

COMPREHENSIVE FARMLAND PRESERVATION PLAN UPDATE

HARMONY TOWNSHIP
WARREN COUNTY

OCTOBER 2021



COMPREHENSIVE FARMLAND PRESERVATION PLAN UPDATE

for

Township of Harmony County of Warren

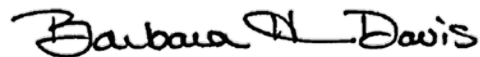
Prepared October 13, 2021, by:

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COMPREHENSIVE FARMLAND PRESERVATION PLAN UPDATE

for

Township of Harmony

County of Warren

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Township Committee

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Chapter 5. Ryker Farm; Buttonwood Game Preserve
Chapter 6. 427 Marble Hill; 98 Buttonwood Lane
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Chapter 8. Postma Farm



Executive Summary

Harmony Township supports a thriving farming industry within the Delaware River Valley, one of three major agricultural belts in Warren County. Harmony has been able to retain its agricultural landscape by pursuing and supporting farmland preservation.

From the *Census of Agriculture* and 2019 Farmland Assessment data:

- Harmony ranks second in Warren County, with **8,824 acres** of farm assessed land devoted to agricultural or horticultural use, including cropland, pasture, woodland, and equine operations.
- 40% of Harmony's farm-assessed acreage is woodland/wetland (3,540 acres).
- **5,275 acres are designated active agriculture (cropland and pasture)**, and 8 acres designated as equine.

As measured by the Natural Resource Conservation Service:

- There are **6,359 acres of prime farmland soils** in Harmony Township, of which 3,970 are in active agricultural use. Accounting for **41% of the total soils** in the Township.
- There are **1,929 acres of soils of statewide importance** in Harmony Township, of which 982 acres are in agricultural use. Accounting for **12.5% of Harmony's soils**.
- **8,288 acres, or 54% of the town is identified as agricultural soil.**

The amount of farm assessed land base in Harmony Township grew from 2010 (7,261 acres) to 2019 (8,824 acres), a 22% increase:

- Pastured cropland decreased 15%
- Harvested cropland increased 1.4%
- Permanent pasture increased 2.5%
- Woodland rose by 79%. The gain in woodland was substantial enough that the result was an overall gain in the farmland assessed agricultural land base in Harmony of 15%.

Harvested cropland, declined 15% between 1983 and 2019, from 5,294 to 4,486 acres:

- Among the dominant crops in this category, hay, corn, and soybeans, the biggest losses occurred in hay, which declined 39% between 1983 and 2017.
- Soybeans are steadily rising, from 378 acres in 1983 to 893 acres in 2017.
- Other crops such as rye and sorghum have virtually disappeared from production.
- Fruit, vegetable, and nursery crops, while representing a small portion of Harmony's cropland, have dropped steadily since 1983, and together represented 70 acres, or 1.6% of total harvested cropland in 2017.

The municipality completed its first *Comprehensive Farmland Preservation Plan* in 2008, allowing it to enroll in the state's Planning Incentive Grant program:

- 98.6% of the farm assessed land in Harmony is included within the Warren County Agricultural Development Area.
- As of September 2021, there are **36 farms (2,793 acres)** preserved in Harmony Township, at an average cost of \$5,248 per acre.
- SADC has spent \$9,274,651, or approximately 63% of the total cost share in Harmony.
- Warren County has expended a total of \$3,988,979, or 27% of the total cost share.
- As of September 2021, there are five farms pending preservation in Harmony Township.

Since the completion of the *2008 Farmland Plan*, **23 farms** have been preserved, protecting **1,391 acres** of agricultural land.

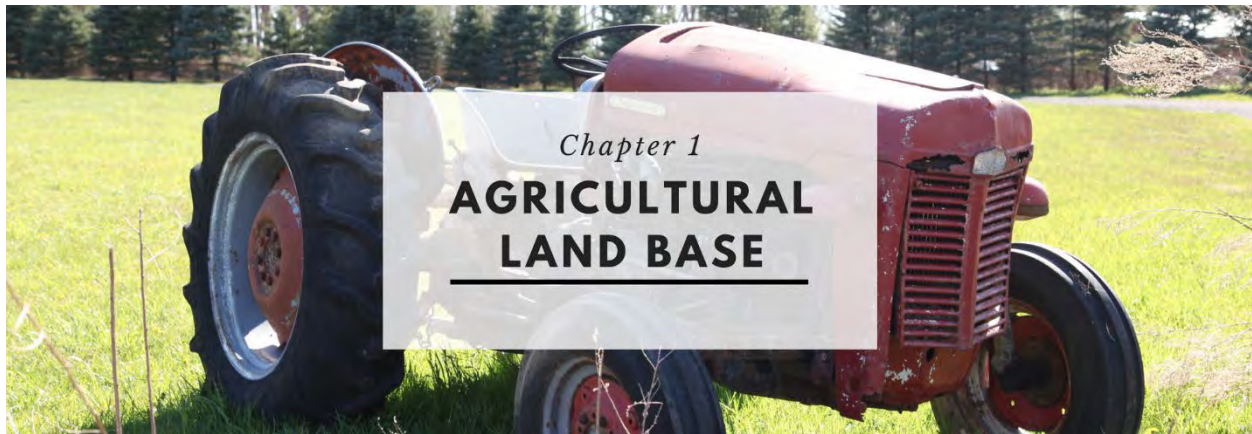
Based upon the State's Minimum Eligibility Criteria for productive soils and tillable land, **2,861 acres** (48 farms) are potentially eligible for farmland preservation in Harmony Township:

In the *2021 Farmland Plan Update*, the Township has identified the following preservation goals:

One-year target:	75 acres, 1 farm
Five-year target:	400 acres, 6 farms
Ten-year target:	750 acres, 10 farms

Public Meetings

Harmony Township held two public meetings on the *Plan Update*. The purpose of these meetings was to provide an opportunity for residents and community stakeholders to listen and provide recommendations regarding farmland preservation. The first public meeting was held on September 1, 2020, as part of the regularly scheduled governing body meeting. The second public meeting was held on October 6, 2021 by the Land Use Board to review the final draft of the *Plan Update* prior to adoption as an Element of the Master Plan. (**Appendix A.**) The Agricultural Advisory Committee was involved in the development of the *Plan Update* and approved the *Update* at the October 6th Land Use Board meeting.



Chapter 1. Agricultural Land Base

Note about the data used in the Comprehensive Farmland Preservation Plan Update:

Chapters 1, 2 and 3 use the Farmland Tax Assessment Dataset, provided by the State Agriculture Development Committee for 2017 and 2019. This is used in conjunction with the Census of Agriculture to provide summary information on the business of agriculture for the municipality and county. Chapters 4 and 5 of the Plan Update rely on the digital mapping acreage, derived from the GIS (Geographic Information Systems) software used to create the maps in the Plan Update. The GIS is the basis by which potentially eligible farms (“targeted farms”) are identified and there may be slight discrepancies in acreage numbers from those provided in the Farmland Tax Assessment Data.

A. Agricultural Landscape

The Township of Harmony ranks second in Warren County, with 8,824 acres of farm assessed land devoted to agricultural or horticultural use, including cropland, pasture, woodland, and equine operations in 2019.¹ (**Map 1**).

Preserved and public lands in Harmony Township are shown on **Map 2**.²

Due to the nature of the topography, 40% of Harmony’s farm-assessed acreage is woodland/wetland (3,540 acres); with 5,275 acres designated active agriculture (cropland and pasture), and 8 acres designated as equine.¹ (**Figure 1**)

¹ The 2019 and 2017 Farmland Assessment data were used throughout the report. When appropriate and available, this data was compared to individual crop report.

² See **Maps** section at the end of the document.

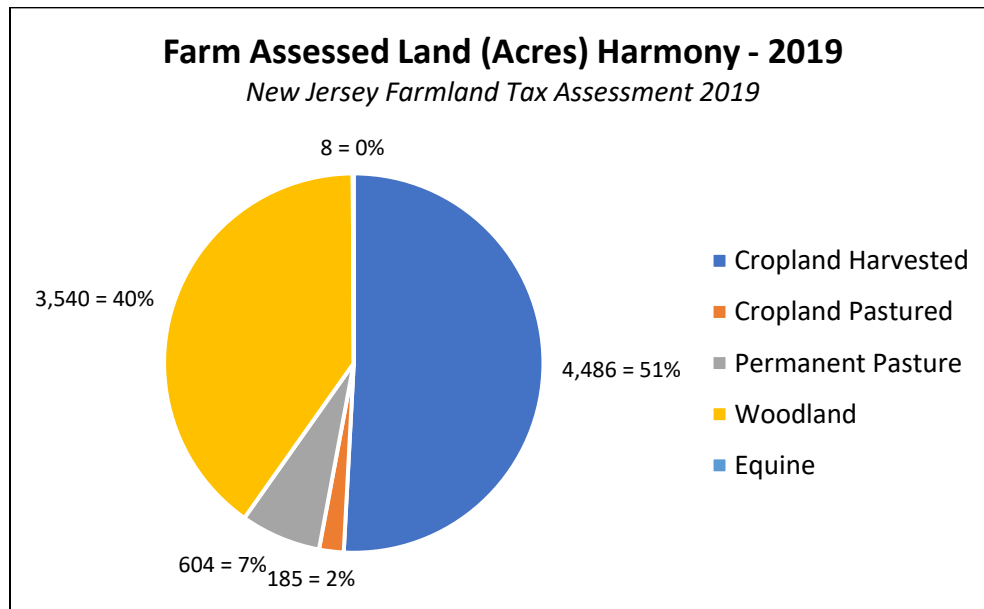


Figure 1. Farm Assessed Land in Harmony (2019 Tax Assessment)

County Route (CR) 519 runs north-to-south and forms the approximate boundary between the two types of landscapes in Harmony. East of CR-519, Scott's Mountain (Highlands Ridgeline) contains steeply sloping, forested land that supports woodland wildlife habitat and the Merrill Creek Reservoir. West of CR-519, the Delaware Valley and its rolling farm fields are underlain by farmland soils and support a broad, unbroken belt of farmland. (**Map 2**)

According to 2015 Land Use/Land Cover (LU/LC) data from the New Jersey Department of Environmental Protection (NJDEP), 36.7% (5,658 acres) of the Township is dedicated to land in agricultural use.

While a large percentage of farm-assessed land is in agriculture, an equivalent amount, 38%, is identified as woodland.

Harmony has a lower percentage of urban land (13.6%) than the county wide figure of 18%. (**Figure 2, Figure 3, and Table 1**)

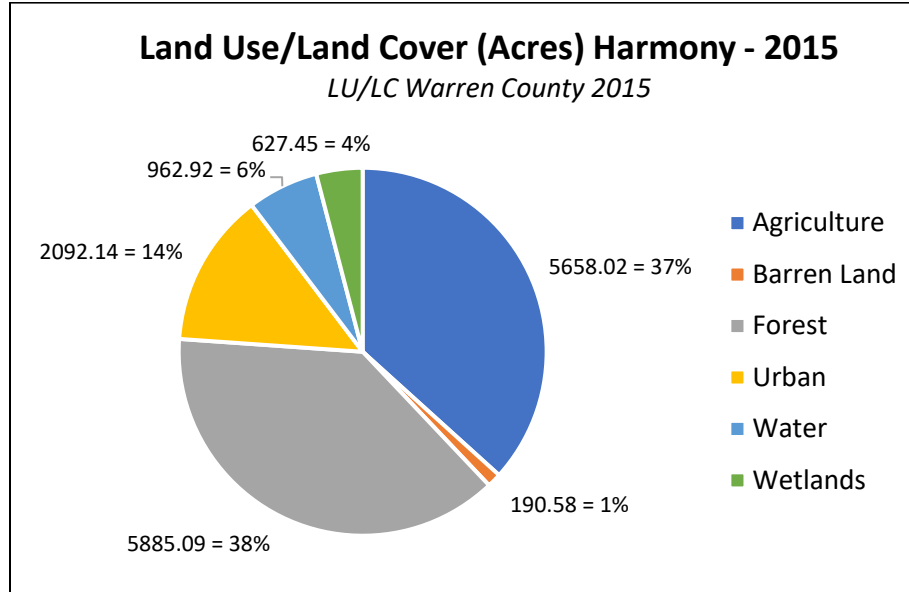
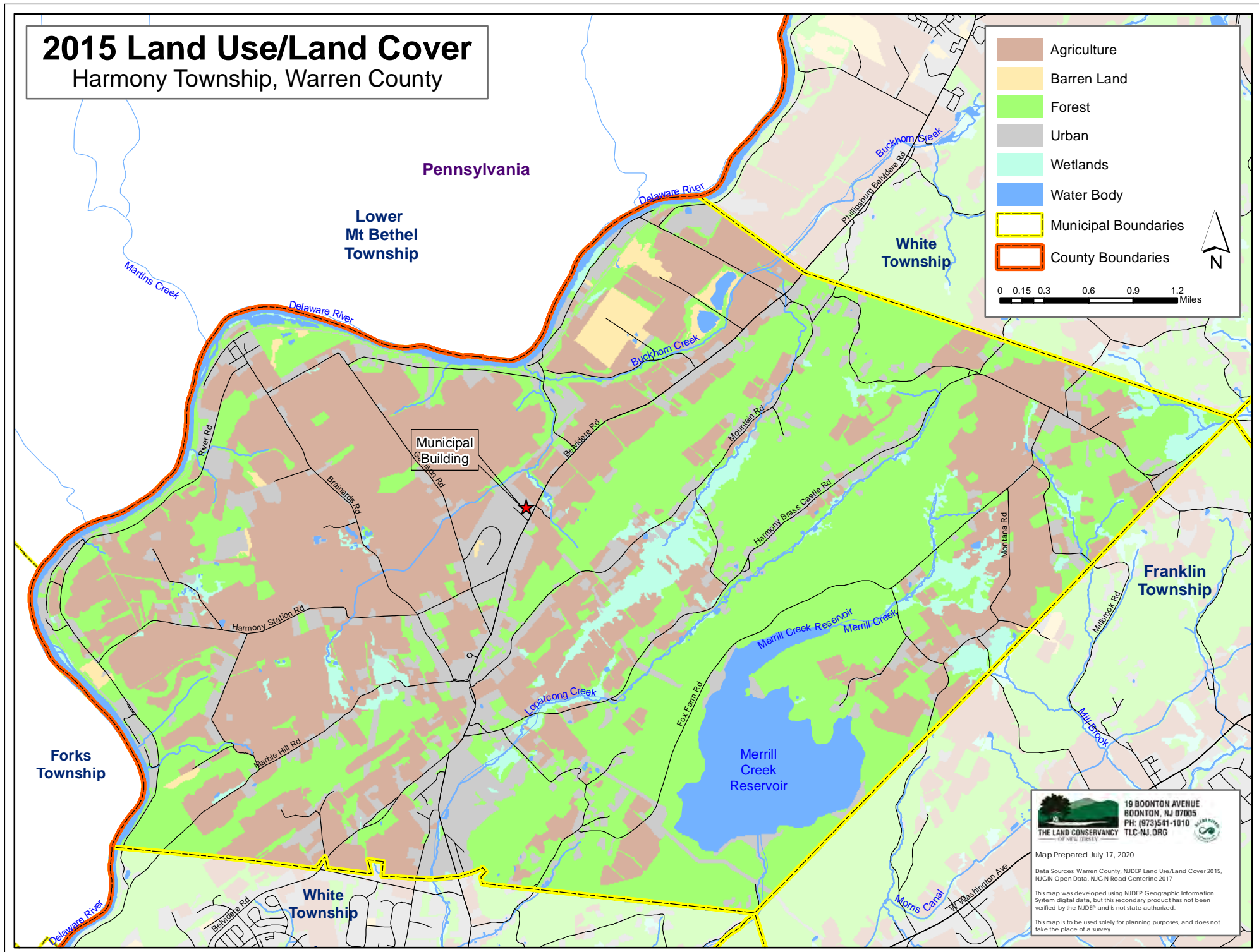


Figure 2. Land Use/Land Cover for Harmony (NJDEP)

Table 1. 2015 Land Use/Land Cover for Harmony and Warren County				
	Harmony		Warren County	
	Acres	Percent	Acres	Percent
Agriculture	5,658.02	36.70%	53,590.13	23.09%
Barren	190.58	1.24%	1,450.88	0.63%
Forest	5,885.09	38.17%	108,685.87	46.83%
Urban	2,029.14	13.57%	41,001.00	17.67%
Water	962.92	6.25%	5,852.96	2.52%
Wetland	627.45	4.07%	21,480.52	9.26%
<i>Source: NJDEP 2015 Land Use/Land Cover</i>				

Figure 3. Land Use/Land Cover in Harmony Township (2015)



B. Soils

Soil types are determined by the parent bedrock material from which they were formed, the drainage characteristics they exhibit, and the steepness of the slopes on which they are found. Soil types are grouped into larger categories called soil series, which are based on the parent materials, chemical compositions, and profiles of their member soil types. Soil series are themselves grouped into broader categories, called soil associations, which were formed through similar processes.² The Natural Resources Conservation Service (NRCS) classifies certain soils as prime, of statewide importance, or unique based on their potential for agricultural productivity.

- *Prime farmland soils*, as defined by the United States Department of Agriculture (USDA), 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 needed to produce sustained high yields of crops when treated and managed according to acceptable farming methods. Prime soils flood infrequently and are not excessively erodible or saturated with water for a long period of time. There are 6,359 acres of prime farmland soils in Harmony Township, of which 3,970 are in active agricultural use. Accounting for 41% of the total soils in the Township, these soils have been classified as belonging to the *Washington* (Waf) and *Annandale* (Ano) series, which can be used for hay, corn, grass (legume), wheat, and pasture.
- *Farmland soils of statewide importance* produce high crop yields when treated and managed according to acceptable farming methods. However, their yields are rarely as high as those of prime soils. There are 1,929 acres of soils of statewide importance in Harmony Township, of which 982 acres are in agricultural use. Accounting for 12.5% of Harmony's soils, most of the soils of statewide importance belong to the *Annandale* (Ano) and *Washington* (Waf) series and are generally adjacent to the prime farmland soils but on land with more slope. These soils can support hay, corn, grains, wheat, and general farming.
- *Unique soils* exhibit specific qualities that may be favorable to the production of specialized crops. There are no identified soils of unique importance in Harmony.

The following major soil series (non-farmland) are also found in Harmony Township:

- Rock outcrop (Parker, Farmington-Galway, Farmington) – 1,840 acres, or 12%
- Parker (Pao) - 736 acres, or 4.8%
- Cokesbury (Coad) complex – 646 acres, or 4.2%

Table 2 identifies the major soils in Harmony Township, grouped by the NRCS classifications for agricultural soils and **Map 3** illustrates their location. Of the total land in Harmony, 8,288 acres, or 54% of the town is identified as agricultural soil by the NRCS.

Table 2. Soil Categories – Harmony Township		
Soil Abbr	Name	Acreage
AnoB	Annandale gravelly loam, 3 to 8 percent slopes	1,883.01
BabA	Bartley loam, 0 to 3 percent slopes	64.86
BabB	Bartley loam, 3 to 8 percent slopes	683.59
DefAr	Delaware fine sandy loam, 0 to 3 percent slopes, rarely flooded	469.90
DefBr	Delaware fine sandy loam, 3 to 8 percent slopes, rarely flooded	714.98
Hd xpAb	Hazen-Paulins Kill complex, 0 to 3 percent slopes, very stony	32.48
Hd xpBb	Hazen-Paulins Kill complex, 3 to 8 percent slopes, very stony	264.96
ScoA	Scio silt loam, 0 to 3 percent slopes	29.87
WafA	Washington silt loam, 0 to 3 percent slopes	85.36
WafB	Washington silt loam, 3 to 8 percent slopes	2,130.45
	Prime Farmland Total	6,359.46
AnoC	Annandale gravelly loam, 8 to 15 percent slopes	954.22
PaoC	Parker gravelly sandy loam, 3 to 15 percent slopes	33.92
PduaCb	Paulins Kill-Hazen complex, 8 to 15 percent slopes, very stony	152.73
WafC	Washington silt loam, 8 to 15 percent slopes	787.85
	Farmland of Statewide Importance Total	1,928.72
AnnBb	Annandale loam, 0 to 8 percent slopes, very stony	9.27
AnnCb	Annandale loam, 8 to 15 percent slopes, very stony	126.17
AnnDb	Annandale loam, 15 to 25 percent slopes, very stony	677.05
CaoBb	Califon loam, somewhat poorly drained, 0 to 8 percent slopes, very stony	457.57
CaoCb	Califon loam, somewhat poorly drained, 8 to 15 percent slopes, very stony	231.91
CoadBb	Cokesbury loam, dark surface, 0 to 8 percent slopes, very stony	646.16
FaxC	Farmington-Rock outcrop complex, 0 to 15 percent slopes	8.02
FrdAb	Fredon-Halsey complex, 0 to 3 percent slopes, very stony	20.52
GkanBc	Gladstone loam, 3 to 8 percent slopes, extremely stony	177.07
GkanCc	Gladstone loam, 8 to 15 percent slopes, extremely stony	628.18
GkanDc	Gladstone loam, 15 to 25 percent slopes, extremely stony	54.43
PaoD	Parker gravelly sandy loam, 15 to 25 percent slopes	736.00
PawE	Parker-Rock outcrop complex, 25 to 45 percent slopes	30.27
PawF	Parker-Rock outcrop complex, 45 to 65 percent slopes	1,405.96
PduoEb	Paulins Kill-Otisville complex, 25 to 60 percent slopes, very stony	31.63
PHG	Pits, sand, and gravel	296.15
RnfC	Rock outcrop-Farmington-Galway complex, 8 to 15 percent slopes	39.98
RnfD	Rock outcrop-Farmington-Galway complex, 15 to 35 percent slopes	355.83
UdaB	Udorthents, 0 to 8 percent slopes, smoothed	275.06
UdauB	Udorthents-Urban land complex, 0 to 8 percent slopes	42.92
WATER	Water	855.81

Table 2. Soil Categories – Harmony Township		
Soil Abbr	Name	Acreage
	Not prime farmland Total	7,105.97
	Grand Total	15,394.15
<i>Source: Natural Resources Conservation Service Soil Data Access website (2020)</i>		

The total land in active agricultural use (5,778 acres) represents 38% of Harmony. (**Table 3**) Active agriculture includes the following LU/LC types: agricultural wetlands, cropland and pastureland, former agricultural wetland, orchards/vineyards/nurseries, and other agriculture.

Table 3. Agricultural Soils and Land in Active Agriculture			
Soil Classification	Total Acres	Ag Acres	Ag % of Total
Prime Farmland Soil	6,359	3,970	62%
Soils with Statewide Importance	1,929	982	51%
Soils with Unique Importance	0	0	0%
Not Prime Farmland	7,106	825	12%
Total:	15,394	5,778	38%
<i>Source: NRCS Soil Data Access 2020; 2015 NJDEP Land Use/Land Cover data</i>			

Over one-fifth of Township land (3,291 acres) is located on slopes steeper than 15%.³ These soils tend to have a high risk of erosion, require management to control runoff and erosion, and have some equipment limitations.

C. Irrigated Land & Water Sources

Groundwater provides the water for irrigation in Harmony. Groundwater is generally preferred to surface waters because it contains less sediment and particulates that may clog irrigation pipes and damage crops. Most of the crops that are grown in the Township, such as hay, corn, and soybeans do not require irrigation or are not cost effective to irrigate, even during drought periods, due to the large amounts of land they occupy. The Township had three acres of vegetables in 2017, with one acre in irrigation. More notably, 105 acres of field crops were irrigated, up from zero in 2010. The 106 acres make up 1.2% of the Township's farmland.⁴ (**Table 4**) This trend is high when compared to those reported in Warren County. (**Table 5**)

Table 4. Irrigated Land (acres) in Harmony				
	1990	2000	2010	2017
Field Crops	0	30	0	105
Fruit	1	0	1	0
Ornamental	0	0	0	0
Vegetables	0	0	0	1
Total	1	30	1	106
<i>Source: Farmland Assessments</i>				

Table 5. Irrigated Land in Harmony and Warren County (acres)				
	1990	2000	2010	2017
Harmony	1	30	0	106
Warren County	376	335	220	618
Percent of County	0.3%	9%	0%	17%
<i>Source: Farmland Assessments</i>				

The *Net Water Availability Map* below shows that the Delaware Valley in Harmony Township runs a water deficiency of nearly one million gallons per day ⁵. (**Figure 4**) This deficit is due to the base flow requirements of the adjoining Delaware River and the industrial businesses and homes that have been developed. Directed flows to the Delaware River from the Merrill Creek Reservoir help maintain adequate base flow during dry periods. As such, local farmers have been able to sustain agricultural operations in the Delaware Valley without harming the Upper Delaware River ecosystem.

