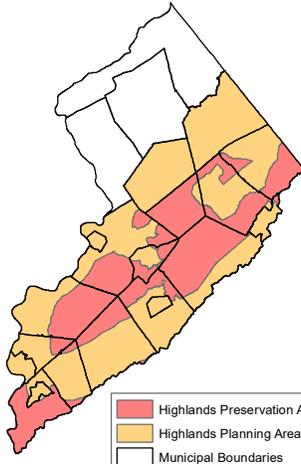
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# Map 13: Agricultural Development Area

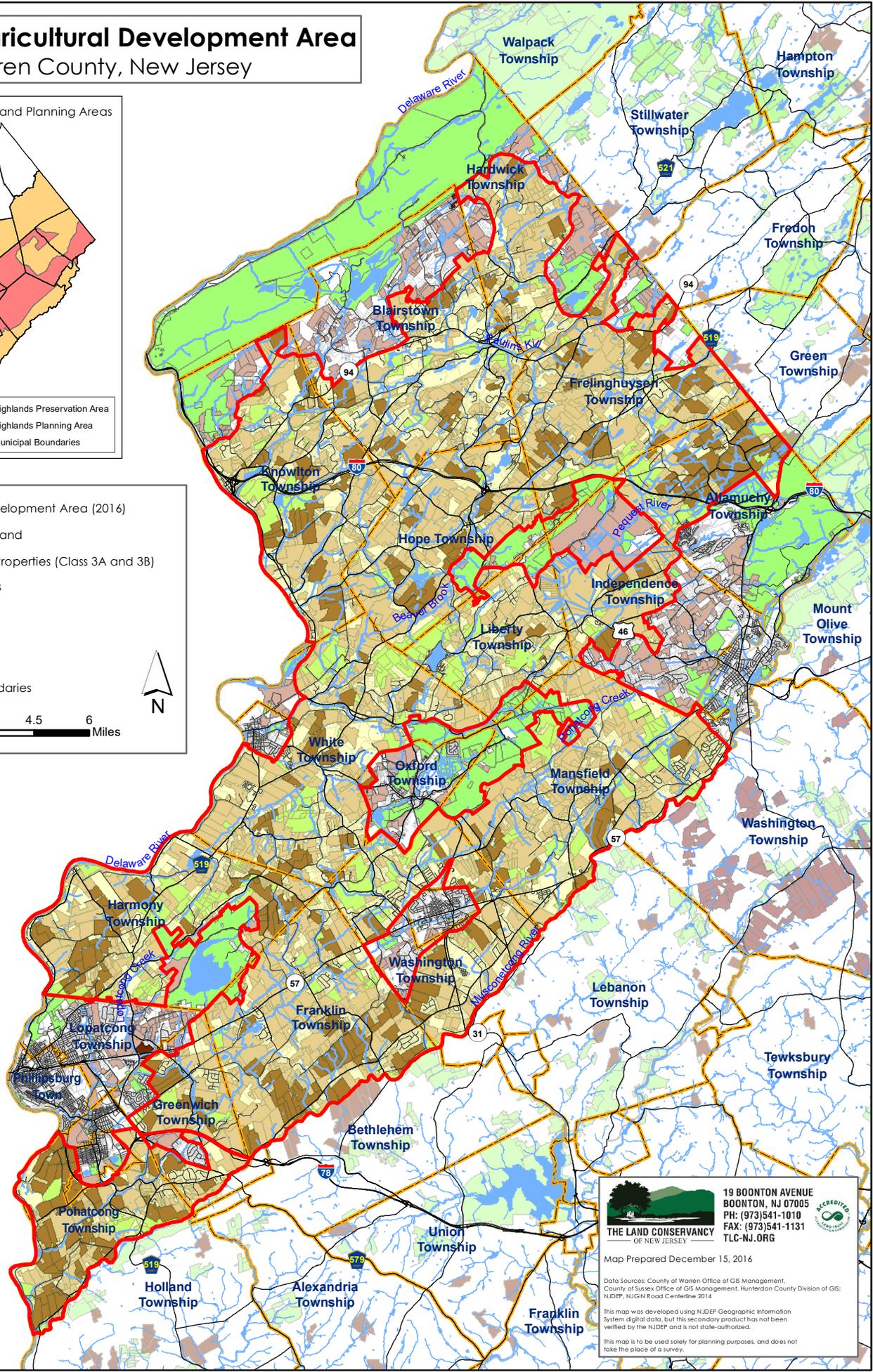
## Warren County, New Jersey

Highlands Preservation and Planning Areas



- Highlands Preservation Area
- Highlands Planning Area
- Municipal Boundaries

- Agricultural Development Area (2016)
- Preserved Farmland
- Farm Assessed Properties (Class 3A and 3B)
- Preserved Lands
- Land Parcels
- Water Body
- River/Streams
- Municipal Boundaries



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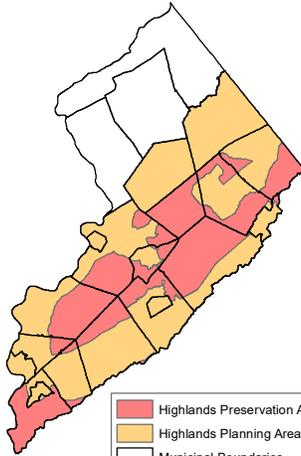
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# Map 14: Project Areas

## Warren County, New Jersey

Highlands Preservation and Planning Areas

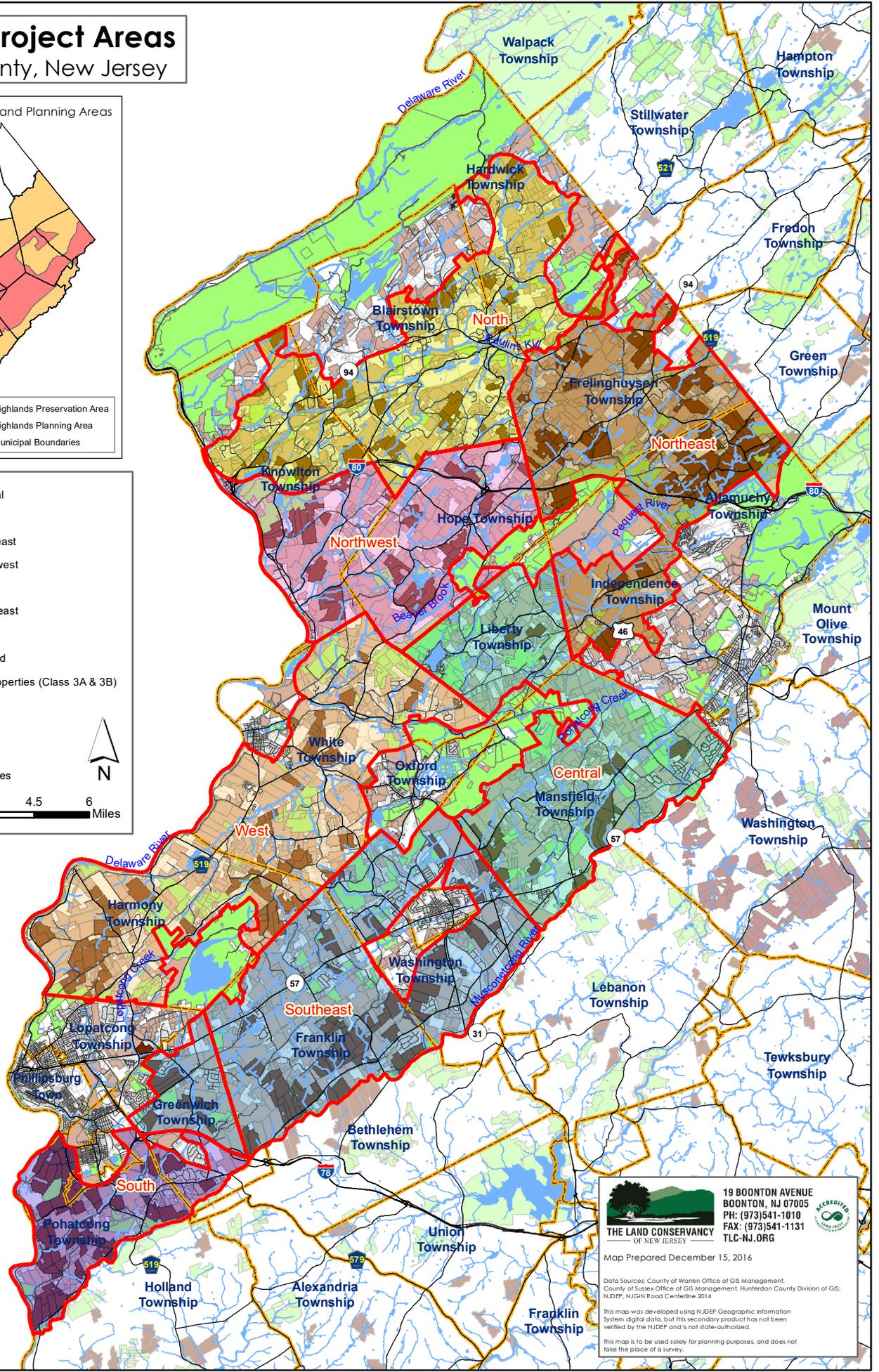


- Highlands Preservation Area
- Highlands Planning Area
- Municipal Boundaries

- Project Area Central
- Project Area North
- Project Area Northeast
- Project Area Northwest
- Project Area South
- Project Area Southeast
- Project Area West
- Preserved Farmland
- Farm Assessed Properties (Class 3A & 3B)
- Preserved Lands
- Land Parcels
- Water Body
- Municipal Boundaries



0 0.75 1.5 3 4.5 6 Miles



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# Map 15: Farmland that meets the SADC Minimum Eligibility Criteria for Agricultural Soil\* (PIG Program)

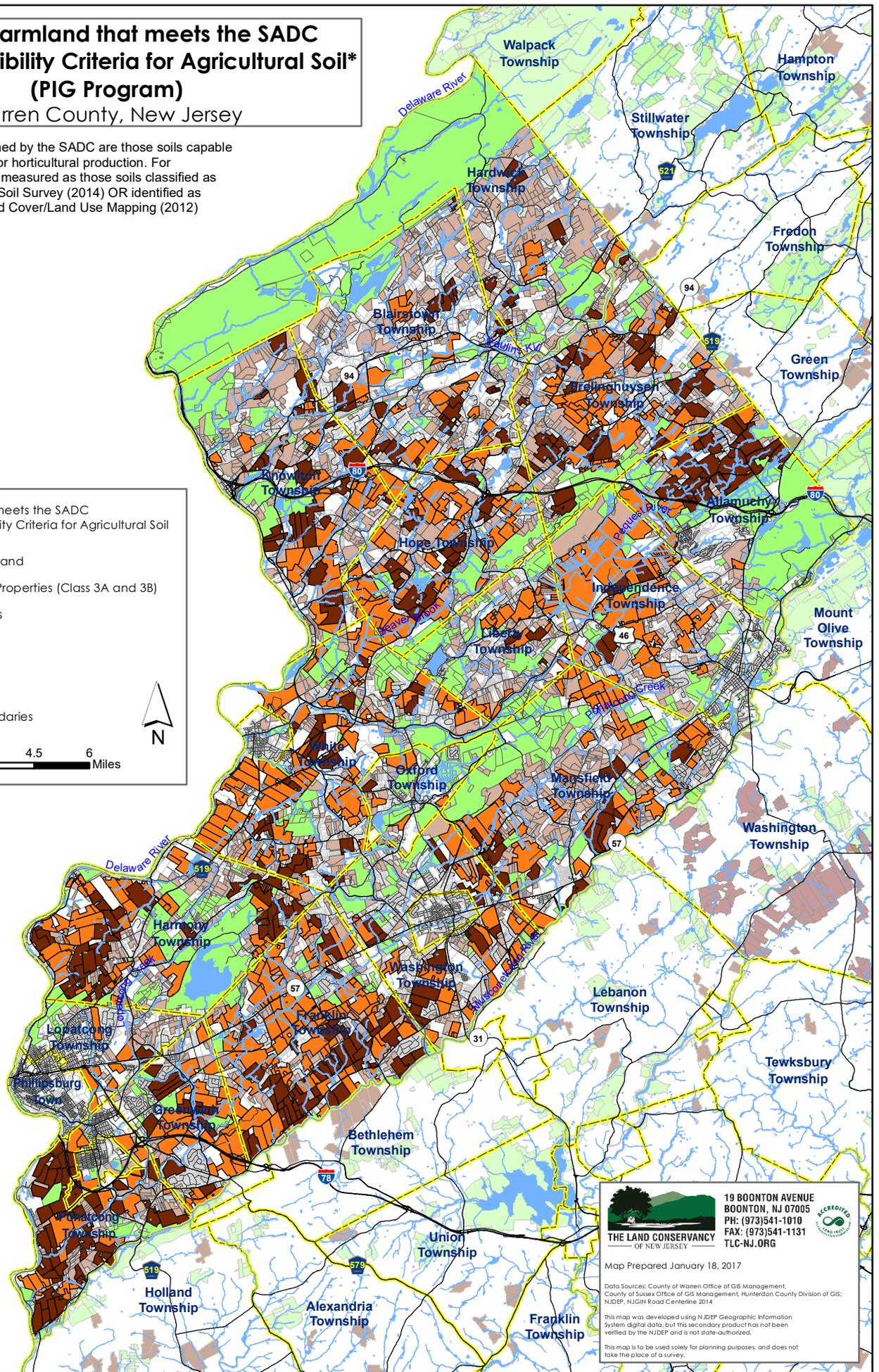
Warren County, New Jersey

\*Agricultural Soils as defined by the SADC are those soils capable of supporting agricultural or horticultural production. For planning purposes, this is measured as those soils classified as agricultural by the NRCS Soil Survey (2014) OR identified as tillable by the NJDEP Land Cover/Land Use Mapping (2012)

- Farmland that meets the SADC Minimum Eligibility Criteria for Agricultural Soil (PIG Program)
- Preserved Farmland
- Farm Assessed Properties (Class 3A and 3B)
- Preserved Lands
- Land Parcels
- Water Body
- River/Streams
- Municipal Boundaries

0 0.75 1.5 3 4.5 6 Miles

N



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Map Prepared January 18, 2017

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# Map 16: Farmland that meets the SADC Minimum Eligibility Criteria for Agricultural Soil\* (Competitive Grant Program)

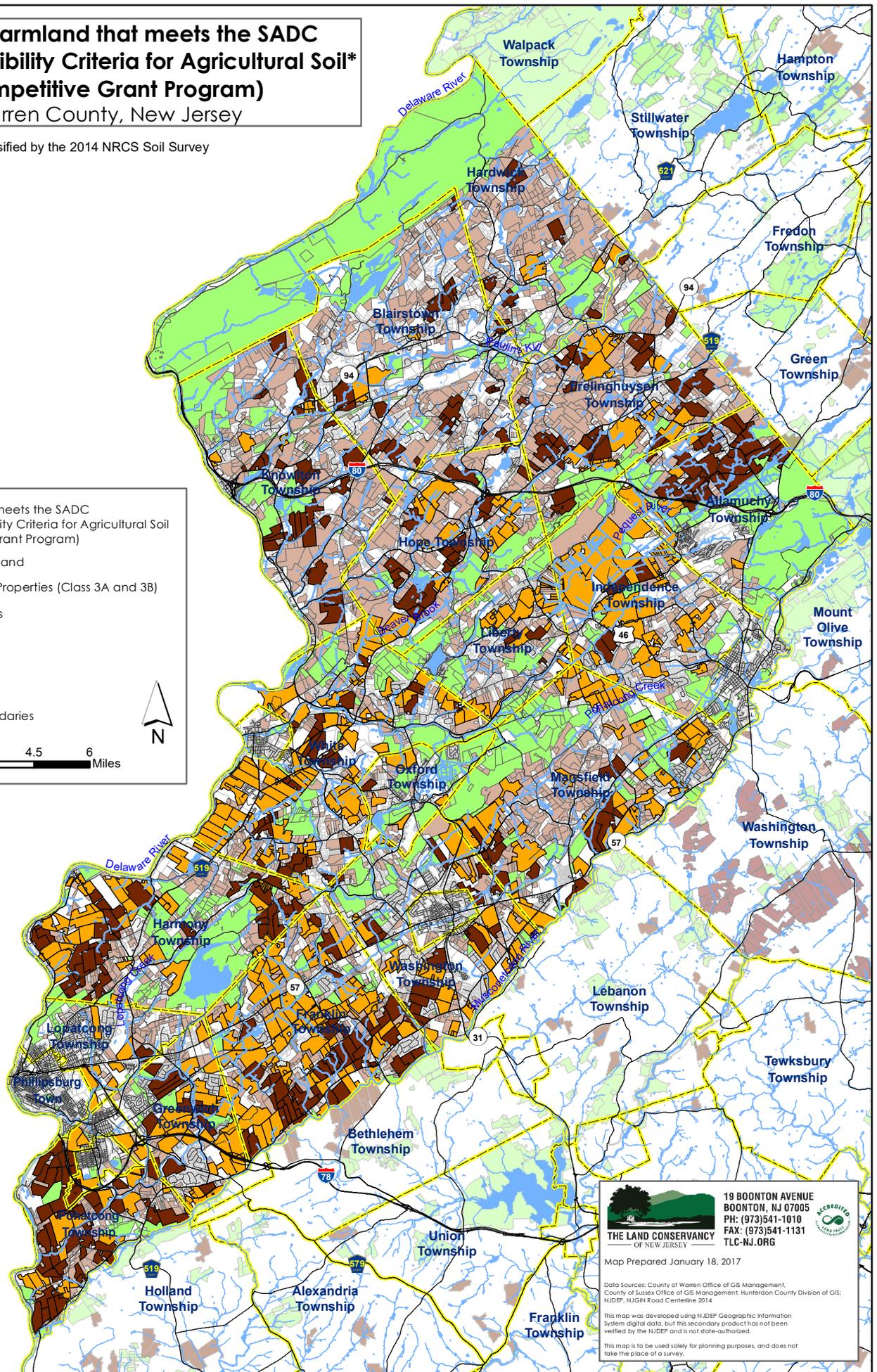
Warren County, New Jersey

\*Agricultural Soils as classified by the 2014 NRCS Soil Survey

- Farmland that meets the SADC Minimum Eligibility Criteria for Agricultural Soil (Competitive Grant Program)
- Preserved Farmland
- Farm Assessed Properties (Class 3A and 3B)
- Preserved Lands
- Land Parcels
- Water Body
- River/Streams
- Municipal Boundaries

0 0.75 1.5 3 4.5 6 Miles

N



**19 BOONTON AVENUE**  
**BOONTON, NJ 07005**  
**PH: (973)541-1010**  
**FAX: (973)541-1131**  
**TLC-NJ.ORG**

Map Prepared January 18, 2017

Data Sources: County of Warren Office of GIS Management, County of Sussex Office of GIS Management, Hunterdon County Division of GIS, NJDEP, NJGIN Road Centerline 2014

This map was developed using NJDEP Geographic Information System digital data, but this secondary product has not been verified by the NJDEP and is not state-authorized.

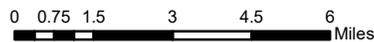
This map is to be used solely for planning purposes, and does not take the place of a survey.

**Map 17: Farmland that meets the SADC  
Minimum Eligibility Criteria for Tillable Land  
Warren County, New Jersey**

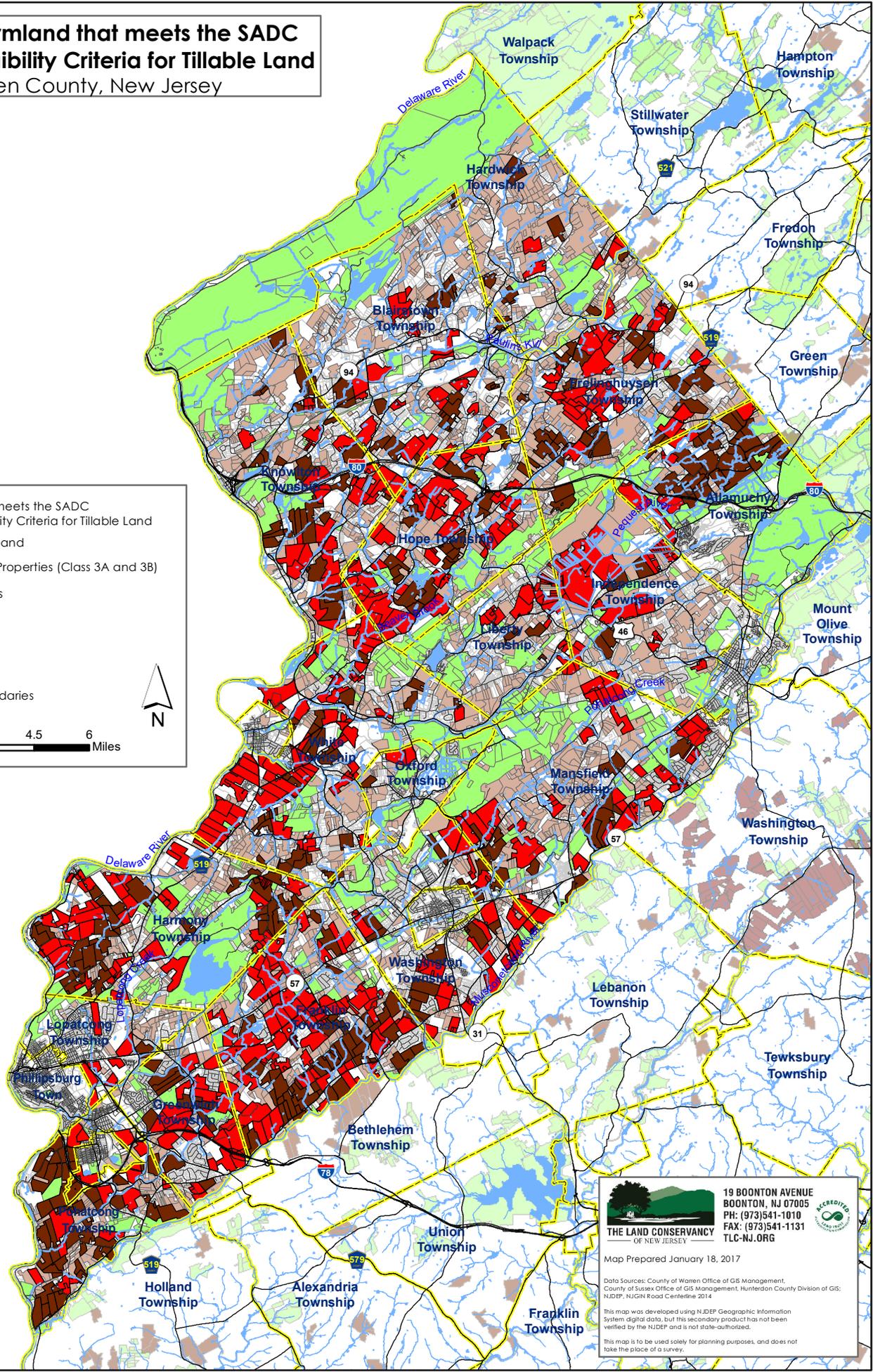
- Farmland that meets the SADC Minimum Eligibility Criteria for Tillable Land
- Preserved Farmland
- Farm Assessed Properties (Class 3A and 3B)
- Preserved Lands
- Land Parcels
- Water Body
- River/Streams
- Municipal Boundaries



N



0 0.75 1.5 3 4.5 6 Miles





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Map Prepared January 18, 2017

Data Sources: County of Warren Office of GIS Management,  
County of Sussex Office of GIS Management, Hunterdon County Division of GIS,  
NJDEP, NJGIN Road Centerline 2014

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This map is to be used solely for planning purposes, and does not take the place of a survey.

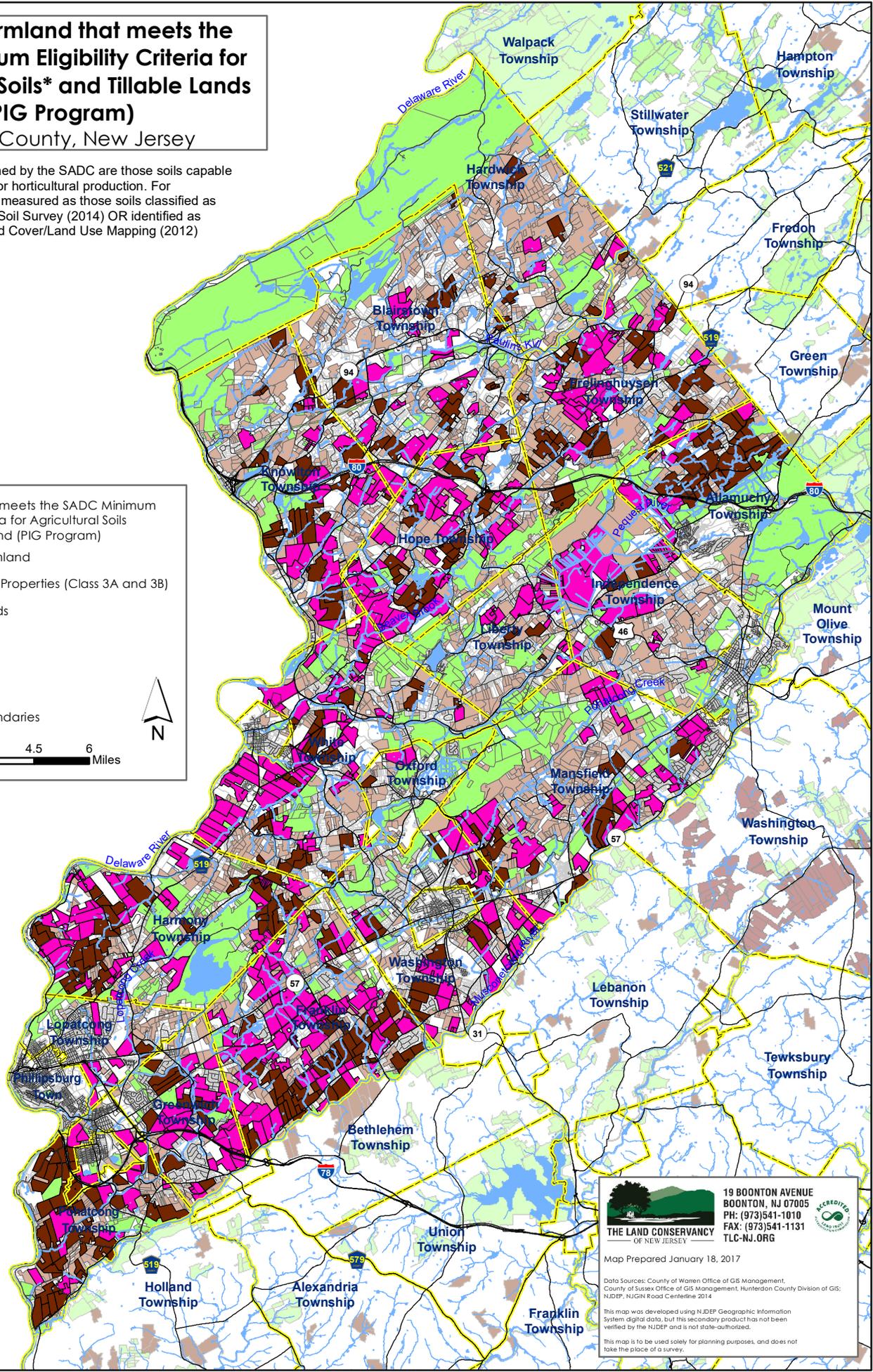
# Map 18: Farmland that meets the SADC Minimum Eligibility Criteria for Agricultural Soils\* and Tillable Lands (PIG Program)

Warren County, New Jersey

\*Agricultural Soils as defined by the SADC are those soils capable of supporting agricultural or horticultural production. For planning purposes, this is measured as those soils classified as agricultural by the NRCS Soil Survey (2014) OR identified as tillable by the NJDEP Land Cover/Land Use Mapping (2012)

Farmland that meets the SADC Minimum Eligibility Criteria for Agricultural Soils and Tillable Land (PIG Program)  
 Preserved Farmland  
 Farm Assessed Properties (Class 3A and 3B)  
 Preserved Lands  
 Land Parcels  
 Water Body  
 River/Streams  
 Municipal Boundaries

0 0.75 1.5 3 4.5 6 Miles



**19 BOONTON AVENUE**  
**BOONTON, NJ 07005**  
**PH: (973)541-1010**  
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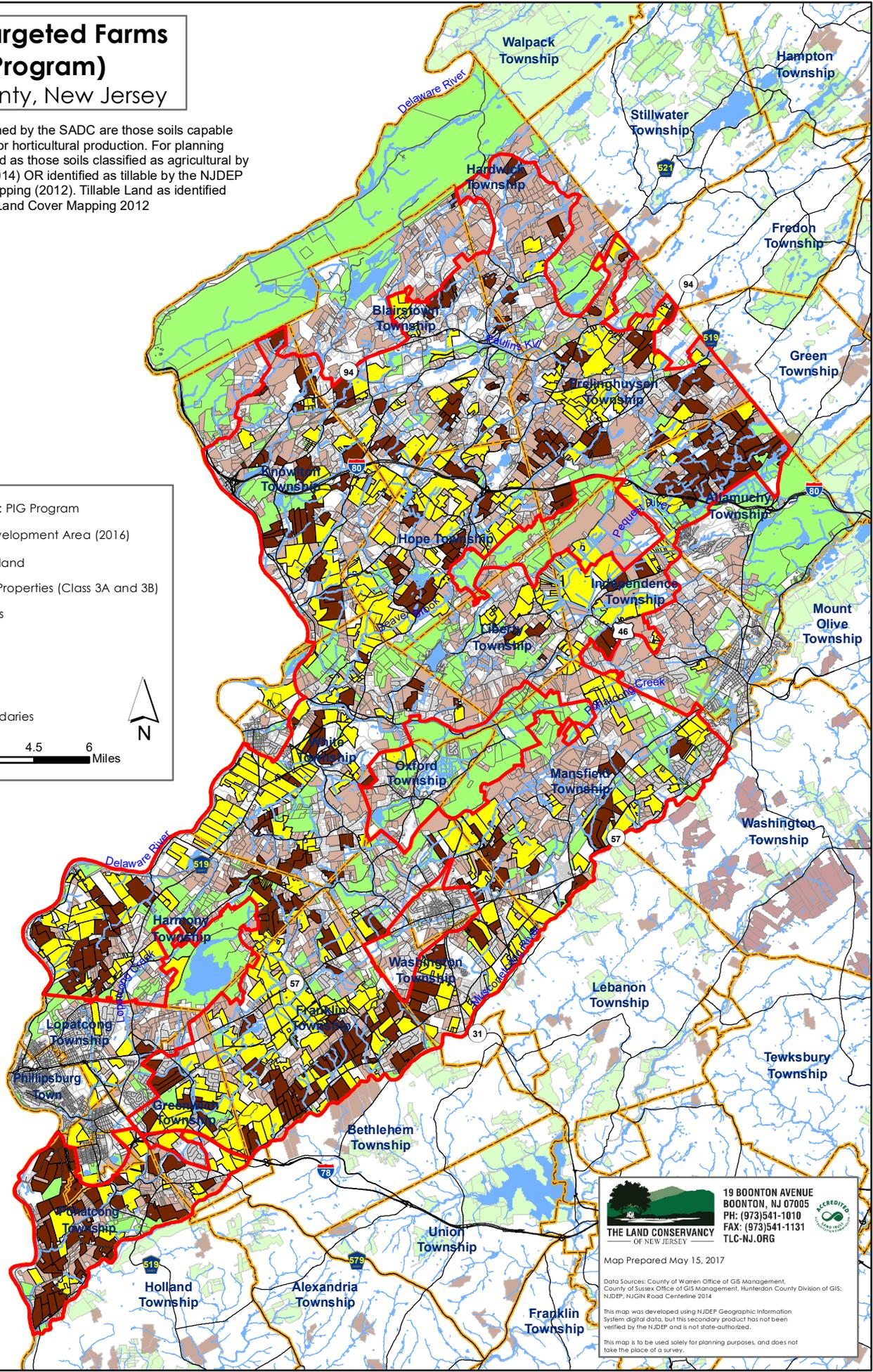
Map Prepared January 18, 2017

Data Sources: County of Warren Office of GIS Management, County of Sussex Office of GIS Management, Hunterdon County Division of GIS, NJDEP, NJGIN Road Centerline 2014  
This map was developed using NJDEP Geographic Information System digital data, but this secondary product has not been verified by the NJDEP and is not state-authorized.  
This map is to be used solely for planning purposes, and does not take the place of a survey.

# Map 19: Targeted Farms (PIG Program)

Warren County, New Jersey

\*Agricultural Soils as defined by the SADC are those soils capable of supporting agricultural or horticultural production. For planning purposes, this is measured as those soils classified as agricultural by the NRCS Soil Survey (2014) OR identified as tillable by the NJDEP Land Cover/Land Use Mapping (2012). Tillable Land as identified by the NJDEP Land Use/Land Cover Mapping 2012



19 BOONTON AVENUE  
BOONTON, NJ 07005  
PH: (973)541-1010  
FAX: (973)541-1131  
TLC-NJ.ORG

Map Prepared May 15, 2017

Data Sources: County of Warren Office of GIS Management, County of Sussex Office of GIS Management, Hunterdon County Division of GIS, NJDEP, NJGIN Road Centerline 2014

This map was developed using NJDEP Geographic Information System digital data, but this secondary product has not been verified by the NJDEP and is not state-authorized.

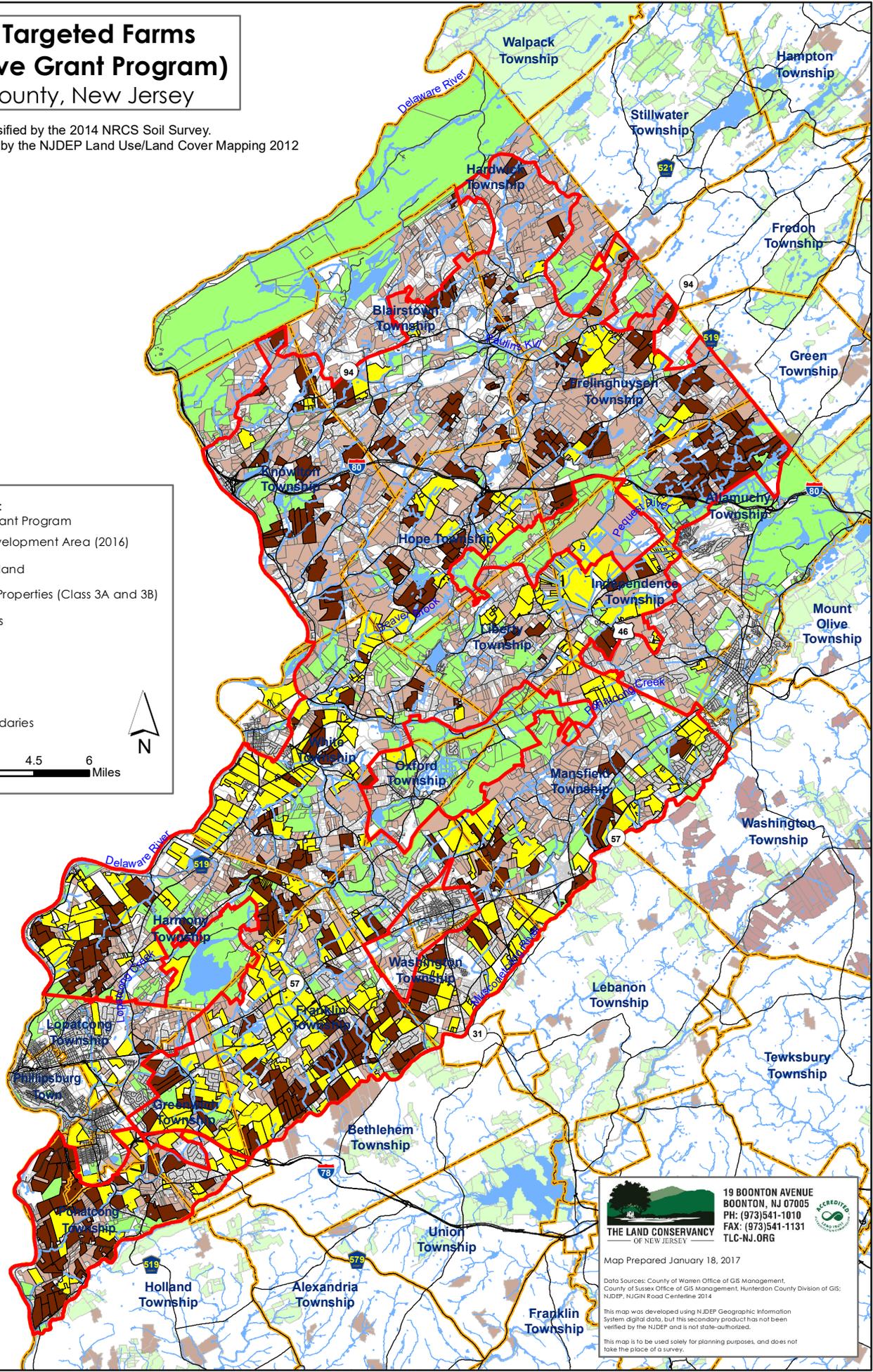
This map is to be used solely for planning purposes, and does not take the place of a survey.

# Map 20: Targeted Farms (Competitive Grant Program) Warren County, New Jersey

\*Agricultural Soils as classified by the 2014 NRCS Soil Survey.  
Tillable Land as identified by the NJDEP Land Use/Land Cover Mapping 2012

- Targeted Farms: Competitive Grant Program
- Agricultural Development Area (2016)
- Preserved Farmland
- Farm Assessed Properties (Class 3A and 3B)
- Preserved Lands
- Land Parcels
- Water Body
- River/Streams
- Municipal Boundaries

0 0.75 1.5 3 4.5 6 Miles



**THE LAND CONSERVANCY**  
OF NEW JERSEY

19 BOONTON AVENUE  
BOONTON, NJ 07005  
PH: (973)541-1010  
FAX: (973)541-1131  
TLC-NJ.ORG

Map Prepared January 18, 2017

Data Sources: County of Warren Office of GIS Management,  
County of Sussex Office of GIS Management, Hunterdon County Division of GIS,  
NJDEP, NJGIN Road Centerline 2014

This map was developed using NJDEP Geographic Information System digital data, but this secondary product has not been verified by the NJDEP and is not state-authorized.

This map is to be used solely for planning purposes, and does not take the place of a survey.

# **APPENDIX**

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Appendix A. ADA Changes: County and Municipal Resolutions (2011-2016)

Appendix B. Targeted Farms: PIG Program

Appendix C. Targeted Farms: Competitive Grant Program

**THE WARREN COUNTY AGRICULTURAL DEVELOPMENT BOARD**

THE DEPARTMENT OF LAND PRESERVATION

500 MT PISGAH AVE, P.O. BOX 179

OXFORD, NJ 07863

**RESOLUTION 2011-14**

On motion by Mr. Race, seconded by Mr. Baduini, the following resolution was adopted by the Warren County Agricultural Development Board at a meeting held October 20, 2011.

**RESOLUTION AUTHORIZING  
THE AMENDMENT OF THE WARREN COUNTY  
AGRICULTURAL DEVELOPMENT AREA TO INCLUDE  
FARMLAND IN BLAIRSTOWN TOWNSHIP**

**WHEREAS**, the Warren County Agriculture Development Board (hereinafter "CADB" or "Board") believes that the development of agriculture and the retention of farmlands are important to the present and future economy of the State and the welfare of the citizens of the State; and

**WHEREAS**, the CADB may identify and recommend areas to be designated as Agricultural Development Areas (ADAs) per N.J.S.A. 4:1C-18 which provides in pertinent part:

"The board may, after public hearing, identify and recommend an area as an agricultural development area... The board shall document where agriculture shall be the preferred, but not necessarily the exclusive, use of land if that area:

1. 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;
2. Is reasonably free of suburban and conflicting commercial development;
3. Comprises not greater than 90% of the agricultural land mass of the county;
4. Incorporates any other characteristics deemed appropriate by the board...";  
and

**WHEREAS**, in addition to the above statutory criteria, the CADB utilized the following county criteria, as described in the *Warren County Comprehensive Farmland Preservation Plan* when identifying lands to be included in the ADA:

1. The land must be currently in agriculture production, have strong potential for agricultural production, or be farm assessed through a woodland management plan;

2. Agriculture must be the preferred, but not necessarily the exclusive use of the land;
3. Agriculture must be a use permitted by current municipal zoning ordinance or be allowed as a non-conforming use.

**WHEREAS**, in accordance with N.J.A.C. §2:76-1.5, the CADB certifies that a hearing was held on September 15, 2011 in compliance with the Open Public Meetings Act, N.J.S.A. 10:4-6 et seq.; and submits to the committee a copy of the approved minutes of the hearing, including a summary of the testimony, as well as a comprehensive report consisting of (i) a discussion of factors considered for arriving at the adopted ADA criteria, (ii) adopted criteria for ADA identification; (iii) a resolution of adoption of ADA(s) and (iv) Map(s) showing the general location of the ADA(s) as defined by the application of the criteria; and

**WHEREAS**, the CADB proposes to add the following farms which are located in the Township of Blirstown to the ADA:

- Block 702, Lot 6.02
- Block 702, Lot 15.01
- Block 702, Lot 15.07
- Block 702, Lot 15.17
- Block 702, Lot 23
- Block 702, Lot 23.05

**WHEREAS**, the proposed area satisfies the statutory requirements of N.J.S.A. 4:1C-18 because agriculture is the preferred, but not necessarily the exclusive, use of the proposed area which encompasses productive agricultural lands currently in production and permitted under municipal zoning laws; and

**WHEREAS**, the proposed area further satisfies the statutory requirements of N.J.S.A. 4:1C-18 because this area is reasonably free from suburban and conflicting commercial development and will increase the ADA to only 85.4% of Warren County's agricultural land mass, well below the 90% statutory limitation; and

**WHEREAS**, the proposed area includes six (6) separately owned farms containing a cumulative 137.58 acres of relatively contiguous farmland assessed properties; five (5) farms having over 60% tillable land; and three (3) farms containing over 50% soils classified by the 2009 NRCS Soil Survey as capable of supporting agricultural production; and

**WHEREAS**, not only have these properties traditionally been farmland containing soils of the Paulins Kill river valley, but there has been demonstrated landowner interest in preserving the proposed farms and the amendment is the result of the Township of Blirstown's Municipal Planning Incentive Grant Application and Comprehensive Farmland Preservation Plan; and

**WHEREAS**, the Township of Blirstown supports this amendment as reflected in a resolution dated August 10, 2011 and intends to preserve these farms; and

**WHEREAS**, the Agricultural Development Area must be certified by the State Agriculture Development Committee.

**NOW, THEREFORE, BE IT RESOLVED** that the Warren County Agricultural Development Board adopts the proposed amendment to add Block 702, Lots 6.02, 15.01, 15.07, 15.17, 23, 23.05 and surrounding area in Blirstown Township to the existing Agricultural Development Area:

**BE IT FURTHER RESOLVED**, that copies of this resolution and related documentation shall be forwarded to the State Agriculture Development Committee for certification.