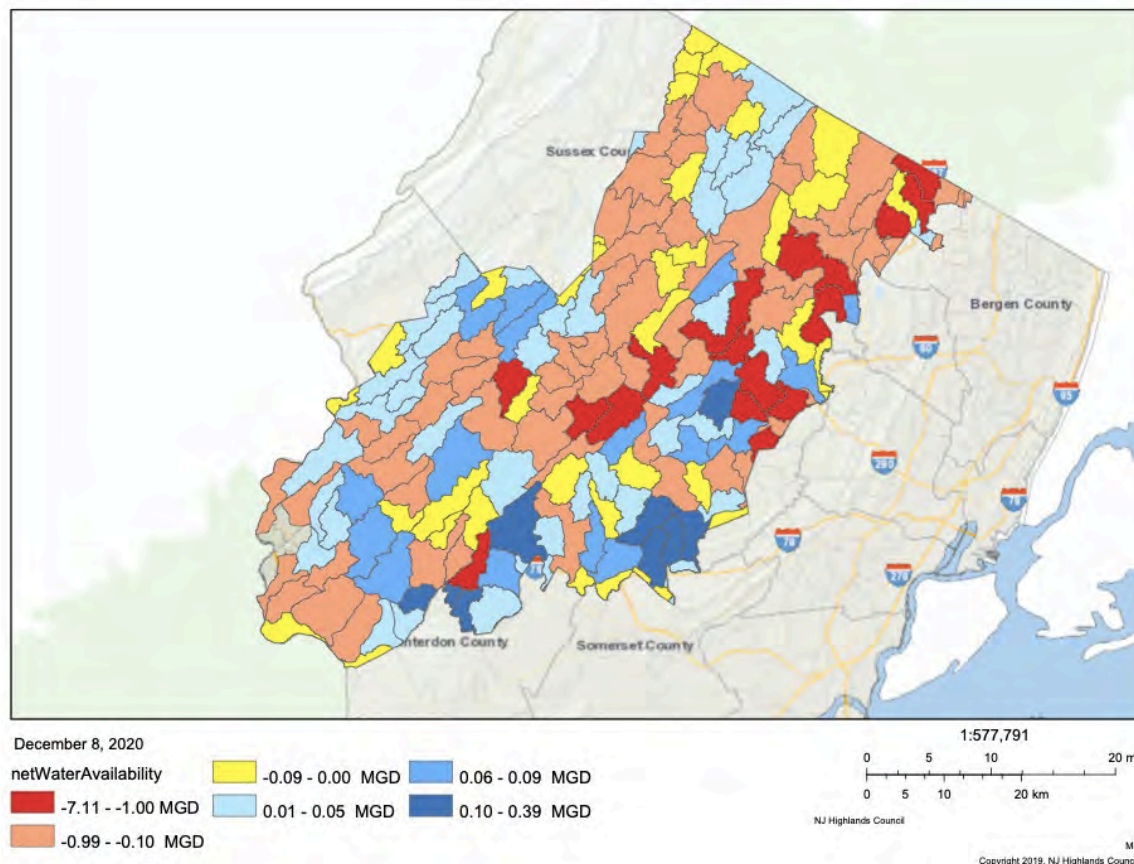


Figure 4. New Jersey Highlands Council Net Water Availability Map

D. Farmland Trends and Statistics

The amount of farm assessed land base in Harmony Township grew from 2010 (7,261 acres) to 2019 (8,824 acres), a 22% increase. **(Figure 5)** Warren County farm assessed land base decreased 1.8% in the same period, from 105,937 to 104,014 acres. The composition of the Township's farm assessed land has also changed during this time:

- Harvested cropland increased 1.4%
- Pastured cropland decreased 15%
- Permanent pasture increased 2.5%
- Woodland rose by 79%

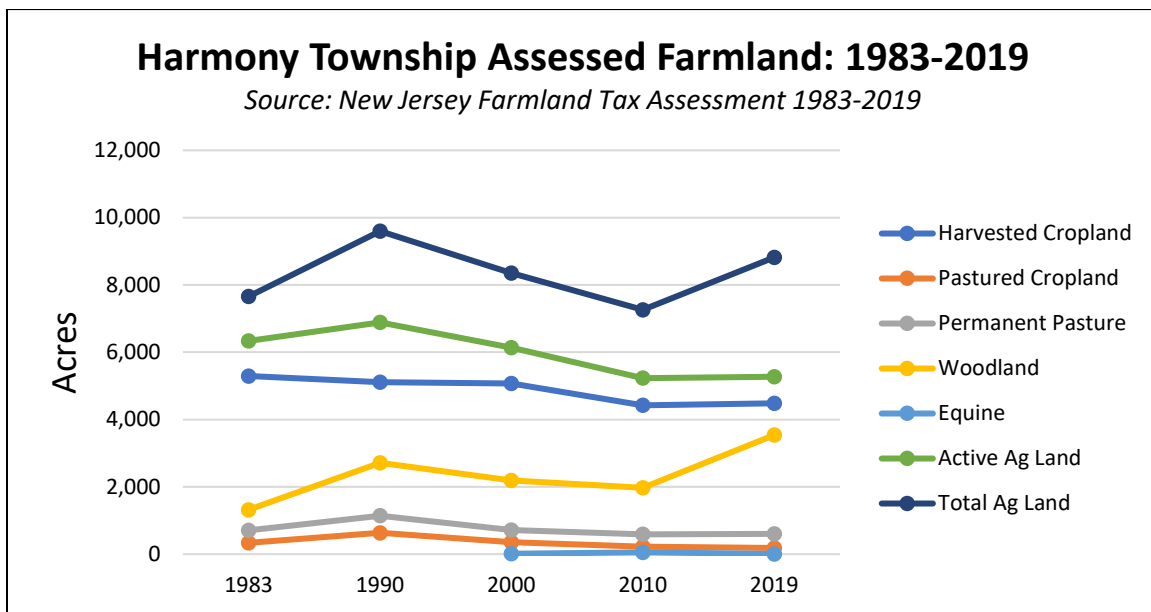


Figure 5. Assessed Farmland in Harmony Township

Harvested cropland, the largest category of active agricultural land in Harmony, declined 15% between 1983 and 2019, from 5,294 to 4,486 acres.³ Among the dominant crops in this category, hay, corn, and soybeans, the biggest losses occurred in hay, which declined 39% between 1983 and 2017 (the latest year for which data on individual crops is available). This can most likely be explained by the loss of dairy farms in Harmony, with dairy cattle showing a significant drop in numbers from 1,748 head in 1983 to 197 head in 2017. Corn production fell 16% in the same period, from 2,533 to 2,121 acres. Soybeans are steadily rising, from 378 acres in 1983 to 893 acres in 2017. Other crops such as rye and sorghum have virtually disappeared from production in Harmony. Fruit, vegetable, and nursery crops, while representing a small portion of Harmony's cropland, have dropped steadily since 1983, and together represented 70 acres, or 1.6% of total harvested cropland in 2017.

³ General farmland assessment categories use the 2019 tax assessment data, while individual crop statistics are based on the most recent 2017 data.

Pastured cropland decreased by 46% and permanent pasture decreased by 15% in the same period. This loss tracks with the decline in dairy cattle operations. Beef cattle numbers have held steady, from 130 head in 1983 to 131 head in 2017. Equine operations surged, with ponies and horses increasing from 24 to 109, a 354% increase. Sheep, goats, ducks, and fur animals are on the rise.

The acreage of farm assessed woodlands in Harmony has increased, 1,320 acres in 1983 to 3,540 acres in 2019. Cropland left abandoned or fallow for extended periods of time undergoes ecological succession into forested land and the increasing costs of farming and farmland in the state and the county may compel local farmers to produce less land-intensive products and leave parts of their farms fallow. Secondly, continuously rising property taxes and the USDA forest stewardship incentives have encouraged more landowners of forested properties to obtain farmland tax assessment, thereby increasing the amount of forested farmland in the County.

Between 1983 and 2019, all farmland assessed categories experienced losses except for woodland. The gain in woodland was substantial enough that the result was an overall gain in the farmland assessed agricultural land base in Harmony of 15%, from 7,661 acres in 1983 to 8,824 acres in 2019.

In cropland harvested and cropland pastured, Harmony has lost active agricultural land at a faster rate than County wide, whereas permanent pasture decreased at a slower rate than the County. Between 1983 and 2019, active agricultural land has decreased 17% in both Harmony and Warren County. (**Table 6**)

Table 6. Farmland Assessment in Harmony and Warren County (1983-2019) (acres)								
	Cropland Harvested		Cropland Pastured		Permanent Pasture		Total Active Agriculture	
	Harmony Township	Warren County	Harmony Township	Warren County	Harmony Township	Warren County	Harmony Township	Warren County
1983	5,294	49,033	340	5,865	707	13,513	6,341	68,411
1990	5,109	53,057	636	6,588	1,141	15,172	6,886	74,817
2000	5,070	51,147	356	5,240	715	12,891	6,141	69,278
2010	4,423	45,056	218	4,244	589	11,861	5,230	61,161
2019	4,486	43,487	185	3,493	604	9,752	5,275	56,732
% Change	-15%	-11%	-46%	-40%	-15%	-28%	-17%	-17%
<i>Source: Tax Assessment Data</i>								

The trend towards smaller average and median farm sizes has been prominent throughout New Jersey and Warren County over the past forty years. In contrast to the County wide 15% decrease in acreage since 1982, there has been a 51% increase in the number of farms, up from 608 to 918 in 2017. Following a continuing trend, the average farm size dropped from 144 to 80 acres.^{6 7} The 2017 *Census of Agriculture* indicates that for ZIP code 08865, which includes Harmony Township and Phillipsburg, 70 of 94 farm operations were under 50 acres and 24 were 50 acres or greater. The ZIP code tabulations also indicated that of these 94 operations, 74 farmers operated only land they owned, 13 farmers worked both land they owned and land they rented

from others, and 7 farmers were tenant farmers, operating only land rented from others or worked for shares.⁸

The average size of Warren County farms was 80 acres in 2017, down from 159 acres in 1982. Additionally, the acreage within medium size farms (50 to 499 acres) is decreasing, indicating that many of these farms are breaking up into smaller operations. (**Figure 6**)

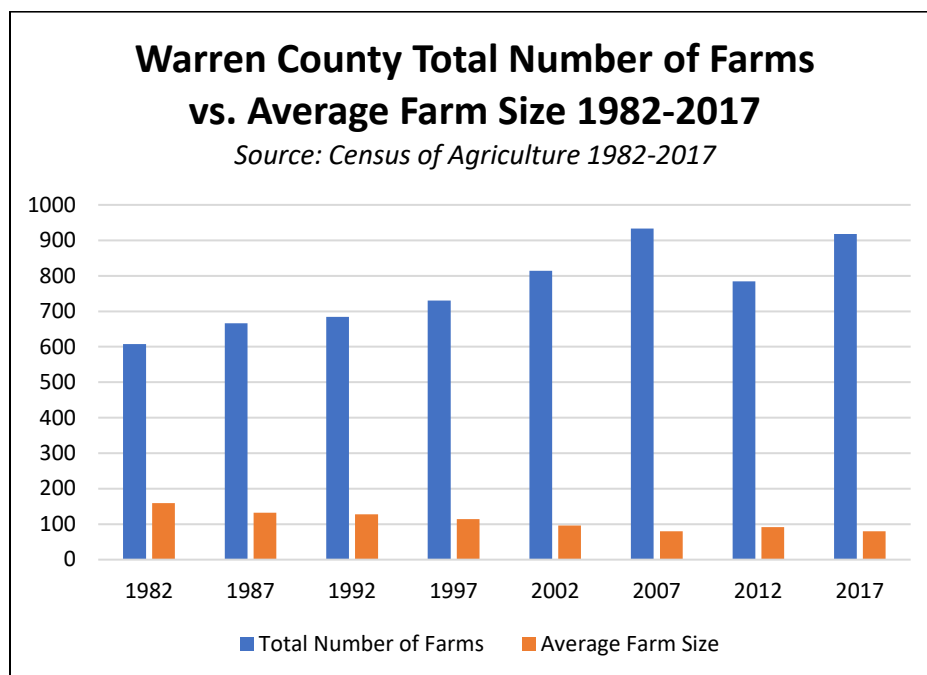
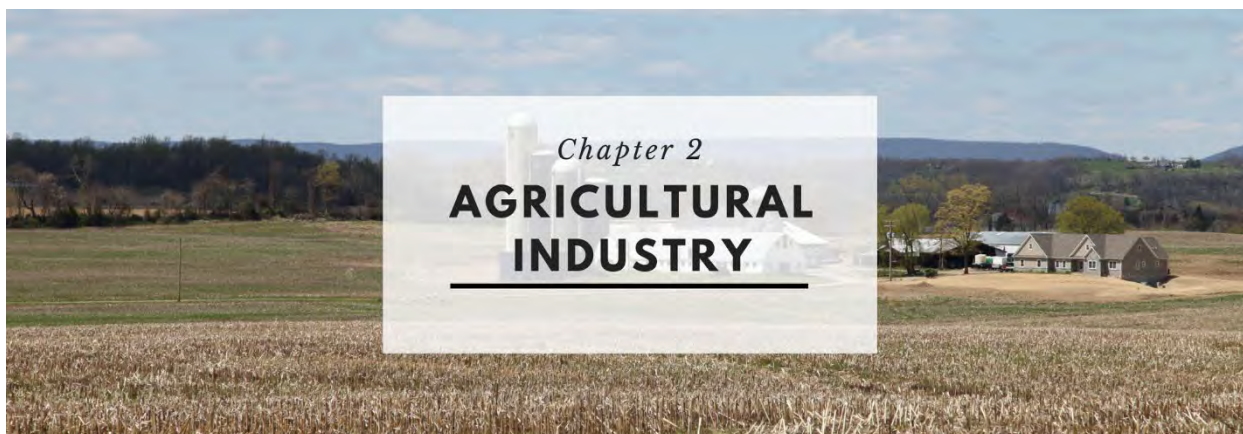


Figure 6. Average Farm Size in Warren County (1982-2017)

Harmony has the seventh highest number of farm parcels in farmland assessment in Warren County. Its 163 approved farmland assessment forms represent 6.5% of the County total of 2,516 in 2019. However, average farm size, at 19.7 acres, is much smaller than the County average of 80 acres. Median farm parcel size is 9.6 acres, with as many parcels below that number of acres as above. The largest farm parcel in Harmony is 203 acres. Harmony ranks second in the County in total acres devoted to agricultural or horticultural use, at 8,824 acres, or 8.5%, versus number one ranked Franklin Township's 10,998 acres, or 10.6%. **Table 7** shows the breakdown of farm parcel sizes in Harmony based on the 2019 tax assessment data.

Size	# of Farms
Under 1 acre	31
1-9 acres	138
10-49 acres	119
50-179 acres	32
179+ acres	2
<i>Source: Harmony Township Tax Database (2019)</i>	



Chapter 2. Agricultural Industry

A. Trends in Market Value of Agricultural Products Sold

Agriculture in Harmony Township is oriented to livestock and conventional field crops. Livestock sales in Warren County produced \$26.1 million in sales in 2017, an 18% decrease from \$31.8 million in 2007, but a 22% increase from 2002. Crop sales, including nursery and greenhouse products, rose 54% from \$43.6 million in 2007 to \$67.0 million in 2017. In total, agricultural sales gained 23% from \$75.4 million in 2007 to \$93.2 million in 2017.⁹ **(Figure 7)**

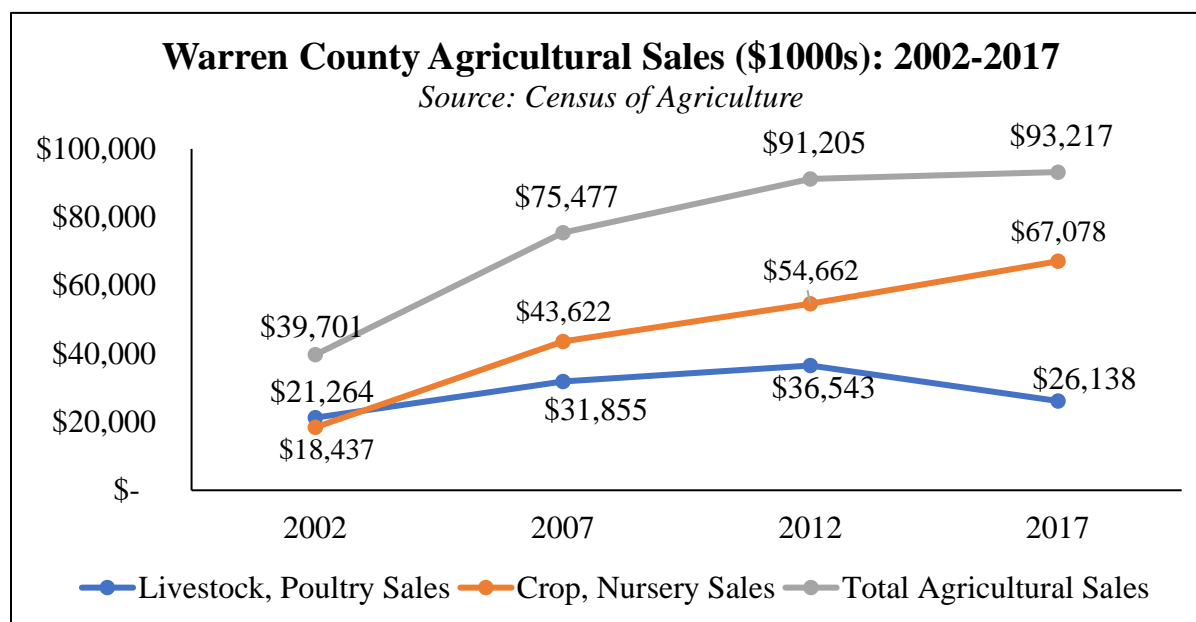


Figure 7. Agricultural Sales in Warren County

As of 2017, Warren County ranked sixth in the state in total agricultural sales. **(Table 8)** Warren County lost 12.71% in average farm sales from 2012 to 2017, the sixth-fastest rate of decline in New Jersey. **(Table 9)**

Table 8. Total Agricultural Market Value (\$1000s) by County	
County	Sales
Cumberland	\$ 212,649
Atlantic	\$ 120,673
Gloucester	\$ 102,454
Salem	\$ 102,342
Burlington	\$ 98,580
Warren	\$ 93,217
Hunterdon	\$ 92,246
Monmouth	\$ 80,633
Middlesex	\$ 38,359
Mercer	\$ 24,981
Morris	\$ 24,824
Ocean	\$ 24,640
Camden	\$ 22,893
Somerset	\$ 20,118
Sussex	\$ 18,226
Cape May	\$ 9,838
Passaic	\$ 2,863
<i>Source: U.S. Census of Agriculture, 2017</i>	

Table 9. Average Sales per Farm by New Jersey Counties, 2012-2017				
Rank	County	2012	% Change	2017
1	Ocean	\$ 64,885	46.06%	\$ 94,769
2	Cumberland	\$ 292,216	29.95%	\$ 379,730
3	Camden	\$ 91,528	26.97%	\$ 116,210
4	Hunterdon	\$ 46,445	23.82%	\$ 57,510
5	Middlesex	\$ 147,733	19.66%	\$ 176,772
6	Gloucester	\$ 150,154	17.64%	\$ 176,644
7	Cape May	\$ 52,810	13.59%	\$ 59,988
8	Mercer	\$ 72,534	6.63%	\$ 77,341
9	Salem	\$ 135,749	-3.47%	\$ 131,040
10	Monmouth	\$ 102,565	-6.19%	\$ 96,221
11	Burlington	\$ 120,390	-10.51%	\$ 107,738
12	Warren	\$ 116,333	-12.71%	\$ 101,543
13	Atlantic	\$ 312,040	-14.06%	\$ 268,163
14	Sussex	\$ 21,078	-14.22%	\$ 18,081
15	Somerset	\$ 58,016	-23.28%	\$ 44,508
16	Morris	\$ 77,560	-23.43%	\$ 59,389
17	Passaic	\$ 44,045	-26.97%	\$ 32,168
<i>Source: U.S. Census of Agriculture 2012, 2017</i>				

In 2002, Warren County had the second largest concentration of dairy and livestock operations in New Jersey (236 farms). The County now has 182 farms and is ranked third in the state.

Dairy sales have declined by 64% from over \$9.0 million in 1997 to \$3.2 million in 2017. This is accompanied by a 74% decline of dairy farms in Warren County, from 63 in 1997 to 16 in 2017.

As of 2017, cattle and calves (2,346) are the most common livestock in Warren County, with beef cows (1,450 head) more prominent than dairy cows (896 head). Sheep (1,691 head) represent the second highest livestock animal, with meat chickens as third highest (842 count).

Crops in Warren County sold for a total of 66.3 million in 2017, a 22% increase from 2012, and 271% from 2002. **(Figure 8 and Table 10)** One crop subsector, nursery and greenhouse operations, continues to exceed other crop types in Warren County. In 2017, Warren County had 26,364 acres of nursery stock crops, under glass or other protection.¹⁰ Annual sales comprised for about 41% of total agricultural revenue in 2007 (\$22.0 million) but increased to 61% of revenue by 2017 (\$40.7 million).

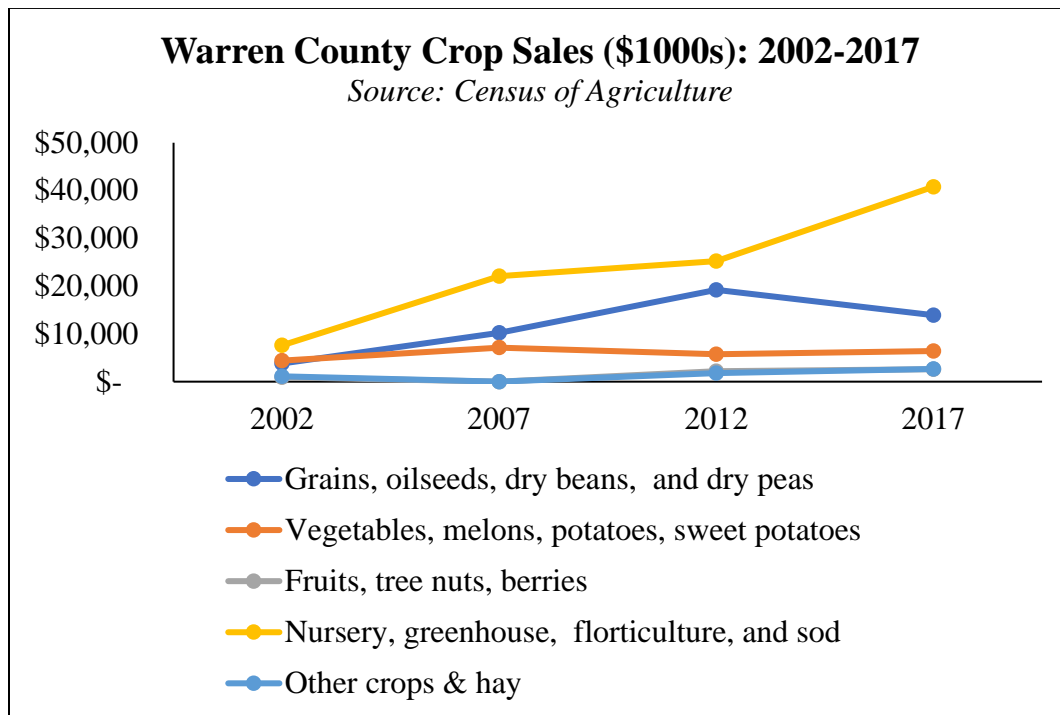


Figure 8. Crop Sales in Warren County

Table 10. Warren County Crop Sales (\$1000s)				
	2002	2007	2012	2017
Grains, oilseeds, dry beans, and dry peas	\$3,802	\$10,205	\$19,209	\$13,922
Vegetables, melons, potatoes, sweet potatoes	\$4,406	\$7,114	\$5,769	\$6,388
Fruits, tree nuts, berries	\$918	N/A	\$2,198	\$2,601
Nursery, greenhouse, floriculture, and sod	\$7,601	\$22,053	\$25,248	\$40,793
Other crops & hay	\$1,114	N/A	\$1,808	\$2,656
Total	\$17,841	\$39,372	\$54,232	\$66,360
<i>Source: U.S. Census of Agriculture (2002-2017)</i>				

Vegetables were the third highest-grossing crop in 2017, generating more than \$6.3 million in sales. Since 2002, vegetables sales have risen 44%.