**ROLL CALL:**

Mr. Schnetzer – yes  
Mr. Toretta – yes  
Ms. Willever – absent

Mr. Race – yes  
Mr. Gibbs – yes

Mr. Baduini – yes  
Mr. Gourniak – yes

I hereby certify the above to be a true copy of a resolution adopted by the Warren County Agriculture Development Board on the date above mentioned.

  
\_\_\_\_\_  
Corey Tierney, Administrator



## BEST LOCAL CLASSIFIEDS

### Legal Notices

A Public Hearing on the Blairstown and the County Agriculture Development Areas will be held at the regularly scheduled Warren County Agriculture Development Board Meeting on Thursday, September 15, 2011 at 7:30 pm located at the Department of Land Preservation, 500 Mt. Pisgah Avenue, Oxford, NJ. August 29, 2011 \$15.08

Notices and Announcements - Legal Notice

Published in *The Star Ledger* 8/29. Updated 8/29.

## **BLAIRSTOWN TOWNSHIP**

### **RESOLUTION 2011 – 101**

#### **Resolution in Support of Realigning the Agriculture Development Area (ADA) in Blairstown**

**BE IT RESOLVED** that in order to enhance the Agriculture industry in Blairstown and the possibility of farm land preservation, the Township Committee supports the realignment of the Warren County ADA which is in Blairstown. Since the state of New Jersey requires that a maximum of 90% of a county's farm land assessed property be included in the ADA, and the county's ADA is already at or near that requirement, the proposed change in Blairstown will result in a net reduction of two (2) acres of farm assessed in the Warren County ADA. The proposed change involves relatively contiguous areas.

The farm assessed area proposed for inclusion will include:

- Areas with good soils in the Paulins Kill river valley
- Landowners interested in farm land preservation
- Traditional Farms

The farm assessed areas proposed for exclusion will include:

- Smaller lots
- Woodlots
- Farms which do not meet the state and county requirements for preservation

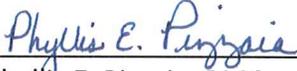
The proposed new area, the Route 94 North Project Area, is in Block 702 of the Blairstown tax map and is bordered by Cobblewood Road, Rt. 94, Buchanan Road, Mt. Vernon Road, Glider View Way and McConachy Lane.

Three areas are proposed for exclusion. These areas can still be farm assessed as long as the landowners continue to qualify.

- Portions of Block 2103 in the Southeast corner of Blairstown bordered by Hope Township, Frelinghuysen Township, Cooke Road and Mud Pond Road.
- All of Blocks 1703 and 1708 in the Southwestern portion of Blairstown bordered by Knowlton Township, Centerville Road, Mt. Hermon Road, LeBarre Road and Delaware Road.
- Portions of Block 2002 in East Central Blairstown bordered by Rt. 521, Route 94, Frelinghuysen Township and the Lackawanna Cutoff (lot 36 owned by the NJ DOT).

Date: August 10, 2011  
Motion: Lance  
Second: Mach  
VOTE: AYE – Anderson, Lance, Lascari, Seal, Mach

**CERTIFICATION:** It is hereby certified that this is a true and accurate copy of a Resolution adopted by the Township Committee of the Township of Blairstown, Warren County, NJ at a Regular Meeting held on August 10, 2011.

  
\_\_\_\_\_  
Phyllis E. Pizzaia, RMC  
Municipal Clerk

**THE WARREN COUNTY AGRICULTURAL DEVELOPMENT BOARD**  
THE DEPARTMENT OF LAND PRESERVATION  
500 MT PISGAH AVE, P.O. BOX 179  
OXFORD, NJ 07863

**RESOLUTION 2011-15**

On motion by Mr. Gourniak, seconded by Mr. Race, the following resolution was adopted by the Warren County Agricultural Development Board at a meeting held October 20, 2011.

**RESOLUTION AUTHORIZING  
THE AMENDMENT OF THE WARREN COUNTY  
AGRICULTURAL DEVELOPMENT AREA TO INCLUDE  
FARMLAND IN OXFORD TOWNSHIP**

**WHEREAS**, the Warren County Agriculture Development Board (hereinafter "CADB" or "Board") believes that the development of agriculture and the retention of farmlands are important to the present and future economy of the State and the welfare of the citizens of the State; and

**WHEREAS**, the CADB may identify and recommend areas to be designated as Agricultural Development Areas (ADAs) per N.J.S.A. 4:1C-18 which provides in pertinent part:

"The board may, after public hearing, identify and recommend an area as an agricultural development area... The board shall document where agriculture shall be the preferred, but not necessarily the exclusive, use of land if that area:

1. 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;
2. Is reasonably free of suburban and conflicting commercial development;
3. Comprises not greater than 90% of the agricultural land mass of the county;
4. Incorporates any other characteristics deemed appropriate by the board...";  
and

**WHEREAS**, in addition to the above statutory criteria, the CADB utilized the following county criteria, as described in the *Warren County Comprehensive Farmland Preservation Plan* when identifying lands to be included in the ADA:

1. The land must be currently in agriculture production, have strong potential for agricultural production, or be farm assessed through a woodland management plan;

2. Agriculture must be the preferred, but not necessarily the exclusive use of the land;
3. Agriculture must be a use permitted by current municipal zoning ordinance or be allowed as a non-conforming use.

**WHEREAS**, in accordance with N.J.A.C. §2:76-1.5, the CADB certifies that a hearing was held on October 20, 2011 in compliance with the Open Public Meetings Act, N.J.S.A. 10:4-6 et seq.; and submits to the committee a copy of the approved minutes of the hearing, including a summary of the testimony, as well as a comprehensive report consisting of (i) a discussion of factors considered for arriving at the adopted ADA criteria, (ii) adopted criteria for ADA identification; (iii) a resolution of adoption of ADA(s) and (iv) Map(s) showing the general location of the ADA(s) as defined by the application of the criteria; and

**WHEREAS**, the CADB proposes to add the following farms which are located in the Township of Oxford to the ADA:

- Block 25, Lot 1 - Kiszonak
- Block 25, Lot 10 - McConnell

**WHEREAS**, the proposed area satisfies the statutory requirements of N.J.S.A. 4:1C-18 because agriculture is the preferred, but not necessarily the exclusive, use of the proposed area which encompasses productive agricultural lands currently in production and permitted under municipal zoning laws; and

**WHEREAS**, the proposed area further satisfies the statutory requirements of N.J.S.A. 4:1C-18 because this area is reasonably free from suburban and conflicting commercial development and will increase the ADA to only 85.5% of Warren County's agricultural land mass, well below the 90% statutory limitation; and

**WHEREAS**, the proposed area includes two (2) separately owned farms containing a cumulative 103.85 acres of relatively contiguous farmland assessed properties. The impetus for modification is landowner interest in preserving Block 25 Lot 10, known as the McConnell Farm. This 52 acre farm is largely tillable (approx. 63%) and contains 31 acres (approx. 59%) designated as having soils of Statewide Importance (AnoC and NetCb). The Kiszonak property does not appear eligible for farmland preservation, but is being included so as to avoid creating holes in the otherwise contiguous ADA.

**WHEREAS**, not only have these properties traditionally been farmland containing soils capable of supporting agriculture, but the McConnell farm has submitted an County application for farmland preservation; and

**WHEREAS**, the Township of Oxford supports this amendment as reflected in a resolution dated October 5, 2011 and intends to preserve these farms; and

**WHEREAS**, the Agricultural Development Area must be certified by the State Agriculture Development Committee.

**NOW, THEREFORE, BE IT RESOLVED** that the Warren County Agricultural Development Board adopts the proposed amendment to add Block 25, Lots 1, 10 and surrounding area in Oxford Township to the existing Agricultural Development Area:

**BE IT FURTHER RESOLVED**, that copies of this resolution and related documentation shall be forwarded to the State Agriculture Development Committee for certification.

**ROLL CALL:**

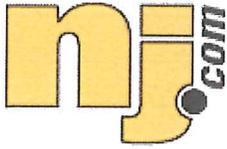
Mr. Schnetzer – yes  
Mr. Toretta – yes  
Ms. Willever – absent

Mr. Race – yes  
Mr. Gibbs – yes

Mr. Baduini – no  
Mr. Gourniak – yes

I hereby certify the above to be a true copy of a resolution adopted by the Warren County Agriculture Development Board on the date above mentioned.

  
\_\_\_\_\_  
Corey, Tierney, Administrator



Everything Jersey

## BEST LOCAL CLASSIFIEDS

### Legal Notices

A Public Hearing on the Oxford Township and the County Agriculture Development Areas will be held at the regularly scheduled Warren County Agriculture Development Board Meeting on Thursday, October 20, 2011 at 7:30 pm located at the Department of Land Preservation, 500 Mt. Pisgah Avenue, Oxford, NJ. 10/10/11 \$15.08

Notices and Announcements - Legal Notice

Published in *The Star Ledger* 10/10. Updated 10/10.

**RESOLUTION 2011-71**

**SUPPORT OF REALIGNING THE WARREN COUNTY AGRICULTURE  
DEVELOPMENT AREA (ADA) IN OXFORD TOWNSHIP**

**WHEREAS**, in order to enhance the agriculture industry in Oxford Township and promote the viability same through farmland preservation, the Township Council/Committee supports the realignment of the Warren County Agriculture Development Area (ADA) within Oxford Township. The proposed change will add approximately 100 acres of continuous farmland assess property to the County ADA. The proposed new area is bordered by Belvidere Avenue along the southwest and the White Township Municipal boundary along the northwest. The proposed area includes the following properties:

- Block 25, Lot 1 (consisting of approximately 47 acres); and
- Block 25, Lot 10 (consisting of approximately 52 acres).

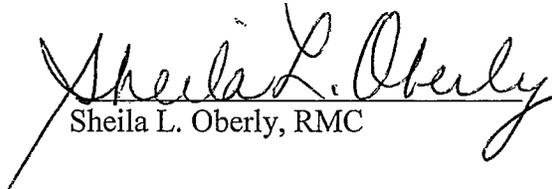
The impetus for modification is landowner interest in preserving Block 25 Lot 10, known as the McConnell Farm. This 52 acre farm is largely tillable (approx. 63%) and contains 31 acres (approx. 59%) designated as having soils of Statewide Importance (AnoC and NetCb). As this farm meets the eligibility criteria for farmland preservation, the Warren County Land Preservation Department is currently assisting the landowner with an application to the State Agriculture Development Committee (SADC) Farmland Preservation Program. In order to proceed with this application, however, the property must be added to the County ADA.

**THEREFORE BE IT RESOLVED** that Oxford Township hereby adopts this Resolution in support of adding the above referenced properties to the Warren County ADA.

**CERTIFICATION**

I, Sheila L. Oberly, Township Clerk of the Township of Oxford, County of Warren and State of New Jersey, **DO HEREBY CERTIFY** that this is a true and correct copy of a Resolution adopted by the Township Committee of the Township of Oxford, at their reorganization meeting held on October 5, 2011.

**WITNESS**, my hand and seal of the Township of Oxford on this 5<sup>th</sup> day of October, 2011.

  
Sheila L. Oberly, RMC

**THE WARREN COUNTY AGRICULTURAL DEVELOPMENT BOARD**

THE DEPARTMENT OF LAND PRESERVATION  
500 MT PISGAH AVE, P.O. BOX 179  
OXFORD, NJ 07863

**RESOLUTION 2012-19**

On motion by Mr. Baduini seconded by Mr. Gibbs, the following resolution was adopted by the Warren County Agricultural Development Board at a meeting held December 20, 2012

**RESOLUTION AUTHORIZING  
THE AMENDMENT OF THE WARREN COUNTY  
AGRICULTURAL DEVELOPMENT AREA TO INCLUDE  
FARMLAND IN LOPATCONG TOWNSHIP**

**WHEREAS**, the Warren County Agriculture Development Board (hereinafter "CADB" or "Board") believes that the development of agriculture and the retention of farmlands are important to the present and future economy of the State and the welfare of the citizens of the State; and

**WHEREAS**, the CADB may identify and recommend areas to be designated as Agricultural Development Areas (ADAs) per N.J.S.A. 4:1C-18 which provides in pertinent part:

"The board may, after public hearing, identify and recommend an area as an agricultural development area... The board shall document where agriculture shall be the preferred, but not necessarily the exclusive, use of land if that area:

1. 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;
2. Is reasonably free of suburban and conflicting commercial development;
3. Comprises not greater than 90% of the agricultural land mass of the county;
4. Incorporates any other characteristics deemed appropriate by the board...";  
and

**WHEREAS**, in addition to the above statutory criteria, the CADB utilized the following county criteria, as described in the *Warren County Comprehensive Farmland Preservation Plan* when identifying lands to be included in the ADA:

1. The land must be currently in agriculture production, have strong potential for agricultural production, or be farm assessed through a woodland management plan;

2. Agriculture must be the preferred, but not necessarily the exclusive use of the land;
3. Agriculture must be a use permitted by current municipal zoning ordinance or be allowed as a non-conforming use.

**WHEREAS**, in accordance with N.J.A.C. §2:76-1.5, the CADB certifies that a hearing was held on November 15, 2012 in compliance with the Open Public Meetings Act, N.J.S.A. 10:4-6 et seq.; and submits to the committee a copy of the approved minutes of the hearing, including a summary of the testimony, as well as a comprehensive report consisting of (i) a discussion of factors considered for arriving at the adopted ADA criteria, (ii) adopted criteria for ADA identification; (iii) a resolution of adoption of ADA(s) and (iv) Map(s) showing the general location of the ADA(s) as defined by the application of the criteria; and

**WHEREAS**, the CADB proposes to add the following farm which is located in the Township of Lopatcong to the ADA:

- Block 2, Lot 5 – Raub Farm (aka Sunny Hill Farm)

**WHEREAS**, the proposed area satisfies the statutory requirements of N.J.S.A. 4:1C-18 because agriculture is the preferred, but not necessarily the exclusive, use of the proposed area which encompasses productive agricultural lands currently in production and permitted under municipal zoning laws; and

**WHEREAS**, the proposed area further satisfies the statutory requirements of N.J.S.A. 4:1C-18 because this area is reasonably free from suburban and conflicting commercial development and will increase the ADA to only 85.6% of Warren County's agricultural land mass, well below the 90% statutory limitation; and

**WHEREAS**, the proposed area includes one farm containing 6.13 acres of contiguous farmland assessed property. The impetus for modification is landowner interest in preserving Block 2 Lot 5 in Lopatcong Township (approx. 6.13 acres) and Block 33 Lot 55 in Harmony Township (approx. 24.52 acres), known collectively as the Raub Farm (aka Sunny Hill Farm). This nearly 31 acre farm is largely tillable (approx. 77%) and contains 9.75 acres (approx. 31%) designated as having soils of Statewide Importance. As this farm meets the eligibility criteria for farmland preservation, The Land Conservancy of New Jersey is currently assisting the landowner with an application to the State Agriculture Development Committee (SADC) Farmland Preservation Program.

**WHEREAS**, not only has this property traditionally been farmland containing soils capable of supporting agriculture, but the Raub Farm has submitted an application for farmland preservation; and

**WHEREAS**, the Township of Lopatcong does not object to this amendment; and

**WHEREAS**, the Agricultural Development Area must be certified by the State Agriculture Development Committee.

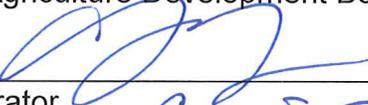
**NOW, THEREFORE, BE IT RESOLVED** that the Warren County Agricultural Development Board adopts the proposed amendment to add Block 2, Lot 5 in Lopatcong Township to the existing Agricultural Development Area:

**BE IT FURTHER RESOLVED**, that copies of this resolution and related documentation shall be forwarded to the State Agriculture Development Committee for certification.

**ROLL CALL:**

I hereby certify the above to be a true copy of a resolution adopted by the Warren County Agriculture Development Board on the date above mentioned.

\_\_\_\_\_  
Administrator



Corey J. Tierney

[E ]

**THE WARREN COUNTY AGRICULTURAL DEVELOPMENT BOARD**  
THE DEPARTMENT OF LAND PRESERVATION  
500 MT PISGAH AVE, P.O. BOX 179  
OXFORD, NJ 07863

**RESOLUTION 2014-01**

On motion by Mr. Badvini seconded by Mr. Gorniak, the following resolution was adopted by the Warren County Agricultural Development Board at a meeting held January 16, 2014.

**RESOLUTION AUTHORIZING  
THE AMENDMENT OF THE WARREN COUNTY AGRICULTURAL  
DEVELOPMENT AREA TO INCLUDE FARMLAND IN  
FRELINGHUYSEN, LIBERTY, MANSFIELD, OXFORD, POHATCONG  
AND WHITE TOWNSHIPS**

**WHEREAS**, the Warren County Agriculture Development Board (hereinafter "CADB" or "Board") believes that the development of agriculture and the retention of farmlands are important to the present and future economy of the State and the welfare of the citizens of the State; and

**WHEREAS**, the CADB may identify and recommend areas to be designated as Agricultural Development Areas (ADAs) per N.J.S.A. 4:1C-18 which provides in pertinent part:

"The board may, after public hearing, identify and recommend an area as an agricultural development area... The board shall document where agriculture shall be the preferred, but not necessarily the exclusive, use of land if that area:

1. 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;
2. Is reasonably free of suburban and conflicting commercial development;
3. Comprises not greater than 90% of the agricultural land mass of the county;
4. Incorporates any other characteristics deemed appropriate by the board..."; and

**WHEREAS**, in addition to the above statutory criteria, the CADB utilized the following county criteria, as described in the *Warren County Comprehensive Farmland Preservation Plan* when identifying lands to be included in the ADA:

1. The land must be currently in agriculture production, have strong potential for agricultural production, or be farm assessed through a woodland management plan;
2. Agriculture must be the preferred, but not necessarily the exclusive use of the land;
3. Agriculture must be a use permitted by current municipal zoning ordinance or be allowed as a non-conforming use.

**WHEREAS**, in accordance with N.J.A.C. §2:76-1.5, the CADB certifies that a hearing was held on December 19, 2013 in compliance with the Open Public Meetings Act, N.J.S.A. 10:4-6 et seq.; and submits to the committee a copy of the approved minutes of the hearing, including a summary of the testimony, as well as a comprehensive report consisting of (i) a discussion of factors considered for arriving at the adopted ADA criteria, (ii) adopted criteria for ADA identification; (iii) a resolution of adoption of ADA(s) and (iv) Map(s) showing the general location of the ADA(s) as defined by the application of the criteria; and

**WHEREAS**, the CADB proposes to add the following farms which are located in the Borough of Alpha to the ADA:

- Block 97, Lot 5 (Jack Oberly) 7.25 ac.

**WHEREAS**, the CADB proposes to add the following farms which are located in the Township of Frelinghuysen to the ADA:

- Block 201, Lot 17.02 (Sue DeCamp) 34.71 ac.
- Block 201, Lot 17 (Heath Hills Farm) 63.68 ac.
- Block 201, Lot 21 (Robert Canace) 5.81 ac.
- Block 201, Lot 22 (IHM Realty) 18.19 ac.
- Block 201, Lot 23 (IHM Realty) 88.28 ac.
- Block 201, Lot 31 (Frelinghuysen Twp.) 58.90 ac.
- Block 201, Lot 32.06 (Charles Muller) 3.09 ac.
- Block 201, Lot 32.07 (Charles Muller) 4.23 ac.
- Block 201, Lot 32 (Charles Muller) 42.02 ac.
- Block 201, Lot 33 (Muller Road LLC) 13.41 ac.

**WHEREAS**, the CADB proposes to add the following farms which are located in the Township of Independence to the ADA:

- Block 14, Lot 10 (Gabriella Klimas) 43.22 ac.
- Block 14, Lot 12.01 (Gabriella Kliams) 5.13 ac.
- Block 23, Lot 1 (John Barton) 21.60 ac.

**WHEREAS**, the CADB proposes to add the following farms which are located in the Township of Oxford to the ADA:

- Block 2, Lot 16.01 (Tom Bartha) 5.80 ac.
- Block 2, Lot 16 (Randy Widdoss) 16.30 ac.

**WHEREAS**, the CADB proposes to add the following farms which are located in the Township of White to the ADA:

- Block 51, Lot 4 (Armando Fratezi) 20.29 ac.

**WHEREAS**, the proposed area satisfies the statutory requirements of N.J.S.A. 4:1C-18 because agriculture is the preferred, but not necessarily the exclusive, use of the proposed area which encompasses productive agricultural lands currently in production and permitted under municipal zoning laws; and

**WHEREAS**, the proposed area further satisfies the statutory requirements of N.J.S.A. 4:1C-18 because this 455 acre area is reasonably free from suburban and conflicting commercial development and will increase the ADA to only 85.87% of Warren County's agricultural land mass, well below the 90% statutory limitation; and

**WHEREAS**, the proposed area includes four (4) separately owned farms which have applied to the CADB for farmland preservation (Oberly, Klimas, Barton, & Bartha). These farms meet the SADC and CADB eligibility criteria and the balance of their farmland is already located within the ADA; and

**WHEREAS**, the proposed area includes seven (7) separately owned properties (Decamp, Heather Hills, Canace, IHM Realty, Frelinghuysen Twp., Muller, & Muller Road) which Frelinghuysen Township has requested the County to add to the ADA; and

**WHEREAS**, the proposed area includes one (1) farm (Fratezi) which the Township of White has requested the County to add to the ADA; and

**WHEREAS**, not only have these properties traditionally been farmland containing productive soils, but there has been demonstrated landowner interest in preserving many of the proposed farms; and

**WHEREAS**, the Agricultural Development Area must be certified by the State Agriculture Development Committee.

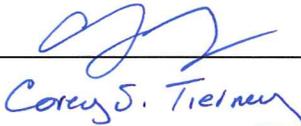
**NOW, THEREFORE, BE IT RESOLVED** that the Warren County Agricultural Development Board adopts the proposed amendment to add:

- Block 97 Lot 5 in Alpha Borough; and
- Block 201 Lots 17, 17.02, 21, 22, 23, 31, 32, 32.06, 32.07, & 33 in Frelinghuysen Township; and
- Block 14 Lots 10 & 12.01, as well as Block 23 Lot 1 in Independence Township; and
- Block 2 Lots 16 & 16.01 in Oxford Township; and
- Block 51 Lot 4 in White Township to the existing Agricultural Development Area:

**BE IT FURTHER RESOLVED**, that copies of this resolution and related documentation shall be forwarded to the State Agriculture Development Committee for certification.

**ROLL CALL:**

I hereby certify the above to be a true copy of a resolution adopted by the Warren County Agriculture Development Board on the date above mentioned.

  
\_\_\_\_\_, Administrator  
[E ]

# Oberly Properties

Block 97, Lot 5, Alpha Borough  
 Block 95, Lot 2 & 2.06, Pohatcong Township  
 Warren County, New Jersey

- Proposed Agricultural Development Area
- Existing Agricultural Development Area
- Subject Properties in new ADA
- Subject Properties in existing ADA
- Preserved Farmland
- Farm Assessed Properties (Class 3A and 3B)
- Preserved Parks/Open Space/Campground
- Land Parcels
- Water Body      River/Streams
- Municipal Boundaries



**Oberly  
 Block 95, Lot 2  
 Block 95, Lot 2.06  
 Pohatcong Twp.  
 85.1 Acres**

**Oberly  
 Block 97, Lot 5  
 Alpha Boro.  
 7.25 Acres**



THE LAND CONSERVANCY OF NEW JERSEY  
 ARESTY MAPPING CENTER  
 19 Boonton Ave  
 Boonton, NJ 07005  
 www.ltc-nj.org

Map Prepared October 31, 2013

Data Sources: County of Warren Office of GIS Management, NJDEP, NJDOT

This map was developed using NJDEP Geographic Information System digital data, but this secondary product has not been verified by the NJDEP and is not state-authorized.

This map is to be used solely for planning purposes, and does not take the place of a survey.

**RESOLUTION 2014-40**  
**RESOLUTION SUPPORTING OF REALIGNING THE WARREN COUNTY**  
**AGRICULTURE DEVELOPMENT AREA (ADA) IN ALPHA BOROUGH**

**WHEREAS**, in order to enhance the agriculture industry in Alpha Borough and promote the visibility same through farmland preservation, the Borough Council supports the realignment of the Warren County Agriculture Development Area (ADA) within the Alpha Borough. The proposed change will add approximately 7.5 acres of contiguous farmland assessed property to the County ADA.

**WHEREAS**, the proposed area includes the following properties:

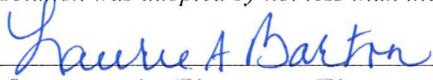
- *Block 97, Lot 5 (consisting of approximately 7.5 acres)*

**WHEREAS**, the impetus for modification is landowner interest in preserving Block 95 Lots 2 and 2.06 in Pohatcong Township, as well as Block 97, Lot 5 Alpha Borough, known collectively as the Jack Oberly Farm. This 94 acre farm is largely tillable (approx. 97%) and contains nearly 87 acre (approx. 90%) designated as prime soils. AS this farm meets the eligibility criteria for farmland preservation, the Warren County Land Preservation Department is currently assisting the landowner with an application to the State Agriculture Development Committee (SADC) Farmland Preservation Program. In order to proceed with this application, however, the property must be added to the County ADA.

**THEREFORE BE IT RESOLVED**, that the Mayor and the Governing Body of the Borough of Alpha hereby adopts this Resolution in support of adding the above referenced properties to the Warren County ADA.

**CERTIFICATION**

*I, Laurie A. Barton, Clerk of the Borough of Alpha, County of Warren, State of New Jersey, do hereby certify the foregoing to be a true and correct copy of a Resolution adopted by the Common Council at a meeting of said Common Council on February 11, 2014 and that said Resolution was adopted by not less than the legal vote needed of the members of the Council.*

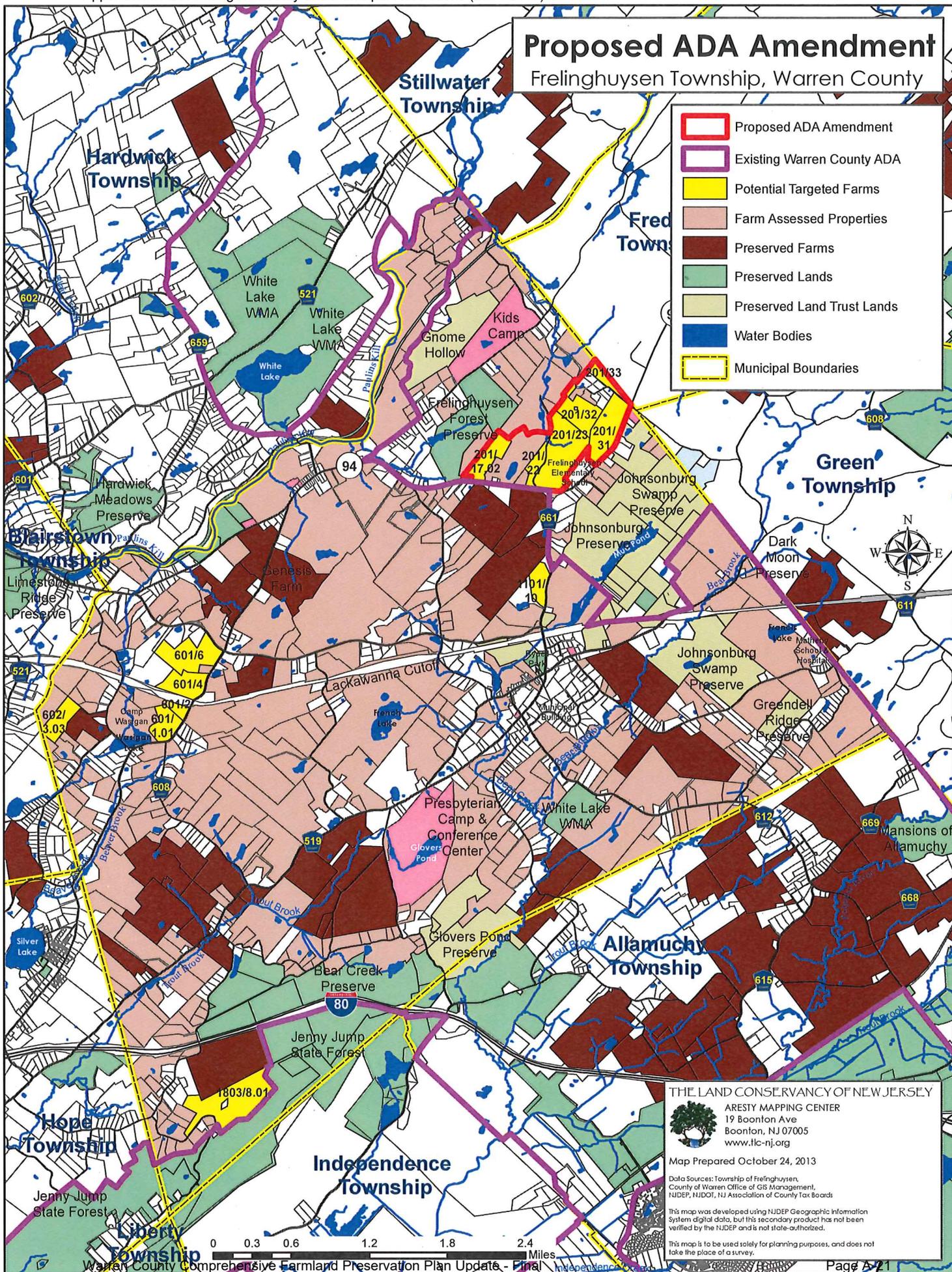
  
\_\_\_\_\_  
*Laurie A. Barton, Borough Clerk*

*Witness my hand and seal of the Borough of Alpha  
This 11<sup>th</sup> day of February 2014.*

# Proposed ADA Amendment

Frelinghuysen Township, Warren County

	Proposed ADA Amendment
	Existing Warren County ADA
	Potential Targeted Farms
	Farm Assessed Properties
	Preserved Farms
	Preserved Lands
	Preserved Land Trust Lands
	Water Bodies
	Municipal Boundaries



THE LAND CONSERVANCY OF NEW JERSEY  
 ARESTY MAPPING CENTER  
 19 Boonton Ave  
 Boonton, NJ 07005  
 www.lc-nj.org

Map Prepared October 24, 2013

Data Sources: Township of Frelinghuysen,  
 County of Warren Office of GIS Management,  
 NJDEP, NJDOT, NJ Association of County Tax Boards

This map was developed using NJDEP Geographic Information System digital data, but this secondary product has not been verified by the NJDEP and is not state-authorized.

This map is to be used solely for planning purposes, and does not take the place of a survey.

**Frelinghuysen Township**  
210 Main Street  
Johnsonburg, NJ 07825

**Resolution 2014- 25**

**Resolution in Support of Realigning the Warren County  
Agriculture Development Area (ADA) in Frelinghuysen Township**

**WHEREAS** in order to enhance the agriculture industry in Frelinghuysen Township and promote the viability same through farmland preservation, the Township Council/Committee supports the realignment of the Warren County Agriculture Development Area (ADA) within Frelinghuysen Township. The proposed change will add approximately 314.13 acres of contiguous farmland assessed property to the County ADA.

The proposed area includes the following properties:

- Block 201, Lot 17.02 (Sue DeCamp) 34.71 ac.
- Block 201, Lot 17 (Heath Hills Farm) 63.68 ac.
- Block 201, Lot 21 (Robert Canace) 5.81 ac.
- Block 201, Lot 22 (IHM Realty) 18.19 ac.
- Block 201, Lot 23 (IHM Realty) 88.28 ac.
- Block 201, Lot 31 (Frelinghuysen Twp.) 58.90 ac.
- Block 201, Lot 32.06 (Charles Muller) 3.09 ac.
- Block 201, Lot 32.07 (Charles Muller) 4.23 ac.
- Block 201, Lot 32 (Charles Muller) 42.02 ac.
- Block 201, Lot 33 (Muller Road LLC) 13.41 ac.

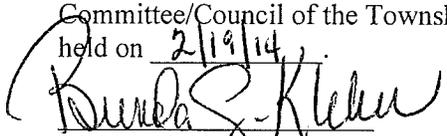
The impetus for this modification was a request by the Frelinghuysen Township Farmland Preservation Committee with interest in preserving a number of the above referenced properties. The Farmland Preservation Committee is currently reaching out to these landowners for possible applications to the State Agriculture Development Committee (SADC) Farmland Preservation Program. In order to proceed with this application, however, the property must be added to the County ADA.

**THEREFORE BE IT RESOLVED** that <sup>Frelinghuysen</sup> ~~White~~ Township hereby adopts this Resolution in support of adding the above referenced properties to the Warren County ADA.

Date:  
Motion:  
Second:  
Vote:

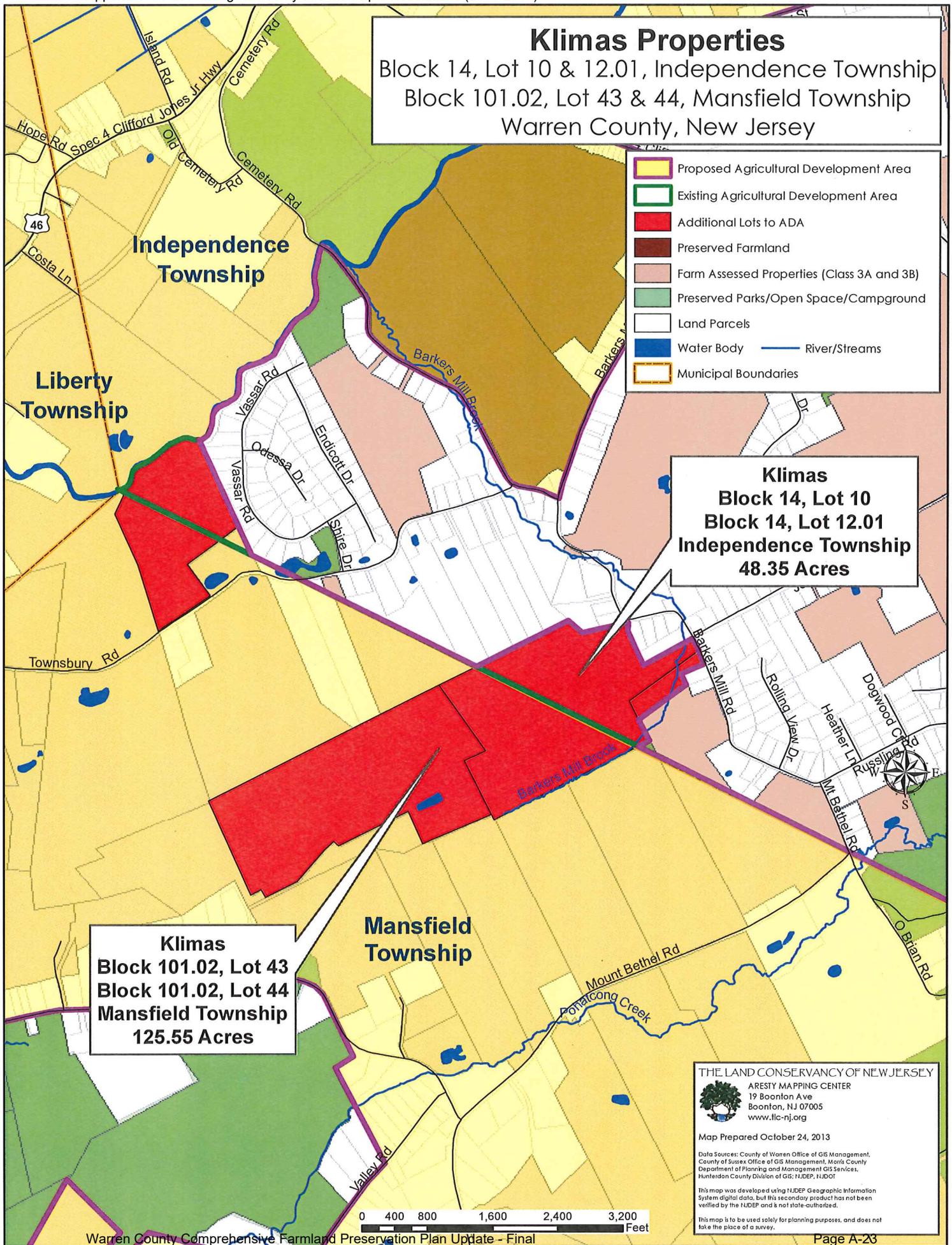
Certification:

It is hereby certified that this is a true and accurate copy of a Resolution adopted by the Township Committee/Council of the Township of ~~White~~ <sup>Frelinghuysen</sup>, Warren County, New Jersey at a Regular Meeting held on 2/19/14.

  
Municipal Clerk

# Klimas Properties

Block 14, Lot 10 & 12.01, Independence Township  
 Block 101.02, Lot 43 & 44, Mansfield Township  
 Warren County, New Jersey



- Proposed Agricultural Development Area
- Existing Agricultural Development Area
- Additional Lots to ADA
- Preserved Farmland
- Farm Assessed Properties (Class 3A and 3B)
- Preserved Parks/Open Space/Campground
- Land Parcels
- Water Body
- River/Streams
- Municipal Boundaries

**Klimas**  
 Block 14, Lot 10  
 Block 14, Lot 12.01  
 Independence Township  
 48.35 Acres

**Klimas**  
 Block 101.02, Lot 43  
 Block 101.02, Lot 44  
 Mansfield Township  
 125.55 Acres

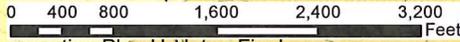
**THE LAND CONSERVANCY OF NEW JERSEY**  
 ARESTY MAPPING CENTER  
 19 Boonton Ave  
 Boonton, NJ 07005  
 www.lc-nj.org

Map Prepared October 24, 2013

Data Sources: County of Warren Office of GIS Management,  
 County of Sussex Office of GIS Management, Morris County  
 Department of Planning and Management GIS Services,  
 Hunterdon County Division of GIS, NJDEP, NJDOT

This map was developed using NIDEF Geographic Information  
 System digital data, but this secondary product has not been  
 verified by the NIDEF and is not state-authorized.

This map is to be used solely for planning purposes, and does not  
 take the place of a survey.



**Independence Township**  
286-B Route 46  
P.O. Box 164  
Great Meadows, NJ 07838

**Resolution 2014- 17**

**Resolution in Support of Realigning the Warren County  
Agriculture Development Area (ADA) in Independence Township**

**WHEREAS** in order to enhance the agriculture industry in Independence Township and promote the viability same through farmland preservation, the Township Council/Committee supports the realignment of the Warren County Agriculture Development Area (ADA) within Independence Township. The proposed change will add approximately 70.85 acres of farmland assessed property to the County ADA.

The proposed area includes the following properties:

- Block 14, Lot 10 (consisting of approximately 44 acres);
- Block 14, Lot 12.01 (consisting of approximately 5 acres); and
- Block 23, Lot 1 (consisting of approximately 21.85 acres),

The impetus for modification is landowner interest in preserving the Kilmas Farm (Block 14 Lots 10 and 12.01 in Independence Township, as well as Block 101.02 Lots 43 and 44 in Mansfield Township) and the Barton Farm (Block 23, Lot 1 in Independence Township; Block 13 Lots 6, 6.02 and 9 in Liberty Township; Block 102 Lots 2.01, 3, 4.01, and 4.02 in Mansfield Township). The 196 acre Kilmas Farm has about 45 tillable acres (approx. 23%) and contains about some prime soils. The 194 acre Barton Farm has about 104.5 tillable acres (approx. 54%) and contains prime soils. As these farms meet the eligibility criteria for farmland preservation, the Warren County Land Preservation Department is currently assisting the landowners with their applications to the State Agriculture Development Committee (SADC) Farmland Preservation Program. In order to proceed with this application, however, these properties must be added to the County ADA.

**THEREFORE BE IT RESOLVED** that Independence Township hereby adopts this Resolution in support of adding the above referenced properties to the Warren County ADA.

Date: 2.11.14  
Motion: Coughle  
Second: Kelsey  
Vote: Cummins, Kelsey, Williams, Coughle, Giordano Anglo

Certification:  
It is hereby certified that this is a true and accurate copy of a Resolution adopted by the Township Committee/Council of the Township of Independence, Warren County, New Jersey at a Regular Meeting held on 2.11.14.