Grains, which include corn and soybeans, have grown revenue by 36% since 2007. Grains will most likely remain one of the top-grossing field crops, ranking second to vegetables in 2017.

A small but significant portion of Warren County's agricultural sales come from other crops, including hay. Sales revenues for this category increased by 138% between 2002 and 2017.

Warren County is home to many fruit farms. Farm sales began growing rapidly during the mid-2000s, going from \$0.91 million in 2002 to \$2.6 million in 2017. Much of this revenue derives from peach and grape sales. Despite acreage falling by 49%, peach farms increased by over 29%.

B. Agricultural Production Trends

From 2005 to 2017, soybeans and meat chickens rose 69% and 278% respectively.¹¹ **(Figure 9)** Meat chickens gained 140% from 2010 to 2017, with 72% of that growth occurring from 2010 to 2015. Soybeans grew 17% from 2010 to 2017, as well as 39% growth in corn for grain acreage during the same time.

Mature dairy saw a 171% increase in cattle from 2005 to 2010 and fell by 68% from 2010 to 2017. Beef cattle rose 21% from 2010 to 2015 and moderately fell by 16% to 131 head in 2017. Acreage in hay declined by 7% from 2005 to 2017 with a 22% loss from 2010 to 2017 alone.

In 2017, field crops were among the most acre-dominant crops in Harmony Township. **(Table 11)**

Production Trends in Harmony Township (2005-2017)

Source: Warren County Farmland Assessment

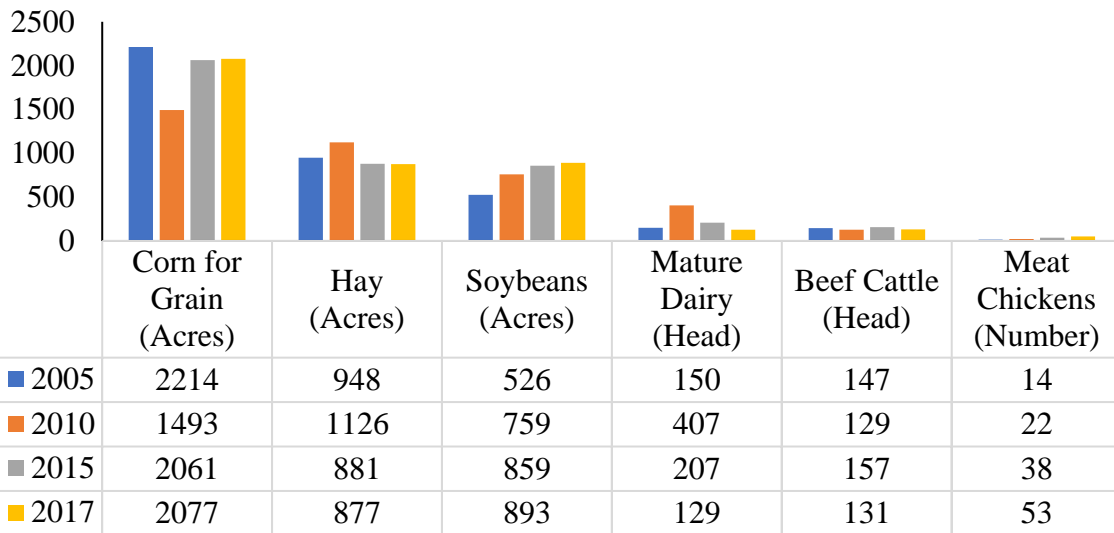


Figure 9. Production Trends in Harmony Township (2005-2017)

Table 11. Dominant Crops in Harmony Township

Top 10 Dominant Crops	2017	% Change
Corn for Grain	2077	-
Soybeans	893	-57.01%
Other Hay	668	-25.20%
Alfalfa Hay	209	-68.71%
Barley for Grain	146	-30.14%
Other Field Crops	78	-46.58%
Wheat	73	-6.41%
Corn for Silage	44	-39.73%
Bedding Plants	24	-45.45%
Rye for Grain	17	-29.17%
Total	4229	
		% of Total
Field Crops	4205	99.43%
Nursery Crops	24	0.57%
Fruits & Berries	0	0.00%
Vegetables	0	0.00%

Source: 2017 Warren County Farmland Assessment Data

In light of the historically low outputs of corn and hay in 2002 in Warren County, long-term trends have stabilized and steadily increased since 2002. **(Figure 10)** Hay has made a resurgence, increasing by 34% since 2012, despite being down 13% since 2002. **(Figure 11)** Soybean production maintained its upward trajectory through 2002, growing 140% from 2002 to 2017. **(Figure 12)**

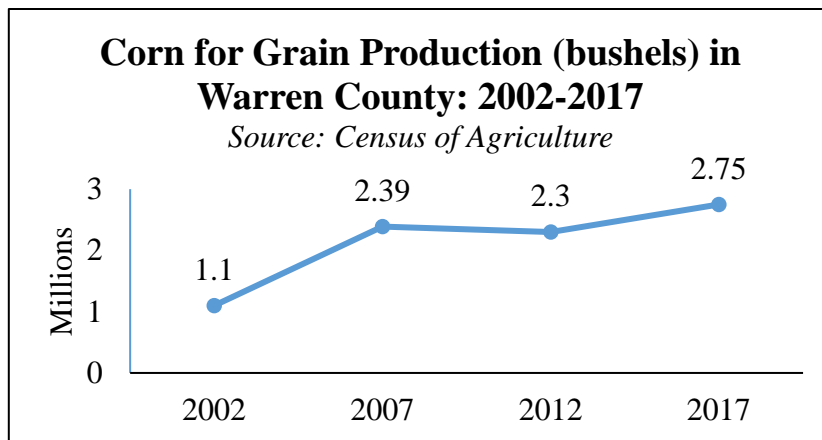
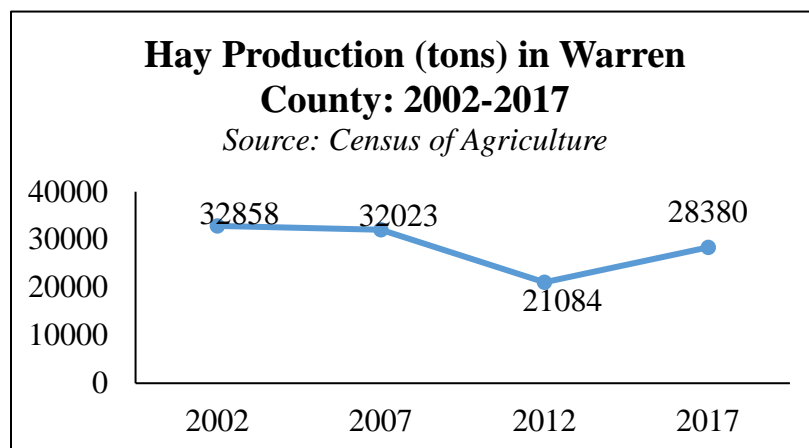


Figure 10. Corn Production in Warren County



The variation in milk sales has contributed to a reduction in dairy output. From 2002 to 2017, mature dairy decreased by 71%, with an average five year-loss of 33%. The biggest drop occurred between 2007 and 2012, when dairy production fell by 45%.

Livestock production, including beef cattle and meat chickens, have either had slight growth or remained stable since 2002. Chicken production grew by 2% from 2002 to 2007 but dipped 9% by 2017. Beef cattle fell by 8% in 2007, then rose by 20% by 2017, netting a 12% growth rate through the 2000s. **(Figure 13)**

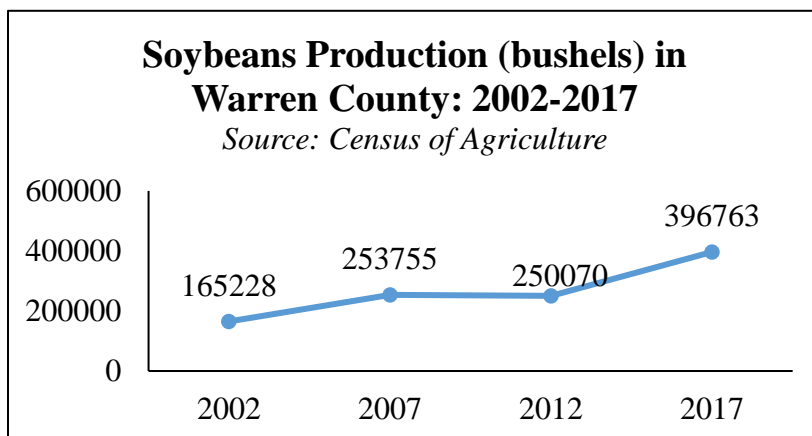


Figure 12. Soybean Production in Warren County

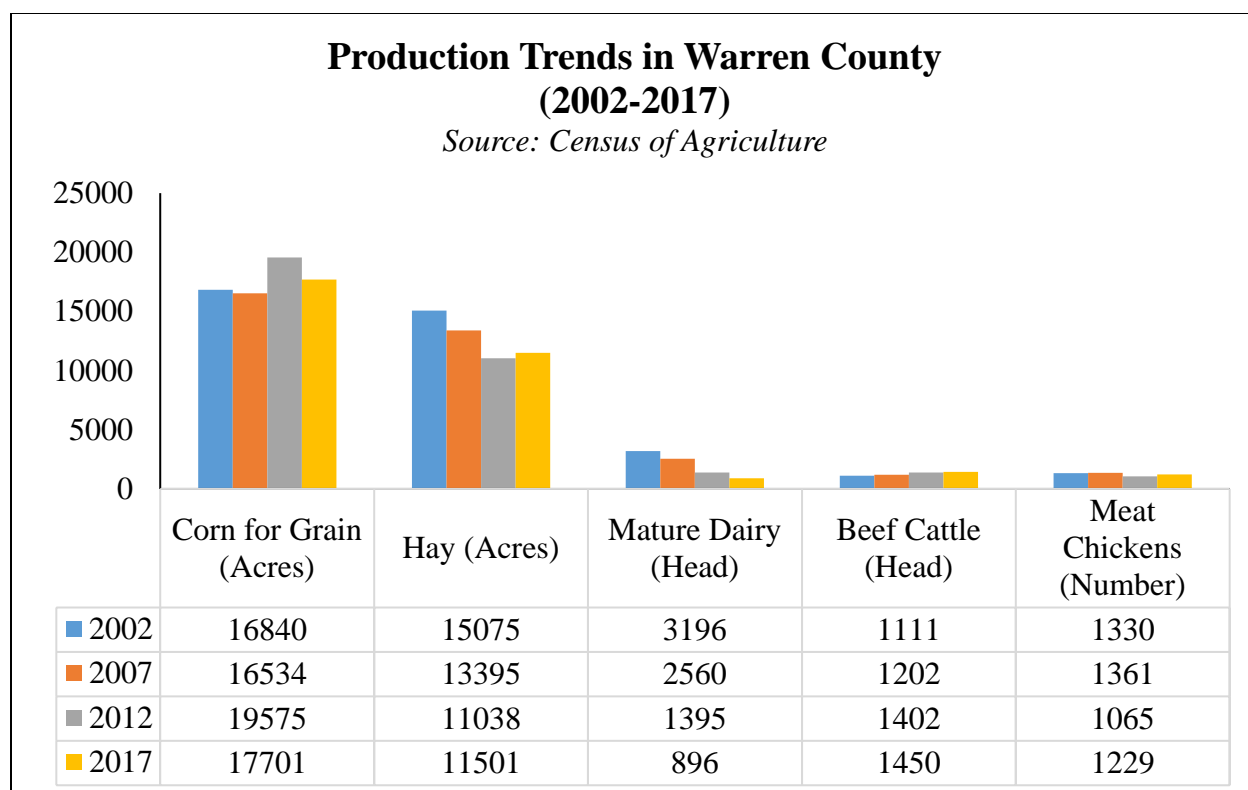


Figure 13. Production Trends in Warren County (2002-2017)

C. Agricultural Support Services and Related Industries

Agricultural support services in Warren County and Harmony Township include tractor sales and supply stores, feed vendors, and hardware/equipment retailers. Retailers include Frank Rymon and Sons, Tractor Supply Co, and Growmark in Bloomsbury. Major feed vendors include Agway and North Warren Farm & Home Supply. In Hackettstown, the Livestock Auction operates as an independently funded co-operative.¹² As the last remaining auction in the state, it gives farmers and farm suppliers the opportunity to trade and sell products.

Local support businesses are often insufficient to meet all the needs of the Township's agricultural community. Consequently, local farmers minimize repair services by fixing a variety of mechanical problems themselves. The Township's farmers rely heavily upon mail order and out-of-state retailers for their agricultural supplies. Processing facilities are now absent in the area, which forces 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.

Despite the loss of support businesses from the region, local farms take advantage of retailers, large animal veterinarians, and feed suppliers located outside of the county and in eastern Pennsylvania. 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.¹³ (**Appendix B**)



Chapter 3. Land Use Planning

A. State Development and Redevelopment Plan

The *State Development and Redevelopment Plan* (SDRP) outlines general policy objectives concerning land use and future development in the State.¹⁴ The combination of Planning Areas and Designated Centers establishes a comprehensive framework for pursuing land use and development regulation throughout New Jersey.

Land in Harmony Township is included within the Rural Planning Area (PA4), the Rural Environmentally Sensitive Planning Area (PA4B), and the Environmentally Sensitive Planning Area (PA5). (**Figure 14**)

- Rural Planning Areas (PA4): 3,597 acres (~23% of the municipality), located along the Delaware River, near the Township's western boundary.
- Rural-Environmentally Sensitive Planning Area (PA4B): 6,366 acres (~41%) and runs parallel to County Route 519. This Planning Area also covers much of the northeastern section of the Township.
- Environmentally Sensitive Planning Areas (PA5): These lands are mostly concentrated along Scott's Ridge. This Planning Area occupies approximately 4,661 acres (~30%) of the 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.”

There are currently no designated centers or hamlets in the Township, and no plans to pursue such designations.¹⁵

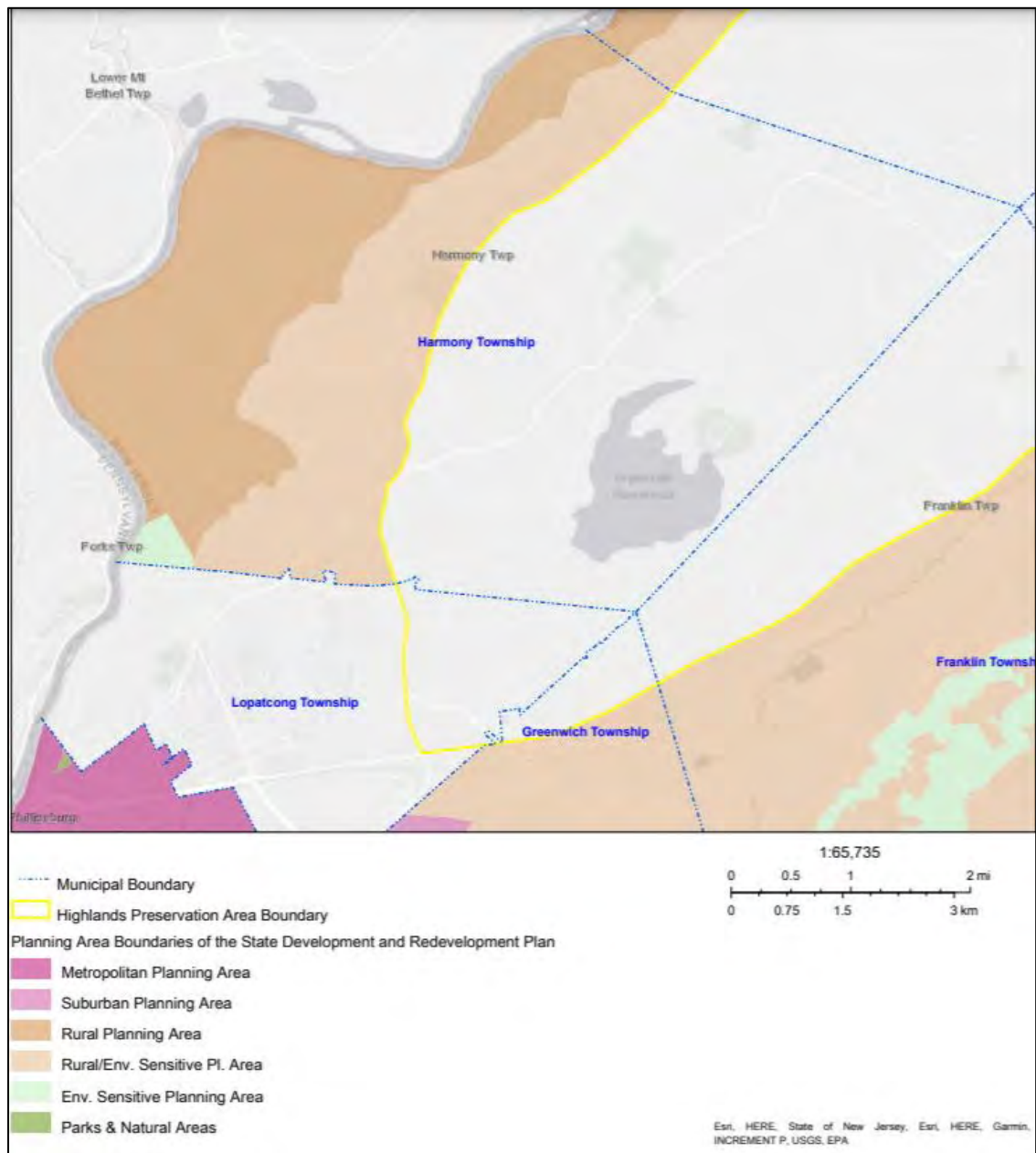


Figure 14. State Development and Redevelopment Plan: Harmony Township

B. Special Resource Area: Highlands Region

The New Jersey State Legislature enacted the Highlands Water Protection and Planning Act (HWPPA) on August 10, 2004. The Highlands Act imposes strict land use controls over large parts of the 88-municipality region, where lands are subject to heightened restrictions to protect water quality and environmentally sensitive lands. All of Harmony Township is located within the Highlands region. Roughly 8,387 acres (54% of the Township) east of CR-519 fall within the

Highlands Preservation Area which incorporates the Highlands Ridgeline (Scott's Mountain) and the wooded and wetland areas which surrounds it. The Preservation Area also encompasses 41% of the Township's total farmland. All land west of CR-519 in Harmony Township (approximately 7,108 acres) falls within the Planning Area.¹⁶ (**Figure 15**)

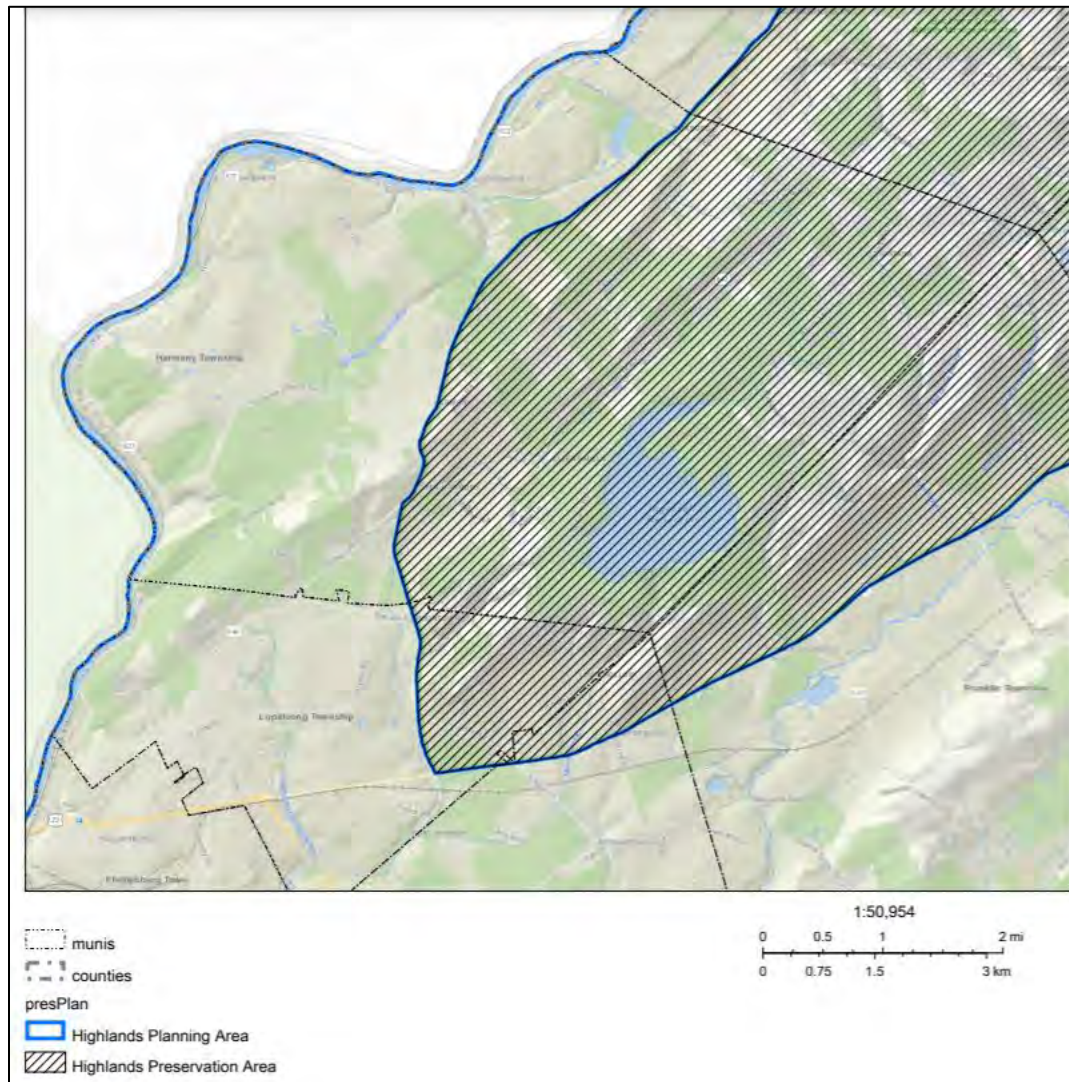


Figure 15. Highlands Preservation and Planning Area in Harmony Township

The Highlands Council – the regional planning body charged with implementing the Highlands Act – has established the preservation of farmland and the industry of farming as one of its principal objectives. To this end, the *Highlands Regional Master Plan* identifies an Agricultural Resource Area that will receive the bulk of future funding and institutional support from the Highlands Council. The Agricultural Resource Area encompasses areas that contain contiguous farmbelts and quality agricultural soils. Virtually all of Harmony Township falls within the Agricultural Resource Area. (**Figure 16**)