Alison M. Oberst  
Municipal Clerk

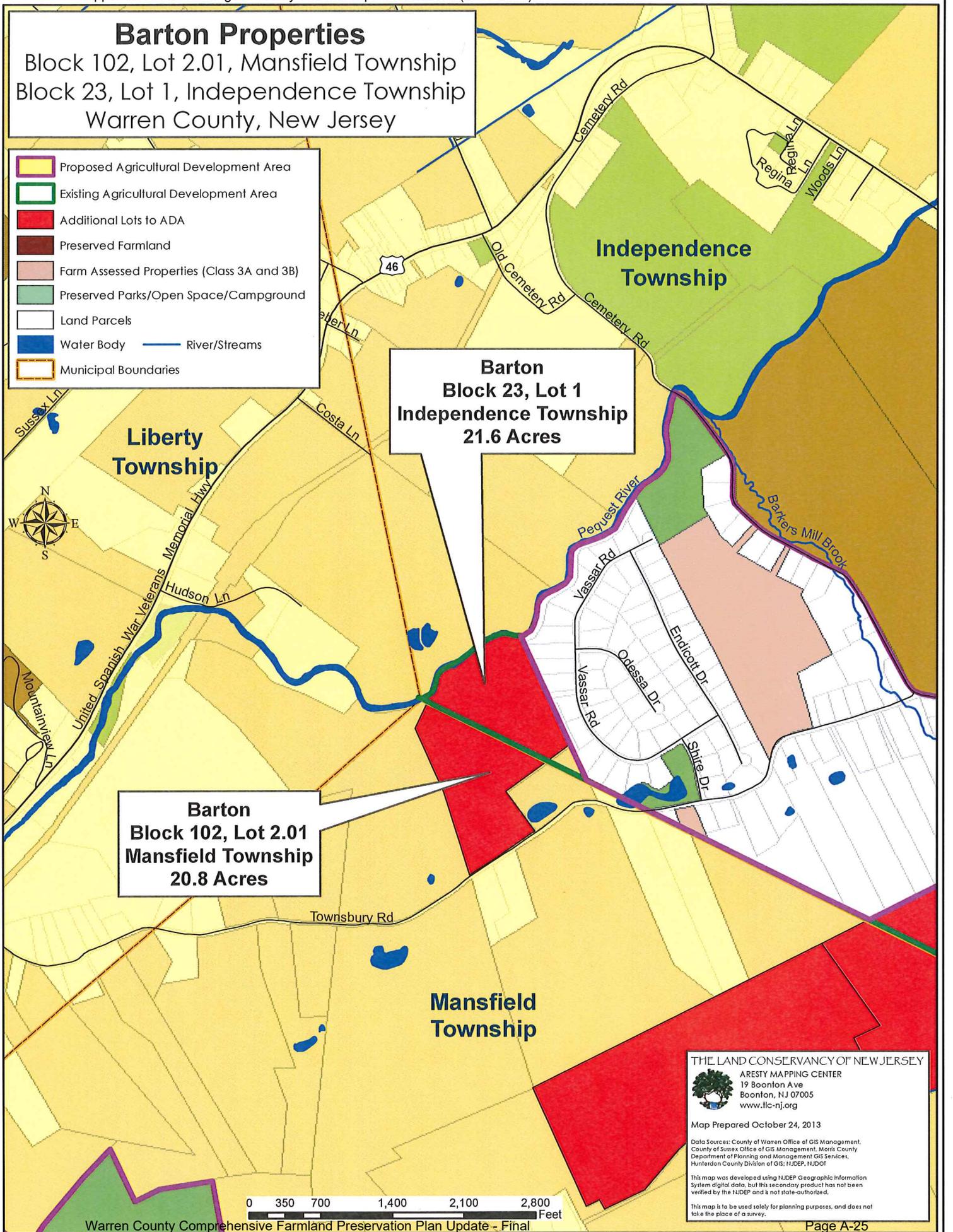
# Barton Properties

Block 102, Lot 2.01, Mansfield Township  
 Block 23, Lot 1, Independence Township  
 Warren County, New Jersey

- Proposed Agricultural Development Area
- Existing Agricultural Development Area
- Additional Lots to ADA
- Preserved Farmland
- Farm Assessed Properties (Class 3A and 3B)
- Preserved Parks/Open Space/Campground
- Land Parcels
- Water Body
- River/Streams
- Municipal Boundaries

**Barton  
 Block 23, Lot 1  
 Independence Township  
 21.6 Acres**

**Barton  
 Block 102, Lot 2.01  
 Mansfield Township  
 20.8 Acres**



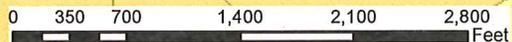
**THE LAND CONSERVANCY OF NEW JERSEY**  
 ARESTY MAPPING CENTER  
 19 Boonton Ave  
 Boonton, NJ 07005  
 www.lc-nj.org

Map Prepared October 24, 2013

Data Sources: County of Warren Office of GIS Management, County of Sussex Office of GIS Management, Morris County Department of Planning and Management GIS Services, Hunterdon County Division of GIS; NJDEP, NJDOT

This map was developed using NJDEP Geographic Information System digital data, but this secondary product has not been verified by the NJDEP and is not state authorized.

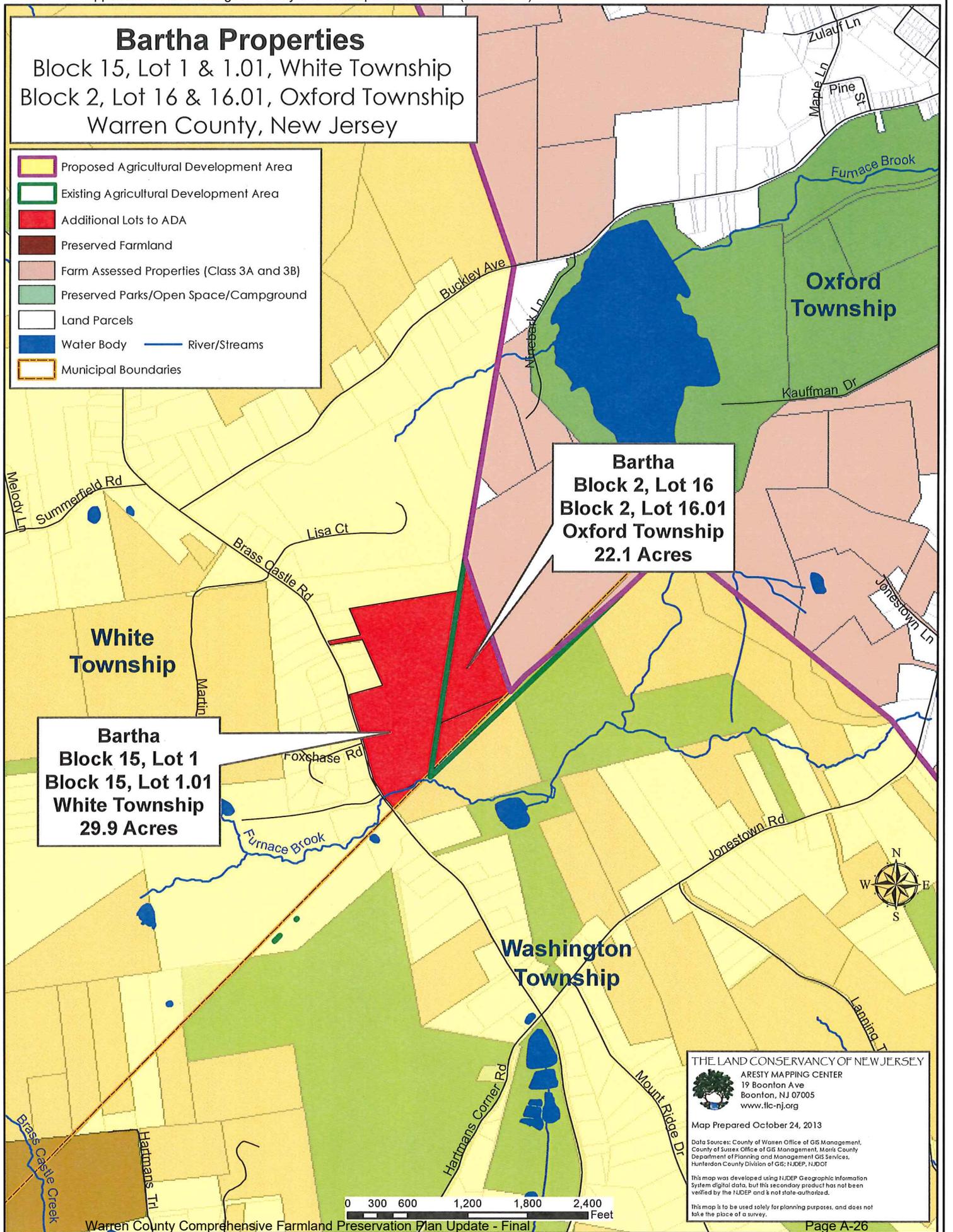
This map is to be used solely for planning purposes, and does not take the place of a survey.



# Bartha Properties

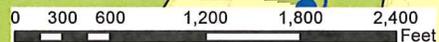
Block 15, Lot 1 & 1.01, White Township  
 Block 2, Lot 16 & 16.01, Oxford Township  
 Warren County, New Jersey

- Proposed Agricultural Development Area
- Existing Agricultural Development Area
- Additional Lots to ADA
- Preserved Farmland
- Farm Assessed Properties (Class 3A and 3B)
- Preserved Parks/Open Space/Campground
- Land Parcels
- Water Body
- River/Streams
- Municipal Boundaries



**Bartha**  
 Block 2, Lot 16  
 Block 2, Lot 16.01  
 Oxford Township  
 22.1 Acres

**Bartha**  
 Block 15, Lot 1  
 Block 15, Lot 1.01  
 White Township  
 29.9 Acres



**THE LAND CONSERVANCY OF NEW JERSEY**  
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 19 Boonton Ave  
 Boonton, NJ 07005  
 www.lc-nj.org

Map Prepared October 24, 2013

Data Sources: County of Warren Office of GIS Management, County of Sussex Office of GIS Management, Morris County Department of Planning and Management GIS Services, Hunterdon County Division of GIS, NJDEP, NJDOT

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**RESOLUTION 2014-27**

**Resolution in Support of Realigning the  
Warren County Agriculture Development Area (ADA) in Oxford Township**

**WHEREAS**, in order to enhance the agriculture industry in Oxford Township and promote the viability same through farmland preservation, the Township Committee supports the realignment of the Warren County Agriculture Development Area (ADA) within Oxford Township. The proposed change will add approximately 22.10 acres of contiguous farmland assessed property to the County ADA.

The proposed area includes the following properties:

- Block 2, Lot 16 (consisting of approximately 16.3 acres); and
- Block 2, Lot 16.01 (consisting of approximately 5.8 acres)

The impetus for medication is landowner interest in preserving the Bartha Farm (Block 2, Lots 16 and 16.01 in Oxford Township and Block 15, Lot 1 in White Township. This 50 acre farm contains 25 tillable acres (50%). As this farm meets the eligibility criteria for farmland preservation, the Warren County Land Preservation Department is currently assisting the landowner with an application to the State Agriculture Development Committee (SADC) Farmland Preservation Program. In order to proceed with this application, however, the property must be added to the County ADA.

**THEREFORE BE IT RESOLVED**, that Oxford Township hereby adopts this Resolution in support of adding the above referenced properties to the Warren County ADA.

**CERTIFICATION**

I, Sheila L. Oberly, Registered Municipal Clerk of the Township of Oxford, County of Warren and State of New Jersey, do hereby certify that this is a true and correct copy of a Resolution adopted by the Township Committee of the Township of Oxford at a regular scheduled meeting held on February 19, 2014.

Witness my hand and seal of the Township of Oxford on this 19<sup>th</sup> day of February, 2014.

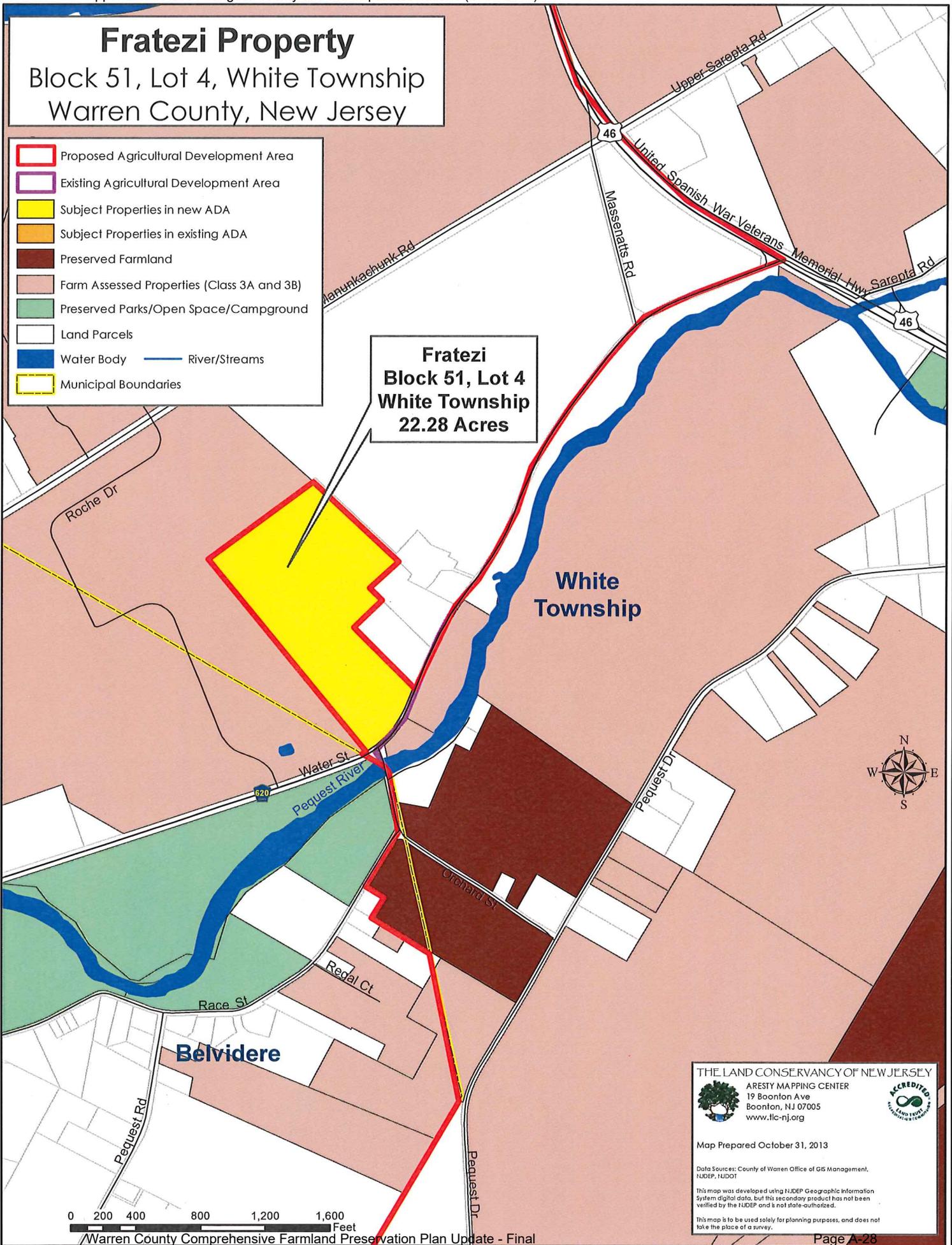
  
\_\_\_\_\_  
Sheila L. Oberly, RMC

# Fratezi Property

Block 51, Lot 4, White Township  
Warren County, New Jersey

- Proposed Agricultural Development Area
- Existing Agricultural Development Area
- Subject Properties in new ADA
- Subject Properties in existing ADA
- Preserved Farmland
- Farm Assessed Properties (Class 3A and 3B)
- Preserved Parks/Open Space/Campground
- Land Parcels
- Water Body     River/Streams
- Municipal Boundaries

**Fratezi  
Block 51, Lot 4  
White Township  
22.28 Acres**



THE LAND CONSERVANCY OF NEW JERSEY  
 ARESTY MAPPING CENTER  
 19 Boonton Ave  
 Boonton, NJ 07005  
 www.tlc-nj.org

Map Prepared October 31, 2013

Data Sources: County of Warren Office of GIS Management, NJDEP, NJDOT

This map was developed using NJDEP Geographic Information System digital data, but this secondary product has not been verified by the NJDEP and is not state-authorized.

This map is to be used solely for planning purposes, and does not take the place of a survey.

**RESOLUTION 2014-13**

**RESOLUTION IN SUPPORT OF REALIGNING THE WARREN COUNTY AGRICULTURE DEVELOPMENT AREA  
(ADA) IN WHITE TOWNSHIP**

**WHEREAS**, in order to enhance the agriculture industry in White Township and promote the viability same through farmland preservation, the White Township Committee supports the realignment of the Warren County Agriculture Development Area (ADA) within White Township. The proposed change will add approximately 22 acres of contiguous farmland assessed property to the County ADA.

The proposed area includes the following properties:

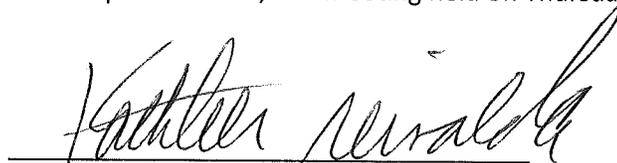
- Block 51, Lot 4 (consisting of approximately 22 acres.)

The impetus for this modification was a request by the White Township Open Space and Farmland Preservation Committee with interest in preserving the Fratezi Farm (Block 51 Lot 4 in White Township). This 22 acre farm appears to meet the eligibility criteria for farmland preservation and the Farmland Preservation Committee is currently assisting the landowner with a possible application to the State Agriculture Development Committee (SADC) Farmland Preservation Program. In order to proceed with this application, however, the property must be added to the County ADA.

**THEREFORE, BE IT RESOLVED** that White Township hereby adopts this resolution in support of adding the above referenced properties to the Warren County ADA.

CERTIFICATION

I, Kathleen R. Reinalda, RMC for the Township of White, hereby certify that the foregoing is a true copy of a Resolution adopted by the White Township Committee, at a meeting held on Thursday, February 27, 2014.



Kathleen R. Reinalda, RMC

Township Clerk

**THE WARREN COUNTY AGRICULTURAL DEVELOPMENT BOARD**  
THE DEPARTMENT OF LAND PRESERVATION  
500 MT PISGAH AVE, P.O. BOX 179  
OXFORD, NJ 07863

**RESOLUTION 2016-18**

On motion by Mr. Dempski and seconded by Mr. Bodine, the following resolution was adopted by the Warren County Agricultural Development Board at a meeting held November 17, 2016.

**RESOLUTION AUTHORIZING  
THE AMENDMENT OF THE WARREN COUNTY AGRICULTURAL  
DEVELOPMENT AREA TO INCLUDE FARMLAND IN BLAIRSTOWN,  
FRELINGHUYSEN AND INDEPENDENCE TOWNSHIPS**

**WHEREAS**, the Warren County Agriculture Development Board (hereinafter "CADB" or "Board") believes that the development of agriculture and the retention of farmlands are important to the present and future economy of the State and the welfare of the citizens of the State; and

**WHEREAS**, the CADB may identify and recommend areas to be designated as Agricultural Development Areas (ADAs) per N.J.S.A. 4:1C-18 which provides in pertinent part:

"The board may, after public hearing, identify and recommend an area as an agricultural development area... The board shall document where agriculture shall be the preferred, but not necessarily the exclusive, use of land if that area:

1. 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;
2. Is reasonably free of suburban and conflicting commercial development;
3. Comprises not greater than 90% of the agricultural land mass of the county;
4. Incorporates any other characteristics deemed appropriate by the board..."; and

**WHEREAS**, in addition to the above statutory criteria, the CADB utilized the following county criteria, as described in the *Warren County Comprehensive Farmland Preservation Plan* when identifying lands to be included in the ADA:

1. The land must be currently in agriculture production, have strong potential for agricultural production, or be farm assessed through a woodland management plan;
2. Agriculture must be the preferred, but not necessarily the exclusive use of the land;
3. Agriculture must be a use permitted by current municipal zoning ordinance or be allowed as a non-conforming use.

**WHEREAS**, in accordance with N.J.A.C. §2:76-1.5, the CADB certifies that a hearing was held on October 20, 2016 in compliance with the Open Public Meetings Act, N.J.S.A. 10:4-6 et seq.; and submits to the committee a copy of the approved minutes of the hearing, including a summary of the testimony, as well as a comprehensive report consisting of (i) a discussion of factors considered for arriving at the adopted ADA criteria, (ii) adopted criteria for ADA identification; (iii) a resolution of adoption of ADA(s) and (iv) Map(s) showing the general location of the ADA(s) as defined by the application of the criteria; and

**WHEREAS**, the CADB proposes to add the following farms which are located in the Township of Blirstown and was requested by the Blirstown Farmland Preservation Committee to add to the ADA:

- Block 702, Lot 2 (Kennedy, John & Pat) 20.09 ac.
- Block 702, Lot 3 (Kennedy, John & Pat) 34.72 ac.
- Block 702, Lot 6.01 (Kennedy, John & Pat) 1 68.4 ac.

**WHEREAS**, Block 702 Lot 2, Lot 3 and Lot 6.01 is part of farm unit with Block 703 Lot 6.02, 31.88 acres already in the ADA and these lots together as one farm unit meet the SADC and CADB minimum eligibility criteria for farmland preservation; and

**WHEREAS**, the CADB proposes to add the following farm which is located in the Township of Frelinghuysen and was requested by the Frelinghuysen Farmland Preservation Committee to add to the ADA:

- Block 201, Lot 17.03 (DeCamp, Sue) 21.2 ac.

**WHEREAS**, Block 201 Lot 17.03 is part of farm unit with Block 201 Lot 17.02, 35 acres already in the ADA and these lots together as one farm unit meet the SADC and CADB minimum eligibility criteria for farmland preservation; and

**WHEREAS**, the CADB proposes to add the following farms which are located in the Township of Independence to the ADA:

- Block 16, Lot 1 (Greco, Carmen) 34.96 ac.
- Block 17, Lot 28 (Klobocista, Ekrem) 153 ac.
- Block 17, Lot 33 (Choe, Sun Chu) 18.25 ac.
- Block 17, Lot 55 (Piteo, Laurel LD) 52 ac.
- Block 17, Lot 56 (Greco, Carmen) 19.12 ac.
- Block 17, Lot 56.01 (Greco, Jean M.) 10.16 ac.
- Block 17, Lot 56.06 (Greco, Carmen) 2.01 ac.

**WHEREAS**, Block 16 Lot 1, Block 17 Lot 56, Lot 56.01 and Lot 56.06 are owned by the Greco family and the landowner has expressed interest to the County for preservation as one farm unit and application will be submitted after the amendment is approved and this farm unit meets the SADC and CADB minimum eligibility criteria and the Township of Independence supports the realignment of the ADA for this farm unit; and

**WHEREAS**, the proposed area satisfies the statutory requirements of N.J.S.A. 4:1C-18 because agriculture is the preferred, but not necessarily the exclusive, use of the proposed area which encompasses productive agricultural lands currently in production and permitted under municipal zoning laws; and

**WHEREAS**, the proposed area further satisfies the statutory requirements of N.J.S.A. 4:1C-18 because this 533.91 acre area is reasonably free from suburban and conflicting commercial development and will increase the ADA to only 86% of Warren County's agricultural land mass, well below the 90% statutory limitation; and

**WHEREAS**, not only have these properties traditionally been farmland containing productive soils, but there has been demonstrated landowner interest in preserving many of the proposed farms; and

**WHEREAS**, Block 17 Lot 28, Block 17 Lot 33 and Block 17 Lot 55, Independence Township are not targeted farms for preservation, but their inclusion in the ADA continues the additions of the targeted farms of BL 702, Lot 2, Lot 3 & Lot 6.01 to be contiguous with the existing ADA; and

**WHEREAS**, the Agricultural Development Area must be certified by the State Agriculture Development Committee.

**NOW, THEREFORE, BE IT RESOLVED** that the Warren County Agricultural Development Board adopts the proposed amendment to add:

- Block 702 Lot 2, Lot 3 & Lot 6.01 in the Township of Blainstown; and
- Block 201 Lot 17.03 in the Township of Frelinghuysen; and
- Block 16 Lot 1, Block 17 Lot 28, Lot 33 & Lot 55, Block 17 Lot 56, Lot 56.01 & Lot 56.06 in the Township of Independence to the existing Agricultural Development Area; and

**BE IT FURTHER RESOLVED**, that copies of this resolution and related documentation shall be forwarded to the State Agriculture Development Committee for certification.

**ROLL CALL: Mr. Schnetzer - yes; Mr. Bodine - yes; Mr. Baduini - abstain; Mr. Burke - absent; Mr. Dempski - yes; Ms. Willever - yes; Mr. Menegus - yes;**

I hereby certify the above to be a true copy of a resolution adopted by the Warren County Agriculture Development Board on the date above mentioned.



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Teresa Kaminski  
Secretary to the Board

**Township of Blirstown  
106 Route 94  
Blirstown, NJ 07825**

**RESOLUTION NO. 2016-110**

**RESOLUTION IN SUPPORT OF REALIGNING THE  
WARREN COUNTY AGRICULTURE DEVELOPMENT AREA  
(ADA) IN BLAIRSTOWN TOWNSHIP**

**WHEREAS**, in order to enhance the agriculture industry in Blirstown Township and promote the viability same through farmland preservation, the Blirstown Township Committee supports the realignment of the Warren County Agriculture Development Area (ADA) within Blirstown Township. The proposed change will add approximately 223.21 acres of contiguous farmland assessed property to the County ADA.

The proposed area includes the following properties:

Kennedy – Block 702 Lot 2 (consisting of approximately 20.09 acres)

Kennedy – Block 702 Lot 3 (consisting of approximately 34.72 acres)

Kennedy – Block 702 Lot 6.01 (consisting of approximately 168.4 acres)

The impetus for modification was a request by the Blirstown Township Farmland Preservation Committee interest in preserving the properties (Block 702 Lot 2, Lot 3 and Lot 6.01 as part of the farm Block 702 Lot 6.02, 31.88 acres that is already in the County ADA with a total farm unit of 255.09 acres in Blirstown Township). These lots together appear to meet the minimum eligibility criteria for farmland preservation as long as it is preserved as one farm unit with Block 702 Lot 6.02 and the Farmland Preservation Committee will seek assisting the landowner with a possible application to the State Agriculture Development Committee (SADC) Farmland Preservation Program. In order to proceed with this application, however, the property must be added to the County ADA.

**THEREFORE, BE IT RESOLVED** that Blirstown Township hereby adopts this resolution in support of adding the above referenced properties to the Warren County ADA.

Motion: Lance

Second: Dalton

**Roll Call:** AYE: Avery, Dalton, Lance, Shoemaker, Van Valkenburg

CERTIFICATION

I, Linda Leidner, Clerk for the Township of Blirstown, hereby certify that the foregoing is a true copy of a Resolution adopted by the Blirstown Township Committee, at a meeting held on November 9, 2016.



Linda Leidner, RMC/CMR  
Township Clerk

**Township of Frelinghuysen  
210 Main Street  
Johnsonburg, NJ 07825**

**RESOLUTION #2016-99**

**RESOLUTION IN SUPPORT OF REALIGNING THE  
WARREN COUNTY AGRICULTURE DEVELOPMENT AREA  
(ADA) IN FRELINHUYSEN TOWNSHIP**

**WHEREAS**, in order to enhance the agriculture industry in Frelinghuysen Township and promote the viability same through farmland preservation, the Frelinghuysen Township Committee supports the realignment of the Warren County Agriculture Development Area (ADA) within Frelinghuysen Township. The proposed change will add approximately 25 acres of contiguous farmland assessed property to the County ADA.

The proposed area includes the following properties:

DeCamp – Block 201, Lot 17.03 (consisting of approximately 25 acres)

The impetus for modification was a request by the Frelinghuysen Township Farmland Preservation Committee interest in preserving the property (Block 201 Lot 17.03 as part of the farm Block 201 Lot 17.02, 35 acres that is already in the ADA with a total farm unit of 60 acres in Frelinghuysen Township). This 25 acre lot appears to meet the eligibility criteria for farmland preservation as long as it is preserved as one farm unit with Block 201 Lot 17.02 and the Farmland Preservation Committee will seek assisting the landowner with a possible application to the State Agriculture Development Committee (SADC) Farmland Preservation Program. In order to proceed with this application, however, the property must be added to the County ADA.

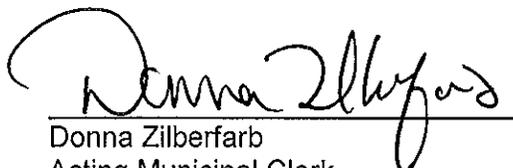
**THEREFORE, BE IT RESOLVED** that Frelinghuysen Township hereby adopts this resolution in support of adding the above referenced properties to the Warren County ADA.

**Roll Call:**

Mr. Boynton – Yes  
Mr. DeCarolis – Yes  
Mr. Desiderio – Yes  
Mr. Kuhn – Yes  
Mr. Stracco – Yes

**CERTIFICATION**

I, Donna Zilberfarb, Acting Municipal Clerk for the Township of Frelinghuysen, hereby certify that the foregoing is a true copy of a Resolution adopted by the Frelinghuysen Township Committee, at a meeting held on September 21, 2016.

  
Donna Zilberfarb  
Acting Municipal Clerk

**Township of Independence  
286-B Route 46, PO Box 164  
Great Meadows, NJ 07838**

**RESOLUTION 16-68**

**RESOLUTION IN SUPPORT OF REALIGNING THE  
WARREN COUNTY AGRICULTURE DEVELOPMENT AREA  
(ADA) IN INDEPENDENCE TOWNSHIP**

**WHEREAS**, in order to enhance the agriculture industry in Independence Township and promote the viability same through farmland preservation, the Independence Township Committee supports the realignment of the Warren County Agriculture Development Area (ADA) within Independence Township. The proposed change will add approximately 66.25 acres of contiguous farmland assessed property to the County ADA.

The proposed area includes the following properties:

- Greco – Block 16, Lot 1 (consisting of approximately 34.96 acres)
- Greco – Block 17, Lot 56 (consisting of approximately 19.12 acres)
- Greco – Block 17, Lot 56.01 (consisting of approximately 10.16 acres)
- Greco – Block 17, Lot 56.06 (consisting of approximately 2.01 acres)

The impetus for modification is landowner interest in preserving the property (Block 16 Lot 1 and Block 17 Lot 56, Block 17 Lot 56.01, Block 17 Lot 56.06 in Independence Township). This 66.25 acre farm appears to meet the eligibility criteria for farmland preservation and the Warren County Land Preservation Department is currently assisting the landowner with a possible application to the State Agriculture Development Committee (SADC) Farmland Preservation Program. In order to proceed with this application, however, the property must be added to the County ADA.

**THEREFORE, BE IT RESOLVED** that Independence Township hereby adopts this resolution in support of adding the above referenced properties to the Warren County ADA.

Roll Call: Ayes: *Fuella, Kelsey, Williams, Cougle, Giordano*

CERTIFICATION

I, Deborah Hrebenak, Municipal Clerk/Administrator for the Township of Independence, hereby certify that the foregoing is a true copy of a Resolution adopted by the Independence Township Committee, at a meeting held on September 13, 2016



Deborah Hrebenak, RMC  
Municipal Clerk/Administrator

# *Township of Hardwick*

40 Spring Valley Road  
Hardwick, New Jersey 07825  
(908) 362-6528  
Fax: (908) 362-8840

RECEIVED

November 10, 2016

NOV 17 2016

DEPT. OF LAND PRESERVATION

Corey Tierney, Director  
Warren County Department of Land Preservation  
500 Mt. Pisgah Avenue  
P.O. Box 179  
Oxford, New Jersey 07863

Re: County Annual PIG Submission

Dear Mr. Tierney,

This is in response to Teresa Kaminski's letter of September 13, 2016 requesting comments on the County Farmland Preservation Plan and in reaction to the GIS data you supplied depicting the Warren County Agricultural Development Area (ADA). The principal comments on the part of Hardwick involve delineation of the ADA in relation to remaining eligible farmland in the township.

Examining the ADA, Hardwick recommends that it be modified to capture the following parcels, for the following reasons:

1. Block 202/Lot 1.03 – This is eligible farmland that adjoins Glenview Farm in Blairstown, preserved by Ridge and Valley Conservancy and held by the county.
2. Block 901/Lot 2 – This large farmland parcel along Stillwater Road clearly qualifies for farmland preservation and is one of the last remaining, large, prime farms in the township.
3. Block 1201/Lots 1 and 5 – Again, this is an eligible farm and one of the largest remaining farms in the township. The county has terminated the ADA at the Benbrook parcel it is negotiating on across the street from these parcels; their exclusion is not logical.

Hardwick continues to maintain an interest in preserving the remaining eligible farmland within the township. Modification of the ADA to incorporate the above parcels would help ensure that the county plan is comprehensive. The landowners of the above-referenced farms have expressed interest in preserving their farmland. The county should take advantage of this interest in eligible farms that appear consistent with the overall theme of the ADA. The ADA includes land that is not eligible. Hardwick recommends that these remaining eligible farms replace non-eligible parcels in the Plan, if an area balance is required under the rules that formulated the ADA.

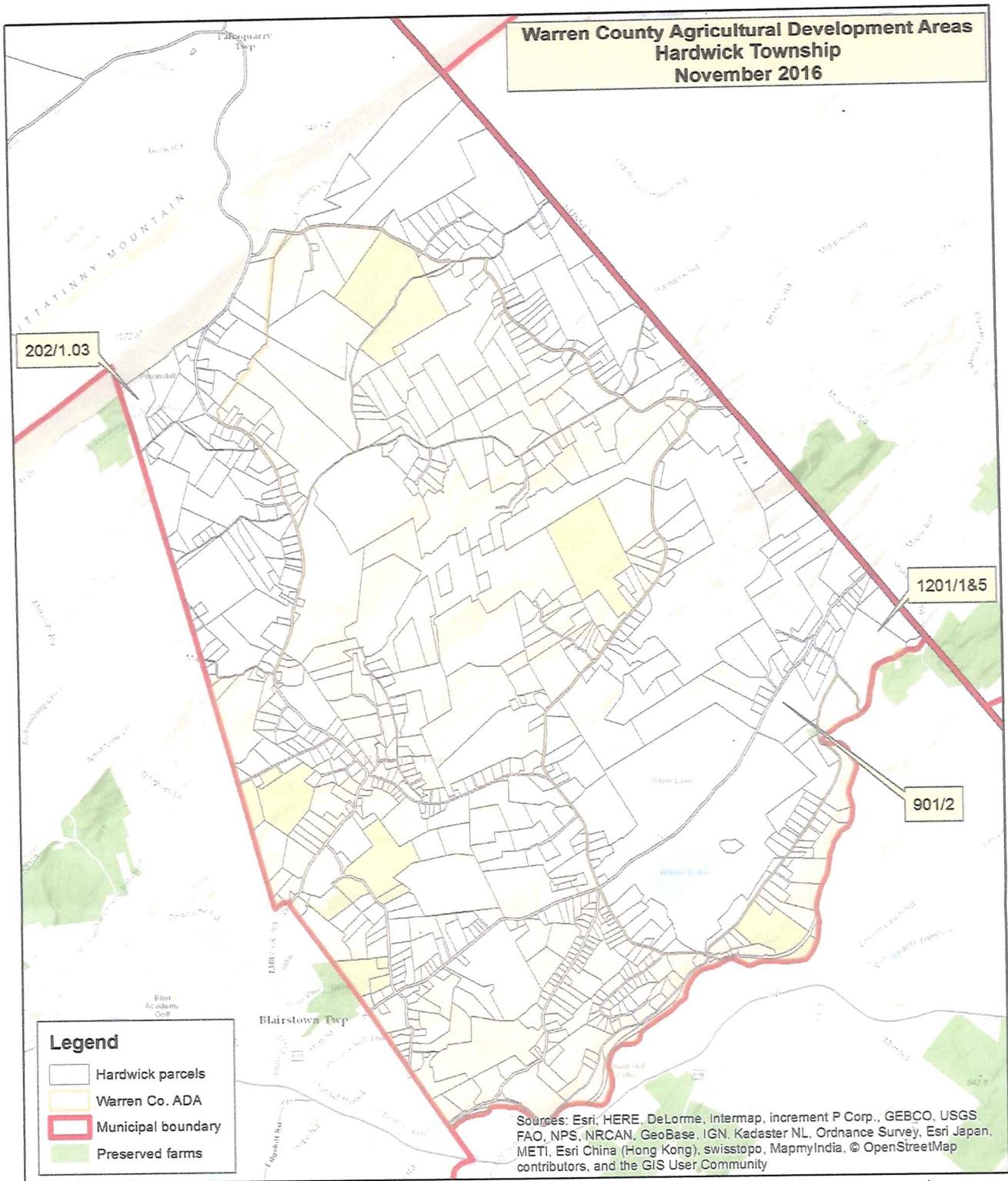
Thank you for the opportunity to comment on the Warren County Farmland Preservation Plan. Please contact our consultant, Bob Canace of Conservaiton Advising Services at 908-246-9648 if you have any questions on these recommendations.

Sincerely,

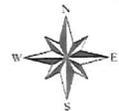
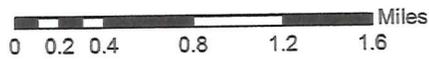
A handwritten signature in black ink, appearing to read "Jame Perry".

Jame Perry, Mayor

- c:     Hardwick Township Committee  
       Jim McKim, Chair, Open Space and Farmland Advisory Committee  
       Bob Canace, Conservation Advising Services  
       Teresa Kaminski, Warren County Dept. of Land Preservation Confidential Assistant



Conservation Advising Services, LLC



NO IMAGE

**Legal Notices**

A Public Hearing on the Hardwick Township and Warren County Agriculture Development Areas will be held at the regularly scheduled meeting of the Warren County Agriculture Development Board, Thursday, December 15, 2016 at 7:30 pm located at the Warren County Department of Land Preservation in the PCFA Building at 500 Mt. Pisgah Avenue, Oxford, NJ. 12/1/2016 \$18.60

Notices and Announcements - Legal Notice

Published in *The Star Ledger* 12/1. Updated 12/1.

"A Public Hearing on the Hardwick Township and Warren County Agriculture Development Areas will be held at the regularly scheduled meeting of the Warren County Agriculture Development Board, Thursday, December 15, 2016 at 7:30 pm located at the Warren County Department of Land Preservation in the PCFA Building at 500 Mt. Pisgah Avenue, Oxford, NJ."  
(\$6.60)

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0001761082-01

**Township of Independence  
286-B Route 46, PO Box 164  
Great Meadows, NJ 07838**

**RESOLUTION # 16-84**

**RESOLUTION IN SUPPORT OF REALIGNING THE  
WARREN COUNTY AGRICULTURE DEVELOPMENT AREA  
(ADA) IN INDEPENDENCE TOWNSHIP**

**WHEREAS**, on September 13, 2016 the Independence Township Committee supported by resolution the realignment of the Warren County Agriculture Development Area (ADA) within Independence Township to include approximately 66.25 acres of contiguous farmland assessed property to the County ADA with Greco, Block 16 Lot 1, Block 17 Lot 56, Block 17 Lot 56.01, and Block 17 Lot 56.06.

**WHEREAS**, in order to keep the ADA contiguous, the following additional properties, which are not targeted farms, are to be included in the amended ADA:

- Klobocista, Ekrem %Tim Klobocista – Block 17, Lot 28 (approximately 153 acres)
- Choe, Sun Chu – Block 17, Lot 33 (approximately 18.25 acres)
- Piteo, Laurel LD – Block 17, Lot 52 (approximately 52 acres)

In order to enhance the agriculture industry in Independence Township and promote the viability same through farmland preservation, the Independence Township Committee supports the realignment of the Warren County Agriculture Development Area (ADA) within Independence Township. This proposed change will add approximately 223.25 additional acres to the previously approved 66.25 acre amendment to the County ADA.

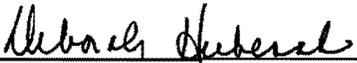
The impetus for modification for approved September 15, 2016 resolution is landowner interest in preserving the properties (Block 16 Lot 1 and Block 17 Lot 56, Block 17 Lot 56.01, Block 17 Lot 56.06 in Independence Township). The additional properties, Block 17 Lot 28, Block 17 Lot 33 and Block 17 Lot 52 do not meet the eligibility criteria for farmland preservation, but are merely being included in order to keep the ADA contiguous.

**THEREFORE, BE IT RESOLVED** that Independence Township hereby adopts this resolution in support of adding the above referenced properties to the Warren County ADA.

**Roll Call:**

**CERTIFICATION**

I, Deborah Hrebenak, Municipal Clerk/Administrator for the Township of Independence, hereby certify that the foregoing is a true copy of a Resolution adopted by the Independence Township Committee, at a meeting held on December 6, 2016.

  
\_\_\_\_\_  
Deborah Hrebenak, RMC/CMR  
Municipal Clerk/Administrator

**Township of Hardwick  
40 Spring Valley Road  
Hardwick, NJ 07825**

**RESOLUTION 2016-47**

**RESOLUTION IN SUPPORT OF REALIGNING THE WARREN COUNTY AGRICULTURE DEVELOPMENT AREA (ADA) IN HARDWICK TOWNSHIP**

**WHEREAS**, in order to enhance the agriculture industry in Hardwick Township and promote the viability same through farmland preservation, the Hardwick Township Committee supports the realignment of the Warren County Agriculture Development Area (ADA) within Hardwick Township. The proposed change will add approximately 217.85 acres of contiguous farmland assessed property to the County ADA.

The proposed area includes the following targeted farm properties:

- Hilbert – Block 202 Lot 1.03 (approximately 23.2 acres)
- Oleszek – Block 202 Lot 3.06 (approximately 13.3 acres)
- Don Con Enterprises, LLC – Block 901 Lot 2 (approximately 61.87 acres)
- Old Orchard Road, LLC – Block 1201 Lot 1 (approximately 72 acres)
- Malton Farms Associates – Block 1201 Lot 5 (approximately 39.48 acres)
- Malton Farms Associates – Block 1201 Lot 5.01 (approximately 4.6 acres)
- Malton Farms Associates – Block 1201 Lot 6 (approximately 3.4 acres)

The impetus for modification was a request by the Hardwick Township Open Space and Farmland Advisory Committee interest in preserving the properties (Block 202 Lot 1.03, Block 901 Lot 2 and Block 1201 Lots 1 & 5). These lots appear to meet the minimum eligibility criteria for farmland preservation. The Farmland Preservation Committee will seek assisting the landowners with possible applications to the State Agriculture Development Committee (SADC) Farmland Preservation Program. In order to proceed with these applications, however, the property must be added to the County ADA.

**WHEREAS**, to keep the County’s ADA contiguous, other properties have been added to the ADA which do appear to meet the minimum eligibility criteria for farmland preservation. These properties are Block 202 Lot 3.06, Block 1201 Lot 5.01 and Block 1201 Lot 6; and

**WHEREAS**, other properties that do not meet the eligibility criteria for farmland preservation but are merely being included in order to keep the ADA contiguous are Block 201 Lot 12.07, Block 201 Lot 9, Block 201 Lot 9.05, Block 202 Lot 1, Block 202 Lot 1.04, Block 202 Lot 1.06, Block 202 Lot 3.01 and Block 202 Lot 6 consisting of approximately 105.53 acres making the total Hardwick Township additional acres added to the County ADA as 323.38 acres based on tax database records.

**THEREFORE, BE IT RESOLVED** that Hardwick Township hereby adopts this resolution in support of adding the above referenced properties to the Warren County ADA.

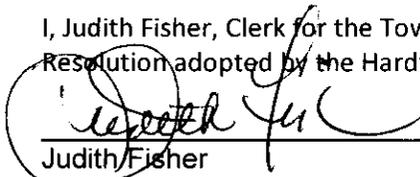
Motion: Committeeman Duffy

Second: Committeeman Carrazzone

**Roll Call:** Mr. Carrazzone - yes Mr. Duffy - yes Mayor Perry - yes

**CERTIFICATION**

I, Judith Fisher, Clerk for the Township of Hardwick, hereby certify that the foregoing is a true copy of a Resolution adopted by the Hardwick Township Committee, at a meeting held on December 7, 2016



\_\_\_\_\_  
Judith Fisher  
Township Clerk

**THE WARREN COUNTY AGRICULTURAL DEVELOPMENT BOARD**  
THE DEPARTMENT OF LAND PRESERVATION  
500 MT PISGAH AVE, P.O. BOX 179  
OXFORD, NJ 07863

**RESOLUTION 2016-19**

On motion by Mr. Menegus and seconded by Mr. Baduini, the following resolution was adopted by the Warren County Agricultural Development Board at a meeting held December 15, 2016.

**RESOLUTION AUTHORIZING  
THE AMENDMENT OF THE WARREN COUNTY AGRICULTURAL  
DEVELOPMENT AREA TO INCLUDE FARMLAND IN HARDWICK  
TOWNSHIP**

**WHEREAS**, the Warren County Agriculture Development Board (hereinafter "CADB" or "Board") believes that the development of agriculture and the retention of farmlands are important to the present and future economy of the State and the welfare of the citizens of the State; and

**WHEREAS**, the CADB may identify and recommend areas to be designated as Agricultural Development Areas (ADAs) per N.J.S.A. 4:1C-18 which provides in pertinent part:

"The board may, after public hearing, identify and recommend an area as an agricultural development area... The board shall document where agriculture shall be the preferred, but not necessarily the exclusive, use of land if that area:

1. 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;
2. Is reasonably free of suburban and conflicting commercial development;
3. Comprises not greater than 90% of the agricultural land mass of the county;
4. Incorporates any other characteristics deemed appropriate by the board..."; and

**WHEREAS**, in addition to the above statutory criteria, the CADB utilized the following county criteria, as described in the *Warren County Comprehensive Farmland Preservation Plan* when identifying lands to be included in the ADA:

1. The land must be currently in agriculture production, have strong potential for agricultural production, or be farm assessed through a woodland management plan;
2. Agriculture must be the preferred, but not necessarily the exclusive use of the land;
3. Agriculture must be a use permitted by current municipal zoning ordinance or be allowed as a non-conforming use.

**WHEREAS**, in accordance with N.J.A.C. §2:76-1.5, the CADB certifies that a hearing was held on December 15, 2016 in compliance with the Open Public Meetings Act, N.J.S.A. 10:4-6 et seq.; and submits to the committee a copy of the approved minutes of the hearing, including a summary of the testimony, as well as a comprehensive report consisting of (i) a discussion of factors considered for arriving at the adopted ADA criteria, (ii) adopted criteria for ADA identification; (iii) a resolution of adoption of ADA(s) and (iv) Map(s) showing the general location of the ADA(s) as defined by the application of the criteria; and

**WHEREAS**, the CADB proposes to add the following Targeted Farms which are located in the Township of Hardwick to add to the ADA:

- Hilbert – Block 202 Lot 1.03 (approximately 23.2 acres)
- Oleszek – Block 202 Lot 3.06 (approximately 13.3 acres)
- Don Con Enterprises, LLC – Block 901 Lot 2 (approximately 61.87 acres)
- Old Orchard Road, LLC – Block 1201 Lot 1 (approximately 72 acres)
- Malton Farms Associates – Block 1201 Lot 5 (approximately 39.48 acres)
- Malton Farms Associates – Block 1201 Lot 5.01 (approximately 4.6 acres)
- Malton Farms Associates – Block 1201 Lot 6 (approximately 3.4 acres)

**WHEREAS**, the Township of Hardwick made a request for Block 202 Lot 1.03, Block 901 Lot 2 and Block 1201 Lot 1 and Lot 5; and

**WHEREAS**, to keep the County's ADA contiguous, other properties have been added to the ADA which do appear to meet the SADC and CADB minimum eligibility criteria for farmland preservation. These properties are Block 202 Lot 3.06, Block 1201 Lot 5.01 and Block 1201 Lot 6; and

**WHEREAS**, other properties that do not meet the eligibility criteria for farmland preservation but are merely being included in order to keep the ADA contiguous are Block 201 Lot 12.07, Block 201 Lot 9, Block 201 Lot 9.05, Block 202 Lot 1, Block 202 Lot 1.04, Block 202 Lot 1.06, Block 202 Lot 3.01 and Block 202 Lot 6 consisting of approximately 105.53 acres making the total Hardwick Township additional acres added to the County ADA as 323.38 acres based on tax database records; and

**WHEREAS**, the proposed area satisfies the statutory requirements of N.J.S.A. 4:1C-18 because agriculture is the preferred, but not necessarily the exclusive, use of the proposed area which encompasses productive agricultural lands currently in production and permitted under municipal zoning laws; and

**WHEREAS**, the proposed area further satisfies the statutory requirements of N.J.S.A. 4:1C-18 because this 323.38 acre area is reasonably free from suburban and conflicting commercial development and will increase the ADA to only 86.6% of Warren County's agricultural land mass, well below the 90% statutory limitation; and

**WHEREAS**, not only have these properties traditionally been farmland containing productive soils, but there has been demonstrated landowner interest in preserving many of the proposed farms; and

**WHEREAS**, the Agricultural Development Area must be certified by the State Agriculture Development Committee.

**NOW, THEREFORE, BE IT RESOLVED** that the Warren County Agricultural Development Board adopts the proposed amendment to add:

- Block 201 Lots 12.07, 9 & 9.05
- Block 202 Lots 1, 1.03, 1.04, 1.06, 3.01, 3.06 & 6
- Block 901 Lot 2
- Block 1201 Lots 1, 5, 5.01 & 6 all in the Township of Hardwick to the existing Agricultural Development Area; and

**BE IT FURTHER RESOLVED**, that copies of this resolution and related documentation shall be forwarded to the State Agriculture Development Committee for certification.

**ROLL CALL: Mr. Schnetzer - yes; Mr. Bodine - yes; Mr. Baduini - yes; Mr. Burke - yes;  
Mr. Dempski - yes; Ms. Willever - yes; Mr. Menegus - yes;**

I hereby certify the above to be a true copy of a resolution adopted by the Warren County Agriculture Development Board on the date above mentioned.



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Teresa Kaminski  
Secretary to the Board

Appendix B1. Target Farms: PIG program (individual parcels)

Municipality	Block	Lot	Property Location	Owner's Name	Acres (GIS)	Tillable Land		Project Areas
						Acres	Percent	
Allamuchy	106	5	59 GIBBS RD	WEISS FAMILY LIMITED PARTNERSHIP	145.14	114.29	78.75%	Northeast
Allamuchy	301	7	551 ERVEY ROAD	MAZZAL OPERATING CO C/O F. FISH	112.41	45.77	40.71%	Northeast
Alpha	97	3	1815 SPRINGTOWN RD	HOMA, FRANCES	95.60	94.15	98.48%	
Blairstown	1402	15	107 ROUTE 94	BASILE, CHARLES & CYNTHIA	70.22	25.53	36.35%	North
Blairstown	1501	15	15 VAIL ROAD	CROUCHER PROPERTY, LLC	145.84	97.58	66.91%	North
Blairstown	1603	5.01	10 SHOTWELL ROAD	SHOTWELL FAMILY PARTNERSHIP L.P.	156.16	119.30	76.40%	North
Blairstown	1701	13.01	27 FRONTAGE ROAD	BARAN, FRANK & IRENE	156.58	77.97	49.80%	North
Blairstown	2003	9.01	12 UNION BRICK ROAD	CULLEN, MICHAEL E & LAURA J	40.70	25.47	62.58%	North
Blairstown	2101	4.01	127 ROUTE 521	WOHLERS, FRANK C & JANET	59.32	27.31	46.03%	North
Franklin	14	8	ROUTE 57, 2056	SAQA, HANNA J & NEMEH	87.84	44.50	50.66%	Southeast
Franklin	15	5	ROUTE 57, 2030	PEAR TREE REALTY, INC	67.81	61.26	90.34%	Southeast
Franklin	26	18	EDISON ROAD, 55	ISE REALTY GROUP, INC	123.14	113.86	92.46%	Southeast
Franklin	39	5	STEWARTSVILLE ROAD, 66	TASEVSKI, MILAN & SPASA	86.71	56.02	64.60%	Southeast
Franklin	42	4	WILLOW GROVE ROAD, 300	R & S PROPERTIES, LLC	112.46	48.60	43.22%	Southeast
Franklin	45	37	HARLEY COURT, 30-32	SONZOGNI, EBE N & I MARK ETALS	146.29	99.81	68.23%	Southeast
Franklin	46	17	ASBURY-BROADWAY ROAD, 177	MYERS, LISA & TORETTA, MICHAEL P	50.65	42.20	83.32%	Southeast
Franklin	46	27	BUTTERMILK BRIDGE RD, 204	DELORENZO, THOMAS & MOLLY	108.45	39.28	36.22%	Southeast
Franklin	48	20	OLD MAIN STREET, 357	SMITH, ELIZABETH & RICHARD L	105.90	96.73	91.35%	Southeast
Franklin	56	26	BLOOMSBURY ROAD, 43	VERKADE, JAN R.W. & KATHRYN	45.92	37.56	81.79%	Southeast
Franklin	57	31.01	BUTLER ROAD, 74	BOWSER, ADAM L	65.38	64.23	98.25%	Southeast
Franklin	58	1	BLOOMSBURY ROAD, 380	TOBIAS, BARRY & BERLANT, KAREN E	110.71	103.94	93.88%	Southeast
Franklin	59	1.04	WOLVERTON ROAD, 3	GARSON, NONA M	41.07	32.68	79.56%	Southeast
Franklin	8	21	MONTANA ROAD, 150	COPPERSMITH, RICHARD P. & ARLEEN	61.55	25.98	42.21%	Southeast
Franklin	9	23	ROUTE 57, 2260	SIGLER, CARL W & BARBARA J	166.75	103.72	62.20%	Southeast
Frelinghuysen	103	6	2025 STILLWATER ROAD	DICRISTINA VALERIE C & VITO G CO-TR	72.96	35.75	48.99%	Northeast
Frelinghuysen	1101	3.01	95 MOTT ROAD	POST, BONNIE W	42.86	27.99	65.31%	Northeast
Frelinghuysen	1701	9	23 HELLER ROAD	SCHWARTZ, DAVID A	116.46	32.12	27.58%	Northeast
Frelinghuysen	301	18.01	17-A SILVER LAKE ROAD	SUGAR BARB FARM C/O KAUFMAN DONALD	177.94	34.11	19.17%	Northeast
Frelinghuysen	301	6	175 KERRS CORNER ROAD	MURPHY, RICHARD	249.66	106.87	42.81%	Northeast
Frelinghuysen	801	15	715 ROUTE 519	PANTALEONI, EMILY	93.70	51.66	55.13%	Northeast
Frelinghuysen	801	19	38 LANNING ROAD	FINN, THOMAS J	112.50	30.77	27.35%	Northeast
Greenwich	16	6	NORTH MAIN ST, 523	O DOWDS INC	112.28	105.70	94.14%	Southeast
Greenwich	18	3	WILLOW GROVE RD, 113-115	O DOWDS INC.	78.40	74.98	95.64%	Southeast
Greenwich	20	14	NEW VILLAGE RD	PANTEL, SARA	44.36	35.35	79.68%	Southeast
Greenwich	20	26	SOUTH MAIN ST	SMITH, NORMAN J & TIMOTHY M	128.25	117.24	91.41%	Southeast
Greenwich	20	27	SOUTH MAIN ST	BELCLARE FARM, LLC	78.17	62.60	80.08%	Southeast
Greenwich	26	26	SOUTH MAIN ST, 636	DOMINGUES, JOSE	65.69	56.11	85.42%	Southeast
Greenwich	26	30	SOUTH MAIN ST	CLINE, JAMES G	123.58	117.33	94.94%	Southeast
Greenwich	26	32	RT 173	VOORHEES, WILLIAM H, GEORGENE ETALS	62.21	61.96	99.58%	Southeast
Greenwich	31	11.03	RT 173	BRISTOL-MYERS SQUIBB (R&D FINANCE)	109.85	91.16	82.99%	South
Greenwich	31	12	RT 173	PATERNOSTRO, ROCCO	71.05	32.57	45.84%	South

Appendix B1. Target Farms: PIG program (individual parcels)

Municipality	Block	Lot	Property Location	Owner's Name	Acres (GIS)	Tillable Land		Project Areas
						Acres	Percent	
Greenwich	31	4	SOUTH MAIN ST	BARTHE, MICHAEL C/O LAND EQUITY INC	41.44	40.10	96.78%	South
Greenwich	34	11	SOUTH MAIN ST	BEATTY, JOHN H & CAROL A	51.88	35.14	67.73%	South
Greenwich	36	2	RT 173	DOWEL-IRIS GREENWICH LLC,%PROGRESSI	113.70	106.82	93.95%	
Hardwick	1001	12	66 SUNSET LAKE ROAD	AHLERS, THOMAS	98.09	64.08	65.33%	North
Hardwick	1201	1	7 OLD ORCHARD ROAD	7 OLD ORCHARD ROAD LLC	76.37	40.67	53.26%	North
Hardwick	401	29	9 COUNTRY LANE	RAISCH, KENNETH LEE & SUSAN	110.41	48.00	43.48%	North
Hardwick	901	2	154 STILLWATER ROAD	DON CON ENTERPRISES LLC	61.76	44.68	72.34%	North
Harmony	14	9	BRASS CASTLE ROAD	SMITH, JOHN H. & JEAN M.	110.04	57.23	52.00%	West
Harmony	21	42	ALLEN'S MILLS ROAD	WATERS DARLA MAE	81.30	59.79	73.55%	West
Harmony	25	1	ALLENS MILL RD.	MERRILL CRK RES C/O PROJ DIRECT	201.63	25.07	12.43%	West
Harmony	33	25.05	2493 BELVIDERE ROAD	HNOT, WALTER RUDOLPH JR & SHELLEY M	43.54	25.93	59.56%	West
Harmony	33	7	MARBLE MTN	FALCONE,EMIL	56.92	39.99	70.26%	West
Harmony	37	5	251 GARRISON RD.	DUTT, NATALIE O	59.68	56.54	94.73%	West
Harmony	38	2	316 GARRISON RD	GARRISON, ROY & BRENDA	135.44	127.21	93.92%	West
Harmony	38	25	254 GARRISON RD	GARRISON, EDNA	91.95	87.18	94.82%	West
Harmony	38	4	2798 RIVER ROAD	MERRILL CRK RES C/O PROJ DIRECT	61.63	26.07	42.30%	West
Harmony	44	10	166 BRAINARDS ROAD	166 BRAINARDS RD LLC	155.99	143.96	92.28%	West
Harmony	44	14	713 HARMONY STATION RD.	715 HARMONY STATION, LLC	108.84	99.74	91.64%	West
Harmony	46	4.02	BUTTONWOOD LANE	RYKER, GAIL	141.17	41.01	29.05%	West
Harmony	46	4.09	119 BUTTONWOOD LANE	BREESE, MARJORIE & SHARPE, MARLENE	82.21	29.57	35.96%	West
Hope	1200	3800	329 DELAWARE RD	HOWELL, JANE M	132.77	41.06	30.92%	Northwest
Hope	200	400	1075 HOPE-BRIDGEVILLE RD	MUSGRAVE P & VANKIRK M D/B/A P/M	227.93	166.25	72.94%	Northwest
Hope	200	700	37 SWAYZE MILL RD	ELONKA JR., STEPHEN M	170.61	132.11	77.44%	Northwest
Hope	3200	500	425 JOHNSONBURG RD	BOROCHOWSKI, MICHAEL	40.51	21.36	52.73%	Northwest
Hope	5300	200	305 UNION BRICK ROAD	BODOLSKY, THOMAS	55.88	28.02	50.14%	Northwest
Hope	600	1000	455 DELAWARE RD	AULETTA, DONALD B	110.10	25.22	22.91%	Northwest
Hope	600	2300	CEMETARY RD	LABARRE FAMILY LIMITED PARTNERSHIP	54.95	37.42	68.10%	Northwest
Hope	700	500	494 DELAWARE RD	ALMEIDA, ORLANDO & CANDIDA	54.18	39.86	73.56%	Northwest
Hope	700	900	435 DELAWARE RD	1988 MODI LIVING TRUST	42.78	21.83	51.02%	Northwest
Hope	800	1100	60 SWAYZE MILL RD	GUGEL, GEORGE H	48.67	36.96	75.95%	Northwest
Independence	1	68	1 RUSLLING RD	BEST, ROBERT E SR & RUTH M	44.40	36.40	81.98%	
Independence	21	38	260-276 ROUTE 46	PIO COSTA ENTERPRISES LP	163.02	118.11	72.45%	Northeast
Independence	29	27	OFF ALPHANO RD	GREAT MEADOWS ASSOCIATES	287.72	237.94	82.70%	Northeast
Independence	29	51	S/S SHADES OF DEATH RD	KELSEY, JAMES C V	389.09	44.60	11.46%	
Independence	29	54	S/S SHADES OF DEATH RD	YEE, THOMAS J & NANCY C	78.30	64.02	81.76%	Northeast
Knowlton	61	16	90 KNOWLTON RD	TODESCHINI, JEAN L	140.86	58.09	41.24%	Northwest
Knowlton	61	19	130 KNOWLTON RD	SCOTTO DICARLO, GUISEPPE & VERONICA	101.96	57.46	56.36%	Northwest
Knowlton	62	6.03	37 CENTERVILLE RD	EGIDIO ANTHONY & CHRISTINE	41.47	35.61	85.88%	Northwest
Knowlton	68	10	39 RAMSEYBURG RD	JENNINGS, LAURA	100.31	26.25	26.17%	Northwest
Knowlton	68	9	54 KOECK RD	MURRAY, DAVID	146.72	31.77	21.65%	Northwest
Knowlton	71	2.02	16 RAMSEYBURG RD	BAUMANN, CHARLES & ALICE	104.92	45.05	42.94%	Northwest

Appendix B1. Target Farms: PIG program (individual parcels)

Municipality	Block	Lot	Property Location	Owner's Name	Acres (GIS)	Tillable Land		Project Areas
						Acres	Percent	
Knowlton	71	8	44 SEREPTA RD	SMITH, MARY JOAN & DEMERS, DOEKE	79.73	56.00	70.24%	Northwest
Knowlton	8	2	17 WOODRUFF WAY	CASSER, CLAUDIA	95.61	43.30	45.28%	North
Lopatcong	100	2.01	US HIGHWAY ROUTE 22	CURTIS, JOHN & CYNTHIA	45.65	40.61	88.96%	
Lopatcong	100	7	39 - 41 STRYKERS ROAD	SANTINI, ROBERT A & SHARON	51.75	51.09	98.73%	
Lopatcong	101	1	2900/1098 US HWY RT 22	INGERSOLL RAND COMPANY	86.83	85.91	98.95%	
Lopatcong	102	9	470 PLANE	LOCK STREET ASSOCIATES, LLC	57.89	39.44	68.13%	
Lopatcong	86	67	BELVIDERE ROAD	FALCONE,CLIFFORD F&E	107.23	106.85	99.64%	
Lopatcong	95	30	UNIONTOWN ROAD	WILKINSON, RIAN P & SUSAN CLINE	110.77	101.52	91.64%	
Lopatcong	99	3.01	ROUTE 57	DESHLER, DAVID W, DAVID JR & CANDAC	46.12	45.30	98.23%	
Mansfield	1001.02	42	586 MOUNT BETHEL ROAD	NELSON,JOHN F JR & BURKE,RICHARD T	116.28	30.82	26.50%	Central
Mansfield	1204	24	BLAU ROAD	FREEDOM GROUP LP	44.26	42.44	95.91%	Central
Mansfield	1301	5	WATTERS ROAD	BEAR CREEK PROPERTIES, LLC	65.72	43.58	66.31%	Central
Mansfield	1302.01	3	1463 ROUTE 57	RIEDEL, L EST OF D RIEDEL	95.01	75.02	78.96%	Central
Mansfield	1307	11	WASHBURN ROAD	TERHUNE, ELMER & HELEN HOPPER	67.69	67.67	99.97%	Central
Mansfield	1502	2	ROUTE 57	DIocese OF METUCHEN	84.54	27.02	31.96%	Central
Mansfield	501	3	JACKSON VALLEY ROAD	TALC, LLC C/O DR. SHEN	220.83	116.06	52.56%	Central
Mansfield	601.02	43	421 HOFFMAN ROAD	HANNEMA, AUKE H	56.31	34.22	60.76%	Central
Oxford	26	84	429 ROUTE 31	YEAGER, FAY	73.07	47.99	65.68%	
Oxford	26	87	101 QUARRY ROAD	POPINKO FAMILY LIMITED PARTNERSHIP	117.27	46.34	39.52%	
Pohatcong	107	2	230 STILL VALLEY ROAD	MOYER, MRS. JOS., SR. (ESTATE)	130.98	84.87	64.80%	South
Pohatcong	109	55	387 ROUTE 627	CRONCE, CLIFFORD ESTATE OF	92.07	60.44	65.65%	South
Pohatcong	111	17	69 PINCHERS POINT ROAD	A&E REALTY ASSOCOCIATES, LLC	67.05	25.92	38.66%	South
Pohatcong	78	1	888 NEW BRUNSWICK AVENUE	WARREN BUSINESS PARK C/O KAISERMAN	103.05	89.74	87.08%	South
Pohatcong	78	5.02	STILL VALLEY ROAD	COLE, RUSSELL E & MARGARET	68.62	68.03	99.14%	South
Pohatcong	93	4	LEE AVE.	EAI INVESTMENTS, LLC	48.27	45.10	93.42%	
Pohatcong	93	5	HIGH ST.	EAI INVESTMENTS, LLC	121.12	117.74	97.21%	
Pohatcong	99	4	SPRINGTOWN	SANTINI, MATTHEW, ROBERT & SHARON	86.64	66.88	77.19%	South
Washington Twp	47	7	30 MC CULLOUGH ROAD	LORADA PARTNERS, LTD	131.30	118.02	89.88%	Southeast
Washington Twp	48	69	30 CHANGEWATER ROAD	ANEMA, BRENDA L	66.64	40.42	60.66%	Southeast
Washington Twp	48	75	161 E ASBURY-ANDERSON RD	VLIET, CARL R	120.34	104.53	86.86%	Southeast
Washington Twp	71	6	50 ASBURY-ANDERSON RD	RUSH, KEVIN	69.20	67.82	98.00%	Southeast
Washington Twp	74	3	11 SHURTS ROAD	TWIN M & G REALTY DEVELOPMENT, LLC	61.96	39.30	63.42%	Southeast
Washington Twp	82	15	196A CHANGEWATER ROAD	ANEMA, LINDA E	43.33	38.78	89.50%	Southeast
Washington Twp	82	17	146 E ASBURY-ANDERSON RD	SPANN MUSCONETCONG, LLC	142.97	118.77	83.07%	Southeast
White	18	60	SUMMERFIELD RD	GLASS ANNA % DIANE GLASS	138.45	27.16	19.62%	West
White	18	7	196 CR 519	TISHUK, WILLIAM % LINDA STETTLER	133.77	70.75	52.89%	West
White	32	8	434 CR 519	DEBOER, STEVEN J & ROBERT A	54.55	44.35	81.31%	West
White	46	37	140 PEQUEST DR	HOFFMANN-LA ROCHE INC	97.26	54.33	55.87%	West
White	51	5	2 MANUNKA CHUNK RD	ROCHE VITAMINS INC % MICHELLE BEER	42.30	28.93	68.38%	
White	52	10	MANUNKA CHUNK RD	DSM NUTRITIONAL PRODUCTS INC	251.43	27.66	11.00%	
White	59	1	121 HOPE CROSSING RD	THOMPSON, ROBERT & GLORIA	43.68	43.59	99.81%	West

Appendix B1. Target Farms: PIG program (individual parcels)

Municipality	Block	Lot	Property Location	Owner's Name	Acres	Tillable Land		Project Areas
					(GIS)	Acres	Percent	
White	64	8	RUTHERFORD DR	CRAMER, DAVID C & STEVEN L	42.51	36.20	85.15%	West
White	67	3	236 UPPER SAREPTA RD	KILTS, E DAVID & KAREN A	42.24	38.34	90.76%	West
White	7	14	123 CR 519	ROMANI MARGARET EST C/O HAYES, S.	70.87	70.87	100.00%	West
White	72	6	84 FREE UNION RD	CAMMAROTA,RUDOLPH O EST%M CAMMAROTA	58.09	34.71	59.75%	West

Appendix B2. Target Farms: PIG Program (Farm Units)

Municipality	Block	Lot	Property Location	Owner's Name	Farm Unit			Parcel			Project Area
					Farm Unit Acres (GIS)	Tillable Acres	Tillable Percent	Parcel Acres (GIS)	Tillable Acres per Parcel	Tillable Percent	
Washington Twp	66	1.09	121 CEMETERY HILL ROAD	ANEMA, CAROL A	169.67	136.49	80.4%	4.51	0.35	7.8%	Southeast
Washington Twp	66	1.10	83 RYMON ROAD	ANEMA, RANDY H				5.94	4.54	76.5%	
Washington Twp	66	1.05	133 CEMETERY HILL ROAD	ANEMA, CAROL A				6.44	3.45	53.5%	
Washington Twp	66	1.06	31 RYMON ROAD	ANEMA, RALPH A & DIANA				23.88	19.97	83.6%	
Washington Twp	66	1	45 CEMETERY HILL ROAD	ANEMA, RALPH A & DIANNA M				128.90	108.18	83.9%	
Washington Twp	79	1.01	30 E ASBURY-ANDERSON RD	ANEMA, CAROL A	71.14	62.91	88.4%	5.43	5.43	100.0%	Southeast
Washington Twp	79	1.02	236 RYMON ROAD	ANEMA, CAROL A				6.83	6.83	100.0%	
Washington Twp	79	1	10 E ASBURY-ANDERSON RD	ANEMA, CAROL A				58.88	50.65	86.0%	
Franklin	41	12	EDISON ROAD, 134	BANGHART, GEORGE W	96.25	49.14	51.1%	15.80	2.26	14.3%	Southeast
Franklin	27	1	GOOD SPRINGS ROAD, 160	BANGHART, GEORGE W				80.45	46.89	58.3%	
Franklin	45	4.03	GOOD SPRINGS ROAD, 67	BANGHART, JOSEPH A & GEORGE W	385.08	277.29	72.0%	1.46	1.19	81.8%	Southeast
Franklin	45	4.02	GOOD SPRINGS ROAD, 65	BANGHART, JOSEPH A & GEORGE W				1.48	1.10	74.2%	
Franklin	26	14	ASBURY-BROADWAY ROAD, 84	BANGHART, GEORGE W				2.60	2.60	100.0%	
Franklin	45	11.01	HOFFMAN ROAD, 31	BANGHART, GEORGE				10.34	0.05	0.4%	
Franklin	45	6	GOOD SPRINGS ROAD, 15	BANGHART, GEORGE W				19.45	11.76	60.5%	
Franklin	27	5	GOOD SPRINGS ROAD, 50	BANGHART, GEORGE W				37.08	34.07	91.9%	
Franklin	27	6	ASBURY-BROADWAY ROAD, 100	BANGHART, GEORGE W				39.68	38.87	98.0%	
Franklin	26	15	GOOD SPRINGS ROAD, 50	BANGHART, GEORGE W				53.72	53.61	99.8%	
Franklin	46	10	ASBURY-BROADWAY ROAD, 99	BANGHART, GEORGE W				57.56	10.15	17.6%	
Franklin	45	5	GOOD SPRINGS ROAD, 49	BANGHART, GEORGE W				60.64	28.82	47.5%	
Franklin	26	13	ASBURY-BROADWAY ROAD, 70	BANGHART, GEORGE W	101.08	95.08	94.1%				
Oxford	2	16.01	BRASS CASTLE ROAD,	BARTHA, THOMAS R	68.92	29.19	42.4%	3.55	2.24	63.1%	West & Southeast
Oxford	2	16	BRASS CASTLE ROAD,	BARTHA, THOMAS				12.73	4.01	31.5%	
Washington Twp	4	1	282 BRASS CASTLE ROAD	BARTHA, THOMAS R JR				18.43	1.73	9.4%	
White	15	1	512 BRASS CASTLE RD	BARTHA, THOMAS	34.21	21.21	62.0%				
Liberty	13	6.02	TOWNSBURY ROAD	BARTON, JOHN & CHERYL	146.85	82.63	56.3%	1.62	1.05	65.3%	Central
Liberty	13	6	31 TOWNSBURY ROAD	BARTON, JOHN & CHERYL				7.23	6.96	96.3%	
Mansfield	102	4.01	TOWNSBURY ROAD	BARTON, JOHN & CHERYL				19.48	16.02	82.2%	
Independence	23	1	N/S TOWNSBURY RD	BARTON, JOHN M				21.85	21.02	96.2%	
Mansfield	102	2.01	693 TOWNSBURY ROAD	BARTON, JOHN M.				23.86	13.58	56.9%	
Liberty	13	9	BARKERS MILL ROAD; REAR	BARTON, JOHN M				30.83	3.91	12.7%	
Mansfield	102	3	TOWNSBURY ROAD	BARTON, JOHN M.	41.99	20.07	47.8%				
Franklin	57	30.01	BUTLER ROAD, 82	BUTLER, BONNIE	69.61	65.43	94.0%	1.55	1.55	100.0%	Southeast
Franklin	57	30.03	MOUNTAIN VIEW ROAD, 383	BUTLER, WILMER T				1.78	1.71	95.7%	
Franklin	57	30.02	MOUNTAIN VIEW ROAD, 389	BUTLER, PATRICIA D & BONNIE				2.22	2.22	100.0%	
Franklin	57	30	BUTLER ROAD, 100	BUTLER, WILMER T & BONNIE				26.97	26.05	96.6%	
Franklin	58	17	BUTLER ROAD, 105	BUTLER, WILMER T & BONNIE				37.08	33.90	91.4%	
Blairstown	1701	18.02	72 HOAGLAND ROAD	CAMPGAW CLUB, L.L.C. C/O SCHWARTZ	131.86	64.63	49.0%	2.09	0.01	0.5%	North & Northwest
Hope	5400	400	312 UNION BRICK RD	CAMPGAW CLUB L L C C/O D SCHWARTZ				15.06	6.67	44.3%	
Blairstown	1701	18.01	UNION BRICK ROAD	CAMPGAW CLUB, L.L.C. C/O SCHWARTZ				114.72	57.94	50.5%	
White	9	5	CR 519	CLINE, LORRAINE	43.63	37.56	86.1%	2.52	-	0.0%	West
Harmony	4	1	3259 BELIVDERE RD	CLINE, LORRAINE				18.98	18.14	95.5%	
White	7	2	CR 519	CLINE, LORRAINE				22.13	19.43	87.8%	
Knowlton	61	10	22 LIME KILN RD	CONTI N G C/O CONTI CONSTRUCTION CO	280.72	54.26	19.3%	27.13	0.01	0.0%	Northwest
Knowlton	61	22	142 KNOWLTON RD	CONTI N G C/O CONTI CONSTRUCTION CO				96.39	52.97	55.0%	
Knowlton	61	43	4 DELAWARE RD	CONTI N G C/O CONTI CONSTRUCTION CO				157.21	1.28	0.8%	

Appendix B2. Target Farms: PIG Program (Farm Units)

Municipality	Block	Lot	Property Location	Owner's Name	Farm Unit			Parcel			Project Area
					Farm Unit Acres (GIS)	Tillable Acres	Tillable Percent	Parcel Acres (GIS)	Tillable Acres per Parcel	Tillable Percent	
Knowlton	62	10	11 CENTERVILLE RD	DEAN, IRVIN W	152.76	124.06	81.2%	65.57	60.49	92.3%	North & Northwest
Blairstown	1704	1.01	10 DEAN ROAD	DEAN, IRVIN W & ADONIS A				87.19	63.57	72.9%	
Hope	200	100	24 DOE HOLLOW LANE	DEER HOLLOW FARM, LP C/O J R FLATH	220.80	67.75	30.7%	62.07	12.15	19.6%	Northwest & West
White	67	22	24 DOE HOLLOW LA	DEER HOLLOW FARM, % J. FLATH				158.73	55.60	35.0%	
Blairstown	1708	4.01	102 MT HERMON ROAD	DELORENZO, JAMES A	63.44	32.23	50.8%	7.03	0.72	10.3%	North & Northwest
Knowlton	45	7	24 CENTERVILLE RD	DELORENZO, JAMES A				8.45	5.04	59.7%	
Knowlton	45	6	26 CENTERVILLE RD	DELORENZO, JAMES A				47.95	26.46	55.2%	
Mansfield	1105.10	8	358 ALLEN ROAD	DONALDSON FAMILY LP	300.23	284.79	94.9%	2.00	0.51	25.3%	Central
Mansfield	1105.10	1	AIRPORT ROAD	DONALDSON FAMILY L P				7.30	7.27	99.6%	
Mansfield	1105.10	2.01	ROCKPORT ROAD	DONALDSON FAMILY, LP				14.15	14.14	99.9%	
Mansfield	1105.10	7	ROCKPORT ROAD	DONALDSON FAMILY L P				34.76	34.76	100.0%	
Mansfield	1105.10	5	ALLEN ROAD	DONALDSON, GARY L				59.41	59.41	100.0%	
Mansfield	1105.10	6	ROCKPORT ROAD	DONALDSON FAM LIMITED PARTNERSHIP				80.43	80.43	100.0%	
Mansfield	1105.10	8	AIRPORT ROAD	DONALDSON FAMILY L P				102.17	88.28	86.4%	
Allamuchy	602.01	9	219 ALPHANO ROAD	GODLEWSKY'S MARKET, LLC				0.45	0.45	100.0%	
Allamuchy	602.01	5	211 ALPHANO ROAD	GODLEWSKY'S MARKET, LLC	0.53	0.41	76.7%				
Allamuchy	602.01	8	221 ALPHANO ROAD	GODLEWSKY'S MARKET, LLC	1.24	1.23	99.7%				
Allamuchy	602.01	10	215 ALPHANO ROAD	GODLEWSKY'S MARKET, LLC	1.42	1.39	97.6%				
Independence	28	45	KRESTREL LANE	GODLEWSKY, GENEVIEVE	4.67	4.67	100.0%				
Independence	28	44	KRESTREL LANE	GODLEWSKY, GENEVIEVE	5.39	5.39	100.0%				
Independence	28	46	KRESTREL LANE	GODLEWSKY, GENEVIEVE	5.66	5.66	100.0%				
Independence	28	40	INDUSTRIAL LANE	GODLEWSKY FARMS & GREENHOUSES LLC	6.04	6.04	100.0%				
Independence	28	39	INDUSTRIAL LANE	GODLEWSKY FARMS & GREENHOUSES LLC	7.03	7.03	100.0%				
Independence	28	47	KRESTREL LANE	GODLEWSKY, GENEVIEVE	7.64	7.64	100.0%				
Independence	28	43	INDUSTRIAL LANE	GODLEWSKY, JOSEPH JR	8.03	8.03	100.0%				
Independence	28	37	INDUSTRIAL LANE	GODLEWSKY, JOSEPH JR	8.03	8.03	100.0%				
Independence	28	36	OFF ALPHANO RD	GODLEWSKY FARMS & GREENHOUSES LLC	11.50	11.09	96.4%				
Independence	28	38	ALPHANO RD	GODLEWSKY FARMS & GREENHOUSES LLC	13.87	13.81	99.6%				
Independence	28	41	INDUSTRIAL LANE	GODLEWSKY'S MARKET LLC	14.80	14.80	100.0%				
Independence	28	35	180 ALPHANO RD	GODLEWSKY FARMS & GREENHOUSES LLC	19.38	17.33	89.4%				
Frelinghuysen	1501	16	190 ALLAMUCHY ROAD	GRABOVETZ, GREGORY	93.98	63.18	67.2%	32.92	24.44	74.2%	Northeast
Allamuchy	201	32	BEAR CREEK ROAD REAR	GRABOVETZ, GREGORY	61.06	38.75	63.5%				
Harmony	18	8	444 MONTANA RD	HAGGERTY, WILLIAM	68.14	33.95	49.8%	12.90	-	0.0%	West
Harmony	20	5	427 MONTANA ROAD	HAGGERTY, WILLIAM	55.25	33.95	61.5%				
Mansfield	502	1	527 JACKSON VALLEY ROAD	HANNEMA, AUKE H & WILLEM	163.57	143.08	87.5%	3.53	3.52	99.7%	Central
Mansfield	501	13.02	527 JACKSON VALLEY ROAD	HANNEMA, AUKE H & WILLEM	160.04	139.57	87.2%				
Harmony	21	34.02	BRASS CASTLE ROAD	HAYDU, JOSEPH D	45.45	44.68	98.3%	2.67	2.67	100.0%	West
Harmony	21	34.01	800 HARM BRASS CASTLE RD.	HAYDU, JOSEPH D	5.40	4.74	87.8%				
Harmony	21	34.08	HARM-BRASS CASTLE RD	HAYDU, STEVEN C	5.66	5.55	97.9%				
Harmony	21	34.07	BRASS CASTLE ROAD	HAYDU, JOSEPH D	5.89	5.89	100.0%				
Harmony	21	34.03	BRASS CASTLE ROAD	POTTER, DIANA	6.11	6.11	100.0%				
Harmony	21	34.05	BRASS CASTLE ROAD	HAYDU, STEVEN C	6.28	6.28	100.0%				
Harmony	21	34.06	BRASS CASTLE ROAD	POTTER, DIANA	6.40	6.40	100.0%				
Harmony	21	34.04	BRASS CASTLE ROAD	HAYDU, JOSEPH D	7.03	7.03	100.0%				

Appendix B2. Target Farms: PIG Program (Farm Units)