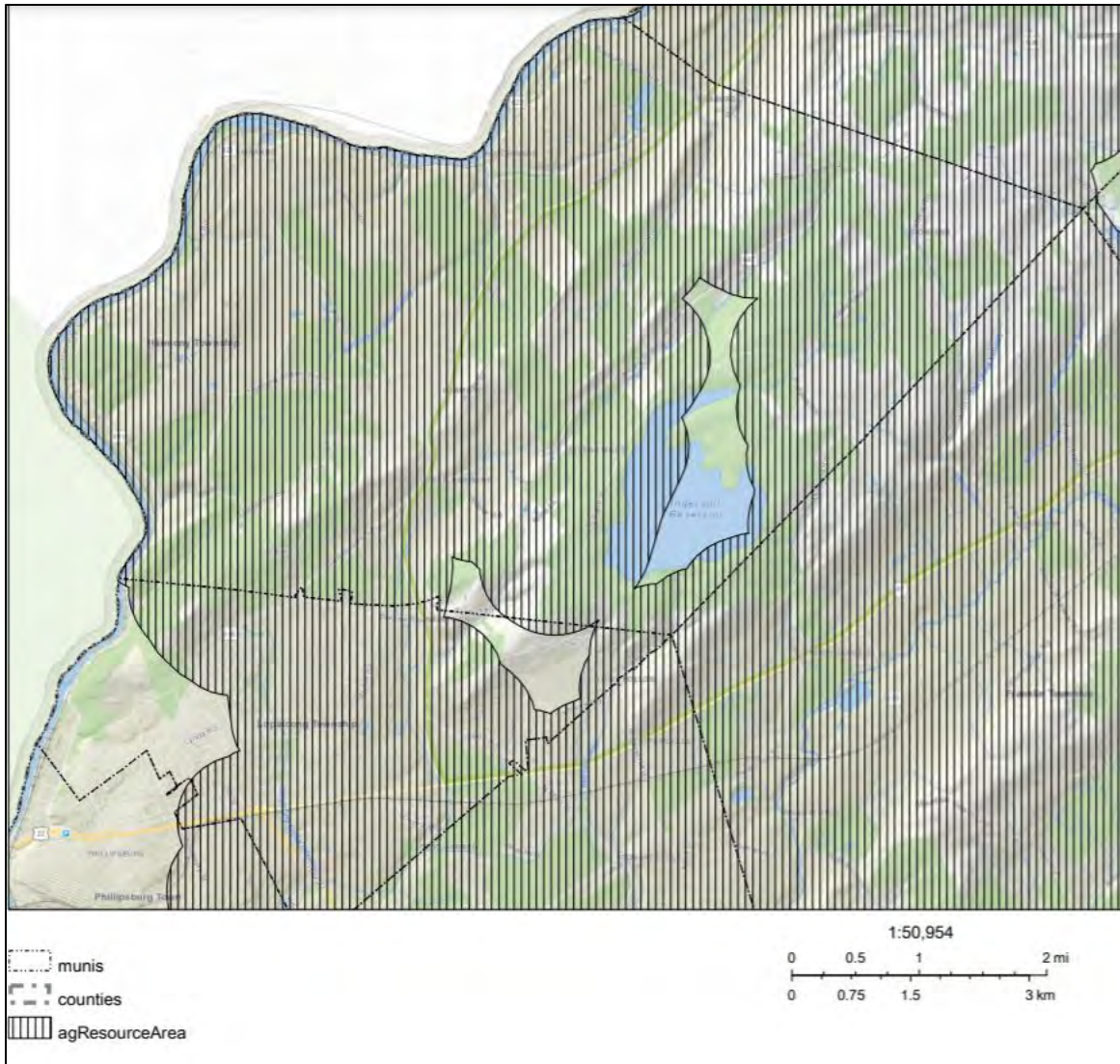


Figure 16. Agricultural Resource Areas identified by the Highlands Regional Master Plan in Harmony Township

The Highlands Council also identifies Agricultural Priority Areas – subsets of the larger Agricultural Resource Area 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.¹⁷ Most of the land west of CR-519 in Harmony Township is designated as High Priority Agricultural Areas. (**Figure 17**)

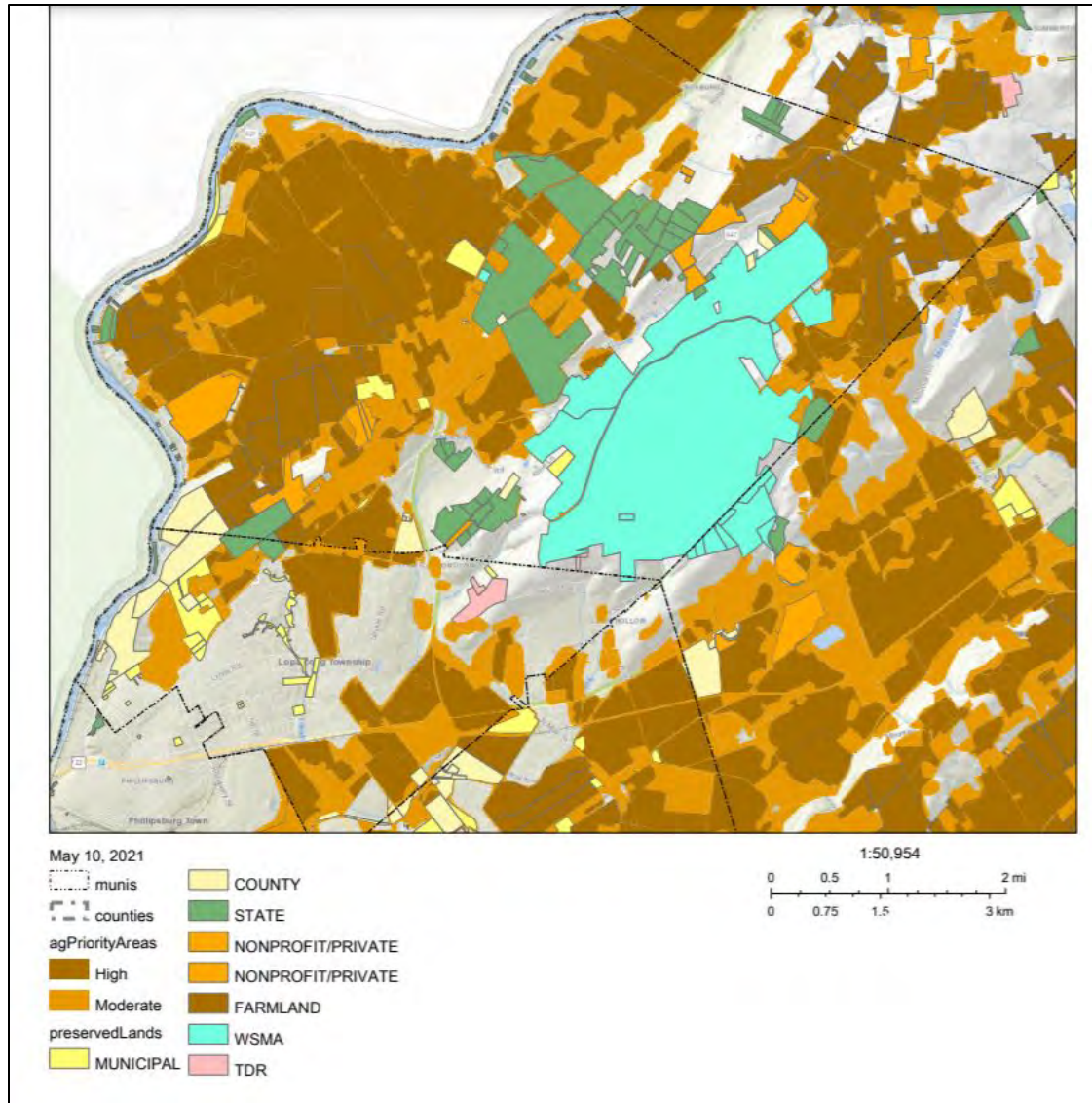


Figure 17. Agricultural Priority Areas in Harmony Township (Highlands Regional Master Plan)

C. Municipal Master Plan

The 2004 *Master Plan* includes farmland and open space preservation as principal objectives and lists the following goals and objectives:

- Encourage the preservation of agriculture through proactive planning where there are suitable conditions for the continued operation and maintenance of agricultural uses;
- Retain productive agricultural land for future agricultural use and preserve a large contiguous land base to assure that agriculture remains a viable, permanent land use;
- Aggressively maintain local support for funding and purchasing farm development easements;
- Continue to coordinate agricultural preservation activities with the State Agriculture

Development Board (SADC), Warren County Agriculture Development Board (CADB), and other open space preservation activities in the Township;

- Recognize agriculture as a significant economic industry in the community and encourage economic opportunities in this industry;
- Provide enhanced opportunities for agricultural businesses that assist in maintaining agriculture as a viable economic activity.¹⁸

There have been no additional changes to the land use zoning since 2005.¹⁹ Harmony updated its *Environmental Resource Inventory* in 2013 highlighting natural and agricultural features.²⁰

D. Land Use Patterns

The land use patterns of Harmony Township were first established during the eighteenth century. The area was settled by Quakers who founded small settlements along the Delaware River. During the nineteenth century, the Belvidere and Delaware Railroad was completed along the Delaware River. It brought new industrial and residential development on the river, and communities grew at Hutchinson and Harmony Station. These areas evolved into vacation communities during the early 1900's, and eventually became more permanent neighborhoods after severe flooding in the 1950's washed away the original summer homes.²¹

According to the 2015 NJDEP LU/LC data, forested areas make up the largest percent of Harmony's lands (38%), with agricultural and urban uses, second and third at 36% and 13% respectively. (**Figure 18** and **Figure 3**)

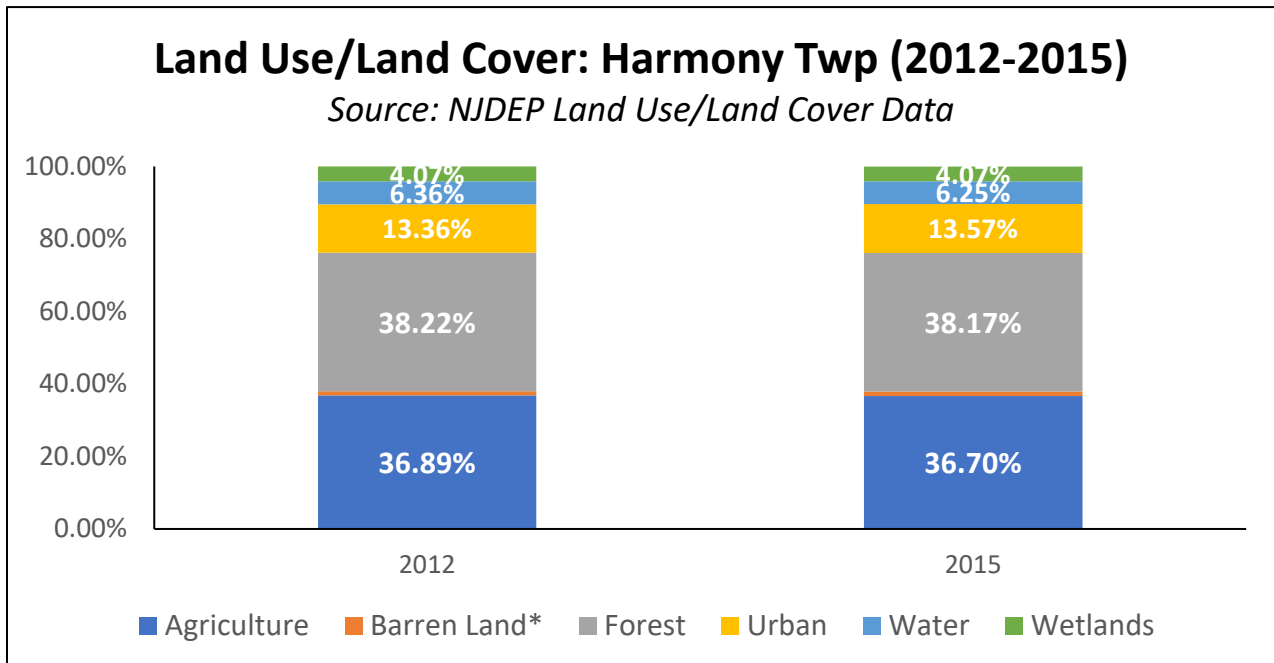


Figure 18. Land Cover from 2012-2015: Harmony Township

Note: *Barren land represents less than 1% of the total land coverage in Harmony Township.

E. Public Infrastructure – Sewer and Water

Harmony Township does not provide public sewer or water.²² The property slated for affordable housing on Garrison Road is still in the pre-development phase, but private sewer service is expected for this site. Water is provided entirely by private wells. Two water systems in the Township are operated by the Brainards Mutual Water Association – a local group that provides piped water to 50 customers in Brainards Village and Harkers Hollow Heights, near the Township’s southern border. There are no plans to expand this service in the future.

F. Municipal Zoning

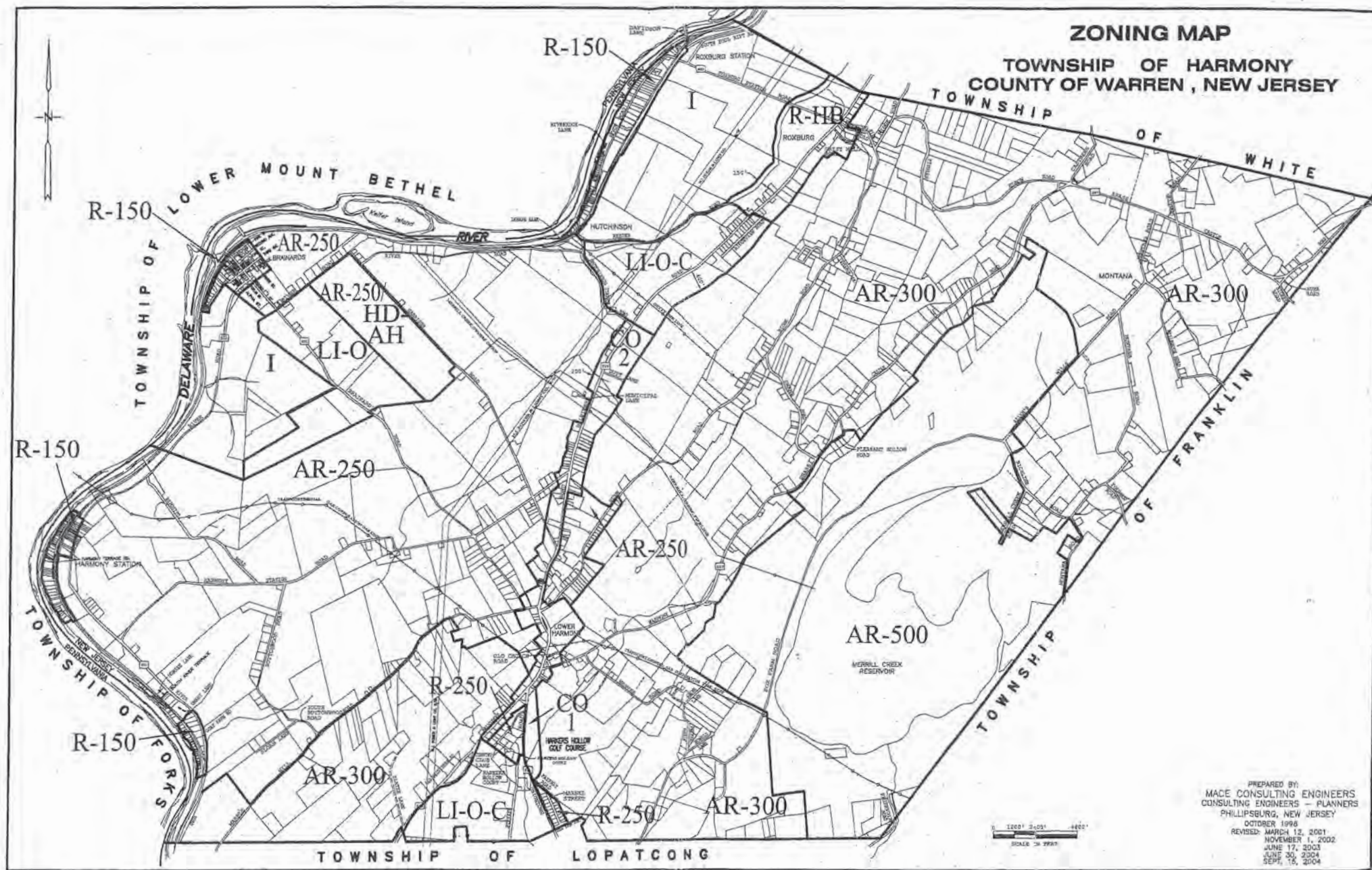
1. Types, Lot Size, and Distribution in the Municipality

The AR (Agricultural/Residential) 250, 300, and 500 Zones comprise the three largest land areas, reflecting the agricultural priorities of the Township. As of 2020, only 1% of the Township is zoned at <1 acre/unit, with the remaining 99% as medium lots (1-5 acres/unit). (**Table 12** and **Figure 19**). All zones, other than the AH-O Zone, allow farms as principal permitted uses. As commercial and residential uses grow, the Township will monitor its proximity to, and potential disturbance of, farmlands.

Table 12. Harmony Township Zoning Districts by Lot Size, Acres, and Share of Land

Zone	Acres	% of Land	Min. Lot Area
AR-500: Agricultural/Residential Zone	2585.33	16.86%	5 acres
AR-300: Agricultural/Residential Zone	6218.94	40.55%	3 acres
AR-250: Agricultural/Residential Zone	3983.08	25.97%	5 acres
R-150: Residential Zone	187.75	1.22%	1 acre
AH-O: Affordable Housing Overlay Zone	188.43	1.23%	-
R-HB: Residential-Historic Business Zone	188.65	1.23%	2.5 acres
CO-1: Commercial/Office/Business Zone	127.84	0.83%	2.5 acres
CO-2: Commercial/Office/Business Zone	134.17	0.87%	2.5 acres
LI-O: Light Industrial/Office Zone	275.1	1.79%	5 acres
LI-O/C: Light Industrial/Office/Commercial Zone	455.69	2.97%	5 acres
I-1: Industrial Zone	992.88	6.47%	5 acres
Total	15337.86	100.00%	
<i>Source: Harmony Township Code</i>			

Figure 19. Zoning Map



2. Adopted Redevelopment Areas

The Township adopted the River Road Redevelopment Plan in May 2012.²³ The plan creates three sub-districts – north, central and south –in recognition of distinguishing characteristics within the redevelopment area. The northern sub-district contains the former quarry, which presents certain topographic and access challenges. This sub-district also has river frontage and abuts the residential uses in Brainards. The intent is to ensure that redevelopment activities respect the Brainards neighborhood with compatible new uses that blend in with the existing fabric; or are appropriately buffered to avoid any negative impacts on the neighborhood. The redevelopment of the northern sub-district will depend in part on providing the former quarry with access to and/or frontage on Brainards Road.

The central sub-district contains properties fronting on River Road/CR 621. These properties are vacant and environmental contamination is being remediated. As noted in the Redevelopment Plan:

“The central sub-district consists of four parcels. The former Witco Chemical site and an adjoining vacant parcel. The Witco site contains extensive soil and groundwater contamination and is presently being cleared and remediated. The former Harmony Speedway and Baker Chemical sites are located on the east side of River Road. The speedway is essentially vacant land. The Baker site contains capped chemical detention basins and a capped landfill.”

The intent is to redevelop these properties with commercial and light industrial uses while enhancing the River Road scenic corridor. Block 44, Lot 21.01 is located within the central sub-district and is not included as a “targeted” farm by the Township due to its location on River Road and proximity to the former Witco Chemical site.

The southern sub-district contains two land-locked properties. One is vacant and the other is occupied by an abandoned industrial building. The intent is to redevelop these properties with uses that generate minimal traffic and exposure.

Block 39, Lot 4 is identified as a target farm (**Table 20**) and is included in the North sub-district within the Redevelopment Plan. It is zoned AR-250 (Agricultural/Residential) and is part of a larger farm unit. If the owner of this farm submits an application for preservation, the Township will review the application to ensure it is outside environmental contamination, is a developable property, and is consistent with the infrastructure planning for the municipality.

The standards contained within this redevelopment plan supersede any conflicting regulations in the Harmony Township Zoning Ordinance. The redevelopment plan does not discourage or limit agricultural uses in the north sub district, but rather prioritizes redeveloped sites for commercial and industrial uses. In the case where a particular land use or site standard is not covered in this redevelopment plan, compliance with the Harmony Township Zoning Ordinance or other applicable Harmony code or ordinance will be required.

3. Innovative Planning Techniques

There are mandatory and volunteer options for a municipality to use to set aside land for farmland and/or open space. Voluntary options are ones a town can use when determining maximum lot sizes and mandatory set asides for resource protection. If the municipality turns to mandatory cluster provisions or a mandatory transfer of development rights (TDR) program, the Agricultural Advisory Committee will work with the Planning Board to ensure agriculture resources and land are set aside in a manner to ensure viability of the farm in the future.

Cluster zoning allows development to occur on a smaller percentage of a site while retaining the net development density permitted by local zoning. A common cluster zoning provision would allow (or require) 50% of a site to be preserved in its natural or agricultural state and would permit the other half of the site to be developed at twice the allowable zoning density. Some clustering ordinances require that certain sensitive natural areas or prime farmlands on a development site be preserved. Cluster zoning provides both the ability to develop a site to its full extent based on zoning and the preservation of contiguous agricultural lands.²⁴

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 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. Cluster zoning is not currently used in Harmony Township, where there is minimal opportunity for new development in the higher density zones that accommodate residential development.

Lot size averaging is another planning tool that maintains the net allowable zoning density on a site but does not enforce uniform lot size requirements or setbacks. This allows for some development lots to be very small to accommodate affordable housing units, neighborhood commercial stores, or “village” development densities, while other lots can be very large to encompass active farms or natural areas.

Transfer of Development Rights (TDR) is a growth management tool that allocates development rights from one location (the preservation or “sending” area) to another (the development or “receiving” area). These development rights are purchased by developer and allow them to build at higher densities within the receiving zone than existing zoning permits. Viewed as an equity protection mechanism, transfer-of-development rights provides for the preservation of important agricultural lands while fully compensating landowners and minimizing public expenditures.

The New Jersey State Transfer of Development Rights Act (N.J.S.A. 40:55D-140) authorizes the transfer of development rights by municipalities and outlines what a town must do to adopt or amend a TDR ordinance. First, the municipality must amend its master plan to include a Development Transfer Plan Element that outlines a mechanism for assigning development credits to areas in the sending zone and reapplying them to areas in the receiving zone. An

updated Utility Service Plan and Capital Improvement Program for the receiving zone should be adopted as well. The municipality must also prepare a Real Estate Market Analysis (REMA) that quantifies the development potential of the sending zone(s) and the capacity of the receiving zone(s) to accommodate additional development. Finally, a town must receive approval from the State Planning Commission to adopt the TDR ordinance. (N.J.S.A. 40:55D-140)

4. Buffer Requirements

In accordance with state and county regulations, there are multiple mechanisms through which agricultural uses are separated from other uses. At the state level, both the NJDEP and the NJDA offer guidelines. NJDEP's Freshwater Wetlands Protection Act Rules provide permit and other administrative exemptions for a range of farming activities, which helps to protect inland water resources. Similarly, NJDEP's Flood Hazard Area Control Act Rules, most recently amended in February 2015, now include numerous agricultural permits-by-rule. The following agricultural activities are included:

- 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.

There are 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. Buffers are not currently a requirement for the Township and would be something that could be addressed by the Land Use Board if the issue arises.

5. Development Pressure and Land Value

Harmony's current population, based on New Jersey Department of Labor figures, was 2,466 individuals in 2019.²⁵ This is a 6% decrease from 2010, consistent with what has been occurring county-wide with individuals leaving or not resettling back into rural sections of northwestern New Jersey (both Sussex and Warren Counties). (**Figure 20** and **Table 14**)

In the period between 2009 and 2019, growth slowed, due to the 2008 economic recession. Both historically and up to 2019, building permits in Harmony were exclusively for single family homes, and represent about 1.8% of total county permits. (**Figure 21**)²⁶

The residential permits approved in 2019 were 10% of the amount issued in 2005 (three permits versus 18 in 2005), when permit numbers peaked. Warren County has experienced a similar trend only issuing 12% of permits in 2018 compared to its numbers in 2000.