Municipality	Block	Lot	Property Location	Owner's Name	Farm Unit			Parcel			Project Area
					Farm Unit Acres (GIS)	Tillable Acres	Tillable Percent	Parcel Acres (GIS)	Tillable Acres per Parcel	Tillable Percent	
Mansfield	1206	3	22 HAZEN ROAD	HAZEN, PHILIP J & BETTY	84.77	75.45	89.0%	8.73	8.39	96.1%	Central
Mansfield	1203	4.01	25 HAZEN ROAD	HAZEN, PHILIP JR				17.45	14.42	82.6%	
Mansfield	1204	18	WATTERS ROAD	HAZEN, PHILIP JR.				28.24	25.44	90.1%	
Mansfield	1203	2.02	ROUTE 57	HAZEN, PHILIP				30.35	27.20	89.6%	
Mansfield	1509	7.01	ROUTE 57	HENGST,RAYMOND & PEGGY MARGARET	158.37	156.46	98.8%	28.03	27.95	99.7%	Central & Southeast
Washington Twp	44	7	1059 BUTLERS PARK ROAD	HENGST, RAYMOND & PEGGY				52.33	50.68	96.9%	
Mansfield	1509	8	ROUTE 57	HENGST, RAYMOND & PEGGY MARGARET				78.01	77.84	99.8%	
White	49	2	966 BRASS CASTLE RD	HENSLER FARMS, LLC	103.86	87.99	84.7%	1.38	1.38	100.0%	West
White	31	1	949 BRASS CASTLE RD	HENSLER FARMS, LLC				3.29	3.02	91.8%	
White	18	16	298 CR 519	HENSLER FARMS, LLC				39.38	25.64	65.1%	
White	31	14.01	305 CR 519	HENSLER FARMS, LLC				59.80	57.95	96.9%	
Pohatcong	111	5.02	CREEK RD	HOMA FARMS	272.72	162.73	59.7%	2.24	-	0.0%	South
Pohatcong	111	3	CREEK RD	HOMA FARMS				53.84	0.54	1.0%	
Pohatcong	98	23	71 CREEK ROAD	HOMA FARMS				216.64	162.19	74.9%	
Independence	29	59	OFF SHADES OF DEATH RD	KENCO LAND	108.70	103.33	95.1%	8.82	8.82	100.0%	Northeast & Central
Independence	29	14	OFF SHADES OF DEATH RD	KENCO LAND				9.87	9.87	100.0%	
Liberty	1	3	52 SHADES OF DEATH ROAD	KENCO LAND PARTNERSHIP, L.P.				10.03	6.79	67.7%	
Independence	29	63	OFF SHADES OF DEATH RD	KENCO LAND PARTNERSHIP LP				10.35	10.35	100.0%	
Independence	29	62	OFF SHADES OF DEATH RD	KENCO LAND				11.46	11.40	99.5%	
Independence	29	58	OFF SHADES OF DEATH RD	KENCO LAND				14.16	14.16	100.0%	
Independence	29	60	S/S SHADES OF DEATH RD	KENCO LAND				15.32	13.87	90.5%	
Independence	29	61	S/S SHADES OF DEATH RD	KENCO LAND PARTNERSHIP LP	28.69	28.06	97.8%				
Washington Twp	40	109	148 JACKSON VALLEY ROAD	KENDRA, MOIRA	43.75	23.49	53.7%	4.59	-	0.0%	Southeast
Washington Twp	40	33.01	152 JACKSON VALLEY ROAD	KENDRA, MARK				39.16	23.49	60.0%	
Blairstown	702	3	FOUR CORNERS ROAD	KENNEDY, JOHN & PATRICIA	241.80	30.69	12.7%	39.14	-	0.0%	North
Blairstown	702	2	FOUR CORNERS ROAD	KENNEDY, JOHN & PAT				18.52	-	0.0%	
Blairstown	702	6.02	25 AMACKASSIN ROAD	KENNEDY JOHN & PAT				31.12	23.09	74.2%	
Blairstown	702	6.01	4 STONY BROOK ROAD	KENNEDY JOHN & PAT				153.03	7.61	5.0%	
Independence	14	12.01	86 BARKERS MILL RD	KLIMAS, GABRIELLA	197.06	46.28	23.5%	5.04	1.37	27.2%	Central
Independence	14	10	W/S BARKERS MILL RD	KLIMAS, GABRIELLA				43.96	9.33	21.2%	
Mansfield	101.02	44	TOWNSBURY ROAD	KLIMAS, GABRIELLA				47.26	35.52	75.2%	
Mansfield	101.02	43	TOWNSBURY ROAD	KLIMAS, GABRIELLA				100.80	0.06	0.1%	
Harmony	18	7.01	470 MONTANA ROAD	KOBER, WILLIAM & BARBARA				6.72	5.66	84.3%	
Harmony	18	7	470 MONTANA RD.	KOBER, WILLIAM G & BARBARA A	129.60	46.57	35.9%	41.42	25.86	62.4%	West & Southeast
Franklin	9	11	MONTANA ROAD	KOBER, WILLIAM G & BARBARA A	81.46	15.04	18.5%				
Hope	700	400	252 HONEY RUN RD	LARNEY, ED, ELENORA, MIKE; MOYER, A	125.08	106.21	84.9%	1.09	-	0.0%	Northwest
Hope	700	503	526 DELAWARE RD	LARNEY, EDMUND,MICHAEL,ELENORA ETAL				1.27	-	0.0%	
Hope	500	500	529 DELAWARE RD	LARNEY, ED, ELENORA, MIKE; MOYER, A				1.30	0.56	43.0%	
Hope	300	600	530 DELAWARE RD	LARNEY, ED,ELENORA,MIKE; MOYER, A				121.42	105.65	87.0%	
Hope	1200	1301	391 MT HERMON RD	LO PRESTI, GARY B & DONNA M	246.76	91.33	37.0%	8.21	4.31	52.6%	Northwest
Hope	1600	1300	376 MT HERMON RD	LO PRESTI, ARTHUR & EDWARD & THOMAS				238.55	87.01	36.5%	

Appendix B2. Target Farms: PIG Program (Farm Units)

Municipality	Block	Lot	Property Location	Owner's Name	Farm Unit			Parcel			Project Area
					Farm Unit Acres (GIS)	Tillable Acres	Tillable Percent	Parcel Acres (GIS)	Tillable Acres per Parcel	Tillable Percent	
Hope	1300	1200	LOCUST LAKE RD	LOCUST VALLEY C/O JOHN DENEUFVILLE				1.32	-	0.0%	North & Northwest
Hope	1300	1400	LOCUST LAKE RD	LOCUST VALLEY C/O JOHN DENEUFVILLE				0.47	-	0.0%	
Hope	1300	1100	LOCUST LAKE RD	LOCUST VALLEY C/O JOHN DENEUFVILLE				1.16	-	0.0%	
Knowlton	63	4	25 AUBLE RD	LOCUST VALLEY C/O JOHN DENEUFVILLE	254.77	50.38	19.8%	1.11	-	0.0%	
Knowlton	63	2	25 AUBLE RD	LOCUST VALLEY C/O JOHN DENEUFVILLE				19.40	10.01	51.6%	
Blairstown	1705	1	1 DEAN ROAD	LOCUST VALLEY C/O JOHN DENEUFVILLE				101.17	40.03	39.6%	
Hope	1300	1500	413 LOCUST LAKE RD	LOCUST VALLEY C/O JOHN DENEUFVILLE				130.14	0.33	0.3%	Northwest
Hope	1000	900	365 HOPE-GT MEADOWS RD	MAIER, HERMANN R. & MARIE A.				32.84	10.28	31.3%	
Hope	2900	400	27 JENNY JUMP ROAD	MAIER, HERMANN R.				45.29	25.81	57.0%	
Hope	2700	4600	48 JENNY JUMP ROAD	MAIER, CHRISTOPHER F	335.63	71.77	21.4%	75.56	28.50	37.7%	
Hope	2700	2500	354 HOPE-GT MEADOWS RD	MAIER, CHRISTOPHER F				79.76	1.65	2.1%	
Hope	2700	2400	396 HOPE-GT MEADOWS RD	MAIER, HERMANN R. & MARIE A.				102.20	5.54	5.4%	
Hope	1600	1500	354 MT HERMON RD	MAIER, CHRISTOPHER, ET AL.	105.35	31.21	29.6%	51.07	0.00	0.0%	Northwest
Hope	1200	1200	341 MT HERMON RD	MAIER, CHRISTOPHER ET AL				54.28	31.21	57.5%	
Washington Twp	84.01	1	332 ASBURY-ANDERSON RD	MANNON, WILLIAM & FRANCES WILLIAMS	118.51	103.99	87.7%	1.37	1.01	73.8%	Southeast & Central
Mansfield	1506	1	39 RIVER ROAD	MANNON WILLIAM J & WILLIAMS FRANCES				117.14	102.97	87.9%	
White	60	5	623 CR 519	MENEGUS, RAYMOND N				5.10	4.94	96.8%	West
White	60	6.01	108 HOPE CROSSING RD	MENEGUS, JOSEPH				6.32	6.17	97.6%	
White	59	5	HOPE CROSSING RD	MENEGUS, BERTHA LENA	47.04	35.68	75.8%	7.80	4.40	56.4%	
White	60	6	HOPE CROSSING RD	MENEGUS, WALTER & MARIA				10.20	8.44	82.8%	
White	59	4	HOPE CROSSING RD	MENEGUS, JOSEPH				17.61	11.72	66.6%	
Hope	1200	1700	94 LOCUST LAKE RD	MT HERMON HILLS C/O J. DENEUFVILLE	149.83	37.54	25.1%	54.53	0.10	0.2%	Northwest
Hope	1200	1300	385 MT HERMON RD	MT HERMON HILLS COMPANY LLC				95.29	37.44	39.3%	
Frelinghuysen	801	16	130 LANNING ROAD	MURPHY, RICHARD & GLORIA				30.26	16.25	53.7%	Northeast
Frelinghuysen	801	17	104 LANNING ROAD	MURPHY, RICHARD & GLORIA				30.90	22.55	73.0%	
Frelinghuysen	801	17.02	100 LANNING ROAD	MURPHY, RICHARD & GLORIA				31.00	18.40	59.3%	
Frelinghuysen	801	18.03	94 LANNING ROAD	MURPHY, RICHARD & GLORIA				37.87	12.72	33.6%	
Frelinghuysen	801	17.01	102 LANNING ROAD	MURPHY, RICHARD & GLORIA	205.89	111.54	54.2%	75.86	41.61	54.9%	
Greenwich	28	7	RT 78	NEW VILLAGE ROAD, LLC C/O KAPLEN				13.19	4.93	37.4%	Southeast
Franklin	61	28	BLOOMSBURY ROAD	NEW VILLAGE ROAD, LLC C/O KAPLEN	269.44	182.90	67.9%	14.30	3.95	27.7%	
Greenwich	28	4	NEW VILLAGE RD	NEW VILLAGE ROAD, LLC C/O KAPLEN				95.14	77.61	81.6%	
Greenwich	28	5	NEW VILLAGE RD	NEW VILLAGE ROAD, LLC C/O KAPLEN				146.81	96.39	65.7%	
Hope	300	702	536 DELAWARE RD	NOVACK, ARNOLD A				3.05	1.47	48.2%	Northwest
Hope	500	301	531 DELAWARE RD	NOVACK ARNOLD	78.67	53.54	68.1%	8.73	7.36	84.3%	
Hope	500	302	120 KOECK RD	NOVACK, CAROL				8.80	5.51	62.7%	
Hope	500	300	231 DELAWARE RD	NOVACK, ANDREW A & LAURA L				58.09	39.20	67.5%	
Greenwich	28	1	NEW VILLAGE RD	OBERLY, CLIFFORD & MARGARET				3.85	-	0.0%	Southeast
Greenwich	20	6	70 HERLEMAN ROAD	OBERLY, C K, M M, C W & SHEILA	331.10	180.10	54.4%	42.20	34.24	81.1%	
Franklin	42	11	HERLEMAN ROAD, 70	OBERLY, C K, M M, C W & SHEILA				56.27	43.67	77.6%	
Franklin	61	13	HERLEMAN ROAD, 70	OBERLY, CLIFFORD K & MARGARET M				97.33	4.71	4.8%	
Greenwich	20	7	SOUTH MAIN ST	OBERLY, CLIFFORD K				131.45	97.48	74.2%	
Liberty	9	9.02	395 MOUNTAIN LAKE ROAD	PASKO, EDWARD & RUDOLPH				1.11	1.08	97.0%	Central
Liberty	9	9.01	393 MOUNTAIN LAKE ROAD	PASKO, EDWARD & RUDOLPH				1.11	0.00	0.0%	
Liberty	9	9.03	413 MOUNTAIN LAKE ROAD	PASKO, EDWARD & RUDOLPH				1.13	0.36	32.1%	
Liberty	1	19	86 HOPE ROAD	PASKO, MARY, EST. C/O RUDOLPH PASKO	237.01	148.21	62.5%	3.63	2.91	80.2%	
Liberty	9	22	87 HOPE ROAD	PASKO, MARY, EST. C/O RUDOLPH PASKO				104.94	59.83	57.0%	
Liberty	9	9	387 MOUNTAIN LAKE ROAD	PASKO, EDWARD & RUDOLPH				125.08	84.04	67.2%	

Appendix B2. Target Farms: PIG Program (Farm Units)

Municipality	Block	Lot	Property Location	Owner's Name	Farm Unit			Parcel			Project Area
					Farm Unit Acres (GIS)	Tillable Acres	Tillable Percent	Parcel Acres (GIS)	Tillable Acres per Parcel	Tillable Percent	
Allamuchy	201	33.01	OFF JOHNSONBURG RD	PEACEFUL VALLEY FARMS LLC	62.13	30.39	48.9%	0.87	0.47	54.4%	Northeast
Allamuchy	201	33	QUAKER CHURCH ROAD REAR	PEACEFUL VALLEY FARMS, L.L.C.				61.26	29.92	48.8%	
Mansfield	801	11.01	112 CHERRY TREE BEND RD	PERTICARI, CHRISTOPHER A & FAY	67.00	41.79	62.4%	14.52	11.56	79.6%	Central
Mansfield	1402	11	CHERRY TREE BEND ROAD	PERTICARI, CHRISTOPHER A & FAY				52.47	30.23	57.6%	
Harmony	44	5	2700 RIVER ROAD	PETRILAK, JOHN	122.46	118.91	97.1%	10.75	10.37	96.4%	West
Harmony	39	4	BRAINARDS ROAD	PETRILAK, JOHN				19.45	18.81	96.7%	
Harmony	43	26	RIVER ROAD	PETRILAK, JOHN				19.69	19.18	97.4%	
Harmony	44	7	RIVER ROAD	PETRILAK, JOHN				26.38	25.67	97.3%	
Harmony	37	3	99 BRAINARDS RD.	PETRILAK, JOHN				46.20	44.88	97.1%	
Washington Twp	83	17	171 CHANGEWATER ROAD	PIAZZA, FRANK J. & JOYCE M.	130.27	113.80	87.4%	0.79	0.20	25.7%	Southeast
Washington Twp	83	4.02	236 E ASBURY-ANDERSON RD	PIAZZA, FRANK J & JOYCE M				0.96	0.96	100.0%	
Washington Twp	83	4.01	234 E ASBURY-ANDERSON RD	PIAZZA, FRANK J & JOYCE M				1.15	1.15	100.0%	
Washington Twp	83	16	169 CHANGEWATER ROAD	PIAZZA, FRANK J & JOYCE M				19.14	18.49	96.6%	
Washington Twp	83	4	240 E ASBURY-ANDERSON RD	PIAZZA, FRANK J & JOYCE M				36.79	34.26	93.1%	
Washington Twp	83	2	260 E ASBURY-ANDERSON RD	PIAZZA, SAMUEL A & MARSHA A				71.43	58.74	82.2%	
Hope	100	1202	182 LAKE JUST IT ROAD	PLANER, MICHAEL R & JENNIFER A	95.14	76.25	80.1%	6.98	5.32	76.3%	Northwest
Hope	100	1200	1150 HOPE-BRIDGEVILLE RD	PLANER, AUDREY B				29.93	28.38	94.8%	
Hope	800	400	3 KOSTENBADER RD	PLANER, AUDREY B				58.23	42.55	73.1%	
Liberty	1	7.01	SHADES OF DEATH ROAD;REAR	PRYSLAK, WILLIAM EST & JOHN	380.32	338.16	88.9%	2.80	2.80	100.0%	Central & Northeast
Liberty	1	25	HOPE ROAD; REAR	PRYSLAK FARMS				5.10	5.10	100.0%	
Independence	29	24	OFF ISLAND RD	PRYSLAK FARMS				5.47	5.47	100.0%	
Independence	29	23	OFF SHADES OF DEATH RD	PRYSLAK FARMS				6.09	6.09	100.0%	
Liberty	1	14	SHADES OF DEATH ROAD	PRYSLAK, JUNE				9.08	9.08	100.0%	
Liberty	1	23	HOPE ROAD; REAR	PRYSLAK FARMS				10.35	10.35	100.0%	
Liberty	1	22	HOPE ROAD; REAR	PRYSLAK FARMS				10.61	10.61	100.0%	
Liberty	1	11	SHADES OF DEATH ROAD;REAR	PRYSLAK, WILLIAM EST & JOHN				13.91	13.91	100.0%	
Liberty	1	9	30 SHADES OF DEATH ROAD	PRYSLAK, WILLIAM EST & JOHN				14.97	10.31	68.9%	
Liberty	1	18	2 SHADES OF DEATH ROAD	PRYSLAK FARMS				15.68	6.12	39.0%	
Liberty	1	10	26 SHADES OF DEATH ROAD	PRYSLAK, WILLIAM EST & JOHN				22.68	18.29	80.6%	
Liberty	1	20	66 HOPE ROAD	PRYSLAK FARMS				23.66	23.33	98.6%	
Liberty	1	20.01	74 HOPE ROAD	PRYSLAK FARMS				24.26	15.18	62.6%	
Independence	29	22	OFF ISLAND RD	PRYSLAK FARMS				36.69	32.38	88.3%	
Liberty	1	27	50 HOPE ROAD	PRYSLAK, WILLIAM EST & JOHN				42.52	38.84	91.3%	
Liberty	1	24	HOPE ROAD; REAR	PRYSLAK, WILLIAM EST & JOHN				47.17	42.02	89.1%	
Independence	29	25	OFF SHADES OF DEATH RD	PRYSLAK FARMS				89.30	88.29	98.9%	
Independence	28	30	OFF ALPHANO RD	PRYSLAK FARMS	16.06	16.06	100.0%	Northeast			
Independence	28	28	ALPHANO RD & MEADOW LANE	PRYSLAK FARMS	90.77	84.04	92.6%		22.45	17.39	77.4%
Independence	28	21	N/S ALPHANO RD	PRYSLAK FARMS	52.26	50.59	96.8%				
Allamuchy	602	11.01	231 ALPHANO ROAD	PRYSLAK FARMS	100.15	70.03	69.9%	2.66	2.56	96.3%	Northeast
Allamuchy	602.01	11	223 ALPHANO & 1 YOUNGS IS	PRYSLAK FARMS				4.55	4.49	98.8%	
Allamuchy	602.01	14	11 YOUNGS ISLAND ROAD	PRYSLAK FARMS				4.73	4.73	100.0%	
Allamuchy	602	22	37 KESTREL LANE	PRYSLAK FARMS				38.62	11.91	30.8%	
Allamuchy	602	12	16 YOUNGS ISLAND ROAD	PRYSLAK FARMS				49.60	46.34	93.4%	
White	33	16	HAZEN-OXFORD RD	RACE, SAMUEL R & JEAN A	98.20	70.52	71.8%	13.11	11.24	85.8%	West
White	16	42	HAZEN-OXFORD RD	RACE, SAMUEL R & JEAN A				85.10	59.28	69.7%	

Appendix B2. Target Farms: PIG Program (Farm Units)

Municipality	Block	Lot	Property Location	Owner's Name	Farm Unit			Parcel			Project Area
					Farm Unit Acres (GIS)	Tillable Acres	Tillable Percent	Parcel Acres (GIS)	Tillable Acres per Parcel	Tillable Percent	
Frelinghuysen	1101	1.03	895 ROUTE 94	ROGERS, PAMELA SUZANNE	204.84	61.53	30.0%	4.10	-	0.0%	Northeast
Frelinghuysen	1101	1.04	9 MOTT ROAD	ROGERS JR, RICHARD D				3.66	-	0.0%	
Frelinghuysen	1101	1.01	21 MOTT ROAD	ROGERS JR, RICHARD D				1.98	-	0.0%	
Frelinghuysen	301	14.02	923 ROUTE 94	ROGERS, PAMELA SUZANNE				1.83	1.55	84.6%	
Frelinghuysen	301	17.01	995 ROUTE 94	ROGERS, PAMELA SUZANNE				4.91	3.00	61.1%	
Frelinghuysen	301	14.05	919 ROUTE 94	ROGERS, RICHARD D JR & PAMELA S				5.96	3.15	52.8%	
Frelinghuysen	301	14.03	14 MOTT ROAD	ROGERS, RICHARD D JR & PAMELA S				7.08	4.56	64.4%	
Frelinghuysen	301	14.04	10 MOTT ROAD	ROGERS, PAMELA SUZANNE				19.63	5.46	27.8%	
Frelinghuysen	301	17	985 ROUTE 94	ROGERS JR, RICHARD D				71.48	21.87	30.6%	
Frelinghuysen	301	14	6 MOTT ROAD	ROGERS, RICHARD D JR & PAMELA S				84.20	21.94	26.1%	
Knowlton	62	11.01	AUBLE RD	ROGERS, RICHARD D SR	244.01	121.31	49.7%	1.43	-	0.0%	Northwest
Knowlton	62	11.03	AUBLE RD	ROGERS, RICHARD D SR				1.17	-	0.0%	
Knowlton	62	6.05	CENTERVILLE RD	ROGERS, RICHARD D				1.01	0.92	91.4%	
Knowlton	62	6	29 KNOWLTON RD	ROGERS, RICHARD D				18.43	18.37	99.7%	
Knowlton	62	14	58 AUBLE RD	ROGERS, RICHARD D				36.83	10.45	28.4%	
Knowlton	62	11	24 AUBLE RD	ROGERS, RICHARD D SR				60.50	5.06	8.4%	
Knowlton	62	3	43 KNOWLTON RD	ROGERS, RICHARD D	124.64	86.51	69.4%				
Washington Twp	85	10.01	BUTLERS PARK ROAD	ROSEBERRY, EDITH M	155.34	151.77	97.7%	0.11	0.11	100.0%	Southeast
Washington Twp	85	1	1117 BUTLERS PARK ROAD	ROSEBERRY, EDITH				0.24	0.23	96.9%	
Washington Twp	84	1.02	1142 BUTLERS PARK ROAD	ROSEBERRY, EDITH M				2.61	2.61	100.0%	
Washington Twp	85	9	1133 BUTLERS PARK ROAD	ROSEBERRY, EDITH M				2.80	2.68	95.7%	
Washington Twp	84	1.01	1146 BUTLERS PARK ROAD	ROSEBERRY, EDITH M				4.38	4.29	97.9%	
Washington Twp	45	20.02	1062 BUTLERS PARK ROAD	ROSEBERRY, EDITH M				6.56	5.03	76.6%	
Washington Twp	84	1	1132 BUTLERS PARK ROAD	ROSEBERRY, EDITH M				41.32	39.93	96.6%	
Washington Twp	45	20	1050 BUTLERS PARK ROAD	ROSEBERRY, WILLIAM M & RICHARD W				97.31	96.88	99.6%	
Allamuchy	106	1	230 SHADES OF DEATH RD	RUSO, LAWRENCE	260.99	85.79	32.9%	9.79	-	0.0%	Northeast
Allamuchy	106	3	210 SHADES OF DEATH RD	RUSO, LAWRENCE C/O RUSSO DEVELOP				251.20	85.79	34.2%	
Washington Twp	76	1.03	409 ROUTE 31 SOUTH	RYMON, WILLIAM C & KAREN J	107.59	103.40	96.1%	8.43	6.34	75.2%	Southeast
Washington Twp	71	5	120 RYMON ROAD	RYMON, HARRY / REVOCABLE TRUST				99.16	97.06	97.9%	
Franklin	43	10.01	MOUNTAIN VIEW ROAD, 499	SANTINI, SANTINO JR & DOMINICK	137.22	94.85	69.1%	5.91	4.07	68.9%	Southeast
Franklin	41	10.06	GOOD SPRINGS ROAD, 230	SANTINI, SANTINO JR & CHRISTINE M				6.04	5.56	92.0%	
Franklin	41	10.05	GOOD SPRINGS ROAD, 230	SANTINI, SANTINO JR & CHRISTINE M				11.15	10.64	95.4%	
Franklin	43	5	MOUNTAIN VIEW ROAD, 549	SANTINI, DOMINICK C. & JANE M				15.02	0.83	5.5%	
Franklin	44	2	GOOD SPRINGS ROAD, 193	SANTINI, SANTINO J JR & CHRISTINE				17.50	8.69	49.7%	
Franklin	41	10	GOOD SPRINGS ROAD, 190	SANTINI, SANTINO J & CLARA S				32.84	30.86	94.0%	
Franklin	43	10	MOUNTAIN VIEW ROAD, 499	SANTINI, SANTINO JR & DOMINICK				48.77	34.20	70.1%	
Franklin	26	16.02	ROUTE 57, 2305	SANTINI, SANTINO J, ROBERT A & JANE M	107.39	76.66	71.4%	6.23	0.36	5.7%	Southeast
Franklin	26	16.01	ROUTE 57, 2305	SANTINI, SANTINO J, ROBERT A & JANE M				12.72	1.16	9.2%	
Franklin	26	2	ROUTE 57, 2305	SANTINI, SANTINO J, ROBERT A & JANE M				88.45	75.13	84.9%	
Pohatcong	101	15	EDGE ROAD	SANTINI, ROBERT A & SHARON A	108.57	73.56	67.8%	32.37	32.30	99.8%	South
Pohatcong	101	13	91 MUNICIPAL DRIVE	SANTINI, ROBERT A & SHARON A				76.20	41.27	54.2%	
Harmony	47	1	RIVER ROAD	SANTINI, ROBERT A & SHARON A	73.74	51.85	70.3%	8.33	-	0.0%	West
Harmony	45	26	ESPOSITO ROAD	SANTINI, ROBERT A & SHARON A				65.41	51.85	79.3%	

Appendix B2. Target Farms: PIG Program (Farm Units)

Municipality	Block	Lot	Property Location	Owner's Name	Farm Unit			Parcel			Project Area
					Farm Unit Acres (GIS)	Tillable Acres	Tillable Percent	Parcel Acres (GIS)	Tillable Acres per Parcel	Tillable Percent	
Harmony	18	9	NEW VILLAGE ROAD	SCHOENWOOD FARMS, LLC	336.78	136.21	40.4%	1.67	-	0.0%	West & Southeast
Harmony	19	2.01	420 MONTANA RD	SCHOENWOOD FARMS, LLC				17.04	7.87	46.2%	
Franklin	9	2	WHITES ROAD, 50	SCHOENWOOD FARMS, LLC				17.40	0.30	1.7%	
Harmony	19	2	MONTANA ROAD	SCHOENWOOD FARMS, LLC				18.79	6.62	35.2%	
Franklin	8	17	WHITES ROAD	SCHOENWOOD FARMS, LLC				45.65	44.56	97.6%	
Franklin	9	5	WHITES ROAD	SCHOENWOOD FARMS, LLC				53.99	2.64	4.9%	
Franklin	8	10	WHITES ROAD, 49	SCHOENWOOD FARMS, LLC				182.24	74.22	40.7%	
Frelinghuysen	601	2	190 SILVER LAKE ROAD	SCHWARTZ, DAVID A TRUSTEE	92.91	30.95	33.3%	8.45	8.42	99.7%	Northeast
Frelinghuysen	601	4	170 SILVER LAKE ROAD	SCHWARTZ, DAVID A TRUSTEE				36.36	22.52	61.9%	
Frelinghuysen	801	6	189 SILVER LAKE ROAD	SCHWARTZ, DAVID A TRUSTEE				48.10	0.01	0.0%	
Pohatcong	113	8	MOUNTAIN ROAD	SCHWARTZ, ELEANOR A.	101.76	55.19	54.2%	0.26	-	0.0%	South
Pohatcong	110	21	237 ROUTE 627	SCHWARTZ, ELEANOR A.				22.50	4.50	20.0%	
Pohatcong	110	43	MOUNTAIN ROAD	SCHWARTZ, ELEANOR A.				24.94	15.77	63.2%	
Pohatcong	110	45	MOUNTAIN ROAD	SCHWARTZ, ROBERT J				54.06	34.92	64.6%	
Harmony	47.01	24	1735 RIVER RD.	SHANDOR, DOROTHY L	115.72	89.87	77.7%	13.13	-	0.0%	West
Harmony	46	2	HARMONY STATION RD	SHANDOR, DOROTHY L				102.60	89.87	87.6%	
White	62	20	20 SAREPTA RD	SHOEMAKER, HOWARD & MYRNA K	130.04	58.70	45.1%	46.21	-	0.0%	West
White	62	20.01	HOPE CROSSING RD	SHOEMAKER KEVIN S & BEVERLY L				6.11	0.81	13.3%	
White	62	24	464 ROUTE 46 & 40 HOPE CR	SHOEMAKER, HOWARD				77.72	53.99	69.5%	
Pohatcong	103	5	599 ROUTE 639	SLACK, JOHN H & MARGARET M	42.88	38.37	89.5%	6.12	3.82	62.5%	South
Pohatcong	103	2	599 ROUTE 639	SLACK, JOHN H & MARGARET M				10.10	8.66	85.8%	
Greenwich	41	13.01	RAVINE RD	SLACK, JOHN				11.61	10.95	94.3%	
Pohatcong	104	4	W.GLEN-BLOOMSBURY RD.	SLACK, JOHN H & MARGARET M				15.06	14.94	99.2%	
White	21	7.02	FOUL RIFT ROAD	SMITH JAMES & KAREN	177.13	162.62	91.8%	6.47	3.88	60.0%	West
White	21	7	FOUL RIFT RD	SMITH EARL RICHARD & DONALD W				85.19	75.60	88.7%	
White	21	12	FOUL RIFT RD	SMITH, E R & D C/O SMITH J				85.47	83.14	97.3%	
Franklin	47	1	BUTTERMILK BRIDGE RD, 199	SMITH, ELIZABETH & RICHARD L	95.78	35.24	36.8%	14.11	-	0.0%	Southeast
Franklin	46	26	MOUNTAIN VIEW ROAD, 142	SMITH, ELIZABETH & RICHARD L				34.25	0.60	1.8%	
Franklin	48	2	MOUNTAIN VIEW ROAD, 145	SMITH, ELIZABETH & RICHARD L				47.42	34.64	73.1%	
Franklin	56	35	BLOOMSBURY ROAD, 123	SMITH, ELIZABETH & RICHARD L	147.38	126.72	86.0%	14.51	10.26	70.7%	Southeast
Franklin	57	32	BLOOMSBURY ROAD, 124	SMITH, ELIZABETH & RICHARD L				27.33	22.55	82.5%	
Franklin	57	33	BLOOMSBURY ROAD, 100	SMITH, ELIZABETH & RICHARD L				33.23	30.61	92.1%	
Franklin	56	36	BLOOMSBURY ROAD, 123	SMITH, ELIZABETH & RICHARD L				72.31	63.31	87.5%	
Knowlton	69	4.02	56 RAMSEYBURG RD	SONN,DOUGLAS W/O'CONNOR,MICHELLE S	157.10	80.70	51.4%	12.45	5.61	45.0%	Northwest
Hope	200	1000	154 OSMUN RD	SONN,DOUGLAS W/O'CONNOR,MICHELLE S				23.24	4.14	17.8%	
Hope	300	200	167 OSMUN RD	SONN,DOUGLAS W/O'CONNOR,MICHELLE S				121.41	70.95	58.4%	
White	67	23	OFF OSMUN RD-KNOWLTON TWP	STONE, HARRY	156.11	83.84	53.7%	3.92	-	0.0%	West & Northwest
Hope	300	300	149 OSMUN RD	STONE, HARRY A				20.44	15.51	75.9%	
Knowlton	70	3	16 OSMUN RD	STONE, HARRY				38.53	11.22	29.1%	
Hope	200	900	112 OSMUN RD	STONE, HARRY A				93.23	57.11	61.3%	
Liberty	12	12	2 COSTA LANE & 413 RT 46	TOPP ORANGE LLC	126.94	25.41	20.0%	19.92	15.34	77.0%	Central & Northeast
Liberty	13	11	2 COSTA LANE	TOPP ORANGE LLC				32.00	3.54	11.1%	
Independence	23	6	W/S CEMETERY RD	TOPP ORANGE LLC				33.28	0.42	1.3%	
Independence	23	4	S/S L & H RR	TOPP ORANGE LLC				41.73	6.10	14.6%	

Appendix B2. Target Farms: PIG Program (Farm Units)

Municipality	Block	Lot	Property Location	Owner's Name	Farm Unit			Parcel			Project Area
					Farm Unit Acres (GIS)	Tillable Acres	Tillable Percent	Parcel Acres (GIS)	Tillable Acres per Parcel	Tillable Percent	
Allamuchy	602.01	13	17 YOUNGS ISLAND ROAD	TRZECIAKIEWICZ, EDWARD S				0.76	-	0.0%	Northeast
Independence	28	49	S/S L & H RR	TRZECIAKIEWICZ, EDWARD S				1.16	1.16	100.0%	
Independence	28	50	S/S L & H RR	TRZECIAKIEWICZ, EDWARD & ANNA				1.97	1.97	100.0%	
Independence	28	51	S/S L & H RR	TRZECIAKIEWICZ, EDWARD S	47.80	47.39	99.1%	6.77	6.77	100.0%	
Independence	28	52	S/S L & H RR	TRZECIAKIEWICZ, EDWARD & ANNA				10.63	10.45	98.3%	
Independence	28	54	S/S L & H RR	TRZECIAKIEWICZ, EDWARD & ANNA				11.20	11.07	98.8%	
Independence	28	53	S/S L & H RR	TRZECIAKIEWICZ, EDWARD S				15.30	15.21	99.4%	
White	32	9	466 CR 519	UNANGST, OSCAR & LORRAINE				3.32	-	0.0%	West
White	47	1	CR 519 & PEQUEST DR	UNANGST, OSCAR				9.95	8.90	89.4%	
White	47.01	5	BRASS CASTLE RD	UNANGST, OSCAR				15.45	10.81	70.0%	
White	47	3	21 PEQUEST DR	UNANGST, OSCAR & LORRAINE	248.10	193.46	78.0%	18.94	16.04	84.7%	
White	48	1.01	489 CR 519	UNANGST, OSCAR & LORRAINE S				25.19	19.88	78.9%	
White	47	5	PEQUEST DR	UNANGST, OSCAR & LORRAINE				87.39	81.88	93.7%	
White	32	10	470 CR 519	UNANGST, OSCAR				87.85	55.94	63.7%	
White	23	7	FOUL RIFT RD	VAN HORN, LISA				2.58	1.15	44.6%	West
White	21	3	135 CR 620	VAN HORN, LISA	153.89	151.10	98.2%	27.99	27.56	98.5%	
White	30	1	2 OLD PHILLIPSBURG RD	VAN HORN, LISA				30.77	30.77	100.0%	
White	21	4	FOUL RIFT RD	VAN HORN, LISA				92.55	91.63	99.0%	
Greenwich	28	3	NEW VILLAGE RD	VIKING DEVELOPMENT COMPANY, LLC				5.26	0.60	11.5%	Southeast
Greenwich	28	5.01	NEW VILLAGE RD	VIKING DEVELOPMENT COMPANY, LLC	305.42	45.21	14.8%	66.29	0.04	0.1%	
Franklin	61	10	BLOOMSBURY ROAD	VIKING DEVELOPMENT COMPANY, LLC				233.87	44.57	19.1%	West
Harmony	30	3	1350 STRYKERS ROAD	WARREN COUNTY FARMERS FAIR				33.56	-	0.0%	
Harmony	30	2.01	STRYKER RD.	WARREN COUNTY FARMERS FAIR				0.83	-	0.0%	
Harmony	30	2	STRYKER RD.	WARREN COUNTY FARMERS FAIR	79.02	41.28	52.2%	2.02	0.06	2.8%	
Harmony	31	8.10	1335 STRYKERS RD	WARREN COUNTY FARMER'S FAIR ASSOC				8.46	7.50	88.6%	
Harmony	31	8.11	STRYKERS RD	WARREN COUNTY FARMER'S FAIR ASSOC				34.14	33.73	98.8%	
Mansfield	1404	9.01	10 WATTERS RD	WATTERS, ERVIN & JOAN				38.10	29.45	77.3%	Central
Mansfield	1403	3	WATTERS ROAD	WATTERS, ERVIN E & JOAN H	291.63	224.74	77.1%	38.43	38.43	100.0%	
Mansfield	1402	24	1081 ROUTE 57	WATTERS, ERVIN & JOAN				59.25	29.60	50.0%	
Mansfield	1404	8	WATTERS ROAD	WATTERS, ERVIN E & JOAN H				155.85	127.27	81.7%	
White	30	11	CR 519	WHITETOWN REALTY, LLC				1.20	-	0.0%	West
White	30	8	257 CR 519	WHITETOWN REALTY	106.74	93.98	88.0%	105.54	93.98	89.1%	
Hope	5000	500	413 SILVER LK-MARKSBR RD	WINTER, GEORGE R				10.90	-	0.0%	Northwest & North
Blairstown	2102	7	179 HOPE ROAD	WINTER, GEORGE R & JULIE				1.75	0.13	7.4%	
Blairstown	2102	5	2 MUD POND ROAD	WINTER, GEORGE R & JULIE				5.37	0.14	2.7%	
Hope	5000	1000	562 HOPE-BLAIRSTOWN RD	WINTER, ELIZABETH KNA WHITE, ELIZAB	202.31	89.11	44.0%	20.04	8.11	40.5%	
Hope	5000	1001	562 HOPE-BLAIRSTOWN RD	WINTER, SUSAN KNA CARNEAL, SUSAN				20.36	12.05	59.2%	
Blairstown	2102	8	4 MUD POND ROAD	WINTER, GEORGE R & JULIE				51.84	30.55	58.9%	
Hope	5000	400	425 SILVER LK-MARKSBR RD	WINTER, GEORGE B & SHIRLEY L				92.06	38.13	41.4%	Southeast
Franklin	7	15.02	ROUTE 57, 2360	WOOLF, ROGER A & ROBERTA	95.93	87.50	91.2%	10.22	10.17	99.6%	
Franklin	7	15	ROUTE 57, 2330	WOOLF, RICHARD A				36.43	30.36	83.3%	
Franklin	26	1	ROUTE 57, 2349	WOOLF FAMILY LIMITED PARTNERSHIP				49.28	46.97	95.3%	West
White	30	7	CR 519	WYCKOFF, JOHN W JR & JUDY MORRIS				46.81	46.01	98.3%	
White	18	8	CR 519	WYCKOFF, JOHN CARL ETALS%M HAYCOCK	280.64	199.37	71.0%	111.03	76.30	68.7%	
White	18	9	248 CR 519	WYCKOFF, JOHN JR & SUSAN, MORRIS, JUDY				122.80	77.06	62.8%	

Appendix B2. Target Farms: PIG Program (Farm Units)

Municipality	Block	Lot	Property Location	Owner's Name	Farm Unit			Parcel			Project Area
					Farm Unit Acres (GIS)	Tillable Acres	Tillable Percent	Parcel Acres (GIS)	Tillable Acres per Parcel	Tillable Percent	
Hope	1600	3100	MT HERMON RD	ZORN, JOSEPH & CHRISTINA	165.50	25.87	15.6%	8.74	-	0.0%	Northwest
Hope	1200	500	323 MT HERMON RD	ZORN, JOSEPH				13.17	5.58	42.4%	
Hope	1700	100	2 FOUNDRY RD	ZORN, JOSEPH				13.52	5.86	43.3%	
Hope	1600	2000	9 FOUNDRY RD	ZORN, JOSEPH & INGEBORG				130.07	14.43	11.1%	
Blairstown	2203	1	10 TURPIN ROAD	ZUKOSKI, MICHAEL A & SUSAN WEBER	74.84	46.84	62.6%	23.74	16.11	67.8%	North & Northwest
Hope	5300	100	15 OLD MT HERMON RD	ZUKOSKI, MICHAEL A & SUSAN				51.10	30.73	60.1%	
Mansfield	504	1	ROUTE 31	A APPELMAN HOLDINGS, LLC	136.65	87.32	63.9%	14.88	6.03	40.5%	Central
Mansfield	503	2	TUNNEL HILL ROAD	A APPELMAN HOLDINGS, LLC				121.77	81.29	66.8%	
Blairstown	1803	10	41 DRY ROAD	ARDIA, VINCENT H & ANITA D	134.72	40.97	30.4%	36.54	13.54	37.0%	North
Blairstown	1901	34	40 DRY ROAD	ARDIA, VINCENT H & ANITA D				98.17	27.44	27.9%	
Independence	21	12	BACON RUN	BADUINI, LOUIS & ANNE M	285.14	201.42	70.6%	22.44	22.13	98.6%	Northeast
Independence	21	13	BACON RUN	BADUINI, LOUIS & ANNE M				39.47	1.18	3.0%	
Independence	21	2	37-39 & 53-61 WATER ST	BADUINI, LOUIS J & ANNE M				104.92	82.54	78.7%	
Independence	21	11	N/S PETERSBURG RD	BADUINI, LOUIS J & ANNE M				118.32	95.57	80.8%	
Franklin	58	16.02	INSCHO ROAD, 17	BADWAY KATHERINE E	57.84	26.67	46.1%	1.94	-	0.0%	Southeast
Franklin	58	16	BUTLER ROAD, 89	BADWAY KATHERINE E				55.89	26.67	47.7%	
Franklin	7	14.05	ROUTE 57, 2370	BARCELLONA/KOWALSKI/TAMBORRA ET ALS	124.52	51.92	41.7%	1.67	1.67	100.0%	Southeast
Franklin	7	14.04	ROUTE 57, 2404	BARCELLONA/KOWALSKI/TAMBORRA ET ALS				10.59	10.59	100.0%	
Franklin	7	14.03	ROUTE 57, 2380	BARCELLONA/KOWALSKI/TAMBORRA ET ALS				13.00	13.00	100.0%	
Franklin	8	8	ROUTE 57, 2380	BARCELLONA/KOWALSKI/TAMBORRA ET ALS				99.25	26.65	26.9%	
Greenwich	26	40	RT 22	BEATTY, JOHN H & CAROL A	85.06	84.65	99.5%	4.56	4.51	98.9%	Southeast
Greenwich	27	2	SOUTH MAIN ST	BEATTY, JOHN H & CAROL A				12.37	12.14	98.1%	
Greenwich	26	31	SOUTH MAIN ST	BEATTY, JOHN H & CAROL A				68.13	68.00	99.8%	
Hope	1000	2200	153 LAKE JUST-IT RD	BELSTRA, ROBERT	165.62	96.57	58.3%	0.03	-	0.0%	Northwest
Hope	100	900	1122 HOPE-BRIDGEVILLE RD	BELSTRA, ROBERT				165.59	96.57	58.3%	
White	18	21	366 CR 519	BILYK FAMILY LIMITED PARTNERSHIP	132.17	106.46	80.6%	0.34	-	0.0%	West
White	31	15	357 CR 519	BILYK FAMILY LIMITED PARTNERSHIP				8.15	8.15	100.0%	
White	47	11	OFF HAZEN-BELVIDERE RD	BILYK FAMILY LIMITED PARTNERSHIP				8.92	8.90	99.8%	
White	48	13	928 BRASS CASTLE RD	BILYK FAMILY LIMITED PARTNERSHIP				31.97	31.84	99.6%	
White	18	18	350 CR 519	BILYK FAMILY LIMITED PARTNERSHIP				33.57	9.06	27.0%	
White	31	14	CR 519	BILYK FAMILY LIMITED PARTNERSHIP				49.22	48.51	98.6%	
Knowlton	34	18.02	423 RTE 94	BOWMAN, LEWIS & ERLA MAE	68.72	47.14	68.6%	2.86	2.86	100.0%	North
Knowlton	34	18.03	421 RTE 94	BOWMAN, LEWIS W & ERLA MAE				7.79	2.14	27.5%	
Knowlton	34	18.04	435 RTE 94	BOWMAN, LEWIS W & ERLA MAE				11.05	2.00	18.1%	
Knowlton	34	18	437 RTE 94	BOWMAN, LEWIS W & ERLA MAE				12.99	6.16	47.4%	
Knowlton	34	18.01	425 RTE 94	BOWMAN, ERLA MAE				34.01	33.97	99.9%	
Franklin	11	37.02	MILLBROOK ROAD, 206	BUCKEN, NIEL & T & M MURPHY ETALS	114.79	39.41	34.3%	0.03	0.03	100.0%	Southeast & West
Harmony	17	14	MONTANA	BUCKEN, NEIL				0.35	0.35	99.6%	
Harmony	17	16	MONTANA	BUCKEN, NEIL				32.49	2.98	9.2%	
Franklin	11	34	MILLBROOK ROAD, 206	BUCKEN, NIEL & T & M MURPHY ETALS				81.92	36.06	44.0%	
Harmony	9	51.03	3046 BELVIDERE RD.	BURKE, DANA & BARBARA DINSMORE	114.53	48.31	42.2%	17.02	3.31	19.4%	West
Harmony	9	51.02	3048 BELVIDERE RD	BURKE, DANA R & BARBARA DINSMORE				18.71	18.29	97.7%	
Harmony	9	51.01	BELVIDERE HWY	BURKE, DANA R & BARBARA DINSMORE				78.80	26.72	33.9%	
Harmony	10	16	ROUTE 519	CALAFIORE, PATRICK M				4.48	-	0.0%	
Harmony	4	2	3245 BELVIDERE RD	CALAFIORE, PATRICK M				42.86	39.85	93.0%	