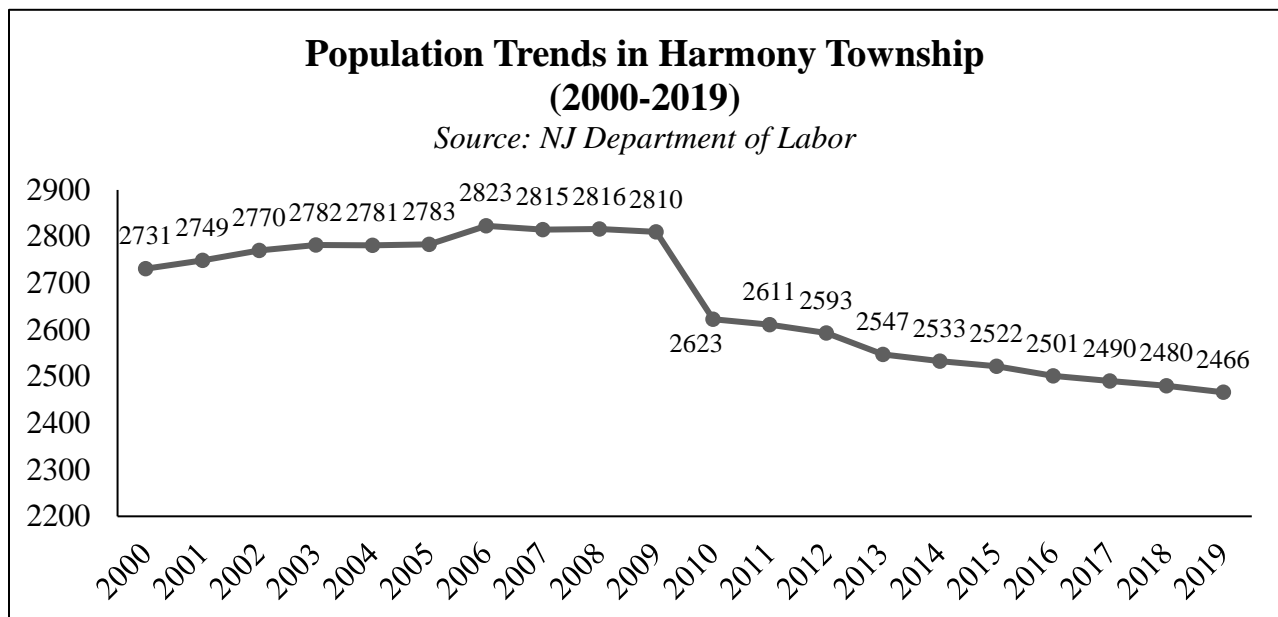


Figure 20. Population Trends in Harmony Township

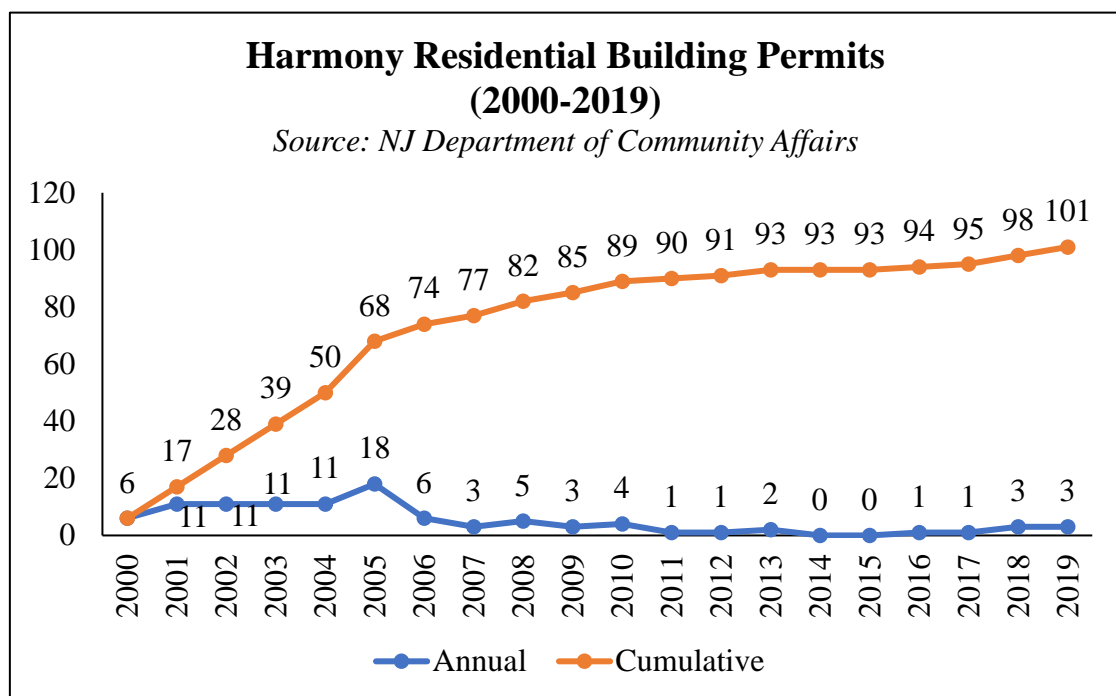


Figure 21. Residential Building Permits in Harmony Township

Table 13. Population Trends in Warren County (2000-2019)		
Year	% Change	Population
2000	-	102,902
2001	2.23%	105,201
2002	1.50%	106,774
2003	1.30%	108,163
2004	0.30%	108,491
2005	0.34%	108,855
2006	0.19%	109,059
2007	0.11%	109,179
2008	0.66%	109,897
2009	-0.24%	109,638
2010	-0.94%	108,605
2011	-0.36%	108,218
2012	-0.45%	107,733
2013	-0.53%	107,157
2014	0.19%	107,358
2015	-0.07%	107,282
2016	-0.41%	106,845
2017	-0.04%	106,798
2018	-0.47%	106,293
2019	-0.97%	105,267
<i>Source: U.S. Bureau of Census</i>		

As the Township transitions into a post-recession world, development pressures may intensify in Harmony, due to the relative scarcity of land for new residential development in the northwestern part of the state coupled with potential restrictions on future development in the Highlands Preservation Area within the Township.

From the perspective of land values, there has been a general trend upward in the per-acre easement values paid to preserved farms. From the 2001 to 2004 period, the average value paid per acre was \$3,921, which rose to \$6,247 from 2009 to 2012. It has since dropped to \$5,363 from 2017-2020. Between 2001 and 2019, the average easement values have risen 36%, primarily due to the rise and fall in land value from the 2008 recession. (**Figure 22**)

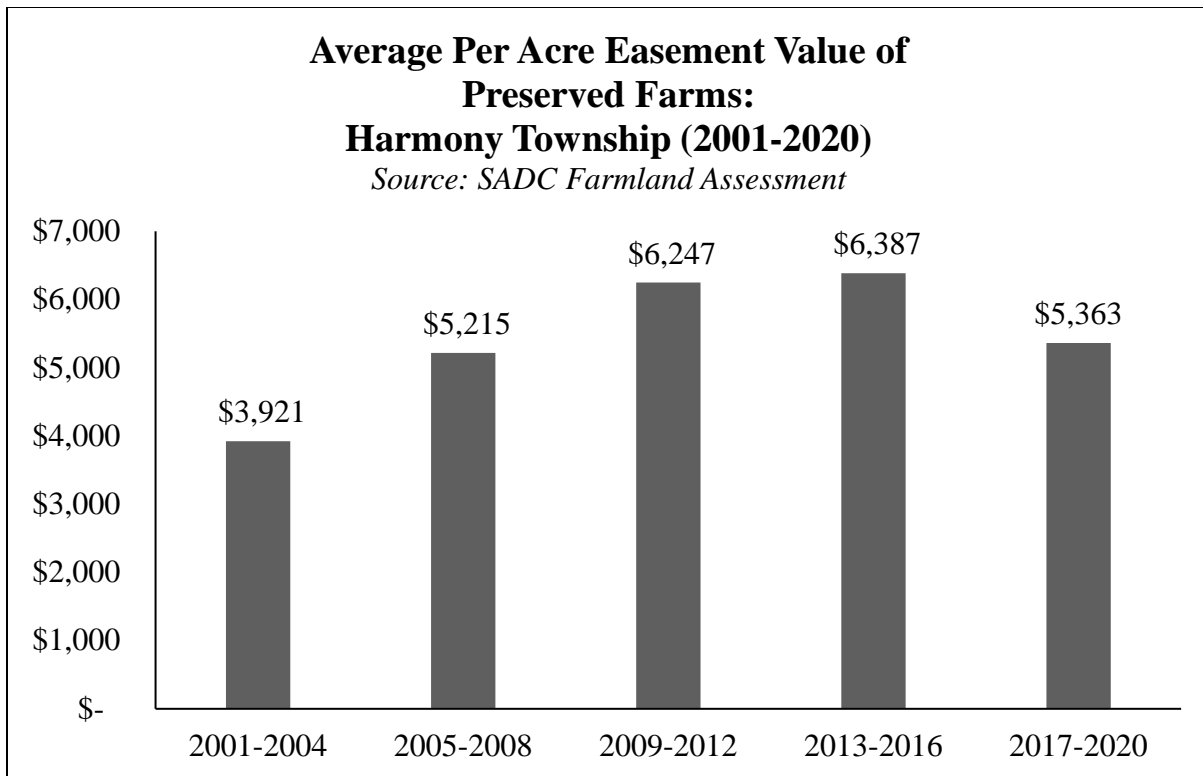


Figure 22. Per Acre Easement Value of Preserved Farms in Harmony Township

G. Density Transfer Opportunities

One program Harmony might consider is the *intra-municipal* TDR in which sending and receiving areas are located within the same town. Alternatively, *inter-municipal* TDR programs establish sending areas in one municipality and receiving areas in another. Some form of tax-based revenue sharing may be necessary with inter-municipal TDR programs.

Regional programs are an alternative that may be proposed at the regional or state level, such as the program introduced as part of the Highlands Regional Master Plan. The New Jersey TDR Bank and the Office of Planning Advocacy (Smart Growth) are facilitating TDR activities statewide. They offer Planning Assistance Grants and technical assistance to municipalities looking to establish municipal TDR programs and may provide funds for the purchase of development credits. The State TDR Bank will also provide financial backing on loans secured using development credits as collateral and keep records of all development credit transfers within the State. Harmony Township may benefit from participating in a TDR program, primarily as a municipality with sending areas.

Non-contiguous cluster zoning is a planning technique that allows one parcel to be preserved while its density is transferred and developed instead on a different, noncontiguous parcel. This technique, first authorized in 1996, allows a municipality to approve “planned developments” consisting of two different parcels, where the “sending area” parcel is preserved, for example, as farmland or open space, and the “receiving area” parcel is developed at a higher than otherwise normally permitted density. Non-contiguous cluster zoning is not currently used in Harmony

Township, where there is minimal opportunity for new development in the higher density zones that accommodate residential development. The general sentiment in Harmony regarding density transfer programs is that management of such a program on the local level is beyond the capacity of the municipal government.



Chapter 4. Farmland Preservation Program

There are 7,543 acres of farm-assessed land in Harmony Township, including 5,778 acres devoted to active agricultural use.⁴ (**Inventory Table 1** and **Map 1**) Farms in the Township have been preserved using a variety of programs, and the town remains firmly committed to farmland protection.⁵

A. Warren County Agricultural Development Areas (ADAs)

1. Statutory and County Criteria

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

- 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 land must comprise no greater than 90% of the agricultural land mass of the County.
- Any attributes deemed appropriate by the Board must also be incorporated.

Prior to 2008, the entire County had been designated as the ADA, except for Hackettstown, Belvidere, Philipsburg, and Washington Borough. As part of the *2008 Comprehensive Farmland Preservation Plan*, the CADB updated the ADA using the following criteria:

- Land is currently in agricultural production or has strong potential for agricultural production, or is farm assessed through a woodland management plan.

⁴ *Note:* These numbers are determined by GIS parcel data analysis and thus differ slightly from the Farmland Assessment statistics referenced in Chapters 1 and 2, which derive from reports compiled by the New Jersey Division of Taxation based on filings from Township tax assessor.

⁵ See **Inventory Tables** section at the end of the document.

- 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.

Utilizing the state's regulatory criteria for designating ADA and existing farmland assessment data, the County designated an ADA on a county-wide basis that does not exceed 90% of the County's agricultural land base. Beginning in 2011, the Warren County Department of Land Preservation and the CADB amended the ADA to include farmland who owners had expressed interest in preserving their property, but the land had not been included in the 2008 ADA. This was summarized in the *2017 Farmland Plan Update*. There were no changes in Harmony's ADA.

2. Agricultural Development Area – Harmony Township

Overall, there are 7,543 acres of farm assessed parcels in Harmony Township. Of this, 7,437 acres (98.6%) of farm assessed land in Harmony is included within the Warren County ADA. All lands in Harmony Township except for Merrill Creek Reservoir and some of its surrounding land is included in the Warren County ADA.

Map 1 and **Map 2** show the farm assessed lands in the Township, including all preserved farms. A map of the location of the ADA in Harmony is included within **Map 4**. The ADA West Project Area, in which Harmony Township is located is shown on **Map 5**.

B. Farmland Preserved to Date by Program

As of September 2021, there are 36 farms (2,793 acres) preserved in Harmony Township, at an average cost of \$5,248 per acre. The State of New Jersey, through the SADC, has spent \$9,274,651, or approximately 63% of the total cost share in Harmony. Warren County has expended a total of \$3,988,979, or 27% of the total cost share. (**Table 14**)

Twelve projects totaling 1,019 acres (36% of the total preserved farmland) are protected through the County Easement Purchase program. The SADC Direct Easement program preserved four farms (489 acres), or 18% of total preserved farmland. Harmony Township, through the Municipal Planning Incentive Grant Program (PIG) preserved 412 acres in seven projects (15% of total preserved farmland). One farm has been preserved through the Municipal Farmland Preservation Program, totaling 219 acres. The CADB, preserved seven farms through the County PIG, totaling 417 acres, or 15% of total farmland. The remaining farmland was preserved through the Non-Profit Easement Purchase program in five projects (237 acres, or 8% of the total preserved farmland).

As of September 2021, there are five farms pending preservation in Harmony Township. Three of these farms are expected to be preserved through County PIG, one through Muni PIG, and another through Non-Profit Easement.²⁷

Table 14. Preserved Farms in Harmony Township

Farm	Program	Acres	Total Cost	State Cost	County Cost	Municipal Cost	Cost Per Acre	Year Purchased
Risko, Louis	County EP	97	\$158,623	\$126,898	\$31,724		\$1,633	1997
Heeres, Harold	County EP	144	\$469,521	\$339,500	\$130,021		\$3,250	2000
Hengst Farm	SADC Direct	180	\$641,612	\$227,578	\$0		\$3,562	2000
Vegh Brothers	County EP	110	\$351,514	\$254,847	\$96,666		\$3,194	2000
Fischer-Bigelow, Barbara	County EP	176	\$722,408	\$366,364	\$356,044		\$4,111	2001
MacQueen, William	County EP	55	\$299,844	\$136,293	\$163,551		\$5,500	2001
Magyar	SADC Direct	127	\$988,591	\$988,591	\$0		\$7,625	2002
F. Santini	SADC Direct	52	\$165,974	\$165,974	\$0		\$3,200	2004
Hengst, L.	County EP	63	\$239,727	\$169,070	\$70,656		\$3,800	2005
Hamlen/McNerney	Muni PIG	20	\$103,585	\$55,589	\$12,046	\$35,950	\$4,000	2007
Schanzlin, Robert	County EP	83	\$531,974	\$299,190	\$232,783		\$6,400	2007
Jansen	County EP	76	\$394,488	\$213,414	\$91,346		\$4,000	2007
Duckworth #1	County EP	69	\$472,987	\$299,095	\$173,892		\$6,800	2008
Duckworth #2	County EP	71*	\$547,400	\$344,080	\$203,320		\$7,000	2008
Duckworth #3	County EP	24	\$166,606	\$104,129	\$62,477		\$6,800	2008
Duckworth #4	SADC Direct	130	\$781,200	\$781,200	\$0		\$6,000	2008
Sakele	Muni PIG	105	\$915,080	\$292,742	\$440,899	\$181,439	\$8,700	2008
Denjoe	Muni PIG	63	\$531,634	\$322,717	\$104,508	\$104,408	\$8,400	2008
Tjalma	Municipal	219	\$1,463,700	\$928,950	\$267,354	\$267,354	\$6,682	2008
Venner	County EP	51	\$390,047	\$241,213	\$148,833		\$7,535	2008
Demeter #3	County PIG	0.62*	\$4,340	\$2,635	\$0		\$7,000	2010
Kinney	County PIG	121	\$545,161	\$361,018	\$184,143		\$4,599	2011
Sunny Hill	NP EP	17*	\$122,132	\$0	\$61,066		\$6,950	2014
Farley Acres	Muni PIG	104	\$581,655	\$384,307	\$98,673	\$98,673	\$5,600	2015
Al-Ruby	Muni PIG	23	\$165,319	\$103,914	\$30,702	\$30,702	\$7,000	2015
Apgar	Muni PIG	18	\$125,419	\$78,834	\$23,292	\$23,292	\$4,400	2015
Smith, J&K #1	County PIG	49	\$296,742	\$184,782	\$111,960		\$6,000	2015
Smith, J&K #2	County PIG	50	\$277,112	\$183,901	\$93,210		\$5,500	2015

Table 14. Preserved Farms in Harmony Township

Farm	Program	Acres	Total Cost	State Cost	County Cost	Municipal Cost	Cost Per Acre	Year Purchased
Schanzlin	Muni PIG	79	\$473,808	\$307,972	\$82,917	\$82,917	\$6,000	2016
Star D	NP EP	38	\$267,140	\$133,570	\$133,570		\$6,900	2017
K-J	NP EP	60	\$233,009	\$116,504	\$116,504		\$3,850	2017
Burke #1	County PIG	78	\$275,565	\$196,832	\$78,733		\$3,500	2018
Burke #2	County PIG	18	\$141,226	\$86,908	\$54,318		\$7,800	2018
Tjalma #2	NP EP	59	\$290,599	\$145,299	\$145,299		\$4,900	2019
Santini	NP EP	63	\$208,624	\$104,312	\$104,312		\$3,800	2020
Shandor	County PIG	100	\$310,589	\$226,429	\$84,160		\$3,100	2021
TOTAL (36):		2,793	\$14,654,955	\$9,274,651	\$3,988,979	\$824,735	\$5,248	
Percent Contribution:				63%	27%	6%		

**Duckworth #2 is partially located in White Township with around 71 acres in Harmony Township.*

**Demeter #3 is partially located in White Township with around 0.62 acres in Harmony Township.*

**Sunny Hill Farm has a portion in Lopatcong Township with around 17 acres in Harmony Township*

Muni PIG: Municipal Planning Incentive Grant program

County PIG: County Planning Incentive Grant program

County EP: County Easement Purchase program

SADC Direct: State Direct program

NP-EP: Non-Profit Easement Purchase program

Since the completion of the *2008 Farmland Plan*, **23 farms** have been preserved, protecting **1,391 acres** of agricultural land. These have been preserved through the Non-Profit program in partnership with The Land Conservancy of New Jersey, and the Municipal and County PIG programs. The largest farm preserved since 2008 is Duckworth #4 and it was completed directly by the SADC. The Township Committee remains committed to protecting the agricultural legacy and rural character of the municipality.

1. County Easement Purchase

County Easement Purchases (CEP) involve the sale of farmland development rights to the county by the landowner. To be eligible for the County Easement Purchase program, the land must be in the ADA and be eligible for farmland assessment. In Harmony, 12 farms have been preserved through the County Easement purchase program, protecting 1,019 acres of farmland.

2. 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. Warren County completed their *2008 Comprehensive Farmland Preservation Plan* to bring it into compliance for the County Planning Incentive Grant program. In Harmony, seven farms have been preserved through the County PIG program, protecting 417 acres of farmland. (**Table 15**)

Table 15. County PIG Farms in Harmony Township				
Farm	Acres	Total Cost	County Cost	Year Purchased
Demeter #3	0.62	\$4,340	\$0	2010
Kinney	121	\$545,161	\$184,143	2011
Smith, J&K #1	49	\$296,742	\$111,960	2015
Smith, J&K #2	50	\$277,112	\$93,210	2015
Burke #1	78	\$275,565	\$78,733	2018
Burke #2	18	\$141,226	\$54,318	2018
Shandor	100	\$310,589	\$84,160	2021
Total:	416.62	\$1,850,735	\$606,525	

3. 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. To qualify for this program, the municipality must have an agricultural advisory board and a source of funding for farmland preservation. Farms to be preserved through a municipal PIG need to be approved by the CADB. As part of a municipal PIG, the SADC funds 60% of the development easement purchase with the County and the municipality splitting the remaining cost.

In Harmony, seven farms have been preserved through the Muni PIG program, protecting 412 acres of farmland.

4. SADC Direct Easement Purchase

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. The Direct Easement Program does not usually receive monetary contributions from the County or municipality.

In Harmony, four farms on 489 acres have been preserved through this program at a cost of \$2,577,377 in state funds.

5. SADC Fee Simple

A fee simple acquisition involves an entire property being purchased directly by the state. 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 property is then resold at auction, and the SADC does not retain ownership. To participate in this program, the farmland must be within an ADA, and be eligible for Farmland Assessment. No farms in Harmony have been preserved through a SADC fee simple acquisition.

6. Nonprofit Grant Program

Grants from the SADC to nonprofit organization fund up to 50% of the fee simple or development easement values on farms. To date, five farms on 237 acres have been preserved in Harmony Township through the nonprofit program at a cost of \$499,685 in state funds. (**Table 16**) These have been done in partnership with The Land Conservancy of New Jersey.

Table 16. Nonprofit Farms in Harmony Township				
Farm	Acres	Total Cost	State Cost	Year Purchased
Sunny Hill	17	\$122,132	\$0	2014
Star D	38	\$267,140	\$133,570	2017
K-J	60	\$233,009	\$116,504	2017
Tjalma #2	59	\$290,599	\$145,299	2019
Santini	63	\$208,624	\$104,312	2020
Total	237	\$1,121,504	\$499,685	

7. Transfer of Development Rights

TDR is a growth management tool that transfers development rights from one location, a sending or preservation area, to another, an identified growth or receiving area. To date, this program has not been used by Harmony to preserve farmland.

8. Other Programs and Partnerships

Municipal Farmland Preservation Program. Harmony Township preserved one farm, the 219-acre Tjalma farmland tract. The Township purchased the development rights to this farm in 2005 and closed in 2008.

Highlands Development Credit Bank. The Highlands Water Protection and Planning Act charged the Highlands Council with developing a Transfer of Development Rights (TDR) program for the Highlands Region. The Highlands Council adopted the TDR Program as part of the *Highlands Region Master Plan* and established the Highlands Development Credit Bank (HDC Bank) in June 2008 in support of the TDR Program. This program serves as one mechanism to address some of the equity concerns of property owners in the Preservation Area that have been affected by implementation of the Highlands Act.

The Highlands TDR Program allocates TDR credits called Highlands Development Credits or HDCs to sending zone property owners. HDCs may be sold to developers for use in appropriate voluntary receiving zones. Use of HDCs by developers in established receiving zones will permit developers to increase the density or intensity of proposed projects in those zones. Under the Highlands Act, participation as a receiving zone is voluntary.

Three properties in Harmony Township have been preserved through the HDC program, with a conservation easement held by the state.²⁸ (**Table 17**)

Table 17. HDC Properties in Harmony Township					
HDC Certificate Number	Property Owner at time of HDC Purchase	Block	Lot(s)	HDC Easement Recorded	Acres
2018-0003	Barry Shandor	24	10.07	2/26/2017	1.79
2018-0013	Robert Shandor	24	10.06	8/20/2018	2.31
2018-0015	Robert Shandor Sr. Testamentary Trust	24	10.05	9/18/2018	2.47
Total:					6.57

C. Term Farmland Preservation Programs

The Term Farmland Preservation Programs are cost sharing programs for soil and water conservation projects, in which the farmer receives up to 50% of the costs for these projects, as well as protection against nuisance complaints, emergency fuel and water rationing, zoning changes, and eminent domain actions. In return, the farmer signs an agreement that restricts the land to agricultural use for either eight years or sixteen years. For entrance into these programs and to qualify for benefits, a farm must be located within the county ADA. Technical assistance for the soil and water practices comes through the Natural Resource Conservation Service.

No farms in Harmony are currently enrolled in this program.

D. Coordination with Open Space Preservation Initiatives

Farmland preservation and the identification of targeted farms should be coordinated with open space planning efforts. Trail easements and adjacency to proposed and existing active recreational facilities are potential areas of concern for farmers. In Harmony, both farmland and open space preservation are coordinated through the Farmland/Open Space Committee. Harmony Township has a combined Open Space Trust Fund that is used for open space and farmland preservation.

The Committee is guided by this *Comprehensive Farmland Preservation Plan Update* as well as the Township's 2006 *Open Space and Recreation Plan*. The Township is currently updating its *Open Space and Recreation Plan* with grant funds from the Open Space Institute through the Delaware River Watershed Initiative. The *Plan Update* will offer a strategic view to open space preservation, targeting areas along the river corridor which have been subject to ongoing flooding and identifying connections between preserved farmland and public open space lands.

E. Farmland Preservation Program Funding Expended to Date by Source

The Harmony Open Space Trust Fund was approved in 1998 by voter referendum. The fund created a tax that collected two cents (\$.02) per one hundred dollars (\$100) of assessed property value. The approved uses of the tax were primarily to preserve farmland and secondarily, to protect water resources and provide outdoor recreation.

In November 2000, ballot questions offered voters the choice of raising the tax to four cents (\$.04) or ten cents (\$.10) to provide additional funds for preservation. Both measures passed - the first by greater than a 2 to 1 margin and the second by a narrow margin. As a result, the Township Committee passed an increase to five cents (\$.05) per one hundred dollars in April 2001. The tax rate was lowered to \$0.02 in 2020 and is expected to bring in \$95,805 to the Open Space Trust Fund. The fund has a current balance of approximately \$2,646,728. **Table 18** details the amount generated per year for the past six years.

Table 18. Harmony Open Space Trust Fund		
Year	Tax Rate	Amount Generated
2015	\$0.05	\$239,181
2016	\$0.05	\$239,449
2017	\$0.05	\$239,756
2018	\$0.05	\$239,091*
2019	\$0.05	\$238,646
2020	\$0.02	\$96,360

To date, the Township has expended \$1,842,155 from their Open Space Preservation Trust Fund to cover the costs for appraisals, survey, and title work for land preservation projects.

F. Monitoring of Preserved Farmland

The farms under easement in Harmony were preserved through the County Easement Purchase Program. In Warren County, when county funds are used for easements, the County monitors the property to verify that compliance with the deed restrictions on the preserved property is taking place. The Upper Delaware Soil Conservation District performs annual inspections of the property, which consist of completion of a form during a field visit to the farm. 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 removing 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

G. Coordination with Transfer of Development Rights Programs

Transfer of Development Rights (TDR) may be used in conjunction with the traditional Purchase of Development Rights (PDR) program; these two programs are not mutually exclusive. As previously discussed, Harmony Township is not currently enrolled in or developing a TDR program.



Chapter 5
**FUTURE FARMLAND
PRESERVATION
PROGRAM**

Chapter 5. Future Farmland Preservation Program

A. Preservation Goals

Harmony Township is 24.13 square miles (15,443 acres) in size. Of this, **7,543 acres (48%)** are under farmland assessment, which includes croplands, woodlands, farm structures, and wetlands/waterways that occur on an agricultural property.⁶²⁹ Since 1997, Harmony Township has preserved **2,793 acres** of farmland. (**Table 14**)

Based upon the State's Minimum Eligibility Criteria for productive soils and tillable land, **2,861 acres** are potentially eligible for farmland preservation in Harmony Township. In Harmony, a locally important farm can be **greater than 10 acres** in size. This analysis was done on a farm unit (where a farm consists of a collection of individual lots) and a farm parcel (one lot) basis.

Based upon the available funding to purchase and preserve farmland, and the amount of farmland potentially eligible for preservation, the following preservation goals are identified for Harmony Township:

One-year target:	75 acres, 1 farm
Five-year target:	400 acres, 6 farms
Ten-year target:	750 acres, 10 farms

B. Description of Project Areas

There are **7,543 acres** of farm assessed land in Harmony Township. Of this, **7,437 acres** are included within the County's ADA. Within the County's ADA in Harmony Township, **5,407 acres** are in active agriculture. In the *2017 Comprehensive Farmland Preservation Plan*, the Warren CADB identified seven project areas within the County's ADA for farmland

⁶ Note: For the ADA and Project Area analyses, the farmland assessed data is derived from the GIS digital data, which is slightly different from that reported for 2019 in the NJ Division of Taxation's 2019 Farmland Data Report (see *Chapter 1*). Preserved farm acreage for this chapter is also derived from the GIS digital data, which also differs slightly from the historical data on individual farm preservation (see *Chapter 4*).

preservation. Harmony Township falls within Project Area West for Warren County. The West Project Area in Harmony includes **7,437 acres** of farm assessed land. (**Table 19**).

Table 19. West Project Area in Harmony					
(acres)	Total Farm Assessed Properties	Unpreserved Farmland	Preserved Farm Parcels	Preserved Farms Assessed as Farmland	Active Agriculture
Harmony	7,543	4,763	2,793	2,793	5,778
Project Area West	7,437	4,658	2,793	2,793	5,407

C. Minimum Eligibility Criteria

Minimum Eligibility Criteria are based upon the SADC's rules for farmland preservation and project eligibility.⁷ 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) 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 more); or
- The land must meet the above criteria or 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 meet the above criteria or be eligible for allocation of development credits pursuant to a Transfer of Development Credits (TDR) program.

For a farm application to qualify for SADC cost share, the farm must have at least one parcel listed on the targeted farm list; comprise an assemblage of substandard parcels which together meet SADC minimum standards; or have sufficient justification by the municipal Agricultural Advisory Committee (AAC) and the Warren CADB that the parcels were not identified as targeted due to a specific mapping issue or other error.

⁷ Adopted by the SADC May 21, 2007, and July 25, 2019.

The Township may proceed without State funding on projects that do not meet these Minimum Eligibility Standards, but as a rule, the County and Harmony will not cost share on applications that do not meet SADC minimum standards. In all cases, the Harmony Township AAC will work closely with the Warren CADB to review and process applications from landowners for farmland preservation. The Harmony AAC will follow all County and State procedures to ensure consistency in application review and processing.

Within the identified project area, candidate farms are identified which meet the tillable land and soils minimum eligibility standards. To determine farms that are potentially eligible for preservation, a series of queries were made utilizing the ArcGIS 10.8.1 digital mapping software for soils and tillable land. These are described in further detail below and shown on target farm analysis maps, **Map A** (meeting tillable criteria), **Map B** (meeting soils), and **Map C** (farms meeting both criteria and over 20 acres– target farms).

Farmland that meets the SADC Criteria for Tillable Land

Tillable acreage was determined using the NJDEP 2015 Land Use/Land Cover mapping for agricultural lands. The land categories that are defined as the “tillable land” based on the 2015 NJDEP Land Use/Land Cover, 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 by size based upon the 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

Farms which meet the minimum eligibility criteria for tillable land in Harmony are shown on **Map A**.

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 if 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
 - ✓ Number of stony/gravelly soils on the farm

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.³⁰

Farm parcels are sorted on size based upon the 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

Farms in Harmony Township that meet the NRCS minimum eligibility criteria for soils are shown on **Map B**.

Farmland that meets SADC Criteria for both Tillable Land and Soils

Utilizing the tillable acreage determined from the NJDEP 2015 Land Use/Land Cover mapping for agricultural lands and soil acreage determined using the Soil Survey as prepared by the NRCS for prime farmland soils, soils of statewide importance, and soils of unique importance, farm parcels were sorted by size based upon the SADC Minimum Eligibility Criteria for tillable land and soils.

Farms in Harmony that meet the minimum eligibility criteria are shown on **Map C** and listed in **Inventory Table 2**. In Harmony, this analysis was run on both an individual farm parcel basis and for units of farms (which include a collection of parcels):

- ✓ Farm Parcel: Individual tax lot
- ✓ Farm Unit: Collection of parcels comprising one farm
- ✓ >10 acres: Locally important farm

Overall, there are **2,861 acres** of farm assessed land which meet the minimum eligibility criteria for the state's farmland preservation program greater than 10 acres and are located within the ADA. The 48 (target) farms are included in **Table 20** and on **Map C**.

Based upon the available funding to purchase and preserve farmland, and the amount of farmland potentially eligible for preservation the town has identified the following goals:

One-year target: 75 acres, 1 farm
 Five-year target: 400 acres, 6 farms
 Ten-year target: 750 acres, 10 farms

Table 20. Target Farms (Parcels and Units Over 10 Acres)

Block	Lot	Owner / Farm	Acres (GIS)
<i>Farm Parcels which have not been identified as part of a Farm Unit</i>			
8	10.01	BICHLER, MATTHEW & HOLLY	10.58
46	4.02	RYKER, GAIL	141.17
4	1	CLINE, LORRAINE	18.98
25	16	BAKER, JEFFREY & YVONNE	12.41
9	17.01	O'NEIL JAMES & JOANN	18.00
8	10	RTM PROP MAINTENANCE II LLC/FREER	23.88
44	20.01	WILKENS, FREDERICK R & PATRICIA C	23.09
37	5	DUTT, NATALIE O	59.68
25	19	TJALMA, BOUKE & AUKJE	34.99
21	42	WATERS DARLA MAE	81.29
25	17	YOUNG, ROBERT & KAREN	12.55
46	4.09	BREESE, MARJORIE & SHARPE, MARLENE	82.21
31	7	MCCANN, BRIDGETTE	27.00
7	14.01	MACOMBER, SHIRLEY	19.69
4	3	KELRICK FARMS, LLC	31.47
14	9	SMITH, JOHN H. & JEAN M.	110.04
25	19.01	KAISER, WILLIAM	13.63
7	11	HUMMER RICHARD L JR	47.03
8	14	HUMMER, RICHARD JR.	18.31
7	3	LAUBACH, R. GERALD & MICHELLE	10.96
33	7	FALCONE, EMIL	56.92
33	25.05	HNOT, WALTER RUDOLPH JR &SHELLEY	43.54
38	4	MERRILL CRK RES C/O PROJ DIRECT	61.63
35	8	NICOLOSI, DOMINIC AND ROBERT	22.68
26	34	DIOCESE OF METUCHEN	9.66
Total Farm Parcels Not Part of a Farm Unit (25 parcels):			991 acres
<i>Farm Units</i>			
10; 4	16; 2	CALAFIORE	47.30
44	23, 14, 10, 9	DALE CROUSE/FAMILY LLC	360.39
38	2, 25	GARRISON	227.39
18; 20	8; 5	HAGGERTY	68.14
7	13, 14	HARMONY SAND	180.45

Table 20. Target Farms (Parcels and Units Over 10 Acres)

Block	Lot	Owner / Farm	Acres (GIS)
44	22, 25	HASCHAK	26.51
21; 11.01	34.01, 34.07, 34.08; 1	HAYDU 1	17.62
21	34.04, 34.05	HAYDU 2	13.31
34	5.01, 5.02	KARP	30.09
18	7, 7.01	KOBER	45.87
46; 45; 44	3; 1; 15, 19	MCLAIN	140.79
44; 43	20; 40	MIGLIORE	77.83
37	10.01, 10.04, 10.02	MONTUORI	20.72
43; 37; 39; 44	26; 3; 4; 7, 5	PETRILAK 2	122.46
34	5.11, 5	PETTY	37.95
9	54.07, 54	POSTMA	21.86
26	43, 43.05	ROSS	34.72
26	27, 28, 42	SALTER	169.73
33	42.06, 42, 43	STECKER	86.99
31; 30	8.11, 8.10; 2, 2.01, 3	WARREN CTY FARMERS	79.02
19, 20	1, 8.02	WOOLVERTON, DORIS	13.24
20	8, 8.03	WRIGHT	35.80
33	54, 58	YEAGER	11.72
Total Farm Units (23 farm units):			1,870 acres
Total Target Farm Parcels and Units (48 farms):			2,861 acres

D. County and Municipal Ranking Criteria

The Warren CADB uses the SADC's ranking criteria as the basis for qualifying farms for preservation. The County would consider cost sharing with the Township on applications that do not meet the SADC minimum standards on applications that have compelling factors including (but not limited to) adjacency to other preserved farms or fit into the overall plan for the County for farmland preservation.³¹ In these special cases the CADB may use its own ranking sheet to determine each of the following for individual applicant farms:

- the quality of the local soils
- total tillable acres available
- local buffers and boundaries
- zoning
- County growth and existing infrastructure
- municipal commitment to agriculture
- other financial commitment to agriculture

Points are received in each category relevant to the suitability of the local conditions for agriculture. The higher the score received, the higher the ranking. For the municipal PIG program, the Warren CADB uses the SADC Minimum Eligibility Criteria as the basis for participating with the local municipality.

Harmony's ranking criteria are consistent with the county and state ranking criteria. Harmony Township is committed to preserving as much of the Township's agricultural land base as possible and supports innovative funding mechanisms and preservation tools. The focus of the Township's farmland preservation program is to preserve the productive agricultural landscape of the community.

E. Municipal and County Policies Related to Farmland Preservation Applications

Harmony Township follows the policies established by Warren County regarding housing opportunities, division of premises, and exception areas. These policies are documented in the *2017 Warren County Comprehensive Farmland Preservation Plan Update*. The Warren CADB follows the SADC's policies regarding these issues. Below is a summary of the state policies for each issue.

1. Approval of Housing Opportunities

Agricultural labor housing: Agricultural labor housing is not currently protected under the Right to Farm Act in the State of New Jersey and the SADC has not, to date, adopted an official policy for agricultural labor housing.³² However, the SADC recognizes the need for this type of housing and does have guidelines that a landowner must refer to construct labor housing on preserved farms for work on the preserved farm.

The guidelines are:

- Agricultural labor housing must be permitted with approval of easement holder and the SADC.
- Must verify need for "production" aspects of farm.
- Must be full time employed on the premises (seasonal labor is permitted).
- Structure must be sized appropriately based on labor needs.
- Cannot be used for owner or any lineal descendent of owner.³³

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, to minimize the impact on the agricultural operation. This is supported by the CADB and AAC for Harmony Township. In addition, the Township's position is that replacement houses should retain the same overall footprint and overly expensive dwellings should be avoided.³⁴

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. The maximum RDSO density is one residence per 100 acres. The purpose of the building in question must be for “single-family residential housing and its appurtenant uses.”³⁵ 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.” This is supported by the Harmony Township and Warren CADB. RDSO units must be requested at the time of application and approved by the WCADB and SADC prior to closing (SADC Policy P-31).

2. Division of the Premises

The goal of the SADC, supported by the Warren CADB and Harmony Township AAC, is to preserve large tracts of farmland. The division of the premises by way of subdivision may significantly alter the potential use of the preserved land. 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.

3. Approval of Exceptions

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. The SADC discourages the preservation of farms that do not have at least one exception, and it is important to take the number, size, location, and purpose of the exception into consideration. Exceptions may be granted in some circumstances, especially in the case of non-severable exceptions, or where the exception might be justified (e.g., to allow for the expansion of pre-existing non-agricultural uses, for trail easements, etc.). It is critical to make decisions about exceptions at the time of application, as exceptions cannot be granted, expanded, or moved once the farm has been preserved. 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 that 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.”³⁶ Typically, there is “no requirement to subdivide a severable exception prior to or after the deed of easement is executed.”

Non-severable: Non-severable exceptions are defined by the SADC as “area that is part of an existing Block and Lot owned by the applicant, which will not be subject to the restrictions of the Deed of Easement but cannot be sold separately from the remaining premises.”³⁷

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 Harmony Township follow the exception policies as identified by the SADC.

F. Funding Plan

The *Preserve New Jersey Act 2014* established that a portion of the Corporate Business Tax was to be dedicated to preservation efforts. Of this revenue, 60% is allotted to Green Acres, 4% goes to Blue Acres (administered by Green Acres), 31% is set aside for farmland preservation (SADC), and the remaining 5% goes to Historic Preservation (New Jersey Historic Trust).

1. Municipal and County Funding Sources

The Warren County Land Preservation Department is responsible for administering Warren County's Farmland, Historic, and Open Space Preservation Programs. In 1993, Warren County voters approved a non-binding public referendum by a margin of 2-1 which allowed for the collection of an additional tax of up to 2 cents per \$100 of assessed valuation. In November 1999 and again in November 2002, county voters approved non-binding open space referendums by large margins, each time recommending an increase in the open space tax of another 2 cents per \$100 of assessed property value.

The Open Space Trust Fund, which currently collects 2 cents per \$100 of assessed property value, has enabled Warren County to preserve over 20,000 acres of farmland, 1,700 acres of county parkland, and participate in numerous historical and open space preservation efforts with local non-profits and municipalities throughout the county.³⁸ The funds are allocated as follows:

- 55% to the CADB for farmland preservation.
- 25% to the Municipal and Charitable Conservancy Trust Fund Committee (MCCT) for non-profit and municipal sponsored open space and historic preservation projects.
- 20% to the Board of Recreation Commissioners (BORC) for acquisition of county parkland.

The Harmony Township Open Space Preservation Trust Fund was approved in 1998 by voter referendum. The current tax rate (2020) is set to two cents (\$0.02) per one hundred dollars (\$100) of assessed property value. The annual revenue to the Trust Fund is \$95,805. The Township has expended \$1,842,155 from the Trust Fund and the fund has a current balance of approximately \$2,646,728.³⁹

Allocations of funds from the Trust is under the purview of the Township Committee, which evaluates each initiative on merit. Historically, the Committee has tended to give priority to farmland, followed by open space, recreation development, then historic preservation.

Harmony Township has also bonded to finance farmland preservation. This has accelerated the Township's ability to proactively preserve farmland. For each of the farms the municipality purchased through the bond, the Township also sought state and county cost share funding.

2. Financial Policies – Cost-Share Requirements

Harmony Township works with Warren County according to its current cost-share requirements for preserving farms. The Warren CADB will fund one-half of the difference between the amount the SADC funds and the total cost for preserving a farm, based upon the Certified Market Value (CMV), through the municipal Planning Incentive Grant program. The remainder is funded by the municipality.

Harmony Township is supportive of donation/bargain sales and installment purchases. Both tools serve to leverage limited funding resources.

Donation and Bargain Sale: This mechanism for preserving a farm involves donation by the landowner. If the landowner donates a portion of the value of the development rights when an easement is sold, this is called a bargain sale. A bargain sale can result in substantial tax savings for the landowner and can stretch farmland preservation funds. The landowner donation is a reduction in the amount of gain that is subject to the capital gains tax, and the landowner can take a tax deduction for the amount donated against his or her federal and state income taxes.

Installment Purchase: Through an installment purchase agreement, development rights may be acquired by the Warren CADB through a payment plan that provides payments to the landowner over time. Receiving the income from the sale in installments may provide the landowner with financial management and/or tax advantages.

3. Cost Projections and Funding Plan Associated with Preservation Goals

The Harmony Township Open Space Preservation Trust Fund generates \$95,805 per year and has a current balance of \$2,646,727. The average cost was \$5,248 per acre to purchase a development easement on farms in the municipality. However, the cost of land has risen since the earliest acquisitions were made, affecting the cost per acre for future acquisitions. The Township looks to leverage the municipal funds with county and state cost-share grants on farmland projects. It is anticipated that the municipal cost share will average 15% (at a minimum). The following assumptions can be made:

- The Trust Fund generates \$95,804 per year.
- Average price per acre is \$5,248.
- The average price per acre will increase 5% over the next five to ten years.
- The Township is purchasing land in partnership with County and State (no direct purchase by Township).
- The municipal cost share is on average 15%.

Based upon the above assumptions and the Township's goal of preservation ten farms (750 acres) in the next ten years, it is anticipated that the Township will have a total project cost of \$5,250,000 and contribute \$787,500 over the same time, if their percent contribution remains at 15%. If it increases to 30% the municipal share will be \$1,575,000. This will require nearly the entire amount generated by the municipal trust fund over the ten-year period.

Utilizing the SADC sliding scale for cost-sharing, and the estimated per acre value of the purchase of a farmland easement in Harmony Township, it is likely that the state will contribute approximately 60% of the funding on a municipal PIG project with the County and Township contributing the remaining 40% (split equally, 20% and 20%).

G. Administrative Resources

1. Staff/Consultant resources

The Township of Harmony has an Open Space/Farmland Preservation Committee that meets as needed to discuss farmland projects and issues. This Committee developed the Township's initial *Farmland Preservation Plan* and administers the program for the municipality. The Land Conservancy of New Jersey assists Harmony Township with their farmland program.

2. Legal support

Legal support for Harmony Township's farmland preservation program is provided by the municipal attorney, up to the point of contract signature, after which the county attorney is used.

3. Database Development

The Township works with The Land Conservancy of New Jersey to maintain the database of farmland in the municipality and partners with the Warren County Department of Land Preservation on projects and data issues, as needed.

4. Geographic Information System (GIS) Capacity

The Land Conservancy of New Jersey has provided Geographic Information System mapping services for Harmony Township for the *Comprehensive Farmland Preservation Plan Update*.

H. Factors Limiting Farmland Preservation Implementation

Harmony Township has a strong commitment to preserve its farmland. The high rate of farmland preservation in Harmony Township has been attributable to the willingness and the ability of the Township to leverage its own funding to protect farmland. Harmony Township supports the municipal PIG program. Harmony Township's program faces financial challenges and competition from alternative uses (such as proposed warehouse development) as it moves forward in purchasing and preserving land during the next ten years.



Chapter 6. Economic Development

A. Economic Development Plans and Initiatives

Harmony continues to be mainly agricultural, with **8,753 acres** of land for agricultural or horticultural use.⁴⁰ The primary crops are hay, corn, and soybeans. Throughout the state, the marketing and profitability of the agricultural industry has gained renewed focus. The farmland preservation program is a critical component of the farming industry, and the success of the farmland preservation program in Harmony is measured not by acres preserved but also by the programs put in place to support the farmers and their businesses.

The future of agriculture in Harmony Township is being shaped by market forces and social trends that are occurring throughout New Jersey. Among the most substantial trends shaping local agriculture has been the decline in the dairy market. Dairy was the foundation of the region's agricultural industry, but the lack of support and demand, combined with the amount of labor involved, have resulted in only one remaining dairy farm in Harmony. Corn, soybeans, and hay are the primary crops, and farms that supported the dairy industry with these crops have moved toward different agricultural activities, such as agritourism and produce crops.

Land prices in Warren County have remained relatively stable for the past 5 to 10 years, though there has been recent development pressure from warehouse and solar projects. Development continues for commercial and light industrial purposes and can take land out of agricultural production.⁴¹ The combination of declining traditional agricultural markets and increasing land pressure will likely promote innovation in the ways farmers supplement their incomes. Farmers are meeting these challenges by producing goods with higher rates of return.

The NJDA *Smart Growth Tool Kit* provides information to support municipal and county government, 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, 2006*.^{42, 43} The Tool Kit embraces the five linked components that have been identified by NJDA as critical for the future of farming: Farmland Preservation, Innovative Conservation Planning, Economic Development, Agriculture Industry Sustainability, and Natural Resource Conservation. Additionally, the NJDA released a *2011 Economic Development Strategies* report to expand and

strengthen various sectors of the agriculture industry in New Jersey, including strategies for produce, horticulture, dairy, livestock and poultry, field crops, organic, equine, and agritourism.

The Warren CADB and its Department of Land Preservation are directly and administratively involved with the preservation and enhancement of farming in the County. This includes acquisition, monitoring, 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.⁴⁴

In 2017, 86 of Warren County's 918 farms, or 9% of all farms, had sales of more than \$100,000, accounting for 92% of the total revenue. This leaves 91% of farms accounting for 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. From a profitability standpoint Warren County farms had a net cash farm income of \$21,227 in 2017. The average farm market value of \$101,543, was lower than the statewide average of \$111,095.^h (**Table 21**)

Table 21. Warren County Agricultural Economic Overview			
	2007	2017	% Change to 2017
Market Value/Products Sold (\$1,000)	\$75,477	\$93,217	24%
Average/Farm (\$)	\$80,897	\$101,543	26%
Production Expenses (\$1,000)	\$59,355	\$77,551	31%
Average/Farm (\$)	\$63,617	\$84,478	33%
Net Income (\$1,000)	\$20,843	\$21,227	2%
Average/Farm (\$)	\$22,340	\$26,650	19%
Farms w/Net Gains	358	309	-14%
Average/Farms (\$)	76,983	101,820	32%
% of All of Farms	38%	34%	-11%
Farms w/Net Losses	575	609	6%
Average/Farm (\$)	11,682	16,807	44%
% of All of Farms	62%	66%	6%
Total Acres	74,975	73,874	-1%
All Farms	933	918	-2%
Average Acres/Farm	80	80	0%
<i>Source: Census of Agriculture</i>			

^hCensus of Agriculture data is available through the USDA NASS portal: <https://www.nass.usda.gov/AgCensus/index.php> or through specialized searches on the Quick Stats interface accessed here: <https://quickstats.nass.usda.gov/>. Citations throughout this document refer to information gathered from these sources for the indicated years.