Appendix B2. Target Farms: PIG Program (Farm Units)

Municipality	Block	Lot	Property Location	Owner's Name	Farm Unit			Parcel			Project Area
					Farm Unit Acres (GIS)	Tillable Acres	Tillable Percent	Parcel Acres (GIS)	Tillable Acres per Parcel	Tillable Percent	
Frelinghuysen	902	2	31 LANNING ROAD	CARSON, DANIEL CARSON & WHITNEY	308.48	144.05	46.7%	14.20	9.93	69.9%	Northeast
Frelinghuysen	902	9.06	360 MAIN STREET	CARSON, DANIEL & WHITNEY				61.72	0.33	0.5%	
Frelinghuysen	902	4	67 LANNING ROAD	CARSON, DANIEL & WHITNEY				232.57	133.79	57.5%	
Hope	3400	2200	9 RIDGEWAY AVE	CHAMBERLAIN, ROBERT	164.08	93.16	56.8%	12.93	10.66	82.4%	Northwest
Hope	2900	100	382 JOHNSONBURG RD	CHAMBERLAIN, ROBERT				26.89	15.47	57.6%	
Hope	3400	1900	385 JOHNSONBURG RD	CHAMBERLAIN, ROBERT				45.01	37.36	83.0%	
Hope	3000	200	388 JOHNSONBURG RD	CHAMBERLAIN, ROBERT				79.25	29.67	37.4%	
Blairstown	1802	4.05	CEDAR LAKE ROAD	CHRISTIAN, MARILYN & BRICE	43.42	22.55	51.9%	4.97	4.15	83.5%	North
Blairstown	1802	4.04	CEDAR LAKE ROAD	CHRISTIAN, MARILYN & BRICE				14.71	6.56	44.6%	
Blairstown	1802	4	173 CEDAR LAKE ROAD	CHRISTIAN, MARILYN & BRICE				23.74	11.83	49.8%	
Knowlton	61	17	104 KNOWLTON RD	CLIFFORD, SUSIE	93.98	65.23	69.4%	18.19	10.78	59.3%	Northwest
Knowlton	68	31	117 KNOWLTON RD	CLIFFORD, SUSIE				75.79	54.45	71.8%	
Mansfield	101.01	5	625 MOUNT BETHEL ROAD	CORRADO, JOSEPH F & MARIE C	121.48	82.34	67.8%	55.05	42.85	77.8%	Central
Mansfield	101.01	4	671 MOUNT BETHEL ROAD	CORRADO, JOSEPH & MARIE				66.43	39.49	59.4%	
Washington Twp	14	35	10 COLEMAN HILL ROAD	CROUSE, CARL JR & JENNIE M	118.80	100.88	84.9%	7.13	-	0.0%	Southeast
Washington Twp	15	2	96 LITTLE PHIL ROAD	CROUSE, CARL JR & JENNIE M				9.10	0.96	10.5%	
Washington Twp	16	4	95 LITTLE PHIL ROAD	CROUSE, CARL JR & JENNIE M				102.58	99.93	97.4%	
Liberty	9	1.01	8 MARBLE HILL ROAD	CUMMINS, JUNE	142.02	77.76	54.7%	1.11	1.11	99.8%	Central
Liberty	9	1.02	10 MARBLE HILL ROAD	CUMMINS, JUNE				1.23	1.23	99.8%	
Liberty	6	8.05	37 MARBLE HILL ROAD	CUMMINS, JUNE				2.11	1.78	84.4%	
Liberty	6	8.07	43 MARBLE HILL ROAD	CUMMINS, JUNE				5.24	3.21	61.2%	
Liberty	6	8.01	35 MARBLE HILL ROAD	CUMMINS, PARKES R				6.51	2.96	45.5%	
Liberty	6	8	15 MARBLE HILL ROAD	CUMMINS, JUNE				36.32	26.97	74.3%	
Liberty	6	8.08	15 MARBLE HILL ROAD	CUMMINS, CARL & TERRI				38.76	0.80	2.1%	
Liberty	9	1	20 MARBLE HILL ROAD	CUMMINS, JUNE				50.74	39.70	78.2%	
Frelinghuysen	201	17.03	ROUTE 94	DECAMP, SUE A	59.67	29.63	49.6%	24.62	1.73	7.0%	Northeast
Frelinghuysen	201	17.02	866 ROUTE 94	DECAMP, SUE A				35.05	27.90	79.6%	
Mansfield	601.02	44	HILLTOP ROAD	DYKSTRA PROPERTIES	302.59	99.96	33.0%	13.00	-	0.0%	Central
Mansfield	601.03	48	191 HOFFMAN ROAD	DYKSTRA PROPERTIES				289.59	99.96	34.5%	
Franklin	45	3.10	GOOD SPRINGS ROAD, 129	FLAT ACRE FARMS, LLC	41.33	21.33	51.6%	4.10	2.80	68.2%	Southeast
Franklin	45	3.05	GOOD SPRINGS ROAD, 109	FLAT ACRE FARMS, LLC				4.19	2.95	70.5%	
Franklin	45	3.06	GOOD SPRINGS ROAD, 113	FLAT ACRE FARMS, LLC				5.82	3.96	68.1%	
Franklin	45	3.07	GOOD SPRINGS ROAD, 117	FLAT ACRE FARMS, LLC				6.68	4.04	60.5%	
Franklin	45	3.08	GOOD SPRINGS ROAD, 121	FLAT ACRE FARMS, LLC				9.87	3.61	36.5%	
Franklin	45	3.09	GOOD SPRINGS ROAD, 125	FLAT ACRE FARMS, LLC				10.68	3.97	37.2%	
Frelinghuysen	1401	5	163 ALLAMUCHY ROAD	FRIDMAN, SIGMUNDO M & HANNA T	224.01	107.01	47.8%	94.60	53.95	57.0%	Northeast
Frelinghuysen	1501	11	164 ALLAMUCHY ROAD	FRIDMAN, SIGMUNDO M & HANNA T				129.41	53.06	41.0%	
Franklin	48	12.01	ANDERSON ROAD, 170	GARDNER,RICHARD D & DEMAREST,EMMA L	104.26	92.55	88.8%	8.53	5.46	64.1%	Southeast
Franklin	48	14	ANDERSON ROAD, 170	GARDNER,RICHARD D & DEMAREST,EMMA L				95.74	87.09	91.0%	
Blairstown	1402	39	52 CEDAR LAKE ROAD	GINTER, WINFRED R & SUZANNE W	85.38	31.28	36.6%	37.92	-	0.0%	North
Blairstown	1402	25	52 CEDAR LAKE ROAD	GINTER, WINFRED R & SUZANNE W				47.46	31.08	65.5%	
Independence	17	56.06	17 ASBURY RD	GRECO, CARMEN	67.34	29.34	43.6%	2.32	1.58	68.2%	Northeast
Independence	17	56.01	43-47 KETCHAM RD	GRECO, JEAN M				11.31	5.38	47.6%	
Independence	17	56	13-15 ASBURY RD	GRECO, CARMEN				19.56	13.17	67.3%	
Independence	16	1	ROUTE 46 & ASBURY RD	GRECO, CARMEN				34.15	9.21	27.0%	
Harmony	7	13	HUTCHINSON	HARMONY SAND & GRAVEL, INC	180.44	99.46	55.1%	30.69	18.51	60.3%	West
Harmony	7	14	3183 BELVIDERE ROAD	HARMONY SAND & GRAVEL INC				149.75	80.95	54.1%	

Appendix B2. Target Farms: PIG Program (Farm Units)

Municipality	Block	Lot	Property Location	Owner's Name	Farm Unit			Parcel			Project Area
					Farm Unit Acres (GIS)	Tillable Acres	Tillable Percent	Parcel Acres (GIS)	Tillable Acres per Parcel	Tillable Percent	
Franklin	41	5	STEWARTSVILLE ROAD, 101	HART, MICHAEL & ALEXANDER	394.90	272.14	68.9%	2.10	-	0.0%	Southeast
Franklin	41	3	STEWARTSVILLE ROAD, 101	HART, MICHAEL & ALEXANDER				97.53	40.29	41.3%	
Franklin	34	9	STEWARTSVILLE ROAD, 83	HART, MICHAEL & ALEXANDER				124.03	85.56	69.0%	
Franklin	41	13	STEWARTSVILLE ROAD, 101	HART, MICHAEL & ALEXANDER				171.24	146.29	85.4%	
Franklin	62	3	BLOOMSBURY ROAD, 429	HERITAGE, MAUREEN	192.58	150.30	78.0%	9.31	7.67	82.4%	Southeast
Franklin	61	6	BLOOMSBURY ROAD, 410	HERITAGE, MAUREEN P				89.77	56.67	63.1%	
Franklin	61	5	BLOOMSBURY ROAD, 436	HERITAGE, MAUREEN				93.50	85.95	91.9%	
Liberty	10	4	66 DANVILLE MOUNTAIN ROAD	CLAEYSSENS, EUGENE	100.33	24.33	24.2%	88.70	21.99	24.8%	Central
Liberty	11	43	77 DANVILLE MOUNTAIN ROAD	HIGH VIEW FARM LLC C/O WIGGERS				4.49	2.34	52.1%	
Liberty	11	44	83 DANVILLE MOUNTAIN ROAD	HIGH VIEW FARM LLC C/O WIGGERS				7.14	-	0.0%	
Franklin	47	5	BUTTERMILK BRIDGE RD, 167	HOOD, ROBERT C & KIM K	98.50	42.76	43.4%	16.33	5.41	33.1%	Southeast
Franklin	46	37	BUTTERMILK BRIDGE RD, 154	HOOD, ROBERT & KIM				82.17	37.36	45.5%	
Greenwich	20	22	SOUTH MAIN ST	HOSER, KENNETH	118.40	116.67	98.5%	10.62	9.48	89.3%	Southeast
Greenwich	26	29	SOUTH MAIN ST	HOSER, KENNETH				107.78	107.19	99.4%	
White	23	8	157 FOUL RIFT RD	HUMMER, RICHARD JR	127.54	116.56	91.4%	0.86	-	0.0%	West
White	24	7	159 FOUL RIFT RD	HUMMER, RICHARD JR				3.43	-	0.0%	
White	21	6	FOUL RIFT RD	HUMMER, RICHARD JR				123.26	116.56	94.6%	
Frelinghuysen	201	22	29 KERR ROAD	IHM REALTY ASSOCIATES LLC	106.20	63.44	59.7%	16.22	11.57	71.4%	Northeast
Frelinghuysen	201	23	40 KERR ROAD	IHM REALTY ASSOCIATES LLC				89.99	51.86	57.6%	
Franklin	27	4	GOOD SPRINGS ROAD, 86	ISE AMERICA	255.90	234.08	91.5%	33.90	32.25	95.1%	Southeast
Franklin	27	2	GOOD SPRINGS ROAD, 110	ISE AMERICA				62.02	56.48	91.1%	
Franklin	26	16	GOOD SPRINGS ROAD, 110	ISE AMERICA, INC				68.81	63.29	92.0%	
Franklin	26	17	GOOD SPRINGS ROAD, 110	ISE AMERICA, INC				91.17	82.06	90.0%	
Mansfield	804.02	21.02	95 KARRVILLE ROAD	KESLER CAROL M	102.10	69.54	68.1%	13.41	13.41	99.9%	Central
Mansfield	804.02	21.03	40 MITCHELL ROAD	KESLER JAMES & CAROL				30.82	25.00	81.1%	
Mansfield	804.02	21.01	135 KARRVILLE ROAD	KESLER JAMES & CAROL				57.86	31.13	53.8%	
White	54	6.08	SAREPTA RD	KIMBALL, KENT D.	50.51	31.01	61.4%	5.89	4.44	75.3%	West
White	61	5	114 SAREPTA RD	KIMBALL, KENT D				44.62	26.57	59.6%	
Independence	29	9	E/S ISLAND RD	KOWALICK, CATHERINE	414.47	38.16	9.2%	32.13	12.80	39.8%	Northeast
Independence	29	26	OFF ISLAND RD	KOWALICK, CATHERINE				382.34	25.36	6.6%	
Blairstown	1604	2	13 SHOTWELL ROAD	LONIE, RICHARD D.	114.08	74.28	65.1%	4.27	3.66	85.8%	North
Knowlton	44	7	13 SHOTWELL RD	LONIE HR EST OF C/O RICHARD D				109.81	70.62	64.3%	
White	18	15	296 CR 519	MACKEY DEVLEN R & MACKEY HOLLY	91.59	40.97	44.7%	43.48	16.23	37.3%	West
White	18	14	284 CR 519	MACKEY DEVLEN R & MACKEY HOLLY				48.11	24.74	51.4%	
Hope	1100	1901	356 DELAWARE RD	MALON, MATTHEW & KATHLEEN K	76.47	46.08	60.3%	6.08	4.28	70.3%	Northwest
Hope	1100	1902	360 DELAWARE RD	MALON HOWARD				6.14	5.71	93.1%	
Hope	1100	1900	364 DELAWARE RD	MALON, GABRIELE, GREG, MATT, N, A & H				64.26	36.09	56.2%	
Hardwick	1201	6	STILLWATER ROAD	MALTON FARMS ASSOCIATES	44.13	25.61	58.0%	3.27	-	0.0%	North
Hardwick	1201	5.01	STILLWATER ROAD	MALTON FARMS ASSOCIATES				5.47	2.23	40.7%	
Hardwick	1201	5	STILLWATER ROAD	MALTON FARMS ASSOCIATES				35.39	23.39	66.1%	
White	67	21	OFF HOPE-BRIDGEVILLE RD	MATARAZZO, ROBERT & LAURA	261.11	164.44	63.0%	0.64	0.62	95.5%	West & Northwest
Hope	200	200	10 DOE HOLLOW LANE	MATARAZZO, ROBERT J & LAURA R				24.35	4.43	18.2%	
White	67	19	CR 519	MATARAZZO, ROBERT J & LAURA R				42.67	26.93	63.1%	
White	67	17	703 CR 519	MATARAZZO, ROBERT J & LAURA R				52.74	33.91	64.3%	
Hope	200	300	1001 HOPE-BRIDGEVILLE RD	MATARAZZO, ROBERT J & LAURA R				70.05	48.78	69.6%	
White	67	18	783-785 CR 519	MATARAZZO, ROBERT J & LAURA R				70.65	49.78	70.5%	

Appendix B2. Target Farms: PIG Program (Farm Units)

Municipality	Block	Lot	Property Location	Owner's Name	Farm Unit			Parcel			Project Area
					Farm Unit Acres (GIS)	Tillable Acres	Tillable Percent	Parcel Acres (GIS)	Tillable Acres per Parcel	Tillable Percent	
White	13	11.01	131-145 SUMMERFIELD RD	MCEVOY JANET	113.89	73.50	64.5%	20.89	-	0.0%	West
White	13	17.01	BUCKHORN DR	MCEVOY, GERARD V & JANET L				23.79	-	0.0%	
White	18	58	110 SUMMERFIELD RD	MCEVOY, JANET & GERARD V				1.01	0.80	78.9%	
White	18	58	SUMMERFIELD RD	MCEVOY, JANET & GERARD V				19.70	9.44	47.9%	
White	13	11	87 SUMMERFIELD RD	MCEVOY, JANET & GERARD V				48.50	32.02	66.0%	
Mansfield	1204	16.01	165 HAZEN ROAD	MCGARRY, WILLIAM & CAROLYN	85.18	25.90	30.4%	7.24	2.90	40.1%	Central
Mansfield	1204	16	167 HAZEN ROAD	MCGARRY, WILLIAM & CAROLYN				77.95	23.00	29.5%	
Washington Twp	75	2.05	173 BRYANS ROAD	MCGRATH, NANCY	58.82	54.91	93.4%	4.50	4.42	98.3%	Southeast
Washington Twp	75	2.04	177 BRYANS ROAD	MCGRATH, NANCY				7.10	5.85	82.3%	
Washington Twp	75	2.01	169 BRYANS ROAD	MCGRATH, NANCY				47.22	44.64	94.5%	
Harmony	44	19	ESPOSITO ROAD	MCLAIN, JAMES & NANCY	140.79	113.44	80.6%	15.03	-	0.0%	West
Harmony	45	1	385 HARMONY STATION ROAD	MCLAIN, JAMES				15.86	11.60	73.2%	
Harmony	46	3	HARMONY STATION ROAD	MCLAIN, JAMES & NANCY				39.53	38.34	97.0%	
Harmony	44	15	415 HARMONY STATION RD.	MCLAIN, NANCY				70.38	63.49	90.2%	
Knowlton	40	9.01	140 VAIL RD	MCNINCH, ROBERT A	120.63	34.01	28.2%	3.37	-	0.0%	North
Knowlton	40	9.06	4 BRIDGE RD	MCNINCH, ROBERT A				3.13	-	0.0%	
Knowlton	40	4	120 VAIL RD	MCNINCH, ROBERT A				10.87	-	0.0%	
Knowlton	40	9.07	6 BRIDGE RD	MCNINCH, ROBERT A				2.90	-	0.0%	
Knowlton	40	9.09	10 BRIDGE RD	MCNINCH, ROBERT A				2.89	-	0.0%	
Knowlton	40	9.05	2 BRIDGE RD	MCNINCH, ROBERT A				3.15	-	0.0%	
Knowlton	40	9.08	8 BRIDGE RD	MCNINCH, ROBERT A				2.84	-	0.0%	
Knowlton	40	9.11	11 BRIDGE RD	MCNINCH, ROBERT A				3.19	0.03	0.9%	
Knowlton	40	9.10	12 BRIDGE RD	MCNINCH, ROBERT A				3.23	0.01	0.2%	
Knowlton	40	7	130 VAIL RD	MCNINCH, ROBERT & JOAN				85.06	33.98	39.9%	
Harmony	43	40	RIVER ROAD	MIGLIORE SANDRA	77.84	51.71	66.4%	3.43	-	0.0%	West
Harmony	44	20	160 ESPOSITO RD.	MIGLIORE SANDRA				74.41	51.71	69.5%	
Franklin	46	29	ASBURY-BROADWAY ROAD, 191	MONTANA, CHRISTOPHER J & ROSA M	80.15	35.04	43.7%	6.04	-	0.0%	Southeast
Franklin	46	23	ASBURY-BROADWAY ROAD, 191	MONTANA, CHRISTOPHER J & ROSA M				12.84	4.79	37.3%	
Franklin	46	21	ASBURY-BROADWAY ROAD, 191	MONTANA, CHRISTOPHER J & ROSA M				28.96	8.36	28.9%	
Franklin	46	20	ASBURY-BROADWAY ROAD, 191	MONTANA, CHRISTOPHER J & ROSA M				32.31	21.89	67.7%	
Frelinghuysen	201	32.06	45 MULLER ROAD	MULLER, CHARLES JR & FRANCES	50.47	28.11	55.7%	4.07	-	0.0%	Northeast
Frelinghuysen	201	32.07	41 MULLER ROAD	MULLER, CHARLES JR & FRANCES				4.08	2.10	51.5%	
Frelinghuysen	201	32	49 MULLER ROAD	MULLER, CHARLES JR & FRANCES				42.32	26.01	61.5%	
Franklin	46	11	ASBURY-BROADWAY ROAD, 129	MYERS, LISA & TORETTA, MICHAEL P	47.86	28.22	59.0%	8.89	-	0.0%	Southeast
Franklin	45	10	HOFFMAN ROAD, 1	MYERS, LISA & TORETTA, MICHAEL P				6.06	-	0.0%	
Franklin	45	9	HOFFMAN ROAD, 1	MYERS, LISA & TORETTA, MICHAEL P				7.94	6.87	86.5%	
Franklin	45	7	HOFFMAN ROAD, 2	MYERS, LISA & TORETTA, MICHAEL P				24.96	21.34	85.5%	
Frelinghuysen	1101	10	80 ROUTE 661	NATYZAK, HELEN	124.76	50.42	40.4%	22.61	14.12	62.5%	Northeast
Frelinghuysen	1201	13	75 ROUTE 661	NATYZAK, HELEN				102.15	36.30	35.5%	
Allamuchy	201	5.01	10 RYDELL RD	NEVINS, RICHARD	62.35	38.24	61.3%	5.71	5.34	93.5%	Northeast
Allamuchy	201	5	12 RYDELL RD	NEVINS, IRIS				56.64	32.90	58.1%	
Blairstown	506	8.04	10A POLKVILLE ROAD	NONNENMACHER, LOTHAR J, TRUSTEE	130.92	72.75	55.6%	25.25	22.55	89.3%	North
Blairstown	506	9	32 VAIL ROAD	NONNENMACHER LOTHAR J, TRUSTEE				105.67	50.20	47.5%	
Frelinghuysen	902	7.03	771 ROUTE 519	PACCHIA, JOSEPH & JANICE	65.24	24.11	37.0%	5.40	0.01	0.2%	Northeast
Frelinghuysen	902	7	779 ROUTE 519	PACCHIA, JOSEPH & JANICE				59.84	24.10	40.3%	

Appendix B2. Target Farms: PIG Program (Farm Units)

Municipality	Block	Lot	Property Location	Owner's Name	Farm Unit			Parcel			Project Area
					Farm Unit Acres (GIS)	Tillable Acres	Tillable Percent	Parcel Acres (GIS)	Tillable Acres per Parcel	Tillable Percent	
Liberty	10	18	45 HOPE ROAD	PIASECKI, LOUISE ALBERTA				2.41	-	0.0%	Central
Liberty	10	16	45 HOPE ROAD	PIASECKI, LOUISE ALBERTA	52.62	30.16	57.3%	18.70	-	0.0%	
Liberty	1	29	40 HOPE ROAD	PIASECKI, LOUISE ALBERTA				31.51	30.16	95.7%	
Frelinghuysen	1301	3	1154 ROUTE 519	PITTENGER, RONALD E & SHARON H	95.72	30.43	31.8%	32.08	11.13	34.7%	Northeast
Frelinghuysen	1201	34	1149 ROUTE 519	PITTENGER, RONALD E & SHARON H				63.64	19.30	30.3%	
White	55	8	OFF ROUTE 46	QUICK, JACOB & CAROL	96.24	43.57	45.3%	43.57	32.57	74.7%	West
White	56	9	OFF ROUTE 46	QUICK, JACOB & CAROL				52.67	11.00	20.9%	
Harmony	44	9	126 BRAINARDS RD	R HABITATS, LLC	95.55	63.91	66.9%	18.85	17.77	94.2%	West
Harmony	44	23	BRAINARDS ROAD	R HABITATS, LLC				76.70	46.14	60.2%	
Franklin	45	50.05	MOUNTAIN VIEW ROAD, 368	RAFALKO, SYLVESTER	61.03	28.80	47.2%	6.06	0.47	7.8%	Southeast
Franklin	45	50.01	MOUNTAIN VIEW ROAD, 384	RAFALKO, SYLVESTER & JOYCE				54.97	28.33	51.5%	
Blairstown	702	15.01	10 BUCHANAN ROAD	RANGE EDWARD A. & GRACE, TRUSTEES	48.73	39.42	80.9%	40.66	32.85	82.0%	North
Blairstown	702	15.17	8 BUCHANAN ROAD	RANGE EDWARD A & GRACE, TRUSTEES				8.06	6.58	81.6%	
White	21	10	FOUL RIFT RD	REALTY CO OF PENN%REAL ESTATE TW2				9.60	7.41	77.2%	West
White	7	4	CR 519	REALTY CO OF PENN%REAL ESTATE TW2				92.57	84.20	91.0%	
White	7	3	CR 519	REALTY CO OF PENN%REAL ESTATE TW2	520.63	449.78	86.4%	94.92	69.41	73.1%	
White	7	5	FOUL RIFT RD	REALTY CO OF PENN%REAL ESTATE TW2				95.47	86.42	90.5%	
White	7	16	39 FOUL RIFT RD	REALTY CO OF PENN%REAL ESTATE TW2				96.12	80.74	84.0%	
White	7	11	CR 519	REALTY CO OF PENN%REAL ESTATE TW2				131.94	121.60	92.2%	
Knowlton	46.01	2	25 RICH RD	RICH, ANNE P	142.35	82.66	58.1%	25.57	6.49	25.4%	North
Knowlton	43	3	26 RICH RD	RICH, ANNE P				116.78	76.17	65.2%	
White	33	20	374 HAZEN-OXFORD RD	ROTHMAN, ARTHUR R & JOAN E	57.49	25.67	44.7%	15.12	9.38	62.0%	West
White	33	20.02	HAZEN-OXFORD RD	ROTHMAN, ARTHUR R & JOAN E				42.37	16.30	38.5%	
Franklin	1	6	ROUTE 57, 2616	ROUTE 57 PARTNERSHIP	70.14	28.37	40.4%	70.14	28.37	40.4%	Southeast
Harmony	26	27	BRASS CASTLE ROAD	SALTER, JOHN R				2.36	1.01	42.6%	West
Harmony	26	42	BRASS CASTLE ROAD	SALTER, JOHN R	169.74	129.50	76.3%	39.58	32.37	81.8%	
Harmony	26	28	103 HARM BRASS CASTLE RD	SALTER, JOHN R				127.80	96.12	75.2%	
Blairstown	1901	35.06	12 DRY ROAD	SCHEER, HENRY C III & FLORENCE C				2.96	-	0.0%	North
Blairstown	1901	41	16 HELLER HILL ROAD	SCHEER, HENRY C III & FLORENCE C	115.30	77.26	67.0%	46.97	42.66	90.8%	
Blairstown	1901	38.01	14 DRY ROAD	SCHEER, HENRY C 3RD & FLORENCE				65.37	34.59	52.9%	
Mansfield	1201	19.01	155 AIRPORT ROAD	SCHWANDA DONALD	72.04	33.08	45.9%	29.71	15.26	51.4%	Central
Mansfield	1201	19.02	165 AIRPORT ROAD	SCHWANDA, DONALD				42.32	17.82	42.1%	
Harmony	33	42	2191 BELVIDERE RD.	STECKER, ROBERT L				10.44	9.25	88.7%	West
Harmony	33	42.05	99 OLD BELVIDERE RD	STECKER, ROBERT L	86.99	60.27	69.3%	18.53	14.42	77.8%	
Harmony	33	43	2145 BELIDERE ROAD	STECKER, RUSSELL WILLIAM				58.03	36.60	64.5%	
Franklin	14	1	HALFWAY HOUSE ROAD, 72	STULL, JAMES R	71.73	50.50	70.4%	17.13	3.24	18.9%	Southeast
Franklin	15	13	ROUTE 57, 2100	STULL, JAMES & VERNA				54.60	47.26	86.6%	
Mansfield	1306	1.03	300 WATTERS ROAD	TIGAR, DEBORAH LEE	56.84	27.29	48.0%	11.57	7.76	67.0%	Central
Mansfield	1306	1.01	WATTERS ROAD	TIGAR DEBORAH				45.27	19.54	43.2%	
Greenwich	44	4.01	WARREN GLEN RD, 626	TIR NA NOG FARM LLC				7.44	6.24	83.9%	South
Greenwich	44	26	WARREN GLEN RD, 628	TIR NA NOG FARM, LLC	100.46	63.56	63.3%	42.68	34.67	81.2%	
Greenwich	44	4	WARREN GLEN RD, 630	TIR NA NOG FARM, LLC				50.34	22.64	45.0%	
Mansfield	101.02	45	MOUNT BETHEL ROAD	UYGER IHSAN & PATRICIA				9.63	-	0.0%	Central
Mansfield	101.01	8	MOUNT BETHEL ROAD	UYGER, IHSAN & PATRICIA	151.32	39.73	26.3%	43.24	10.15	23.5%	
Mansfield	101.01	7	MOUNT BETHEL ROAD	UYGER, IHSAN				46.00	29.47	64.1%	
Mansfield	101.01	11.01	JANE CHAPEL ROAD	UYGER IHSAN & PATRICIA				52.45	0.11	0.2%	

Appendix B2. Target Farms: PIG Program (Farm Units)

Municipality	Block	Lot	Property Location	Owner's Name	Farm Unit			Parcel			Project Area
					Farm Unit Acres (GIS)	Tillable Acres	Tillable Percent	Parcel Acres (GIS)	Tillable Acres per Parcel	Tillable Percent	
Washington Twp	40	47	123 PORT COLDEN ROAD	VACCHIANO,E.% VACCHIANO A. & L.	89.07	61.42	69.0%	8.27	5.87	70.9%	Southeast
Washington Twp	40	46	135 PORT COLDEN ROAD	VACCHIANO, ANTHONY & LUCIA				80.80	55.55	68.8%	
Franklin	48	19	ANDERSON ROAD, 232	VAN RIPER, ALBERT III	102.72	86.60	84.3%	43.72	36.05	82.4%	Southeast
Franklin	48	15	ANDERSON ROAD, 232	VAN RIPER, ALBERT R III				59.00	50.55	85.7%	
Knowlton	46	2	120 LINABERRY RD	VASS, MARY KATHRYN L & WAYNE	98.22	83.08	84.6%	35.08	28.83	82.2%	Northwest
Knowlton	47	4	123 LINABERRY RD	VASS, MARY KATHRYN L & WAYNE				63.14	54.26	85.9%	
Mansfield	202	13	PARKE RD.	VETTER, KENNETH F & ELIZABETH	75.75	29.39	38.8%	14.65	6.21	42.4%	Central
Mansfield	203	1	50 PARKE ROAD	VETTER, KENNETH F & ELIZABETH				61.10	23.19	37.9%	
Washington Twp	39	1	131 JACKSON VALLEY ROAD	WEINGARTEN DANIEL / SPERO JUDITH	296.13	120.41	40.7%	110.29	28.42	25.8%	Southeast
Washington Twp	38	5	349 ROUTE 31 NORTH	WEINGARTEN DANIEL / SPERO JUDITH				185.84	91.99	49.5%	
Frelinghuysen	502	27	126 SILVER LAKE ROAD	WILLIAMS, ANDREW H	81.20	45.29	55.8%	22.91	9.62	42.0%	Northeast
Frelinghuysen	601	6	80 KERRS CORNER ROAD	WILLIAMS, ANDREW H				58.29	35.67	61.2%	

Appendix C. Target Farms: Competitive Grant Program

Municipality	Block	Lot	Property Location	Class	Owner's Name	Acres (GIS)	Tillable Land		Agricultural Soil		Project Area
							Acres	Percent	Acres	Percent	
Allamuchy	106	1	230 SHADES OF DEATH RD	3B	RUSSO, LAWRENCE	9.79	85.79	32.87%	88.44	33.88%	Northeast
Allamuchy	106	3	210 SHADES OF DEATH RD	3B	RUSSO, LAWRENCE C/O RUSSO DEVELOP	251.20	85.79	32.87%	88.44	33.88%	Northeast
Allamuchy	106	5	59 GIBBS RD	3B	WEISS FAMILY LIMITED PARTNERSHIP	145.14	114.29	78.75%	40.31	27.77%	Northeast
Allamuchy	201	33	QUAKER CHURCH ROAD REAR	3B	PEACEFUL VALLEY FARMS, L.L.C.	61.26	30.39	48.92%	31.34	50.45%	Northeast
Allamuchy	201	33.01	OFF JOHNSONBURG RD	3B	PEACEFUL VALLEY FARMS LLC	0.87	30.39	48.92%	31.34	50.45%	Northeast
Allamuchy	602	11.01	231 ALPHANO ROAD	3B	PRYSLAK FARMS	2.66	70.03	69.93%	62.30	62.20%	Northeast
Allamuchy	602	12	16 YOUNGS ISLAND ROAD	3B	PRYSLAK FARMS	49.60	70.03	69.93%	62.30	62.20%	Northeast
Allamuchy	602	22	37 KESTREL LANE	3B	PRYSLAK FARMS	38.62	70.03	69.93%	62.30	62.20%	Northeast
Allamuchy	602.01	5	211 ALPHANO ROAD	3B	GODLEWSKY'S MARKET, LLC	0.53	113.00	97.69%	95.27	82.36%	Northeast
Allamuchy	602.01	8	221 ALPHANO ROAD	3B	GODLEWSKY'S MARKET, LLC	1.24	113.00	97.69%	95.27	82.36%	Northeast
Allamuchy	602.01	9	219 ALPHANO ROAD	3B	GODLEWSKY'S MARKET, LLC	0.45	113.00	97.69%	95.27	82.36%	Northeast
Allamuchy	602.01	10	215 ALPHANO ROAD	3B	GODLEWSKY'S MARKET, LLC	1.42	113.00	97.69%	95.27	82.36%	Northeast
Allamuchy	602.01	11	223 ALPHANO & 1 YOUNGS IS	3B	PRYSLAK FARMS	4.55	70.03	69.93%	62.30	62.20%	Northeast
Allamuchy	602.01	13	17 YOUNGS ISLAND ROAD	3B	TRZECIAKIEWICZ, EDWARD S	0.76	47.39	99.14%	36.33	76.00%	Northeast
Allamuchy	602.01	14	11 YOUNGS ISLAND ROAD	3B	PRYSLAK FARMS	4.73	70.03	69.93%	62.30	62.20%	Northeast
Alpha	97	3	1815 SPRINGTOWN RD	3B	HOMA, FRANCES	95.60	94.15	98.48%	72.45	75.78%	
Blairstown	506	8.04	10A POLKVILLE ROAD	3B	NONNENMACHER, LOTHAR J, TRUSTEE	25.25	72.75	55.57%	78.12	59.67%	North
Blairstown	506	9	32 VAIL ROAD	3B	NONNENMACHER LOTHAR J, TRUSTEE	105.67	72.75	55.57%	78.12	59.67%	North
Blairstown	702	15.01	10 BUCHANAN ROAD	3B	RANGE EDWARD A. & GRACE, TRUSTEES	5.74	39.42	80.90%	35.18	72.21%	North
Blairstown	702	15.01	10 BUCHANAN ROAD	3B	RANGE EDWARD A. & GRACE, TRUSTEES	34.92	39.42	80.90%	35.18	72.21%	North
Blairstown	702	15.17	8 BUCHANAN ROAD	3B	RANGE EDWARD A & GRACE, TRUSTEES	8.06	39.42	80.90%	35.18	72.21%	North
Blairstown	1501	15	15 VAIL ROAD	3B	CROUCHER PROPERTY, LLC	145.84	97.58	66.91%	69.11	47.39%	North
Franklin	1	6	ROUTE 57, 2616	3B	ROUTE 57 PARTNERSHIP	70.14	28.37	40.44%	37.29	53.17%	Southeast
Franklin	7	14.03	ROUTE 57, 2380	3B	BARCELLONA/KOWALSKI/TAMBORRA ET ALS	13.00	51.92	41.70%	45.21	36.31%	Southeast
Franklin	7	14.04	ROUTE 57, 2404	3B	BARCELLONA/KOWALSKI/TAMBORRA ET ALS	10.59	51.92	41.70%	45.21	36.31%	Southeast
Franklin	7	14.05	ROUTE 57, 2370	3B	BARCELLONA/KOWALSKI/TAMBORRA ET ALS	1.67	51.92	41.70%	45.21	36.31%	Southeast
Franklin	7	15	ROUTE 57, 2330	3B	WOOLF, RICHARD A	36.43	87.50	91.21%	84.55	88.13%	Southeast
Franklin	7	15.02	ROUTE 57, 2360	3B	WOOLF, ROGER A & ROBERTA	10.22	87.50	91.21%	84.55	88.13%	Southeast
Franklin	8	8	ROUTE 57, 2380	3B	BARCELLONA/KOWALSKI/TAMBORRA ET ALS	99.25	51.92	41.70%	45.21	36.31%	Southeast
Franklin	8	10	WHITES ROAD, 49	3B	SCHOENWOOD FARMS, LLC	182.24	136.21	40.45%	112.57	33.43%	Southeast
Franklin	8	17	WHITES ROAD	3B	SCHOENWOOD FARMS, LLC	45.65	136.21	40.45%	112.57	33.43%	Southeast
Franklin	8	21	MONTANA ROAD, 150	3B	COPPERSMITH, RICHARD P. & ARLEEN	61.55	25.98	42.21%	44.53	72.35%	Southeast
Franklin	9	2	WHITES ROAD, 50	3B	SCHOENWOOD FARMS, LLC	17.40	136.21	40.45%	112.57	33.43%	Southeast
Franklin	9	5	WHITES ROAD	3B	SCHOENWOOD FARMS, LLC	53.99	136.21	40.45%	112.57	33.43%	Southeast
Franklin	9	11	MONTANA ROAD	3B	KOBER, WILLIAM G & BARBARA A	81.46	46.57	35.93%	76.48	59.01%	Southeast
Franklin	9	23	ROUTE 57, 2260	3B	SIGLER, CARL W & BARBARA J	166.75	103.72	62.20%	99.01	59.38%	Southeast
Franklin	11	34	MILLBROOK ROAD, 206	3B	BUCKEN, NIEL & T & M MURPHY ETALS	81.92	39.41	34.33%	105.68	92.06%	Southeast
Franklin	11	37.02	MILLBROOK ROAD, 206	3B	BUCKEN, NIEL & T & M MURPHY ETALS	0.03	39.41	34.33%	105.68	92.06%	Southeast
Franklin	14	1	HALFWAY HOUSE ROAD, 72	3B	STULL, JAMES R	17.13	50.50	70.40%	59.09	82.37%	Southeast
Franklin	14	8	ROUTE 57, 2056	3B	SAQA, HANNA J & NEMEH	87.84	44.50	50.66%	50.66	57.67%	Southeast
Franklin	15	5	ROUTE 57, 2030	3B	PEAR TREE REALTY, INC	67.81	61.26	90.34%	67.69	99.83%	Southeast
Franklin	15	13	ROUTE 57, 2100	3B	STULL, JAMES & VERNA	54.60	50.50	70.40%	59.09	82.37%	Southeast
Franklin	26	1	ROUTE 57, 2349	3B	WOOLF FAMILY LIMITED PARTNERSHIP	49.28	87.50	91.21%	84.55	88.13%	Southeast