Using the *Census of Agriculture*, crop sales climbed slowly from \$8.3 million in 1987 to \$18.4 million in 2002, before jumping to \$43.6 million in 2007 and continuing to climb to \$54.7 million in 2012 and to \$67.1 million in 2017. Within the crop sector, nursery/greenhouse was the largest sub-sector in 2017 with 61% of the market share, more than the 46% market share in 2012. The grains sub-sector came in second, with 21%, and vegetables, fruits, hay, and Christmas trees all lagged with 10%, 4%, 4%, and 1%, respectively. Over this same 30-year period (1987-2017), livestock sales went from \$27 million in sales in 1987 before slightly improving to \$31.9 million in 2007 then declining to \$26 million in 2017.

As part of this emphasis on the business of agriculture, the NJDA issued the *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.”⁴⁵

Using recommendations outlined in the *2011 Economic Development Strategies* report, Warren County municipalities, including Harmony Township, can investigate ways to expand and/or diversify into more profitable sectors to ensure sustainable agriculture practices and profitability. For each of the sectors, the 2011 report encourages farmers to continually seek new local, state, and interstate markets to strengthen market share. Harmony Township had 161 Farmland Assessment forms for 2017.^{46 i}

Produce

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 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. Harmony farms with appropriate activities benefit from such promotion.

The NJDA *2011 Economic Development Strategies* for produce focused on the *Jersey Fresh* program and food safety. NJDA’s *Jersey Fresh* labels program is promoted throughout the state, to strengthen the appeal of the *Jersey Fresh* brand to supermarket chains and other retailers. This has been largely successful, with major retailers such as Wegmans, ShopRite, Trader Joe’s, Target, ACME, and Foodtown (among others) carrying and promoting produce from the *Jersey Fresh* program.⁴⁷

ⁱ Farmland Assessment data has been accessed from datasets shared by the SADC; data referenced as Farmland Assessment refers to data from the following reports: either Warren County data for the years 2000, 2005, 2015, and 2017, and/or for state data for 2017.

Produce, which includes vegetables and fruits, is a leading agricultural commodity in New Jersey. In 2017, Warren County vegetable growers on 94 farms harvested 1,671 acres, with resulting sales of \$6,388,000. Fruit, tree nut, and berry combined sales totaled \$2,601,000 in 2017, an increase of 16% from 2012. Total produce sales increased after 2002, from \$5,324,000 in 2002 to \$8,989,000 in 2017, a 69% increase.

Harmony had a total of 32 acres which were harvested for fruits and vegetables in 2017, a slight decrease from the 33 acres in 2015, and a larger decrease from the 45 acres in 2005. The two prominent crops in 2017 were apples (15 acres) and peaches (11 acres). 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.

Farmers with roadside stands or markets should have their own websites, and utilize other websites and regional events, to gain visibility. Opportunities for promoting produce (and, in many cases, numerous other agricultural products) include:^j

- NJDA *Jersey Fresh* website listings have recorded three Harmony farms, including two farms with pick your own and farm market operations, and one *Jersey Fresh* on-farm market.⁴⁸
- *Jersey Fresh* also offers community-supported agriculture (CSA), where residents can pledge to support a farm in advance of the growing season, and then receive shares of the total harvest in return. Genesis Farms in nearby Frelinghuysen is a community supported farm.⁴⁹
- *Rutgers New Jersey Agricultural Experiment Station Cooperative Extension (NJAES-RCE)* created an educational website dedicated to agritourism for the public, planning and policy professionals, farmers, and educators.⁵⁰
- 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 throughout 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.⁵¹
- *Natural Jersey* is a site promoting local natural health products and sustainable living. They highlight producers, such as farms, farm stands, and farmers markets throughout New Jersey which align with their mission, including nearby farms and vineyards.⁵²
- *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.⁵³

^j These websites are not meant to exclusively promote produce-centric farms, but rather to highlight various farms and events throughout Warren County, including Harmony.

- *Warren County Farmers Fair* is a weeklong festival in Harmony featuring many local farms offering products for sale, as well as hot air balloons, artwork, and other attractions.⁵⁴
- *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.⁵⁵
- Other resources listing direct marketing opportunities for produce in Harmony 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).

Specific recommendations include:

- Utilize consistent, inclusive, and up to date accurate information from the state, county, and regional/association websites.
- Establish or reestablish community farmers markets with help from the CADB, the RNJAESCE, and the Warren County Economic Development Advisory Council.
- Explore expansion/diversification into value-added produce products, such as jams and jellies, in workshops and direct communications from the CADB in concert with the NJDA and Rutgers.
- Explore “Contract Growing,” that is, growing goods for specific customers on a contract basis (such as regional pharmaceutical or biotech companies).
- Explore diversifying into ultra-niche crops and produce crops that serve the needs of growing ethnic populations in the region, through RNJAESCE workshops, videos, and resources: <https://njaes.rutgers.edu/ultra-niche-crops/>,⁵⁶ <https://sustainable-farming.rutgers.edu/alternative-world-crops/>.⁵⁷
- Utilize state promotional campaigns, free signage, and other signage opportunities.
- 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 was the highest-ranking category of agricultural commodities in Warren County in both 2012 and 2017, bringing in \$25,248,000 and \$40,793,000, respectively. It accounted for 28% of total agricultural sales in 2012, and 44% in 2017, versus 40% and 45% statewide.⁵⁸ 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, and jumping again to \$40.8 million in 2017. The county experienced a 232% revenue increase from nursery/greenhouse products from 2002 to 2012, and a 62% increase from 2012 to 2017. 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.

Harmony had a total of 40 acres dedicated to nursery (including cultivated sod and floriculture) in 2017, a decrease from 106 acres in 2015, and 95 acres in 2005. Harmony Greenhouse, LLC in Harmony Township is on the directory of current state certifications⁵⁹ indicating that their stock has been inspected and found to be free from dangerous injurious plant pests. There are no greenhouse or nursery operations listed as certified to market the *Jersey Grown* brand in Harmony.⁶⁰

In addition to those strategies listed above where nursery, greenhouse, floriculture, and sod products may be applicable, other strategies to follow may include:

- Increase consumer awareness of the *Jersey Grown* brand; utilize the resources of the New Jersey Department of Agriculture for advertisement and marketing purposes.
- Seek and/or expand contracts with large box store operations such as Home Depot, Lowe's, and Walmart; contact Warren County for opportunities.
- Promote "drive up" operations where consumers can buy directly from the nursery or greenhouse.

Field and Forage Crops

The NJDA *2011 Economic Development Strategies* for field and forage crops provide strategies to improve production, yield per acre, and management practices; and support organic crop production plans for a green energy initiative involving biofuel production that could provide a new local market for New Jersey agricultural products. The three prominent crops in Harmony are corn, hay, and soybeans.

In 2017, the County reported total sales of grains, oilseeds, dry beans, and dry peas to be \$13.9 million, a -28% change since 2012 (\$19.2 million) with hay and other crops totaling \$2.7 million, a 47% change since 2012 (\$1.8 million), together representing approximately 23% of total agricultural sales in Warren County.

Corn In 2017, Warren County ranked second in the State for corn, with a total of 18,431 harvested acres (17,701 acres of corn for grain, and 730 acres of corn for silage), which brought in a total of \$9.9 million in sales. In 2012, Warren County harvested 20,883 acres of corn (19,575 acres of corn for grain, and 1,308 acres of corn for silage), resulting in sales of \$15.4 million. Though the total monetary amount for corn sales is not released on a municipal level, Harmony farmers harvested a total of 2,121 acres of corn (2,077 acres of corn for grain, and 44 acres of corn for silage), a minimal decrease from 2015 when 2,130 acres of corn was harvested (2,061 acres of corn for grain, and 69 acres of corn for silage).

Hay Harmony harvested 877 acres of hay, including alfalfa hay in 2017, a very slight decrease from 2015 when they harvested 881 acres. Warren County on a whole harvested 10,340 acres of hay (including alfalfa hay, excluding haylage) in 2017, bringing in a total of 24,669 tons, an increase from 10,155 acres harvesting 18,836 tons in 2012.

Soybeans Warren County ranked fifth in the state for soybeans in 2017, with 63 farms harvesting 8,285 acres of soybeans, bringing in a total of \$3.7 million in sales. The 2017 numbers show a strong increase from 5,661 acres harvested in 2012 totaling \$3.4 million in sales, and the 5,382

acres harvested in 2007 bringing in a total of only \$1.7 million. While the acres of soybeans harvested and the total yield both increased from 2007-2017 by 54% and 56% respectively, the increase in total sales grew by an incredible 118%. Harmony farmers harvested a total of 893 acres of soybeans in 2017, a slight increase from 859 acres in 2015.

Field and forage crop strategies to consider include:

- Utilize improved management practices and ways to boost yield per acre.
- Capitalize on any available workshops on cropland and pasture management from the county or state.
- Diversify 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) and pursue 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.”⁶¹ World Crops,⁶² of which RNJAES is a sponsor, can point farmers to crops that meet the needs of ethnic populations in the area.
- Transition to certified organic or naturally grown bean and grain crops to increase their value.
- Investigate and possibly invest in crop insurance to mitigate market risk.
- Utilize county assistance to investigate alternative crops for local production and new markets (such as hops, specialty small fruits, small-scale animal products).

Dairy

Dairy has historically been one of the dominant agricultural sectors throughout Warren County but is now almost completely gone. In 2017, Warren County had 22 farms with milk cows, and 16 farms that sold milk from cows, bringing in \$3.3 million. As of 2017, Harmony had 197 head of dairy cattle compared to 1,022 head in 2005. This decrease in dairy production reflects the larger trend seen throughout Warren County. There is one active dairy farm on Marblehill Road, which was leased to a dairy farmer with his own herd of cattle.

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. Strategies for reviving the Harmony dairy industry include:

- If applicable, 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 (A585, re-introduced in the 2020-2021 State Legislative session, pending in the Assembly Agriculture Committee).⁶³

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 Harmony include cattle and calves (both beef and dairy), sheep and goats, hogs, fur animals, and poultry and eggs. (**Table 22**)^k

Table 22. Livestock and Poultry in Harmony					
	2005	2010	2015	2017	% Change (2005-2017)
Cattle and Calves	1,169	757	452	328	-72%
Sheep and Goats	148	105	207	226	53%
Swine	5	11	9	18	260%
Bees	14	3	7	0	-100%
Ducks	10	16	36	38	280%
Fur Animals	0	0	37	18	100%
Meat Chickens	14	22	38	53	279%
Egg Chickens	58	165	108	205	253%
Turkey	0	0	0	2	100%
Other Livestock	23,126	16,656	15,250	10,026	-57%
<i>Source: Farmland Assessments (SADC)</i>					

Between the years 2005 and 2017, the cattle stock dropped by 72%, reflective of the end of dairy, and a corresponding reduction in beef cattle.

Other livestock that shows downward trends in Harmony are bees (-100%) and other livestock (-57%) The fastest growing animal industry is ducks, with 280% growth between 2005 and 2017. Other growing animal herds are meat chickens (279% growth), egg chickens (253% growth), swine (260%), fur animals (100%), and turkey (100%).

^k In the 2017 Farmland Assessment, 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.

Sheep and goats increased 53% over this twelve-year time, indicating a niche sector for farmers to explore to provide specialty meat and value-added, such as milk, cheeses, soaps, and mohair products to nearby markets. The national price for wool in 2019 was \$1.89 per pound and the average yield per fleece was 7.2 pounds. *Grown in Warren* highlights the growing demand for sheep and goats due to growing ethnic food market.⁶⁴

In Harmony, the “Other Livestock” category refers to their Pheasant industry. Despite the decline over the twelve-year period, this is still a strong and unique presence in the Township.

To strengthen and expand its place in the Harmony agricultural economy, some livestock and poultry strategies may include:

- Ensure animal health.
- Encourage USDA inspections in area farms 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 NRCS.
- 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 towards research and technical assistance for organic growers.

Organic crops and animals have the potential to be an important market for the Township of Harmony and 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 USDA 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.

“Natural” farming 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. Another alternative, for farmers transitioning to organic production, is the ability to market their products under the NJDA’s newly introduced “Transitional Sustainable” label, eliminating the need to wait 36-months to profit from this niche market. With its strong produce sector, Warren County is in an excellent position to facilitate the market growth of organic and natural agriculture products. Certified Naturally Grown (CNG) is a nonprofit 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.

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 if 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 if the retailer does not re-package or process the product (*NOP*).⁶⁵

In 2017, the Census reported two Warren County farms with the USDA NOP certification, one farm making the transition to NOP certification, and one farm which was listed as exempt from certification. On the state level in 2017, 102 farms reported \$13 million in sales of NOP certified or exempt organically produced commodities. There is an opportunity for other farms to invest in this practice to satisfy the continually growing trend.

Warren County and Harmony can:

- Improve marketing of organic and natural produce.
- Explore various additional markets, including local restaurants and grocery markets.
- Promote agritourism for organic and natural farms stands.
- Educate growers about organic and natural regulatory and certification requirements.
- Explore ways to support organic food growing and processing.

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, and including youth programs. The *2017 Census of Agriculture* indicates that New Jersey produced over \$28 million in equine sales. 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. Farms which have breeding services 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, Harmony can:

- Ensure the health of equine animals.
- Educate farmers about the benefits of equine rules and seek guidance from Warren County 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 equine events in state, regional, and County website and print listings.
- 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. 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 January 2012, Governor Christie signed into law in a bill permitting direct shipping by New Jersey wineries,⁶⁶ 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.⁶⁷ In February of 2020, A2773 was introduced which would "allow preserved farms to hold 14 special events per year,"⁶⁸ essentially establishing the pilot program in law. The legislation was voted out of Assembly Committee.

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.⁶⁹ There is one new winery in Harmony Township, called Little Ridge Vineyards. Agricultural ventures with strong agritourism draw bring new business and vitality to the region. Until May of 2018, Harmony had no acres dedicated to grapes. Little Ridge Vineyards offers wine tastings, vineyard and production tours, wine festivals and events, farm to table dinners paired with estate wines, and wine trails with other local wineries. Warren County had a total of 141 acres growing grapes in 2017, an increase of 117% from the 65 acres in 2005.

Harmony may consider:

- Exploring the feasibility for additional Warren County and Harmony 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.
- Market through state tourism and marketing apparatuses, including the *Jersey Fresh* site (<https://findjerseyfresh.com/explore/#findfresh>), and the Official Tourism Website of New Jersey, visitnj.org.
- Encouraging promotion of Warren County and future Harmony 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 aquaculture operations rank third in the state and include catfish, trout, baitfish, sport or game fish, and other food fish. To support a growing aquaculture and seafood economy, Warren County and Harmony 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

Agritourism is one potential link in the long-term sustainability of the agriculture industry in Harmony and Warren County. A highly successful example of agritourism is the seven-day Warren County Farmers Fair held annually. The Farmers Fair, which highlights the past and present agriculture heritage of Warren County, has been operating since 1937, and is extremely popular, drawing thousands of visitors each year.

One advantage for Harmony farmers is the proximity to New York City and Pennsylvania’s metropolitan areas, providing 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.⁷⁰

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 (NJFB). 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 is in season, and a map of various agritourism destinations. In 2011, the NJAES-RCE 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.⁷¹

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.”⁷²

The *2017 Census* reports that Warren County had \$4.4 million in direct sales, representing 5% of total agricultural sales for the County. This is an increase of 245% over 1997, even while the total number of farms increased by only 4%. (**Table 23**)⁷³

Table 23. Direct Sales in Warren County: 1997-2017						
	1997	2002	2007	2012	2017	% Change '97- '17
Farms	162	174	221	161	169	4%
Sales (\$1,000)	\$1,277	\$1,545	\$1,952	\$2,150	\$4,403	245%
<i>Source: Census of Agriculture</i>						

The wine sector has introduced not only tasting rooms and tours, but innovative programs such as music nights and weekend runs through the vineyards in neighboring towns. This sector can benefit local agriculture as additional income. Agritourism helps change the perspective of the non-farming community and increases visibility, understanding, and appreciation of farming by residents and visitors. Visibility is given to agritourism opportunities through the many websites and publications available. **(Table 24)** For every dollar in agritourism sales, \$0.58 of additional sales are generated in other businesses (e.g., restaurants, construction, insurance, etc.).⁷⁴

Table 24. Agritourism Websites and Publications	
Source	Description
<i>State</i>	
NJDA <i>Jersey Fresh</i> Website ⁷⁵	Roadside markets On-farm activities Wineries
NJAES-RCE	Agritourism education ⁷⁶
NJDA <i>Jersey Equine</i> Website	Equine events ⁷⁷ Equine facilities ⁷⁸
<i>Visit New Jersey Farms</i> Website ⁷⁹	Farms, farm products, activities and events Ability for website visitor to build itinerary of farms to visit
Visitnj.org (Office Tourism Website of New Jersey)	Farms & orchards ⁸⁰ Wineries & vineyards ⁸¹ Fairs ⁸²
<i>Regional</i>	
New Jersey Skylands Website ⁸³	Calendar of events Farms, Gardens, Wineries section Family Attractions section, where several regional farms and wineries are listed
Warren County Website ⁸⁴	Tourism page includes links to countrywide and regional attractions
Explore Warren ⁸⁵	Farm markets, and pick-your-own
<i>Organizations</i>	
NJ Farmers Direct Marketing Association, Inc. (www.njfarmmarkets.org) ⁸⁶	Farms and farm markets
New Jersey Christmas Tree Growers Association ⁸⁷	Christmas Tree farms

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 – support the development of a New Jersey Agritourism Limited Liability act modeled after laws in Virginia and North Carolina and explore ways to reduce costs of liability insurance; encourage farmers and operations to protect their livelihoods with insurance.
- Regulatory guidance for operators – includes proactive communication about relevant regulations, and education about requirements and protections under the Right to Farm Act; address impediments to signage.
- 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; 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.
- School tours – identify and compile farm-related curriculum for different grade levels.

Harmony can work with the state, the CADB, state agencies, 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 Harmony 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 Institute⁸⁸ 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.
- 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.⁸⁹
- 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.

- 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 Harmony and 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).
- 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.⁹⁰ Additionally, the NJAES-RCE has publications available on its website on specific agritourism topics, such as how to budget for a corn maze.⁹¹

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.” Two areas of focus were called out: Farmland Assessment and Crop Insurance and Technical Assistance; and Export Development:

- Farmland Assessment – Updating documentation, supporting farmers in filling out applications, and supporting tax assessors in determining farmer eligibility.

- Crop Insurance – 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.
- Technical Assistance – Offering assistance concerning the New Jersey Uniform Construction Code as it relates to farm buildings and the Real Property Appraisal Manual, Farm Building Section.
- Recycling and Food – Increasing participation in agricultural plastics recycling programs and assisting food processing industry in finding markets for soon-to expire and expired foods.
- Motor Vehicle Requirements – Providing information about regulations, license plates for farm vehicles, and other vehicle related provisions through a user-friendly website.
- Financing – Providing information on federal, state, and commercial lending institutions financing for agricultural loans.

Grown In Warren (2019)

Harmony farmers continue to look for ways to explore new markets, promote their products, and increase the profitability of their agricultural operations. In 2019, Warren County released a report titled, *Grown in Warren, A Strategic Growth & Planning Report*, which outlines strategies for both Warren County and local farmers to “promote the sustainable growth of farming and related business.” The report includes an analysis of the opportunities, challenges, trends, and recommendations for the agricultural community in Warren County.⁹² As this report mentions, Warren County is “ideally located within a two-hour drive of over 20 million potential customers in the New York-New Jersey-Philadelphia region...who are interested in the locally grown, locally sourced agricultural products that Warren County farmers can provide.”

Strategies include increasing direct marketing operations and promoting visibility through attendance at farmers markets, Community Supported Agriculture (CSA), on-farm sales and agritourism, promoting organically grown produce, sustainably and humane meat and animal products, value-added products, specialty crops, and ethnic products. The report also stresses the importance of internet promotion and direct customer engagement, as well as the promotion of regional initiatives such as “Grown in Warren” and regional bike tours.

The branding and execution of “Grown in Warren” is essential to the marketing and promotion of high-quality produce grown locally for a market invested in sourcing from and supporting local farmers. The four parts to this integral strategy are: 1.) establish the brand, 2.) increase the market share for Warren County’s agricultural producers, 3.) bringing added value to products that are associated with the “Grown in Warren” brand, and 4.) gaining acceptance and use of the “Grown in Warren” brand among the county’s agricultural community, with re-sellers of those products. and with consumers.

Specific recommendations for farmers to take include:

- Bring Warren County’s agricultural products to the consumer through direct sales.
- Utilize the brand identity of “Grown in Warren” to market products as fresh and locally grown.
- Bring consumers to Warren County with on-farm activities and other agritourism practices.
- Participate in high volume urban farmers markets.
- Establish a CSA operation.
- Adopt practices that will result in multiple complimentary income opportunities.
- Process crops into high margin value-added products such as soups, jams & jellies, personal care products, and other consumer items.
- Create an internet presence to connect with potential customers, bring visitors to the farm, and to sell products direct to consumers.
- Forge relationships with restaurant owners, chefs, brewers, and other institutional consumers looking to source ingredients locally.
- Grow specialty and ethnic produce that includes fruits, vegetables, meats, and poultry.
- Plan for generational succession and transition to the next generation of Warren County farmers.
- Engage in cooperative regional marketing of Warren County’s agricultural products.



The report conducted an in-depth analysis on the strengths, weaknesses, opportunities, and threats (SWOT) to the Warren County agricultural community. (**Table 25**)

Table 25. Grown in Warren – SWOT Analysis	
Strengths include:	Weaknesses include:
<ul style="list-style-type: none"> • Large productive land base • Experienced population of farmers • Proximity to markets • Access to high-income/high-profit activities • Excellent soils • Supportive local communities • Beautiful natural environment 	<ul style="list-style-type: none"> • Aging population of farmers • Very high cost of land • Difficult for new farmers to access land • Difficult access to capital • No established distribution network • Lack of facilities for overnight visitation • Limited public transportation
Opportunities include:	Threats include:
<ul style="list-style-type: none"> • Growing New types of crops • Selling to new markets • Taking advantage of consumer preferences • Developing regional branding • Demand for ethnic products • Demand for organic produce • Expanding opportunities for agritourism 	<ul style="list-style-type: none"> • Volatile commodity prices • High cost of business • Complex & restrictive regulatory environment • Encroaching development • Uncertain impacts of climate change • Changing labor market
<i>Source: Grown in Warren Report</i>	

There is a strong link between outdoor recreation activities (hiking trails, roads conducive to bicyclist), farming and farm stand locations, and economic prosperity. “Warren County has a great deal to offer visitors interested in agritourism and ecotourism. The county features a beautiful natural environment with a myriad of opportunities for outdoor activities that include hiking, fishing, kayaking and bicycling in addition to on-farm visitation.”

Planning for both agritourism and outdoor recreation is important because, “while the county is well-situated to take advantage of this consumer market in term of geographic location and suitable attractions, there is a decided lack of facilities to support this potentially lucrative source of business. There are few hotels in the county. Municipalities generally do not permit the creation of Bed & Breakfast facilities in the residential zones that predominate in the county’s rural communities. Public transit access is extremely limited.”⁹³ Specific recommendations on increasing agritourism and ecotourism in Warren County include:

- Extend marketing efforts to surrounding areas.
- Create and promote themed driving and biking tours.
- Support visitor transportation and accommodation options.
- Encourage multipurpose extended visitation.
- Actively market Warren County as a destination.



One of the benchmarks for a successful campaign was to have 175 farms registered on the “Grown in Warren” portal.⁹⁴ It is an additional opportunity for farmers to gain visibility and connect the market with the larger community.

B. Agricultural Industry Retention, Expansion, and Recruitment Strategies

Diversity of agricultural commodities to broaden the agricultural base now dominated by hay, corn, and soybeans would help to ameliorate any economic downswing in either the general economy or a specific sector of the county’s agriculture industry. The Open Space/Farmland Committee and the Township stand behind the local agricultural industry.

1. Institutional

Minimum wage impact on farm businesses – The State minimum wage was raised to \$10.30 for agricultural employees effective January 2020, followed by an increase to \$10.44 on January 1, 2021. There are further wage increases every year from 2022 until 2027, when the minimum wage reaches \$15.00 per hour.⁹⁵ This minimum wage applies to farm workers and exceeds the federal minimum wage of \$7.25, as does that of neighboring New York State, raised to \$12.50 on January 31, 2020.⁹⁶ Pennsylvania, however, still has an exception for farm workers, particularly seasonal workers, giving it a competitive advantage in operations that are hired-labor intensive. Generally, the production of vegetables and fruits (produce) requires the highest amount of hired farm labor, mainly at harvest time, to pick and process the vegetables and fruits. Harmony farms employ some farm labor to assist with their operations. Other products that are prevalent in Harmony such as hay and corn require little or no hired farm labor (most labor is

done by farm families). As such, farm labor costs are not as large a problem for Harmony farmers as they are for farmers in parts of the County or State that have major produce agriculture industries.