Appendix C. Target Farms: Competitive Grant Program

Municipality	Block	Lot	Property Location	Class	Owner's Name	Acres (GIS)	Tillable Land		Agricultural Soil		Project Area
							Acres	Percent	Acres	Percent	
Franklin	26	2	ROUTE 57, 2305	3B	SANTINI,SANTINO J,ROBERT A & JANE M	88.45	76.66	71.38%	92.86	86.47%	Southeast
Franklin	26	13	ASBURY-BROADWAY ROAD, 70	3B	BANGHART, GEORGE W	101.08	277.29	72.01%	178.24	46.29%	Southeast
Franklin	26	14	ASBURY-BROADWAY ROAD, 84	3B	BANGHART, GEORGE W	2.60	277.29	72.01%	178.24	46.29%	Southeast
Franklin	26	15	GOOD SPRINGS ROAD, 50	3B	BANGHART, GEORGE W	53.72	277.29	72.01%	178.24	46.29%	Southeast
Franklin	26	16	GOOD SPRINGS ROAD, 110	3B	ISE AMERICA, INC	68.81	234.08	91.48%	197.03	77.00%	Southeast
Franklin	26	16.01	ROUTE 57, 2305	3B	SANTINI,SANTINO J,ROBERT A & JANE M	12.72	76.66	71.38%	92.86	86.47%	Southeast
Franklin	26	16.02	ROUTE 57, 2305	3B	SANTINI,SANTINO J,ROBERT A & JANE M	6.23	76.66	71.38%	92.86	86.47%	Southeast
Franklin	26	17	GOOD SPRINGS ROAD, 110	3B	ISE AMERICA, INC	91.17	234.08	91.48%	197.03	77.00%	Southeast
Franklin	26	18	EDISON ROAD, 55	3B	ISE REALTY GROUP, INC	123.14	113.86	92.46%	123.14	100.00%	Southeast
Franklin	27	1	GOOD SPRINGS ROAD, 160	3B	BANGHART, GEORGE W	80.45	49.14	51.06%	40.24	41.81%	Southeast
Franklin	27	2	GOOD SPRINGS ROAD, 110	3B	ISE AMERICA	62.02	234.08	91.48%	197.03	77.00%	Southeast
Franklin	27	4	GOOD SPRINGS ROAD, 86	3B	ISE AMERICA	33.90	234.08	91.48%	197.03	77.00%	Southeast
Franklin	27	5	GOOD SPRINGS ROAD, 50	3B	BANGHART, GEORGE W	37.08	277.29	72.01%	178.24	46.29%	Southeast
Franklin	27	6	ASBURY-BROADWAY ROAD, 100	3B	BANGHART, GEORGE W	39.68	277.29	72.01%	178.24	46.29%	Southeast
Franklin	34	9	STEWARTSVILLE ROAD, 83	3B	HART, MICHAEL & ALEXANDER	124.03	272.14	68.91%	271.72	68.81%	Southeast
Franklin	39	5	STEWARTSVILLE ROAD, 66	3B	TASEVSKI, MILAN & SPASA	86.71	56.02	64.60%	86.71	100.00%	Southeast
Franklin	41	3	STEWARTSVILLE ROAD, 101	3B	HART, MICHAEL & ALEXANDER	97.53	272.14	68.91%	271.72	68.81%	Southeast
Franklin	41	5	STEWARTSVILLE ROAD, 101	3B	HART, MICHAEL & ALEXANDER	2.10	272.14	68.91%	271.72	68.81%	Southeast
Franklin	41	10	GOOD SPRINGS ROAD, 190	3B	SANTINI, SANTINO J & CLARA S	32.84	94.85	69.12%	95.28	69.44%	Southeast
Franklin	41	10.05	GOOD SPRINGS ROAD, 230	3B	SANTINI, SANTINO JR & CHRISTINE M	11.15	94.85	69.12%	95.28	69.44%	Southeast
Franklin	41	10.06	GOOD SPRINGS ROAD, 230	3B	SANTINI, SANTINO JR & CHRISTINE M	6.04	94.85	69.12%	95.28	69.44%	Southeast
Franklin	41	12	EDISON ROAD, 134	3B	BANGHART, GEORGE W	15.80	49.14	51.06%	40.24	41.81%	Southeast
Franklin	41	13	STEWARTSVILLE ROAD, 101	3B	HART, MICHAEL & ALEXANDER	171.24	272.14	68.91%	271.72	68.81%	Southeast
Franklin	42	4	WILLOW GROVE ROAD, 300	3B	R & S PROPERTIES, LLC	112.46	48.60	43.22%	88.28	78.49%	Southeast
Franklin	42	11	HERLEMAN ROAD, 70	3B	OBERLY, C K, M M, C W & SHEILA	56.27	180.10	54.39%	203.65	61.51%	Southeast
Franklin	43	5	MOUNTAIN VIEW ROAD, 549	3B	SANTINI, DOMINICK C. & JANE M	15.02	94.85	69.12%	95.28	69.44%	Southeast
Franklin	43	10	MOUNTAIN VIEW ROAD, 499	3B	SANTINI, SANTINO JR & DOMINICK	48.77	94.85	69.12%	95.28	69.44%	Southeast
Franklin	43	10.01	MOUNTAIN VIEW ROAD, 499	3B	SANTINI, SANTINO JR & DOMINICK	5.91	94.85	69.12%	95.28	69.44%	Southeast
Franklin	44	2	GOOD SPRINGS ROAD, 193	3B	SANTINI, SANTINO J JR & CHRISTINE	17.50	94.85	69.12%	95.28	69.44%	Southeast
Franklin	45	4.02	GOOD SPRINGS ROAD, 65	3B	BANGHART, JOSEPH A & GEORGE W	1.48	277.29	72.01%	178.24	46.29%	Southeast
Franklin	45	4.03	GOOD SPRINGS ROAD, 67	3B	BANGHART, JOSEPH A & GEORGE W	1.46	277.29	72.01%	178.24	46.29%	Southeast
Franklin	45	5	GOOD SPRINGS ROAD, 49	3B	BANGHART GEORGE W	60.64	277.29	72.01%	178.24	46.29%	Southeast
Franklin	45	6	GOOD SPRINGS ROAD, 15	3B	BANGHART, GEORGE W	19.45	277.29	72.01%	178.24	46.29%	Southeast
Franklin	45	7	HOFFMAN ROAD, 2	3B	MYERS, LISA & TORETTA, MICHAEL P	24.96	28.22	58.96%	29.75	62.16%	Southeast
Franklin	45	9	HOFFMAN ROAD, 1	3B	MYERS, LISA & TORETTA, MICHAEL P	7.94	28.22	58.96%	29.75	62.16%	Southeast
Franklin	45	10	HOFFMAN ROAD, 1	3B	MYERS, LISA & TORETTA, MICHAEL P	6.06	28.22	58.96%	29.75	62.16%	Southeast
Franklin	45	11.01	HOFFMAN ROAD, 31	3B	BANGHART, GEORGE	10.34	277.29	72.01%	178.24	46.29%	Southeast
Franklin	45	37	HARLEY COURT, 30-32	3B	SONZOGNI, EBE N & I MARK ETALS	146.29	99.81	68.23%	117.25	80.15%	Southeast
Franklin	45	50.01	MOUNTAIN VIEW ROAD, 384	3B	RAFALCO, SYLVESTER & JOYCE	54.97	28.80	47.19%	31.02	50.83%	Southeast
Franklin	45	50.05	MOUNTAIN VIEW ROAD, 368	3B	RAFALCO, SYLVESTER	6.06	28.80	47.19%	31.02	50.83%	Southeast
Franklin	46	10	ASBURY-BROADWAY ROAD, 99	3B	BANGHART, GEORGE W	57.56	277.29	72.01%	178.24	46.29%	Southeast
Franklin	46	11	ASBURY-BROADWAY ROAD, 129	3B	MYERS, LISA & TORETTA, MICHAEL P	8.89	28.22	58.96%	29.75	62.16%	Southeast
Franklin	46	17	ASBURY-BROADWAY ROAD, 177	3B	MYERS, LISA & TORETTA, MICHAEL P	50.65	42.20	83.32%	40.35	79.66%	Southeast

Appendix C. Target Farms: Competitive Grant Program

Municipality	Block	Lot	Property Location	Class	Owner's Name	Acres (GIS)	Tillable Land		Agricultural Soil		Project Area
							Acres	Percent	Acres	Percent	
Franklin	46	20	ASBURY-BROADWAY ROAD, 191	3B	MONTANA, CHRISTOPHER J & ROSA M	32.31	35.04	43.72%	39.72	49.56%	Southeast
Franklin	46	21	ASBURY-BROADWAY ROAD, 191	3B	MONTANA, CHRISTOPHER J & ROSA M	28.96	35.04	43.72%	39.72	49.56%	Southeast
Franklin	46	23	ASBURY-BROADWAY ROAD, 191	3B	MONTANA, CHRISTOPHER J & ROSA M	12.84	35.04	43.72%	39.72	49.56%	Southeast
Franklin	46	26	MOUNTAIN VIEW ROAD, 142	3B	SMITH, ELIZABETH & RICHARD L	34.25	35.24	36.80%	59.77	62.40%	Southeast
Franklin	46	27	BUTTERMILK BRIDGE RD, 204	3B	DELORENZO, THOMAS & MOLLY	108.45	39.28	36.22%	63.36	58.43%	Southeast
Franklin	46	29	ASBURY-BROADWAY ROAD, 191	3B	MONTANA, CHRISTOPHER J & ROSA M	6.04	35.04	43.72%	39.72	49.56%	Southeast
Franklin	46	37	BUTTERMILK BRIDGE RD, 154	3B	HOOD, ROBERT & KIM	82.17	42.76	43.42%	41.59	42.22%	Southeast
Franklin	47	1	BUTTERMILK BRIDGE RD, 199	3B	SMITH, ELIZABETH & RICHARD L	14.11	35.24	36.80%	59.77	62.40%	Southeast
Franklin	47	5	BUTTERMILK BRIDGE RD, 167	3B	HOOD, ROBERT C & KIM K	16.33	42.76	43.42%	41.59	42.22%	Southeast
Franklin	48	2	MOUNTAIN VIEW ROAD, 145	3B	SMITH, ELIZABETH & RICHARD L	47.42	35.24	36.80%	59.77	62.40%	Southeast
Franklin	48	12.01	ANDERSON ROAD, 170	3B	GARDNER,RICHARD D & DEMAREST,EMMA L	8.53	92.55	88.77%	83.87	80.45%	Southeast
Franklin	48	14	ANDERSON ROAD, 170	3B	GARDNER,RICHARD D & DEMAREST,EMMA L	95.74	92.55	88.77%	83.87	80.45%	Southeast
Franklin	48	15	ANDERSON ROAD, 232	3B	VAN RIPER, ALBERT R III	59.00	86.60	84.30%	91.01	88.60%	Southeast
Franklin	48	19	ANDERSON ROAD, 232	3B	VAN RIPER, ALBERT III	43.72	86.60	84.30%	91.01	88.60%	Southeast
Franklin	48	20	OLD MAIN STREET, 357	3B	SMITH, ELIZABETH & RICHARD L	105.90	96.73	91.35%	82.79	78.19%	Southeast
Franklin	56	26	BLOOMSBURY ROAD, 43	3B	VERKADE, JAN R.W. & KATHRYN	45.92	37.56	81.79%	44.28	96.42%	Southeast
Franklin	56	35	BLOOMSBURY ROAD, 123	3B	SMITH, ELIZABETH & RICHARD L	14.51	126.72	85.98%	118.01	80.07%	Southeast
Franklin	56	36	BLOOMSBURY ROAD, 123	3B	SMITH, ELIZABETH & RICHARD L	72.31	126.72	85.98%	118.01	80.07%	Southeast
Franklin	57	30	BUTLER ROAD, 100	3B	BUTLER, WILMER T & BONNIE	26.97	65.43	93.99%	40.20	57.75%	Southeast
Franklin	57	30.01	BUTLER ROAD, 82	3B	BUTLER, BONNIE	1.55	65.43	93.99%	40.20	57.75%	Southeast
Franklin	57	30.02	MOUNTAIN VIEW ROAD, 389	3B	BUTLER, PATRICIA D & BONNIE	2.22	65.43	93.99%	40.20	57.75%	Southeast
Franklin	57	30.03	MOUNTAIN VIEW ROAD, 383	3B	BUTLER, WILMER T	1.78	65.43	93.99%	40.20	57.75%	Southeast
Franklin	57	31.01	BUTLER ROAD, 74	3B	BOWSER, ADAM L	65.38	64.23	98.25%	65.38	100.00%	Southeast
Franklin	57	32	BLOOMSBURY ROAD, 124	3B	SMITH, ELIZABETH & RICHARD L	27.33	126.72	85.98%	118.01	80.07%	Southeast
Franklin	57	33	BLOOMSBURY ROAD, 100	3B	SMITH, ELIZABETH & RICHARD L	33.23	126.72	85.98%	118.01	80.07%	Southeast
Franklin	58	1	BLOOMSBURY ROAD, 380	3B	TOBIAS, BARRY & BERLANT, KAREN E	110.71	103.94	93.88%	96.75	87.39%	Southeast
Franklin	58	17	BUTLER ROAD, 105	3B	BUTLER, WILMER T & BONNIE	37.08	65.43	93.99%	40.20	57.75%	Southeast
Franklin	59	1.04	WOLVERTON ROAD, 3	3B	GARSON, NONA M	41.07	32.68	79.56%	26.58	64.71%	Southeast
Franklin	61	5	BLOOMSBURY ROAD, 436	3B	HERITAGE, MAUREEN	93.50	150.30	78.05%	162.73	84.50%	Southeast
Franklin	61	6	BLOOMSBURY ROAD, 410	3B	HERITAGE, MAUREEN P	89.77	150.30	78.05%	162.73	84.50%	Southeast
Franklin	61	10	BLOOMSBURY ROAD	3B	VIKING DEVELOPMENT COMPANY, LLC	233.87	45.21	14.80%	97.52	31.93%	Southeast
Franklin	61	13	HERLEMAN ROAD, 70	3B	OBERLY, CLIFFORD K & MARGARET M	97.33	180.10	54.39%	203.65	61.51%	Southeast
Franklin	61	28	BLOOMSBURY ROAD	3B	NEW VILLAGE ROAD, LLC C/O KAPLEN	14.30	182.90	67.88%	193.99	72.00%	Southeast
Franklin	62	3	BLOOMSBURY ROAD, 429	3B	HERITAGE, MAUREEN	9.31	150.30	78.05%	162.73	84.50%	Southeast
Frelinghuysen	301	6	175 KERRS CORNER ROAD	3B	MURPHY, RICHARD	249.66	106.87	42.81%	33.65	13.48%	Northeast
Frelinghuysen	301	14	6 MOTT ROAD	3B	ROGERS, RICHARD D JR & PAMELA S	84.20	61.53	30.04%	55.15	26.92%	Northeast
Frelinghuysen	301	14.02	923 ROUTE 94	3B	ROGERS, PAMELA SUZANNE	1.83	61.53	30.04%	55.15	26.92%	Northeast
Frelinghuysen	301	14.03	14 MOTT ROAD	3B	ROGERS, RICHARD D JR & PAMELA S	7.08	61.53	30.04%	55.15	26.92%	Northeast
Frelinghuysen	301	14.04	10 MOTT ROAD	3B	ROGERS, PAMELA SUZANNE	19.63	61.53	30.04%	55.15	26.92%	Northeast
Frelinghuysen	301	14.05	919 ROUTE 94	3B	ROGERS, RICHARD D JR & PAMELA S	5.96	61.53	30.04%	55.15	26.92%	Northeast
Frelinghuysen	301	17	985 ROUTE 94	3B	ROGERS JR, RICHARD D	71.48	61.53	30.04%	55.15	26.92%	Northeast
Frelinghuysen	301	17.01	995 ROUTE 94	3B	ROGERS, PAMELA SUZANNE	4.91	61.53	30.04%	55.15	26.92%	Northeast
Frelinghuysen	301	18.01	17-A SILVER LAKE ROAD	3B	SUGAR BARB FARM C/O KAUFMAN DONALD	177.94	34.11	19.17%	48.41	27.21%	Northeast

Appendix C. Target Farms: Competitive Grant Program

Municipality	Block	Lot	Property Location	Class	Owner's Name	Acres (GIS)	Tillable Land		Agricultural Soil		Project Area
							Acres	Percent	Acres	Percent	
Frelinghuysen	1101	1.01	21 MOTT ROAD	3B	ROGERS JR, RICHARD D	1.98	61.53	30.04%	55.15	26.92%	Northeast
Frelinghuysen	1101	1.03	895 ROUTE 94	3B	ROGERS, PAMELA SUZANNE	4.10	61.53	30.04%	55.15	26.92%	Northeast
Frelinghuysen	1101	1.04	9 MOTT ROAD	3B	ROGERS JR, RICHARD D	3.66	61.53	30.04%	55.15	26.92%	Northeast
Frelinghuysen	1101	10	80 ROUTE 661	3B	NATYZAK, HELEN	22.61	50.42	40.41%	56.94	45.64%	Northeast
Frelinghuysen	1201	13	75 ROUTE 661	3B	NATYZAK, HELEN	102.15	50.42	40.41%	56.94	45.64%	Northeast
Frelinghuysen	1401	5	163 ALLAMUCHY ROAD	3B	FRIDMAN, SIGMUNDO M & HANNA T	94.60	107.01	47.77%	51.02	22.78%	Northeast
Frelinghuysen	1501	11	164 ALLAMUCHY ROAD	3B	FRIDMAN, SIGMUNDO M & HANNA T	129.41	107.01	47.77%	51.02	22.78%	Northeast
Frelinghuysen	1701	9	23 HELLER ROAD	3B	SCHWARTZ, DAVID A	116.46	32.12	27.58%	45.85	39.37%	Northeast
Greenwich	16	6	NORTH MAIN ST, 523	3A	O DOWDS INC	112.28	105.70	94.14%	112.28	100.00%	Southeast
Greenwich	18	3	WILLOW GROVE RD, 113-115	3A	O DOWDS INC.	78.40	74.98	95.64%	78.40	100.00%	Southeast
Greenwich	20	6	70 HERLEMAN ROAD	3B	OBERLY, C K, M M, C W & SHEILA	42.20	180.10	54.39%	203.65	61.51%	Southeast
Greenwich	20	7	SOUTH MAIN ST	3B	OBERLY, CLIFFORD K	131.45	180.10	54.39%	203.65	61.51%	Southeast
Greenwich	20	14	NEW VILLAGE RD	3B	PANTEL, SARA	44.36	35.35	79.68%	37.92	85.49%	Southeast
Greenwich	20	22	SOUTH MAIN ST	3B	HOSER, KENNETH	10.62	116.67	98.54%	116.38	98.29%	Southeast
Greenwich	20	26	SOUTH MAIN ST	3B	SMITH, NORMAN J & TIMOTHY M	128.25	117.24	91.41%	119.94	93.52%	Southeast
Greenwich	20	27	SOUTH MAIN ST	3B	BELCLARE FARM, LLC	78.17	62.60	80.08%	28.35	36.26%	Southeast
Greenwich	26	26	SOUTH MAIN ST, 636	3B	DOMINGUES, JOSE	65.69	56.11	85.42%	25.42	38.70%	Southeast
Greenwich	26	29	SOUTH MAIN ST	3B	HOSER, KENNETH	107.78	116.67	98.54%	116.38	98.29%	Southeast
Greenwich	26	30	SOUTH MAIN ST	3B	CLINE, JAMES G	123.58	117.33	94.94%	120.23	97.29%	Southeast
Greenwich	26	31	SOUTH MAIN ST	3B	BEATTY, JOHN H & CAROL A	68.13	84.65	99.52%	82.06	96.47%	Southeast
Greenwich	26	32	RT 173	3B	VOORHEES, WILLIAM H, GEORGENE ETALS	62.21	61.96	99.58%	61.93	99.55%	Southeast
Greenwich	26	40	RT 22	3B	BEATTY, JOHN H & CAROL A	4.56	84.65	99.52%	82.06	96.47%	Southeast
Greenwich	27	2	SOUTH MAIN ST	3B	BEATTY, JOHN H & CAROL A	12.37	84.65	99.52%	82.06	96.47%	Southeast
Greenwich	28	1	NEW VILLAGE RD	3B	OBERLY, CLIFFORD & MARGARET	3.85	180.10	54.39%	203.65	61.51%	Southeast
Greenwich	28	3	NEW VILLAGE RD	3B	VIKING DEVELOPMENT COMPANY, LLC	5.26	45.21	14.80%	97.52	31.93%	Southeast
Greenwich	28	4	NEW VILLAGE RD	3B	NEW VILLAGE ROAD, LLC C/O KAPLEN	95.14	182.90	67.88%	193.99	72.00%	Southeast
Greenwich	28	5	NEW VILLAGE RD	3B	NEW VILLAGE ROAD, LLC C/O KAPLEN	146.81	182.90	67.88%	193.99	72.00%	Southeast
Greenwich	28	5.01	NEW VILLAGE RD	3B	VIKING DEVELOPMENT COMPANY, LLC	66.29	45.21	14.80%	97.52	31.93%	Southeast
Greenwich	28	7	RT 78	3B	NEW VILLAGE ROAD, LLC C/O KAPLEN	13.19	182.90	67.88%	193.99	72.00%	Southeast
Greenwich	31	4	SOUTH MAIN ST	3B	BARTHE, MICHAEL C/O LAND EQUITY INC	41.44	40.10	96.78%	36.83	88.89%	South
Greenwich	31	11.03	RT 173	3B	BRISTOL-MYERS SQUIBB (R&D FINANCE)	109.85	91.16	82.99%	105.17	95.74%	South
Greenwich	31	12	RT 173	3B	PATERNOSTRO, ROCCO	71.05	32.57	45.84%	65.85	92.69%	South
Greenwich	34	11	SOUTH MAIN ST	3B	BEATTY, JOHN H & CAROL A	51.88	35.14	67.73%	35.79	69.00%	South
Greenwich	36	2	RT 173	3B	DOWEL-IRIS GREENWICH LLC,%PROGRESSI	113.70	106.82	93.95%	113.67	99.97%	
Greenwich	41	13.01	RAVINE RD	3B	SLACK, JOHN	11.61	38.37	89.48%	41.49	96.75%	South
Greenwich	44	4	WARREN GLEN RD, 630	3B	TIR NA NOG FARM, LLC	50.34	63.56	63.27%	85.68	85.29%	South
Greenwich	44	4.01	WARREN GLEN RD, 626	3B	TIR NA NOG FARM LLC	7.44	63.56	63.27%	85.68	85.29%	South
Greenwich	44	26	WARREN GLEN RD, 628	3B	TIR NA NOG FARM, LLC	42.68	63.56	63.27%	85.68	85.29%	South
Hardwick	901	2	154 STILLWATER ROAD	3B	DON CON ENTERPRISES LLC	61.76	44.68	72.34%	36.70	59.42%	North
Hardwick	1001	12	66 SUNSET LAKE ROAD	3B	AHLERS, THOMAS	98.09	64.08	65.33%	37.15	37.87%	North
Hardwick	1201	1	7 OLD ORCHARD ROAD	3B	7 OLD ORCHARD ROAD LLC	76.37	40.67	53.26%	35.34	46.28%	North
Harmony	4	1	3259 BELVIDERE RD	3B	CLINE, LORRAINE	18.98	37.56	86.10%	42.44	97.26%	West
Harmony	4	2	3245 BELVIDERE RD	3B	CALAFIORE, PATRICK M	42.86	39.85	84.18%	43.36	91.59%	West

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							Acres	Percent	Acres	Percent	
Harmony	7	13	HUTCHINSON	3B	HARMONY SAND & GRAVEL, INC	30.69	99.46	55.12%	108.72	60.25%	West
Harmony	7	14	3183 BELVIDERE ROAD	3B	HARMONY SAND & GRAVEL INC	149.75	99.46	55.12%	108.72	60.25%	West
Harmony	9	51.01	BELVIDERE HWY	3B	BURKE, DANA R & BARBARA DINSMORE	78.80	48.31	42.18%	58.92	51.45%	West
Harmony	9	51.02	3048 BELVIDERE RD	3B	BURKE, DANA R & BARBARA DINSMORE	18.71	48.31	42.18%	58.92	51.45%	West
Harmony	9	51.03	3046 BELVIDERE RD.	3B	BURKE, DANA & BARBARA DINSMORE	17.02	48.31	42.18%	58.92	51.45%	West
Harmony	10	16	ROUTE 519	3B	CALAFIORE, PATRICK M	4.48	39.85	84.18%	43.36	91.59%	West
Harmony	14	9	BRASS CASTLE ROAD	3B	SMITH, JOHN H. & JEAN M.	110.04	57.23	52.00%	71.36	64.84%	West
Harmony	17	14	MONTANA	3B	BUCKEN, NEIL	0.35	39.41	34.33%	105.68	92.06%	West
Harmony	17	16	MONTANA	3B	BUCKEN, NEIL	32.49	39.41	34.33%	105.68	92.06%	West
Harmony	18	7	470 MONTANA RD.	3B	KOBER, WILLIAM G & BARBARA A	41.42	46.57	35.93%	76.48	59.01%	West
Harmony	18	7.01	470 MONTANA ROAD	3B	KOBER, WILLIAM & BARBARA	6.72	46.57	35.93%	76.48	59.01%	West
Harmony	18	9	NEW VILLAGE ROAD	3B	SCHOENWOOD FARMS, LLC	1.67	136.21	40.45%	112.57	33.43%	West
Harmony	19	2	MONTANA ROAD	3B	SCHOENWOOD FARMS, LLC	18.79	136.21	40.45%	112.57	33.43%	West
Harmony	19	2.01	420 MONTANA RD	3B	SCHOENWOOD FARMS, LLC	17.04	136.21	40.45%	112.57	33.43%	West
Harmony	21	34.01	800 HARM BRASS CASTLE RD.	3B	HAYDU, JOSEPH D	5.40	44.68	98.30%	44.79	98.53%	West
Harmony	21	34.02	BRASS CASTLE ROAD	3B	HAYDU, JOSEPH D	2.67	44.68	98.30%	44.79	98.53%	West
Harmony	21	34.03	BRASS CASTLE ROAD	3B	POTTER, DIANA	6.11	44.68	98.30%	44.79	98.53%	West
Harmony	21	34.04	BRASS CASTLE ROAD	3B	HAYDU, JOSEPH D	7.03	44.68	98.30%	44.79	98.53%	West
Harmony	21	34.05	BRASS CASTLE ROAD	3B	HAYDU, STEVEN C	6.28	44.68	98.30%	44.79	98.53%	West
Harmony	21	34.06	BRASS CASTLE ROAD	3B	POTTER, DIANA	6.40	44.68	98.30%	44.79	98.53%	West
Harmony	21	34.07	BRASS CASTLE ROAD	3B	HAYDU, JOSEPH D	5.89	44.68	98.30%	44.79	98.53%	West
Harmony	21	34.08	HARM-BRASS CASTLE RD	3B	HAYDU, STEVEN C	5.66	44.68	98.30%	44.79	98.53%	West
Harmony	21	42	ALLEN'S MILLS ROAD	3B	WATERS DARLA MAE	81.30	59.79	73.55%	42.00	51.67%	West
Harmony	25	1	ALLENS MILL RD.	3B	MERRILL CRK RES C/O PROJ DIRECT	201.63	25.07	12.43%	89.17	44.22%	West
Harmony	26	27	BRASS CASTLE ROAD	3B	SALTER, JOHN R	2.36	129.50	76.29%	116.55	68.66%	West
Harmony	26	28	103 HARM BRASS CASTLE RD	3B	SALTER, JOHN R	127.80	129.50	76.29%	116.55	68.66%	West
Harmony	26	42	BRASS CASTLE ROAD	3B	SALTER, JOHN R	39.58	129.50	76.29%	116.55	68.66%	West
Harmony	30	2	STRYKER RD.	3B	WARREN COUNTY FARMERS FAIR	2.02	41.28	52.25%	64.84	82.06%	West
Harmony	30	2.01	STRYKER RD.	3B	WARREN COUNTY FARMERS FAIR	0.83	41.28	52.25%	64.84	82.06%	West
Harmony	30	3	1350 STRYKERS ROAD	3B	WARREN COUNTY FARMERS FAIR	33.56	41.28	52.25%	64.84	82.06%	West
Harmony	31	8.10	1335 STRYKERS RD	3B	WARREN COUNTY FARMER'S FAIR ASSOC	8.46	41.28	52.25%	64.84	82.06%	West
Harmony	31	8.11	STRYKERS RD	3B	WARREN COUNTY FARMER'S FAIR ASSOC	34.14	41.28	52.25%	64.84	82.06%	West
Harmony	33	25.05	2493 BELVIDERE ROAD	3B	HNOT, WALTER RUDOLPH JR & SHELLEY M	43.54	25.93	59.56%	22.40	51.46%	West
Harmony	37	3	99 BRAINARDS RD.	3B	PETRILAK, JOHN	46.20	118.91	97.10%	120.56	98.45%	West
Harmony	37	5	251 GARRISON RD.	3B	DUTT, NATALIE O	59.68	56.54	94.73%	59.68	100.00%	West
Harmony	38	2	316 GARRISON RD	3B	GARRISON, ROY & BRENDA	135.44	127.21	93.92%	135.44	100.00%	West
Harmony	38	4	2798 RIVER ROAD	3A	MERRILL CRK RES C/O PROJ DIRECT	61.63	26.07	42.30%	51.04	82.82%	West
Harmony	38	25	254 GARRISON RD	3B	GARRISON, EDNA	91.95	87.18	94.82%	81.79	88.96%	West
Harmony	39	4	BRAINARDS ROAD	3B	PETRILAK, JOHN	19.45	118.91	97.10%	120.56	98.45%	West
Harmony	43	26	RIVER ROAD	3B	PETRILAK, JOHN	19.69	118.91	97.10%	120.56	98.45%	West
Harmony	43	40	RIVER ROAD	3B	MIGLIORE SANDRA	3.43	51.71	66.43%	77.28	99.29%	West
Harmony	44	5	2700 RIVER ROAD	3B	PETRILAK, JOHN	10.75	118.91	97.10%	120.56	98.45%	West
Harmony	44	7	RIVER ROAD	3B	PETRILAK, JOHN	26.38	118.91	97.10%	120.56	98.45%	West

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							Acres	Percent	Acres	Percent	
Harmony	44	9	126 BRAINARDS RD	3B	R HABITATS, LLC	18.85	63.91	66.88%	95.55	100.00%	West
Harmony	44	10	166 BRAINARDS ROAD	3B	166 BRAINARDS RD LLC	155.99	143.96	92.28%	155.99	100.00%	West
Harmony	44	14	713 HARMONY STATION RD.	3B	715 HARMONY STATION, LLC	108.84	99.74	91.64%	108.84	100.00%	West
Harmony	44	15	415 HARMONY STATION RD.	3B	MCLAIN, NANCY	70.38	113.44	80.57%	140.79	100.00%	West
Harmony	44	19	ESPOSITO ROAD	3B	MCLAIN, JAMES & NANCY	15.03	113.44	80.57%	140.79	100.00%	West
Harmony	44	20	160 ESPOSITO RD.	3B	MIGLIORE SANDRA	74.41	51.71	66.43%	77.28	99.29%	West
Harmony	44	23	BRAINARDS ROAD	3B	R HABITATS, LLC	76.70	63.91	66.88%	95.55	100.00%	West
Harmony	45	1	385 HARMONY STATION ROAD	3B	MCLAIN, JAMES	15.86	113.44	80.57%	140.79	100.00%	West
Harmony	45	26	ESPOSITO ROAD	3B	SANTINI, ROBERT A & SHARON A	65.41	51.85	70.32%	44.56	60.43%	West
Harmony	46	2	HARMONY STATION RD	3B	SHANDOR, DOROTHY L	102.60	89.87	77.66%	107.75	93.11%	West
Harmony	46	3	HARMONY STATION ROAD	3B	MCLAIN, JAMES & NANCY	39.53	113.44	80.57%	140.79	100.00%	West
Harmony	46	4.02	BUTTONWOOD LANE	3B	RYKER, GAIL	141.17	41.01	29.05%	110.91	78.56%	West
Harmony	46	4.09	119 BUTTONWOOD LANE	3B	BREESE, MARJORIE & SHARPE, MARLENE	82.21	29.57	35.96%	52.84	64.27%	West
Harmony	47	1	RIVER ROAD	3B	SANTINI, ROBERT A & SHARON A	8.33	51.85	70.32%	44.56	60.43%	West
Harmony	47.01	24	1735 RIVER RD.	3B	SHANDOR, DOROTHY L	13.13	89.87	77.66%	107.75	93.11%	West
Hope	100	1200	1150 HOPE-BRIDGEVILLE RD	3B	PLANER, AUDREY B	29.93	76.25	80.15%	43.45	45.67%	Northwest
Hope	100	1202	182 LAKE JUST IT ROAD	3B	PLANER, MICHAEL R & JENNIFER A	6.98	76.25	80.15%	43.45	45.67%	Northwest
Hope	200	100	24 DOE HOLLOW LANE	3B	DEER HOLLOW FARM, LP C/O J R FLATH	62.07	67.75	30.68%	73.00	33.06%	Northwest
Hope	200	200	10 DOE HOLLOW LANE	3B	MATARAZZO, ROBERT J & LAURA R	24.35	164.44	62.98%	186.77	71.53%	Northwest
Hope	200	300	1001 HOPE-BRIDGEVILLE RD	3B	MATARAZZO, ROBERT J & LAURA R	70.05	164.44	62.98%	186.77	71.53%	Northwest
Hope	200	400	1075 HOPE-BRIDGEVILLE RD	3B	MUSGRAVE P & VANKIRK M D/B/A P/M	227.93	166.25	72.94%	95.73	42.00%	Northwest
Hope	800	400	3 KOSTENBADER RD	3B	PLANER, AUDREY B	58.23	76.25	80.15%	43.45	45.67%	Northwest
Hope	1000	900	365 HOPE-GT MEADOWS RD	3B	MAIER, HERMANN R. & MARIE A.	32.84	71.77	21.38%	50.30	14.99%	Northwest
Hope	1200	1300	385 MT HERMON RD	3B	MT HERMON HILLS COMPANY LLC	95.29	37.54	25.05%	36.82	24.57%	Northwest
Hope	1200	1301	391 MT HERMON RD	3B	LO PRESTI, GARY B & DONNA M	8.21	91.33	37.01%	57.08	23.13%	Northwest
Hope	1200	1700	94 LOCUST LAKE RD	3B	MT HERMON HILLS C/O J. DENEUFVILLE	54.53	37.54	25.05%	36.82	24.57%	Northwest
Hope	1200	3800	329 DELAWARE RD	3B	HOWELL, JANE M	132.77	41.06	30.92%	55.07	41.48%	Northwest
Hope	1600	1300	376 MT HERMON RD	3B	LO PRESTI, ARTHUR & EDWARD & THOMAS	238.55	91.33	37.01%	57.08	23.13%	Northwest
Hope	2700	2400	396 HOPE-GT MEADOWS RD	3B	MAIER, HERMANN R. & MARIE A.	102.20	71.77	21.38%	50.30	14.99%	Northwest
Hope	2700	2500	354 HOPE-GT MEADOWS RD	3B	MAIER, CHRISTOPHER F	79.76	71.77	21.38%	50.30	14.99%	Northwest
Hope	2700	4600	48 JENNY JUMP ROAD	3B	MAIER, CHRISTOPHER F	75.56	71.77	21.38%	50.30	14.99%	Northwest
Hope	2900	100	382 JOHNSONBURG RD	3B	CHAMBERLAIN, ROBERT	26.89	93.16	56.78%	27.38	16.69%	Northwest
Hope	2900	400	27 JENNY JUMP ROAD	3B	MAIER, HERMANN R.	45.29	71.77	21.38%	50.30	14.99%	Northwest
Hope	3000	200	388 JOHNSONBURG RD	3B	CHAMBERLAIN, ROBERT	79.25	93.16	56.78%	27.38	16.69%	Northwest
Hope	3400	1900	385 JOHNSONBURG RD	3B	CHAMBERLAIN, ROBERT	45.01	93.16	56.78%	27.38	16.69%	Northwest
Hope	3400	2200	9 RIDGEWAY AVE	3B	CHAMBERLAIN, ROBERT	12.93	93.16	56.78%	27.38	16.69%	Northwest
Independence	1	68	1 RUSSLING RD	3B	BEST, ROBERT E SR & RUTH M	44.40	36.40	81.98%	22.69	51.09%	
Independence	14	10	W/S BARKERS MILL RD	3B	KLIMAS, GABRIELLA	43.96	46.28	23.49%	61.06	30.98%	Central
Independence	14	12.01	86 BARKERS MILL RD	3B	KLIMAS, GABRIELLA	5.04	46.28	23.49%	61.06	30.98%	Central
Independence	16	1	ROUTE 46 & ASBURY RD	3B	GRECO, CARMEN	34.15	29.34	43.58%	35.10	52.13%	Northeast
Independence	17	56	13-15 ASBURY RD	3B	GRECO, CARMEN	19.56	29.34	43.58%	35.10	52.13%	Northeast
Independence	17	56.01	43-47 KETCHAM RD	3B	GRECO, JEAN M	11.31	29.34	43.58%	35.10	52.13%	Northeast
Independence	17	56.06	17 ASBURY RD	3B	GRECO, CARMEN	2.32	29.34	43.58%	35.10	52.13%	Northeast

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							Acres	Percent	Acres	Percent	
Independence	21	2	37-39 & 53-61 WATER ST	3B	BADUINI, LOUIS J & ANNE M	104.92	201.42	70.64%	105.25	36.91%	Northeast
Independence	21	11	N/S PETERSBURG RD	3B	BADUINI, LOUIS J & ANNE M	118.32	201.42	70.64%	105.25	36.91%	Northeast
Independence	21	12	BACON RUN	3B	BADUINI, LOUIS & ANNE M	22.44	201.42	70.64%	105.25	36.91%	Northeast
Independence	21	13	BACON RUN	3B	BADUINI, LOUIS & ANNE M	39.47	201.42	70.64%	105.25	36.91%	Northeast
Independence	21	38	260-276 ROUTE 46	3B	PIO COSTA ENTERPRISES LP	163.02	118.11	72.45%	97.33	59.71%	Northeast
Independence	23	1	N/S TOWNSBURY RD	3B	BARTON, JOHN M	21.85	82.63	56.26%	131.92	89.83%	Central
Independence	23	4	S/S L & H RR	3B	TOPP ORANGE LLC	41.73	25.41	20.01%	77.40	60.98%	Northeast
Independence	23	6	W/S CEMETERY RD	3B	TOPP ORANGE LLC	33.28	25.41	20.01%	77.40	60.98%	Northeast
Independence	28	21	N/S ALPHANO RD	3B	PRYSLAK FARMS	52.26	84.04	92.59%	30.69	33.81%	Northeast
Independence	28	28	ALPHANO RD & MEADOW LANE	3B	PRYSLAK FARMS	22.45	84.04	92.59%	30.69	33.81%	Northeast
Independence	28	30	OFF ALPHANO RD	3B	PRYSLAK FARMS	16.06	84.04	92.59%	30.69	33.81%	Northeast
Independence	28	35	180 ALPHANO RD	3B	GODLEWSKY FARMS & GREENHOUSES LLC	19.38	113.00	97.69%	95.27	82.36%	Northeast
Independence	28	36	OFF ALPHANO RD	3B	GODLEWSKY FARMS & GREENHOUSES LLC	11.50	113.00	97.69%	95.27	82.36%	Northeast
Independence	28	37	INDUSTRIAL LANE	3B	GODLEWSKY, JOSEPH JR	8.03	113.00	97.69%	95.27	82.36%	Northeast
Independence	28	38	ALPHANO RD	3B	GODLEWSKY FARMS & GREENHOUSES LLC	13.87	113.00	97.69%	95.27	82.36%	Northeast
Independence	28	39	INDUSTRIAL LANE	3B	GODLEWSKY FARMS & GREENHOUSES LLC	7.03	113.00	97.69%	95.27	82.36%	Northeast
Independence	28	40	INDUSTRIAL LANE	3B	GODLEWSKY FARMS & GREENHOUSES LLC	6.04	113.00	97.69%	95.27	82.36%	Northeast
Independence	28	41	INDUSTRIAL LANE	3B	GODLEWSKY'S MARKET LLC	14.80	113.00	97.69%	95.27	82.36%	Northeast
Independence	28	43	INDUSTRIAL LANE	3B	GODLEWSKY, JOSEPH JR	8.03	113.00	97.69%	95.27	82.36%	Northeast
Independence	28	44	KRESTREL LANE	3B	GODLEWSKY, GENEVIEVE	5.39	113.00	97.69%	95.27	82.36%	Northeast
Independence	28	45	KRESTREL LANE	3B	GODLEWSKY, GENEVIEVE	4.67	113.00	97.69%	95.27	82.36%	Northeast
Independence	28	46	KRESTREL LANE	3B	GODLEWSKY, GENEVIEVE	5.66	113.00	97.69%	95.27	82.36%	Northeast
Independence	28	47	KRESTREL LANE	3B	GODLEWSKY, GENEVIEVE	7.64	113.00	97.69%	95.27	82.36%	Northeast
Independence	28	49	S/S L & H RR	3B	TRZECIAKIEWICZ, EDWARD S	1.16	47.39	99.14%	36.33	76.00%	Northeast
Independence	28	50	S/S L & H RR	3B	TRZECIAKIEWICZ, EDWARD & ANNA	1.97	47.39	99.14%	36.33	76.00%	Northeast
Independence	28	51	S/S L & H RR	3B	TRZECIAKIEWICZ, EDWARD S	6.77	47.39	99.14%	36.33	76.00%	Northeast
Independence	28	52	S/S L & H RR	3B	TRZECIAKIEWICZ, EDWARD & ANNA	10.63	47.39	99.14%	36.33	76.00%	Northeast
Independence	28	53	S/S L & H RR	3B	TRZECIAKIEWICZ, EDWARD S	15.30	47.39	99.14%	36.33	76.00%	Northeast
Independence	28	54	S/S L & H RR	3B	TRZECIAKIEWICZ, EDWARD & ANNA	11.20	47.39	99.14%	36.33	76.00%	Northeast
Independence	29	9	E/S ISLAND RD	3B	KOWALICK, CATHERINE	32.13	38.16	9.21%	244.63	59.02%	Northeast
Independence	29	14	OFF SHADES OF DEATH RD	3B	KENCO LAND	9.87	103.33	95.06%	99.87	91.88%	Northeast
Independence	29	22	OFF ISLAND RD	3B	PRYSLAK FARMS	36.69	338.16	88.91%	289.32	76.07%	Northeast
Independence	29	23	OFF SHADES OF DEATH RD	3B	PRYSLAK FARMS	6.09	338.16	88.91%	289.32	76.07%	Northeast
Independence	29	24	OFF ISLAND RD	3B	PRYSLAK FARMS	5.47	338.16	88.91%	289.32	76.07%	Northeast
Independence	29	25	OFF SHADES OF DEATH RD	3B	PRYSLAK FARMS	89.30	338.16	88.91%	289.32	76.07%	Northeast
Independence	29	26	OFF ISLAND RD	3B	KOWALICK, CATHERINE	382.34	38.16	9.21%	244.63	59.02%	Northeast
Independence	29	27	OFF ALPHANO RD	3B	GREAT MEADOWS ASSOCIATES	287.72	237.94	82.70%	159.22	55.34%	Northeast
Independence	29	51	S/S SHADES OF DEATH RD	3B	KELSEY, JAMES C V	389.09	44.60	11.46%	111.08	28.55%	
Independence	29	54	S/S SHADES OF DEATH RD	3B	YEE, THOMAS J & NANCY C	78.30	64.02	81.76%	65.94	84.21%	Northeast
Independence	29	58	OFF SHADES OF DEATH RD	3B	KENCO LAND	14.16	103.33	95.06%	99.87	91.88%	Northeast
Independence	29	59	OFF SHADES OF DEATH RD	3B	KENCO LAND	8.82	103.33	95.06%	99.87	91.88%	Northeast
Independence	29	60	S/S SHADES OF DEATH RD	3B	KENCO LAND	15.32	103.33	95.06%	99.87	91.88%	Northeast
Independence	29	61	S/S SHADES OF DEATH RD	3B	KENCO LAND PARTNERSHIP LP	28.69	103.33	95.06%	99.87	91.88%	Northeast

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Municipality	Block	Lot	Property Location	Class	Owner's Name	Acres (GIS)	Tillable Land		Agricultural Soil		Project Area
							Acres	Percent	Acres	Percent	
Independence	29	62	OFF SHADES OF DEATH RD	3B	KENCO LAND	11.46	103.33	95.06%	99.87	91.88%	Northeast
Independence	29	63	OFF SHADES OF DEATH RD	3B	KENCO LAND PARTNERSHIP LP	10.35	103.33	95.06%	99.87	91.88%	Northeast
Knowlton	8	2	17 WOODRUFF WAY	3B	CASSER, CLAUDIA	95.61	43.30	45.28%	95.43	99.81%	North
Knowlton	34	18	437 RTE 94	3B	BOWMAN, LEWIS W & ERLA MAE	12.99	47.14	68.60%	54.46	79.25%	North
Knowlton	34	18.01	425 RTE 94	3B	BOWMAN, ERLA MAE	34.01	47.14	68.60%	54.46	79.25%	North
Knowlton	34	18.02	423 RTE 94	3B	BOWMAN, LEWIS & ERLA MAE	2.86	47.14	68.60%	54.46	79.25%	North
Knowlton	34	18.03	421 RTE 94	3B	BOWMAN, LEWIS W & ERLA MAE	7.79	47.14	68.60%	54.46	79.25%	North
Knowlton	34	18.04	435 RTE 94	3B	BOWMAN, LEWIS W & ERLA MAE	11.05	47.14	68.60%	54.46	79.25%	North
Liberty	1	3	52 SHADES OF DEATH ROAD	3B	KENCO LAND PARTNERSHIP, L.P.	10.03	103.33	95.06%	99.87	91.88%	Central
Liberty	1	7.01	SHADES OF DEATH ROAD;REAR	3B	PRYSLAK, WILLIAM EST & JOHN	2.80	338.16	88.91%	289.32	76.07%	Central
Liberty	1	9	30 SHADES OF DEATH ROAD	3B	PRYSLAK, WILLIAM EST & JOHN	14.97	338.16	88.91%	289.32	76.07%	Central
Liberty	1	10	26 SHADES OF DEATH ROAD	3B	PRYSLAK, WILLIAM EST & JOHN	22.68	338.16	88.91%	289.32	76.07%	Central
Liberty	1	11	SHADES OF DEATH ROAD;REAR	3B	PRYSLAK, WILLIAM EST & JOHN	13.91	338.16	88.91%	289.32	76.07%	Central
Liberty	1	14	SHADES OF DEATH ROAD	3B	PRYSLAK, JUNE	9.08	338.16	88.91%	289.32	76.07%	Central
Liberty	1	18	2 SHADES OF DEATH ROAD	3B	PRYSLAK FARMS	15.68	338.16	88.91%	289.32	76.07%	Central
Liberty	1	19	86 HOPE ROAD	3B	PASKO,MARY,EST.C/O RUDOLPH PASKO	3.63	148.21	62.54%	131.16	55.34%	Central
Liberty	1	20	66 HOPE ROAD	3B	PRYSLAK FARMS	23.66	338.16	88.91%	289.32	76.07%	Central
Liberty	1	20.01	74 HOPE ROAD	3B	PRYSLAK FARMS	24.26	338.16	88.91%	289.32	76.07%	Central
Liberty	1	22	HOPE ROAD; REAR	3B	PRYSLAK FARMS	10.61	338.16	88.91%	289.32	76.07%	Central
Liberty	1	23	HOPE ROAD; REAR	3B	PRYSLAK FARMS	10.35	338.16	88.91%	289.32	76.07%	Central
Liberty	1	24	HOPE ROAD; REAR	3B	PRYSLAK, WILLIAM EST & JOHN	47.17	338.16	88.91%	289.32	76.07%	Central
Liberty	1	25	HOPE ROAD; REAR	3B	PRYSLAK FARMS	5.10	338.16	88.91%	289.32	76.07%	Central
Liberty	1	27	50 HOPE ROAD	3B	PRYSLAK, WILLIAM EST & JOHN	42.52	338.16	88.91%	289.32	76.07%	Central
Liberty	1	29	40 HOPE ROAD	3B	PIASECKI, LOUISE ALBERTA	31.51	30.16	57.32%	33.51	63.69%	Central
Liberty	6	8	15 MARBLE HILL ROAD	3B	CUMMINS, JUNE	36.32	77.76	54.75%	79.45	55.94%	Central
Liberty	6	8.01	35 MARBLE HILL ROAD	3B	CUMMINS, PARKES R	6.51	77.76	54.75%	79.45	55.94%	Central
Liberty	6	8.05	37 MARBLE HILL ROAD	3B	CUMMINS, JUNE	2.11	77.76	54.75%	79.45	55.94%	Central
Liberty	6	8.07	43 MARBLE HILL ROAD	3B	CUMMINS, JUNE	5.24	77.76	54.75%	79.45	55.94%	Central
Liberty	6	8.08	15 MARBLE HILL ROAD	3B	CUMMINS, CARL & TERRI	38.76	77.76	54.75%	79.45	55.94%	Central
Liberty	9	1	20 MARBLE HILL ROAD	3B	CUMMINS, JUNE	50.74	77.76	54.75%	79.45	55.94%	Central
Liberty	9	1.01	8 MARBLE HILL ROAD	3B	CUMMINS, JUNE	1.11	77.76	54.75%	79.45	55.94%	Central
Liberty	9	1.02	10 MARBLE HILL ROAD	3B	CUMMINS, JUNE	1.23	77.76	54.75%	79.45	55.94%	Central
Liberty	9	9	387 MOUNTAIN LAKE ROAD	3B	PASKO, EDWARD & RUDOLPH	125.08	148.21	62.54%	131.16	55.34%	Central
Liberty	9	9.01	393 MOUNTAIN LAKE ROAD	3B	PASKO, EDWARD & RUDOLPH	1.11	148.21	62.54%	131.16	55.34%	Central
Liberty	9	9.02	395 MOUNTAIN LAKE ROAD	3B	PASKO, EDWARD & RUDOLPH	1.11	148.21	62.54%	131.16	55.34%	Central
Liberty	9	9.03	413 MOUNTAIN LAKE ROAD	3B	PASKO, EDWARD & RUDOLPH	1.13	148.21	62.54%	131.16	55.34%	Central
Liberty	9	22	87 HOPE ROAD	3B	PASKO,MARY,EST.C/O RUDOLPH PASKO	104.94	148.21	62.54%	131.16	55.34%	Central
Liberty	10	4	66 DANVILLE MOUNTAIN ROAD	3B	CLAEYSSENS, EUGENE	88.70	24.33	24.25%	26.47	26.38%	Central
Liberty	10	16	45 HOPE ROAD	3B	PIASECKI, LOUISE ALBERTA	18.70	30.16	57.32%	33.51	63.69%	Central
Liberty	10	18	45 HOPE ROAD	3B	PIASECKI, LOUISE ALBERTA	2.41	30.16	57.32%	33.51	63.69%	Central
Liberty	11	43	77 DANVILLE MOUNTAIN ROAD	3B	HIGH VIEW FARM LLC C/O WIGGERS	4.49	24.33	24.25%	26.47	26.38%	Central
Liberty	11	44	83 DANVILLE MOUNTAIN ROAD	3B	HIGH VIEW FARM LLC C/O WIGGERS	7.14	24.33	24.25%	26.47	26.38%	Central
Liberty	12	12	2 COSTA LANE & 413 RT 46	3B	TOPP ORANGE LLC	19.92	25.41	20.01%	77.40	60.98%	Central

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Municipality	Block	Lot	Property Location	Class	Owner's Name	Acres (GIS)	Tillable Land		Agricultural Soil		Project Area
							Acres	Percent	Acres	Percent	
Liberty	13	6	31 TOWNSBURY ROAD	3B	BARTON, JOHN & CHERYL	7.23	82.63	56.26%	131.92	89.83%	Central
Liberty	13	6.02	TOWNSBURY ROAD	3B	BARTON, JOHN & CHERYL	1.62	82.63	56.26%	131.92	89.83%	Central
Liberty	13	9	BARKERS MILL ROAD; REAR	3B	BARTON, JOHN M	30.83	82.63	56.26%	131.92	89.83%	Central
Liberty	13	11	2 COSTA LANE	3B	TOPP ORANGE LLC	32.00	25.41	20.01%	77.40	60.98%	Central
Lopatcong	86	67	BELVIDERE ROAD	3B	FALCONE,CLIFFORD F&E	107.23	106.85	99.64%	97.19	90.63%	
Lopatcong	95	30	UNIONTOWN ROAD	3B	WILKINSON, RIAN P & SUSAN CLINE	110.77	101.52	91.64%	78.16	70.56%	
Lopatcong	99	3.01	ROUTE 57	3B	DESHLER, DAVID W, DAVID JR & CANDAC	46.12	45.30	98.23%	44.40	96.27%	
Lopatcong	100	2.01	US HIGHWAY ROUTE 22	3B	CURTIS, JOHN & CYNTHIA	45.65	40.61	88.96%	44.56	97.61%	
Lopatcong	100	7	39 - 41 STRYKERS ROAD	3B	SANTINI, ROBERT A & SHARON	51.75	51.09	98.73%	40.62	78.49%	
Lopatcong	101	1	2900/1098 US HWY RT 22	3B	INGERSOLL RAND COMPANY	86.83	85.91	98.95%	74.06	85.29%	
Lopatcong	102	9	470 PLANE	3B	LOCK STREET ASSOCIATES, LLC	57.89	39.44	68.13%	52.22	90.20%	
Mansfield	101.01	4	671 MOUNT BETHEL ROAD	3B	CORRADO, JOSEPH & MARIE	66.43	82.34	67.78%	81.83	67.36%	Central
Mansfield	101.01	5	625 MOUNT BETHEL ROAD	3B	CORRADO, JOSEPH F & MARIE C	55.05	82.34	67.78%	81.83	67.36%	Central
Mansfield	101.01	7	MOUNT BETHEL ROAD	3B	UYGER, IHSAN	46.00	39.73	26.25%	73.08	48.30%	Central
Mansfield	101.01	8	MOUNT BETHEL ROAD	3B	UYGER, IHSAN & PATRICIA	43.24	39.73	26.25%	73.08	48.30%	Central
Mansfield	101.01	11.01	JANE CHAPEL ROAD	3B	UYGER IHSAN & PATRICIA	52.45	39.73	26.25%	73.08	48.30%	Central
Mansfield	101.02	43	TOWNSBURY ROAD	3B	KLIMAS, GABRIELLA	100.80	46.28	23.49%	61.06	30.98%	Central
Mansfield	101.02	44	TOWNSBURY ROAD	3B	KLIMAS, GABRIELLA	47.26	46.28	23.49%	61.06	30.98%	Central
Mansfield	101.02	45	MOUNT BETHEL ROAD	3B	UYGER IHSAN & PATRICIA	9.63	39.73	26.25%	73.08	48.30%	Central
Mansfield	102	2.01	693 TOWNSBURY ROAD	3B	BARTON, JOHN M.	23.86	82.63	56.26%	131.92	89.83%	Central
Mansfield	102	3	TOWNSBURY ROAD	3B	BARTON, JOHN M.	41.99	82.63	56.26%	131.92	89.83%	Central
Mansfield	102	4.01	TOWNSBURY ROAD	3B	BARTON, JOHN & CHERYL	19.48	82.63	56.26%	131.92	89.83%	Central
Mansfield	501	3	JACKSON VALLEY ROAD	3B	TALC, LLC C/O DR. SHEN	220.83	116.06	52.56%	149.26	67.59%	Central
Mansfield	501	13.02	527 JACKSON VALLEY ROAD	3B	HANNEMA, AUKE H & WILLEM	160.04	143.08	87.48%	132.30	80.88%	Central
Mansfield	502	1	527 JACKSON VALLEY ROAD	3B	HANNEMA, AUKE H & WILLEM	3.53	143.08	87.48%	132.30	80.88%	Central
Mansfield	503	2	TUNNEL HILL ROAD	3B	A APPLEMAN HOLDINGS, LLC	121.77	87.32	63.90%	99.58	72.88%	Central
Mansfield	504	1	ROUTE 31	3B	A APPLEMAN HOLDINGS, LLC	14.88	87.32	63.90%	99.58	72.88%	Central
Mansfield	601.02	43	421 HOFFMAN ROAD	3B	HANNEMA, AUKE H	56.31	34.22	60.76%	33.61	59.69%	Central
Mansfield	601.02	44	HILLTOP ROAD	3B	DYKSTRA PROPERTIES	13.00	99.96	33.03%	146.48	48.41%	Central
Mansfield	601.03	48	191 HOFFMAN ROAD	3B	DYKSTRA PROPERTIES	289.59	99.96	33.03%	146.48	48.41%	Central
Mansfield	801	11.01	112 CHERRY TREE BEND RD	3B	PERTICARI, CHRISTOPHER A & FAY	14.52	41.79	62.37%	42.25	63.06%	Central
Mansfield	1105.10	1	AIRPORT ROAD	3B	DONALDSON FAMILY L P	7.30	284.79	94.86%	298.69	99.49%	Central
Mansfield	1105.10	2.01	ROCKPORT ROAD	3B	DONALDSON FAMILY, LP	14.15	284.79	94.86%	298.69	99.49%	Central
Mansfield	1105.10	5	ALLEN ROAD	3B	DONALDSON, GARY L	59.41	284.79	94.86%	298.69	99.49%	Central
Mansfield	1105.10	6	ROCKPORT ROAD	3B	DONALDSON FAM LIMITED PARTNERSHIP	80.43	284.79	94.86%	298.69	99.49%	Central
Mansfield	1105.10	7	ROCKPORT ROAD	3B	DONALDSON FAMILY L P	34.76	284.79	94.86%	298.69	99.49%	Central
Mansfield	1105.10	8	AIRPORT ROAD	3B	DONALDSON FAMILY L P	102.17	284.79	94.86%	298.69	99.49%	Central
Mansfield	1105.10	8	358 ALLEN ROAD	3A	DONALDSON FAMILY LP	2.00	284.79	94.86%	298.69	99.49%	Central
Mansfield	1201	19.01	155 AIRPORT ROAD	3B	SCHWANDA DONALD	29.71	33.08	45.92%	56.03	77.78%	Central
Mansfield	1201	19.02	165 AIRPORT ROAD	3B	SCHWANDA, DONALD	42.32	33.08	45.92%	56.03	77.78%	Central
Mansfield	1203	2.02	ROUTE 57	3B	HAZEN, PHILIP	30.35	75.45	89.00%	48.05	56.68%	Central
Mansfield	1203	4.01	25 HAZEN ROAD	3B	HAZEN, PHILIP JR	17.45	75.45	89.00%	48.05	56.68%	Central
Mansfield	1204	16	167 HAZEN ROAD	3B	MCGARRY, WILLIAM & CAROLYN	77.95	25.90	30.41%	45.59	53.52%	Central

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Municipality	Block	Lot	Property Location	Class	Owner's Name	Acres (GIS)	Tillable Land		Agricultural Soil		Project Area
							Acres	Percent	Acres	Percent	
Mansfield	1204	16.01	165 HAZEN ROAD	3B	MCGARRY, WILLIAM & CAROLYN	7.24	25.90	30.41%	45.59	53.52%	Central
Mansfield	1204	18	WATTERS ROAD	3B	HAZEN, PHILIP JR.	28.24	75.45	89.00%	48.05	56.68%	Central
Mansfield	1204	24	BLAU ROAD	3B	FREEDOM GROUP LP	44.26	42.44	95.91%	44.26	100.00%	Central
Mansfield	1206	3	22 HAZEN ROAD	3B	HAZEN, PHILIP J & BETTY	8.73	75.45	89.00%	48.05	56.68%	Central
Mansfield	1301	5	WATTERS ROAD	3B	BEAR CREEK PROPERTIES, LLC	65.72	43.58	66.31%	51.49	78.36%	Central
Mansfield	1302.01	3	1463 ROUTE 57	3B	RIEDEL, L EST OF D RIEDEL	95.01	75.02	78.96%	41.92	44.12%	Central
Mansfield	1306	1.01	WATTERS ROAD	3B	TIGAR DEBORAH	45.27	27.29	48.02%	25.27	44.46%	Central
Mansfield	1306	1.03	300 WATTERS ROAD	3B	TIGAR, DEBORAH LEE	11.57	27.29	48.02%	25.27	44.46%	Central
Mansfield	1307	11	WASHBURN ROAD	3B	TERHUNE, ELMER & HELEN HOPPER	67.69	67.67	99.97%	66.22	97.84%	Central
Mansfield	1402	11	CHERRY TREE BEND ROAD	3B	PERTICARI, CHRISTOPHER A & FAY	52.47	41.79	62.37%	42.25	63.06%	Central
Mansfield	1402	24	1081 ROUTE 57	3B	WATTERS, ERVIN & JOAN	59.25	224.74	77.06%	175.11	60.05%	Central
Mansfield	1403	3	WATTERS ROAD	3B	WATTERS, ERVIN E & JOAN H	38.43	224.74	77.06%	175.11	60.05%	Central
Mansfield	1404	8	WATTERS ROAD	3B	WATTERS, ERVIN E & JOAN H	155.85	224.74	77.06%	175.11	60.05%	Central
Mansfield	1404	9.01	10 WATTERS RD	3B	WATTERS, ERVIN & JOAN	38.10	224.74	77.06%	175.11	60.05%	Central
Mansfield	1502	2	ROUTE 57	3B	DIOCESE OF METUCHEN	84.54	27.02	31.96%	84.54	100.00%	Central
Mansfield	1506	1	39 RIVER ROAD	3B	MANNON WILLIAM J & WILLIAMS FRANCES	117.14	103.99	87.74%	108.39	91.46%	Central
Mansfield	1509	7.01	ROUTE 57	3B	HENGST, RAYMOND & PEGGY MARGARET	28.03	156.46	98.80%	158.37	100.00%	Central
Mansfield	1509	8	ROUTE 57	3B	HENGST, RAYMOND & PEGGY MARGARET	78.01	156.46	98.80%	158.37	100.00%	Central
Oxford	2	16	BRASS CASTLE ROAD,	3B	BARTHA, THOMAS	12.73	29.19	42.36%	53.07	77.01%	West
Oxford	2	16.01	BRASS CASTLE ROAD,	3B	BARTHA, THOMAS R	3.55	29.19	42.36%	53.07	77.01%	West
Oxford	26	84	429 ROUTE 31	3B	YEAGER, FAY	73.07	47.99	65.68%	43.31	59.28%	
Oxford	26	87	101 QUARRY ROAD	3B	POPINKO FAMILY LIMITED PARTNERSHIP	117.27	46.34	39.52%	59.05	50.36%	
Pohatcong	78	1	888 NEW BRUNSWICK AVENUE	3B	WARREN BUSINESS PARK C/O KAISERMAN	103.05	89.74	87.08%	103.05	100.00%	South
Pohatcong	78	5.02	STILL VALLEY ROAD	3B	COLE, RUSSELL E & MARGARET	68.62	68.03	99.14%	68.62	100.00%	South
Pohatcong	93	4	LEE AVE.	3B	EAI INVESTMENTS, LLC	48.27	45.10	93.42%	47.35	98.09%	
Pohatcong	93	5	HIGH ST.	3B	EAI INVESTMENTS, LLC	121.12	117.74	97.21%	119.22	98.43%	
Pohatcong	98	23	71 CREEK ROAD	3B	HOMA FARMS	216.64	162.73	59.67%	223.36	81.90%	South
Pohatcong	99	4	SPRINGTOWN	3B	SANTINI, MATTHEW, ROBERT & SHARON	86.64	66.88	77.19%	54.16	62.50%	South
Pohatcong	101	13	91 MUNICIPAL DRIVE	3B	SANTINI, ROBERT A & SHARON A	76.20	73.56	67.76%	93.18	85.82%	South
Pohatcong	101	15	EDGE ROAD	3B	SANTINI, ROBERT A & SHARON A	32.37	73.56	67.76%	93.18	85.82%	South
Pohatcong	103	2	599 ROUTE 639	3B	SLACK, JOHN H & MARGARET M	10.10	38.37	89.48%	41.49	96.75%	South
Pohatcong	103	5	599 ROUTE 639	3B	SLACK, JOHN H & MARGARET M	6.12	38.37	89.48%	41.49	96.75%	South
Pohatcong	104	4	W.GLEN-BLOOMSBURY RD.	3B	SLACK, JOHN H & MARGARET M	15.06	38.37	89.48%	41.49	96.75%	South
Pohatcong	107	2	230 STILL VALLEY ROAD	3B	MOYER, MRS. JOS., SR. (ESTATE)	130.98	84.87	64.80%	122.66	93.65%	South
Pohatcong	109	55	387 ROUTE 627	3B	CRONCE, CLIFFORD ESTATE OF	92.07	60.44	65.65%	48.63	52.82%	South
Pohatcong	110	21	237 ROUTE 627	3B	SCHWARTZ, ELEANOR A.	22.50	55.19	54.24%	89.93	88.37%	South
Pohatcong	110	43	MOUNTAIN ROAD	3B	SCHWARTZ, ELEANOR A.	24.94	55.19	54.24%	89.93	88.37%	South
Pohatcong	110	45	MOUNTAIN ROAD	3B	SCHWARTZ, ROBERT J	54.06	55.19	54.24%	89.93	88.37%	South
Pohatcong	111	3	CREEK RD	3B	HOMA FARMS	53.84	162.73	59.67%	223.36	81.90%	South
Pohatcong	111	5.02	CREEK RD	3B	HOMA FARMS	2.24	162.73	59.67%	223.36	81.90%	South
Pohatcong	111	17	69 PINCHERS POINT ROAD	3B	A&E REALTY ASSOCIATES, LLC	67.05	25.92	38.66%	56.27	83.93%	South
Pohatcong	113	8	MOUNTAIN ROAD	3B	SCHWARTZ, ELEANOR A.	0.26	55.19	54.24%	89.93	88.37%	South
Washington Twp	4	1	282 BRASS CASTLE ROAD	3B	BARTHA, THOMAS R JR	18.43	29.19	42.36%	53.07	77.01%	Southeast

Appendix C. Target Farms: Competitive Grant Program

Municipality	Block	Lot	Property Location	Class	Owner's Name	Acres (GIS)	Tillable Land		Agricultural Soil		Project Area
							Acres	Percent	Acres	Percent	
Washington Twp	14	35	10 COLEMAN HILL ROAD	3B	CROUSE, CARL JR & JENNIE M	7.13	100.88	84.92%	103.07	86.76%	Southeast
Washington Twp	15	2	96 LITTLE PHIL ROAD	3B	CROUSE, CARL JR & JENNIE M	9.10	100.88	84.92%	103.07	86.76%	Southeast
Washington Twp	16	4	95 LITTLE PHIL ROAD	3B	CROUSE, CARL JR & JENNIE M	102.58	100.88	84.92%	103.07	86.76%	Southeast
Washington Twp	38	5	349 ROUTE 31 NORTH	3B	WEINGARTEN DANIEL / SPERO JUDITH	185.84	120.41	40.66%	197.50	66.69%	Southeast
Washington Twp	39	1	131 JACKSON VALLEY ROAD	3B	WEINGARTEN DANIEL / SPERO JUDITH	110.29	120.41	40.66%	197.50	66.69%	Southeast
Washington Twp	40	33.01	152 JACKSON VALLEY ROAD	3B	KENDRA, MARK	39.16	23.49	53.68%	36.75	84.00%	Southeast
Washington Twp	40	109	148 JACKSON VALLEY ROAD	3B	KENDRA, MOIRA	4.59	23.49	53.68%	36.75	84.00%	Southeast
Washington Twp	44	7	1059 BUTLERS PARK ROAD	3B	HENGST, RAYMOND & PEGGY	52.33	156.46	98.80%	158.37	100.00%	Southeast
Washington Twp	45	20	1050 BUTLERS PARK ROAD	3B	ROSEBERRY, WILLIAM M & RICHARD W	97.31	151.77	97.70%	155.34	100.00%	Southeast
Washington Twp	45	20.02	1062 BUTLERS PARK ROAD	3B	ROSEBERRY, EDITH M	6.56	151.77	97.70%	155.34	100.00%	Southeast
Washington Twp	47	7	30 MC CULLOUGH ROAD	3B	LORADA PARTNERS, LTD	131.30	118.02	89.88%	130.07	99.06%	Southeast
Washington Twp	48	69	30 CHANGEWATER ROAD	3B	ANEMA, BRENDA L	66.64	40.42	60.66%	59.97	89.99%	Southeast
Washington Twp	48	75	161 E ASBURY-ANDERSON RD	3B	VLIET, CARL R	120.34	104.53	86.86%	97.84	81.31%	Southeast
Washington Twp	66	1	45 CEMETERY HILL ROAD	3B	ANEMA, RALPH A & DIANNA M	128.90	136.49	80.45%	156.86	92.45%	Southeast
Washington Twp	66	1.05	133 CEMETERY HILL ROAD	3B	ANEMA, CAROL A	6.44	136.49	80.45%	156.86	92.45%	Southeast
Washington Twp	66	1.06	31 RYMON ROAD	3B	ANEMA, RALPH A & DIANA	23.88	136.49	80.45%	156.86	92.45%	Southeast
Washington Twp	66	1.09	121 CEMETERY HILL ROAD	3B	ANEMA, CAROL A	4.51	136.49	80.45%	156.86	92.45%	Southeast
Washington Twp	66	1.10	83 RYMON ROAD	3B	ANEMA, RANDY H	5.94	136.49	80.45%	156.86	92.45%	Southeast
Washington Twp	71	5	120 RYMON ROAD	3B	RYMON, HARRY / REVOCABLE TRUST	99.16	103.40	96.11%	107.59	100.00%	Southeast
Washington Twp	71	6	50 ASBURY-ANDERSON RD	3B	RUSH, KEVIN	69.20	67.82	98.00%	69.20	100.00%	Southeast
Washington Twp	74	3	11 SHURTS ROAD	3B	TWIN M & G REALTY DEVELOPMENT, LLC	61.96	39.30	63.42%	61.96	100.00%	Southeast
Washington Twp	75	2.01	169 BRYANS ROAD	3B	MCGRATH, NANCY	47.22	54.91	93.36%	58.82	100.00%	Southeast
Washington Twp	75	2.04	177 BRYANS ROAD	3B	MCGRATH, NANCY	7.10	54.91	93.36%	58.82	100.00%	Southeast
Washington Twp	75	2.05	173 BRYANS ROAD	3B	MCGRATH, NANCY	4.50	54.91	93.36%	58.82	100.00%	Southeast
Washington Twp	76	1.03	409 ROUTE 31 SOUTH	3B	RYMON, WILLIAM C & KAREN J	8.43	103.40	96.11%	107.59	100.00%	Southeast
Washington Twp	79	1	10 E ASBURY-ANDERSON RD	3B	ANEMA, CAROL A	58.88	62.91	88.43%	70.41	98.98%	Southeast
Washington Twp	79	1.01	30 E ASBURY-ANDERSON RD	3B	ANEMA, CAROL A	5.43	62.91	88.43%	70.41	98.98%	Southeast
Washington Twp	79	1.02	236 RYMON ROAD	3B	ANEMA, CAROL A	6.83	62.91	88.43%	70.41	98.98%	Southeast
Washington Twp	82	15	196A CHANGEWATER ROAD	3B	ANEMA, LINDA E	43.33	38.78	89.50%	43.33	100.00%	Southeast
Washington Twp	82	17	146 E ASBURY-ANDERSON RD	3B	SPANN MUSCONETCONG, LLC	142.97	118.77	83.07%	133.27	93.21%	Southeast
Washington Twp	83	2	260 E ASBURY-ANDERSON RD	3B	PIAZZA, SAMUEL A & MARSHA A	71.43	113.80	87.36%	123.74	94.99%	Southeast
Washington Twp	83	4	240 E ASBURY-ANDERSON RD	3B	PIAZZA, FRANK J & JOYCE M	36.79	113.80	87.36%	123.74	94.99%	Southeast
Washington Twp	83	4.01	234 E ASBURY-ANDERSON RD	3B	PIAZZA, FRANK J & JOYCE M	1.15	113.80	87.36%	123.74	94.99%	Southeast
Washington Twp	83	4.02	236 E ASBURY-ANDERSON RD	3B	PIAZZA, FRANK J & JOYCE M	0.96	113.80	87.36%	123.74	94.99%	Southeast
Washington Twp	83	16	169 CHANGEWATER ROAD	3B	PIAZZA, FRANK J & JOYCE M	19.14	113.80	87.36%	123.74	94.99%	Southeast
Washington Twp	83	17	171 CHANGEWATER ROAD	3B	PIAZZA, FRANK J. & JOYCE M.	0.79	113.80	87.36%	123.74	94.99%	Southeast
Washington Twp	84	1	1132 BUTLERS PARK ROAD	3B	ROSEBERRY, EDITH M	41.32	151.77	97.70%	155.34	100.00%	Southeast
Washington Twp	84	1.01	1146 BUTLERS PARK ROAD	3B	ROSEBERRY, EDITH M	4.38	151.77	97.70%	155.34	100.00%	Southeast
Washington Twp	84	1.02	1142 BUTLERS PARK ROAD	3B	ROSEBERRY, EDITH M	2.61	151.77	97.70%	155.34	100.00%	Southeast
Washington Twp	84.01	1	332 ASBURY-ANDERSON RD	3B	MANNON, WILLIAM & FRANCES WILLIAMS	1.37	103.99	87.74%	108.39	91.46%	Southeast
Washington Twp	85	1	1117 BUTLERS PARK ROAD	3B	ROSEBERRY, EDITH	0.24	151.77	97.70%	155.34	100.00%	Southeast
Washington Twp	85	9	1133 BUTLERS PARK ROAD	3B	ROSEBERRY, EDITH M	2.80	151.77	97.70%	155.34	100.00%	Southeast
Washington Twp	85	10.01	BUTLERS PARK ROAD	3B	ROSEBERRY, EDITH M	0.11	151.77	97.70%	155.34	100.00%	Southeast

Appendix C. Target Farms: Competitive Grant Program

Municipality	Block	Lot	Property Location	Class	Owner's Name	Acres (GIS)	Tillable Land		Agricultural Soil		Project Area
							Acres	Percent	Acres	Percent	
White	7	2	CR 519	3B	CLINE, LORRAINE	22.13	37.56	86.10%	42.44	97.26%	West
White	7	3	CR 519	3B	REALTY CO OF PENN%REAL ESTATE TW2	94.92	449.78	86.39%	439.97	84.51%	West
White	7	4	CR 519	3B	REALTY CO OF PENN%REAL ESTATE TW2	92.57	449.78	86.39%	439.97	84.51%	West
White	7	5	FOUL RIFT RD	3B	REALTY CO OF PENN%REAL ESTATE TW2	95.47	449.78	86.39%	439.97	84.51%	West
White	7	11	CR 519	3B	REALTY CO OF PENN%REAL ESTATE TW2	131.94	449.78	86.39%	439.97	84.51%	West
White	7	14	123 CR 519	3B	ROMANI MARGARET EST C/O HAYES, S.	70.87	70.87	100.00%	70.78	99.87%	West
White	7	16	39 FOUL RIFT RD	3B	REALTY CO OF PENN%REAL ESTATE TW2	96.12	449.78	86.39%	439.97	84.51%	West
White	9	5	CR 519	3B	CLINE, LORRAINE	2.52	37.56	86.10%	42.44	97.26%	West
White	13	11	87 SUMMERFIELD RD	3B	MCEVOY, JANET & GERARD V	48.50	73.50	64.54%	94.01	82.55%	West
White	13	11.01	131-145 SUMMERFIELD RD	3B	MCEVOY JANET	20.89	73.50	64.54%	94.01	82.55%	West
White	13	17.01	BUCKHORN DR	3B	MCEVOY, GERARD V & JANET L	23.79	73.50	64.54%	94.01	82.55%	West
White	15	1	512 BRASS CASTLE RD	3B	BARTHA, THOMAS	34.21	29.19	42.36%	53.07	77.01%	West
White	16	42	HAZEN-OXFORD RD	3B	RACE, SAMUEL R & JEAN A	85.10	70.52	71.80%	57.88	58.94%	West
White	18	7	196 CR 519	3B	TISHUK, WILLIAM % LINDA STETTLER	133.77	70.75	52.89%	83.49	62.42%	West
White	18	8	CR 519	3B	WYCKOFF, JOHN CARL ETALS%M HAYCOCK	111.03	199.37	71.04%	191.99	68.41%	West
White	18	9	248 CR 519	3B	WYCKOFF,JOHN JR & SUSAN,MORRIS,JUDY	122.80	199.37	71.04%	191.99	68.41%	West
White	18	14	284 CR 519	3B	MACKEY DEVLEN R & MACKEY HOLLY	48.11	40.97	44.73%	35.95	39.25%	West
White	18	15	296 CR 519	3B	MACKEY DEVLEN R & MACKEY HOLLY	43.48	40.97	44.73%	35.95	39.25%	West
White	18	16	298 CR 519	3B	HENSLER FARMS, LLC	39.38	87.99	84.72%	82.99	79.90%	West
White	18	18	350 CR 519	3B	BILYK FAMILY LIMITED PARTNERSHIP	33.57	106.46	80.55%	97.87	74.05%	West
White	18	21	366 CR 519	3B	BILYK FAMILY LIMITED PARTNERSHIP	0.34	106.46	80.55%	97.87	74.05%	West
White	18	58	SUMMERFIELD RD	3B	MCEVOY, JANET & GERARD V	19.70	73.50	64.54%	94.01	82.55%	West
White	18	58	110 SUMMERFIELD RD	3A	MCEVOY, JANET & GERARD V	1.01	73.50	64.54%	94.01	82.55%	West
White	18	60	SUMMERFIELD RD	3B	GLASS ANNA % DIANE GLASS	138.45	27.16	19.62%	62.61	45.23%	West
White	21	3	135 CR 620	3B	VAN HORN, LISA	27.99	151.10	98.19%	148.13	96.26%	West
White	21	4	FOUL RIFT RD	3B	VAN HORN, LISA	92.55	151.10	98.19%	148.13	96.26%	West
White	21	6	FOUL RIFT RD	3B	HUMMER, RICHARD JR	123.26	116.56	91.38%	118.38	92.81%	West
White	21	7	FOUL RIFT RD	3B	SMITH EARL RICHARD & DONALD W	85.19	162.62	91.81%	142.03	80.18%	West
White	21	7.02	FOUL RIFT ROAD	3B	SMITH JAMES & KAREN	6.47	162.62	91.81%	142.03	80.18%	West
White	21	10	FOUL RIFT RD	3B	REALTY CO OF PENN%REAL ESTATE TW2	9.60	449.78	86.39%	439.97	84.51%	West
White	21	12	FOUL RIFT RD	3B	SMITH, E R & D C/O SMITH J	85.47	162.62	91.81%	142.03	80.18%	West
White	23	7	FOUL RIFT RD	3B	VAN HORN, LISA	2.58	151.10	98.19%	148.13	96.26%	West
White	23	8	157 FOUL RIFT RD	3B	HUMMER, RICHARD JR	0.86	116.56	91.38%	118.38	92.81%	West
White	24	7	159 FOUL RIFT RD	3B	HUMMER, RICHARD JR	3.43	116.56	91.38%	118.38	92.81%	West
White	30	1	2 OLD PHILLIPSBURG RD	3B	VAN HORN, LISA	30.77	151.10	98.19%	148.13	96.26%	West
White	30	7	CR 519	3B	WYCKOFF, JOHN W JR & JUDY MORRIS	46.81	199.37	71.04%	191.99	68.41%	West
White	30	8	257 CR 519	3B	WHITETOWN REALTY	105.54	93.98	88.05%	98.63	92.40%	West
White	30	11	CR 519	3B	WHITETOWN REALTY, LLC	1.20	93.98	88.05%	98.63	92.40%	West
White	31	1	949 BRASS CASTLE RD	3B	HENSLER FARMS, LLC	3.29	87.99	84.72%	82.99	79.90%	West
White	31	14	CR 519	3B	BILYK FAMILY LIMITED PARTNERSHIP	49.22	106.46	80.55%	97.87	74.05%	West
White	31	14.01	305 CR 519	3B	HENSLER FARMS, LLC	59.80	87.99	84.72%	82.99	79.90%	West
White	31	15	357 CR 519	3B	BILYK FAMILY LIMITED PARTNERSHIP	8.15	106.46	80.55%	97.87	74.05%	West
White	32	8	434 CR 519	3B	DEBOER, STEVEN J & ROBERT A	54.55	44.35	81.31%	29.05	53.26%	West

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Municipality	Block	Lot	Property Location	Class	Owner's Name	Acres (GIS)	Tillable Land		Agricultural Soil		Project Area
							Acres	Percent	Acres	Percent	
White	32	9	466 CR 519	3B	UNANGST, OSCAR & LORRAINE	3.32	193.46	77.97%	167.25	67.41%	West
White	32	10	470 CR 519	3B	UNANGST, OSCAR	87.85	193.46	77.97%	167.25	67.41%	West
White	33	16	HAZEN-OXFORD RD	3B	RACE, SAMUEL R & JEAN A	13.11	70.52	71.80%	57.88	58.94%	West
White	33	20	374 HAZEN-OXFORD RD	3B	ROTHMAN, ARTHUR R & JOAN E	15.12	25.67	44.66%	31.88	55.45%	West
White	33	20.02	HAZEN-OXFORD RD	3B	ROTHMAN, ARTHUR R & JOAN E	42.37	25.67	44.66%	31.88	55.45%	West
White	46	37	140 PEQUEST DR	3B	HOFFMANN-LA ROCHE INC	97.26	54.33	55.87%	40.53	41.67%	West
White	47	1	CR 519 & PEQUEST DR	3B	UNANGST, OSCAR	9.95	193.46	77.97%	167.25	67.41%	West
White	47	3	21 PEQUEST DR	3B	UNANGST, OSCAR & LORRAINE	18.94	193.46	77.97%	167.25	67.41%	West
White	47	5	PEQUEST DR	3B	UNANGST, OSCAR & LORRAINE	87.39	193.46	77.97%	167.25	67.41%	West
White	47	11	OFF HAZEN-BELVIDERE RD	3B	BILYK FAMILY LIMITED PARTNERSHIP	8.92	106.46	80.55%	97.87	74.05%	West
White	47.01	5	BRASS CASTLE RD	3B	UNANGST, OSCAR	15.45	193.46	77.97%	167.25	67.41%	West
White	48	1.01	489 CR 519	3B	UNANGST, OSCAR & LORRAINE S	25.19	193.46	77.97%	167.25	67.41%	West
White	48	13	928 BRASS CASTLE RD	3B	BILYK FAMILY LIMITED PARTNERSHIP	31.97	106.46	80.55%	97.87	74.05%	West
White	49	2	966 BRASS CASTLE RD	3B	HENSLER FARMS, LLC	1.38	87.99	84.72%	82.99	79.90%	West
White	51	5	2 MANUNKA CHUNK RD	3B	ROCHE VITAMINS INC % MICHELLE BEER	42.30	28.93	68.38%	37.77	89.28%	
White	52	10	MANUNKA CHUNK RD	3B	DSM NUTRITIONAL PRODUCTS INC	251.43	27.66	11.00%	68.66	27.31%	
White	59	1	121 HOPE CROSSING RD	3B	THOMPSON, ROBERT & GLORIA	43.68	43.59	99.81%	42.17	96.55%	West
White	59	4	HOPE CROSSING RD	3B	MENEGUS, JOSEPH	17.61	35.68	75.85%	35.09	74.60%	West
White	59	5	HOPE CROSSING RD	3B	MENEGUS, BERTHA LENA	7.80	35.68	75.85%	35.09	74.60%	West
White	60	5	623 CR 519	3B	MENEGUS, RAYMOND N	5.10	35.68	75.85%	35.09	74.60%	West
White	60	6	HOPE CROSSING RD	3B	MENEGUS, WALTER & MARIA	10.20	35.68	75.85%	35.09	74.60%	West
White	60	6.01	108 HOPE CROSSING RD	3B	MENEGUS, JOSEPH	6.32	35.68	75.85%	35.09	74.60%	West
White	62	20	20 SAREPTA RD	3B	SHOEMAKER, HOWARD & MYRNA K	46.21	58.70	45.14%	66.31	51.00%	West
White	62	20.01	HOPE CROSSING RD	3B	SHOEMAKER KEVIN S & BEVERLY L	6.11	58.70	45.14%	66.31	51.00%	West
White	62	24	464 ROUTE 46 & 40 HOPE CR	3A	SHOEMAKER, HOWARD	77.72	58.70	45.14%	66.31	51.00%	West
White	64	8	RUTHERFORD DR	3B	CRAMER, DAVID C & STEVEN L	42.51	36.20	85.15%	37.07	87.21%	West
White	67	17	703 CR 519	3B	MATARAZZO, ROBERT J & LAURA R	52.74	164.44	62.98%	186.77	71.53%	West
White	67	18	783-785 CR 519	3B	MATARAZZO, ROBERT J & LAURA R	70.65	164.44	62.98%	186.77	71.53%	West
White	67	19	CR 519	3B	MATARAZZO, ROBERT J & LAURA R	42.67	164.44	62.98%	186.77	71.53%	West
White	67	21	OFF HOPE-BRIDGEVILLE RD	3B	MATARAZZO, ROBERT & LAURA	0.64	164.44	62.98%	186.77	71.53%	West
White	67	22	24 DOE HOLLOW LA	3B	DEER HOLLOW FARM, % J. FLATH	158.73	67.75	30.68%	73.00	33.06%	West
White	72	6	84 FREE UNION RD	3B	CAMMAROTA,RUDOLPH O EST%M CAMMAROTA	58.09	34.71	59.75%	51.73	89.06%	West

## REFERENCES

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