Farmer Support—Farmers at all levels can benefit from support. A variety of resources exist at the state level, published on the SADC website.⁹⁷ These include:

- Agriculture credit and finance.
- Business development for agriculture, food manufacturing, and related industries.
- Farm building construction.
- 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.
- Trespass, vandalism, and liability on farms.

One 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.⁹⁸ In 2015, the SADC launched “NJ Land Link,” an interactive website connecting farmers seeking land or farming opportunities with those who have existing farmland or farming opportunities. Farmers interested in land or partnership/job opportunities, as well as those wanting to advertise available land and opportunities, sign up and create and manage their own listings. In FY2018, “NJ Land Link had more than 845 registered users and more than 200 active listings.”⁹⁹

Resources specific to estate planning and retirement planning are available through the *Farm Link* Program's Farm Transfer, Succession, and Retirement Planning section.¹⁰⁰ Resources include workshops, Farm Succession Guidebook,¹⁰¹ plans and planning information, workbooks and worksheets, and informational documents. Farm Link can also be used to facilitate succession when there is no next generation to take over the farm. Information is also available for the incoming generation of farmers through this Farm Link Program.

Two resources available to farmers through the SADC are the New Jersey Farmland Leasing Guidebook,¹⁰² created as part of a Beginning Farmer grant project,¹⁰³ and a New Jersey Agricultural Mediation Program Handbook, subtitled “A Guide for Farmers, Neighbors and Municipalities.”¹⁰⁴ In addition, the state, NJAES-RCE 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.

Another opportunity is the New Jersey Agricultural Society's New Jersey Agricultural Leadership Development Program (NJALDP), administrated by Burlington County College.¹⁰⁵ 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.

One program which could be expanded to Warren County is the School Gardens initiative, funded by Team Nutrition Training mini-grants provided by the USDA, NJDA, and Grow Healthy – a program of the NJAES-RCE. This is a hands-on way to educate children about the importance of farming. Expanding this program to schools in Harmony 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 Township.

According to the NJAES-RCE, the Grow Healthy program is a way to:

- Help children eat more fruits and vegetables.
- Offer nutrition education, physical activity, gardening, and agriculture programs.
- Connect with local farms.
- Serve more local foods.
- Offer farm-to-school and nutrition trainings for foodservice staff.¹⁰⁶

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

Marketing, Advertising, Public Relations Support

Marketing and advertising are critical to profitability. Some 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.

The CADB, the NJAES-RCE, and the state are great resources for farmers to learn about 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*.¹⁰⁷ Another website for Community Involved in Sustaining Agriculture (CISA),¹⁰⁸ a non-profit organization in Western Massachusetts, offers a Basic Marketing Practices manual.

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 farmer’ 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 is available are important. 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.¹⁰⁹

Farmers Markets

In 2020, three community farmers markets were operating in Warren County. It is suggested that the County consider establishing a three-season market:

- Blairstown Farmers Market, across from Blairstown Elementary School, 5 Stillwater Road, Saturdays 9:30 am – 1 pm, June 6 – October 31.
- Washington Borough Weekly Farmers Market, Washington Borough Main Street (Route 57), near the Downtown Pocket Park (40 East Washington Avenue), Saturdays 10 am – 2 pm, June 20 – September 26.
- Warren County Farmers Market, 565 County Route 519, Belvidere (White Township School), Sundays 10 am – 2 pm, June 2 – September 29.

Community Supported Agriculture

Economic support of the Harmony agricultural community also comes from local grass roots groups. This support is embodied in CSA, which consists of:

- A community of individuals who pledge support to a farm operation so that the farmland becomes the community's farm. In such an arrangement, the growers and consumers provide mutual support, and share the risks and benefits of agriculture.
- Members or "share-holders" of the farm pledge in advance to cover the anticipated costs of the farm operation and farmer's salary.
- Members receive shares in the farm's products throughout the growing season.
- Members also receive the satisfaction gained from reconnecting to the land and participating directly in food production.
- Members also share in the risks of farming, including poor harvests due to unfavorable weather or pests.
- Generally, growers receive better prices for their crops, gain some financial security, and are relieved of much of the burden of marketing.¹¹⁰

The Foodshed Alliance is a grassroots group that is in Blairstown Township. This group sponsors the Blairstown Farmers Market and supports community agriculture in the greater Warren County area. The Foodshed Alliance seeks to "*promote a robust farm economy in northwest New Jersey through local efforts and regional collaborations.*" The Alliance promotes local efforts by assisting individual farmers with sustainable farming methods, making preserved farmland accessible to farmers at affordable long-term leases through the Sustainable Agriculture

Enterprise (SAgE) program, protecting rivers through the voluntary River Friendly Farm Program, working towards establishing a food hub in New Jersey, connecting farmers with consumers through farmers markets and buyers clubs, and gathering information about how much land is being farmed in the Ridge and Valley region. In addition, the Alliance has published the following documents: the *Food Hub Feasibility Study For Northern New Jersey*, the *Northern New Jersey Regional Foodshed Resiliency Plan*, and the *Sustainable Agriculture Enterprise Information and Application for Sustainable Farm Businesses*.¹¹¹

Agricultural Education and Market Research Coordination

Harmony may want to consider coordinating with Warren County and Rutgers Cooperative Extension (RCE) of Warren County to identify and integrate market research on agriculture and economic trends. The NJAES website offers 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 NJAES-RCE traditionally has been a sponsor of workshops, often funded through grants secured by the NJAES-RCE, and a helpful resource for local farmers in many other ways.

Rutgers School of Environmental and Biological Sciences (SEBS) is “committed to the study of how human and environmental health can intersect to support a healthy and sustainable future.”¹¹² Programs and activities include on-campus living labs, research laboratories, farms, greenhouses, gardens, living-learning communities, a historic herbarium, and an entomology museum. Strategies Harmony can use to support agricultural education and market research coordination include:

- Coordinate with NJAES-RCE and NJDA to research and market agricultural education.
- Seek grants to fund farmer education.

2. Businesses

Input Suppliers and Services

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.¹¹³ Without an adequate number of suppliers within reasonable driving distances of farms, the business of farming can become so expensive and time consuming as to not be profitable. The Township welcomes agriculture-related businesses within the confines of its existing zoning.

With the decline of local suppliers, and the ease of access through the internet, mail orders from supply stores further away might work for small equipment or shipments. It is not ideal for large orders. Equipment and supply stores in Warren County include:

- Tractor Supply in Blairstown and Washington Townships, Warren County.
- Central Jersey Equipment in Columbia.
- Frank Rymon and Sons in Washington Township, Warren County.

- Tickner's in Hackettstown.
- Smith's Tractor in Washington Township, Warren County.
- Mayberry in Port Murray.
- S&L Kubota in Belvidere.

Seed and chemical suppliers in the area include:

- North Warren Farm and Home Supply in Blairstown.
- Penwell Mills Feed in Port Murray.
- Ise Feed in Stewartsville.

Product Distributors and Processors

Processing facilities such as creameries, slaughterhouses, and lumber mills have become absent from Warren County, and therefore Harmony as well, forcing local farmers to ship their products out of town to be processed.¹¹⁴

Field and 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 products¹ are almost entirely sold wholesale and fluctuate depending on the national market. Small amounts of corn are sold as retail to hunters for bait.

Produce products are sold through a variety of channels. The majority is sold through retail markets 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 products can be quite varied. Some animals are sold in their entirety directly to consumers (whether still alive or previously slaughtered). Other animals are sold at the Hackettstown Livestock Cooperative Auction Market. Farmers, as well as wholesalers, butchers, and private individuals sell, buy, and trade livestock, eggs, and crops at the Market. Harmony farmers use the Livestock Cooperative Auction for the purchase and sale of agricultural livestock and products.¹¹⁵ The Auction is located on West Stiger Street in Hackettstown and is open every Tuesday throughout the year. It is the only remaining livestock auction in the state and is a staple of the Warren County agriculture industry.

3. Anticipated Agricultural Trends

Product Demand

From a county historical perspective, total agricultural sales have increased sharply from \$39.7 million in 2002, to \$75.5 million in 2007, \$91.2 million in 2012, and \$93.2 million in 2017. Much 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. The

¹ This does not include sweet corn, which falls into the produce section below.

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 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 constant since the early 2000s. Milk production follows this trend as well, with the commercial dairy industry completely gone now. 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 to qualify for farmland assessment.¹¹⁶

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.

One emerging trend is the emerging resurgence of hemp (*cannabis sativa*). The growing support for hemp products, and the recent legislative actions which removed it from the Schedule I list of Controlled Substances Act, have created a new market. The “New Jersey Industrial Hemp Pilot Program” was signed in 2018, for hemp that is cultivated and tested to ensure that THC content does not exceed 0.3 percent.¹¹⁷

Other avenues to explore include:

- Changing the farm operation’s mix of products.
- 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, and hemp.
- Marketing livestock as dressed meat on a retail basis.
- Fresh herbs, sold at retail, in bunches or as potted plants.
- Economic development through preservation.
- Agricultural Enterprise District (AED) 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.

Market Location

Harmony is located near the large population centers of New York City and Philadelphia, with a direct route to New York City via Interstate Route 80. Maximizing the use of nearby highways can increase the number and type of consumer markets to be reached by Harmony farmers. At least one county farm, Race Farm, takes advantage of these connections to bring produce as far as New York City on a weekly basis year-round and to community farmers markets in northeastern New Jersey.

The agriculture community in Harmony can seek contracts with area schools to supply healthy, fresh farm products for use in their cafeterias. Area hospitals and senior/nursing homes are also possible customers. Since all of these are permanent institutions, once established these markets can be considered as “permanent customers” and revenue sources for the Harmony agriculture community.

Future of Agriculture

Among the most substantial trends reshaping the Township’s agriculture base is the rapid rise of the crops sector. Since the 2005 Census, crop, nursery, and greenhouse products have outpaced livestock and poultry sales. Niche products such as packaged and organic goods that generate “value added” revenue streams are likely to increase.

Challenges facing Harmony’s farmers are land prices and property taxes. Higher land prices threaten to replace many of the County and Township’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. 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, 59 years old in 2012, and to an interval between 55 and 64 in 2017.

4. Agricultural Support Needs

Agricultural Facilities and Infrastructure

The County lacks permanent suppliers of items such as seeds, feed, and chemicals required to keep farms productive. Most of these services involve local farmers selling these items to one another, hampering the stability of these support services. An increase in permanent agricultural suppliers would work to guarantee the stability of these services, and in turn, the agricultural industry.

Ultimately, it comes down to whether 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,¹¹⁸

The Foodshed Alliance released a report in 2018 titled, “*The Foodhub Feasibility Study*,” which analyzes the benefit of having a food-hub (an aggregation and distribution facility). The report found that a food hub “could help strengthen the farm industry in New Jersey by giving farmers easy access to institutional buyers to fill the need for locally grown, fresh healthy food.”¹¹⁹

Flexible Land Use Regulations

State Level – Examples where regulatory flexibility is important are the NJDEP’s “Freshwater Wetlands Protection Act Rules” (N.J.A.C. 7:13-et. seq.), which grants exemptions for agricultural activities, and the Flood Hazard Area Control Act Rules (N.J.A.C. 7:13). The latter was adopted in 2007 and amended last in June 2019, with amendments for agriculture effective June 2016, including numerous agricultural permits.¹²⁰

Municipal level – 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 to be an economically viable sector. Harmony farmers benefit from having a right to farm ordinance enacted in their township.

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 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 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.
- Construction fee reduction for agricultural buildings.

Incorporating agriculture into local planning and zoning documents will help the Township protect its farmlands and rural character in the face of development pressure. As an example of its support of local agriculture, Harmony amended their Right to Farm ordinance in 2001 to ensure farmers can practice accepted agricultural operations. In addition, Harmony supports farms, use of farm laborers, and protects large, slow-moving equipment over Township roads. As such, the Township’s zoning is supportive of agriculture.

Agriculture Representation in Economic Development

The Warren County Economic Development Committee (EDC) was created in January 2016 to serve in an advisory capacity to the Board of Commissioners, 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.¹²¹ A list of business resources within Warren County is available on the EDC website at <http://warrenecdev.com/business-resources>.

5. Agricultural Support Implementation

The NJAES-RCE of Warren County has always been a 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 NJAES-RCE 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 NJAES-RCE 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 Township, as well as the County and other relevant 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.

Federal agriculture support can be found through the USDA's Grants and Loans webpage¹²² including grant and loan programs ranging from farm loans, housing assistance, rural development loan and grant assistance, beginning farmers and ranchers, livestock insurance, specialty crop block grant program, the farmers market promotion program, and the organic cost share program.

Sustainable Agriculture Research and Education (SARE) is a USDA competitive grants program that helps build the future economic viability of agriculture in the United States.¹²³ SARE funds are used for:

- *Farmer & Rancher 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, nonprofits, and agricultural consultants who work directly with farmers. Grants are used for on-farm research and demonstration projects that address sustainability.
- *Sustainable Community Grants*: These grants allow for key issues to be addressed which connect farming with community prosperity and revitalization.

- *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 and rural communities.

State agriculture support includes the 2020 Specialty Crop Block Grants, New Jersey Wine Industry Project Grants, Soil and Water Conservation Grants, New Jersey Risk Management and Crop Insurance Education, New Jersey Junior Breeder Loan Fund, Organic Cost Share, and Farm to School Mini Grants. More information can be found on the NJDA Grants webpage,¹²⁴ accessed through the following link: <https://www.nj.gov/agriculture/grants/>.

Farmland Preservation Programs support include State Acquisition, County Planning Incentive Grants, Municipal Planning Incentive Grants, and Grants to Non-Profits. More information can be found through the SADC webpage,¹²⁵ accessed through the following link: <https://www.nj.gov/agriculture/sadc/farmpreserve/programs/>.

New Jersey Farm Bureau

The New Jersey Farm Bureau (NJFB) is a private, nonprofit 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.¹²⁶



Chapter 7. Natural Resource Conservation

A. Natural Resource Protection Coordination

1. Natural Resources Conservation Service

There are numerous public and private entities, which administer, fund, and provide technical guidance for Harmony farmers relative to natural resource conservation. An important partner in support of natural resource conservation for the agricultural community is the USDA NRCS. The NRCS “*provides assistance to private landowners [including farmers] in the conservation and management of their soil, water, and other natural resources.*” The NRCS provides technical assistance suited to the natural resource issues that are specific to a farmer’s needs, with ample opportunities for cost-shares and financial incentives.¹²⁷

Harmony farmers may utilize this local NRCS office for assistance. NRCS also will reach out directly to landowners if they know of a farmer who needs technical assistance or could use the guidance of the NRCS staff. The local NRCS office serving Harmony Township:

Address: Building 1, 101 Bilby Road, in Hackettstown Commerce Park.

Phone and Website: 908-852-2576, www.nj.nrcs.usda.gov

Staff: Dan Mull, District Conservationist, 908-441-7518, dan.mull@nj.usda.gov¹²⁸

Within one year of selling their development easement, owners of preserved farms are required to develop a Conservation Plan. A Conservation Plan is also required to apply for Wildlife Habitat Incentive Program (WHIP) and the Environmental Quality Incentive Program (EQIP). The following strategies would strengthen natural resource conservation efforts for farms in Warren County and its municipalities, including Harmony:

- Providing a mechanism and staff to ensure that Conservation Plans are prepared and implemented will guarantee that the objectives of the program are put in place, and active stewardship practices are underway.
- While NRCS services are voluntary, farmers can benefit from conservation. Conservation can help make farmers eligible for NRCS and USDA funding.¹²⁹

The NRCS is the “Field Office Technical Guide”¹³⁰ contains technical information about the development and implementation of soil, water, air, flora, and fauna resource conservation practices, and is used to develop conservation and resource management plans.¹³¹ Conservation practices discussed in the Guide that are pertinent for Harmony include, but are not limited to:

- Riparian buffers, including necessary buffer widths and plant species.
- No till and minimum till practices.
- Prescribed grazing and pasture management.
- Nutrient management, including manure and fertilizers.

In November of 2020, the USDA NRCS completed an update to its National Conservation Practice standards. The 2018 Farm Bill required the NRCS to review these practices. They provide guidance for planning, designing, installing, operating, and maintaining conservation practices. Some of the main areas of interest they cover are:

- Irrigation water management.
- Heavy use area protection.
- Composting facilities.

Two new conservation practices which deal with wastewater treatment and wildlife habitat planning will be added and an additional 18 conservation standards are being tested to establish and document natural resources benefits. This update addresses changes in technology and added criterion for soil health, water conservation, drought tolerance, and resiliency.¹³²

2. Upper Delaware Soil Conservation District

The NJDA Division of Agricultural and Natural Resources includes the State Soil Conservation Committee (SSCC). 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.¹³³

The SSCC coordinates and supports the work of the state’s 14 local soil conservation districts (SCDs), including the Upper Delaware SCD. The SSCC are part of the New Jersey Conservation Partnership, which also includes the USDA NRCS and NJAES-RCE. The Upper Delaware SCD is charged with implementing natural resource conservation and assistance programs and services, which include agricultural conservation planning assistance, agricultural conservation cost-sharing program grants, application of organic materials on agricultural land, agricultural water supply and management, soil erosion and sediment control, storm water discharge authorization, and soil surveys.

The Upper Delaware SCD works with the NRCS in providing survey assistance, engineering designs and plans. For development easements which require a conservation plan for the farm to be obtained within one year, the NRCS will prepare a conservation plan at no cost to the farmer.

It also provides administrative support to Conservation Assistance Program (CAP) in support of Federal Farm Bill Conservation programs and the New Jersey Farmland Preservation Program, including the preparation and implementation of Conservation Plans. 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.

Harmony 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 Upper Delaware SCD is involved in review of Conservation Plans and program contracts and must give final approval to both.

The Upper Delaware SCD office serving Harmony is:¹³⁴

Address: 51 Main Street, Suite B in Blairstown

Phone: 908-852-2579

District Manager: Sandra Myers, smyers@upperdelawarescd-nj.com

Staff: Tim Matthews, District Forester, Eileen Greason, Soil Erosion Sediment Control

Rutgers New Jersey Agricultural Experiment Station, Cooperative Extension of Warren County (NJAES-RCE)

The NJAES-RCE of Warren County provides field and technical research on BMPs for farmers to ensure the long-term viability of both the agricultural economy and the natural resources upon which it is based.

The NJAES-RCE of Warren County offers the Agriculture and Natural Resource Management program to provide educational programs and services including soil testing, insect identification, plant disease diagnosis, and pest management recommendations for agricultural operations.¹³⁵ The NJAES-RCE of Warren County is:¹³⁶

Address: Warren County Administration Building, Suite 102, 165 County Route 519 South in White Township (mailing address of Belvidere)

County Extension Department Head:

Alayne Torretta, 908-475-6502, torretta@njaes.rutgers.edu

Agricultural and Natural Resources Senior Program Coordinator:

Henry Bignell Jr., hdbignell@njaes.rutgers.edu

New Jersey Department of Environmental Protection

The NJDEP Division of Parks and Forestry oversees the Private Lands Management Program for the stewardship and retention of privately owned productive forest lands.¹³⁷ This includes the private woodlands currently under Farmland Assessment, which totaled 228,000 acres statewide in 2020.¹³⁸ Many properties in Harmony that are farmland assessed include woodland tracts, especially in the northern portion of the Township. Such tracts were added as “farm products” in the 1970s. There are two classifications of woodlands: appurtenant (or attached) and non-appurtenant (or unattached). Requirements for non-appurtenant woodland tracts are listed in

N.J.A.C. 18:15-2.7. These tracts must be utilized by the farmer as a sustainable “product,” and require Woodland Management Plans (WMPs) to receive reduced local property taxes accorded properties in the farmland tax assessment program.¹³⁹

The Division of Parks and 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.¹⁴⁰ 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.

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 or 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). In Harmony for 2019, there were 2,527 acres of non-appurtenant (or unattached) woodland acres in farmland assessment.¹⁴¹ The amount of non-appurtenant woodlands in the municipality has increased steadily since 1990. (**Table 26**) The non-appurtenant woodland acres in 2019 was up from 2010 when there were 1,049 acres, from 2000 when there were 899 acres, and in 1990, when there were 829 acres in farmland assessment in Harmony.¹⁴²

Table 26. Woodlands in Harmony Township		
Year	Non-Appurtenant Woodlands (acres)	Appurtenant Woodlands (acres)
2019	2,527	1,013
2010	1,049	1,014
2000	899	1,290
1990	829	1,883
<i>Source: Farmland Assessment (SADC)</i>		

Appurtenant woodlands are woodland acreage 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 acres do not require a WMP to qualify for farmland assessment. In Harmony for 2019, there were 1,013 acres of appurtenant (or attached) woodland acres in farmland assessment, down from 2000 when there were 1,290 acres. In 1990, there were 1,883 appurtenant acres in farmland assessment in Harmony.

The NJDEP’s Nongame and Endangered Species Program administers the Landowner Incentive Program (LIP). This program worked to improve habitat management and protection for threatened and endangered species on private lands, some of which were agricultural lands. Since 2014, there is no expectation of congressional reapproval of LIP. While LIP is no longer available, other incentive programs through NJDEP are listed on the NJDEP, Division of Fish and Wildlife website.¹⁴³

USDA, Forest Service’s Forest Stewardship Program

The United States Forest Service (USFS) sponsors the Forest Stewardship Program (FSP), administered locally by the BFM. In the summer of 2017, the Forest Stewardship Program

transitioned to a new program that eliminated income requirements to qualify for the program and enhanced monitoring and management of enrolled acres.¹⁴⁴ 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.¹⁴⁵

As of 2020, 184 properties covering 9,891 acres in Warren County are enrolled in FSP and Harmony contained 2,141 acres of farmland on 14 different properties.^{146 147} The New Jersey Forest Service Northern Region office is:¹⁴⁸

Address: 204 Main Street (Route 206 N), Andover, NJ 07821

Phone: 973-786-5035

Website: https://www.state.nj.us/dep/parksandforests/forest/stw_inc_prog.html

North Jersey Resource Conservation and Development Council

The Resource Conservation and Development Program (RC&D) began in 1962 to “help people care for and protect their natural resources to improve an area’s economy, environment, and living standards.”¹⁴⁹ Among other programs, the NJRC&D offers a River-Friendly Farm Certification, which is a voluntary certification program designed to provide technical assistance and recognize farms that protect natural resources through responsible management. In more recent years, the program has expanded into Warren County with the certification of two farms in the past five years. The Buckhorn Creek, Lopatcong Creek, and Merrill Creek flows through the Township past agricultural lands, and the town may consider taking advantage of the River Friendly Certification Program.¹⁵⁰

The NJRC&D offers no-till drill rental for cover cropping and pasture reseeding, rain garden design and rebates, and a small grant funding program to assist farmers in implementing BMPs through a Water Quality Restoration Grant from the NJDEP. NJRC&D is located at

Address: 10 Maple Avenue in Asbury, Warren County

Phone: 908-574-5368

Executive Director: Laura Tessieri, ltessieri@northjerseyrcd.org

Private nonprofit groups and private citizens

The preservation of agriculture and agricultural resources requires not only the broad support of state, county, and local governments but also the help of private nonprofit groups and citizens. The Harmony agriculture community has the support of a variety of committees and organizations, including the Harmony Township Open Space/Farmland Committee (OSFC).

The Harmony agriculture 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 and regional nonprofit organizations include the Land Conservancy of New Jersey, The Nature Conservancy, New Jersey Conservation Foundation, and New Jersey Audubon Society.

B. Natural Resource Protection Programs

1. SADC Soil and Water Conservation Grants

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) while conserving natural resources.¹⁵¹

These grants fund soil and water conservation projects approved by the Upper Delaware Soil Conservation District (UDSCD), with the program administered by both the UDSCD and the local NRCS office in Hackettstown. Once the District deems the conservation project necessary and feasible, applications are forwarded to the SCC, which recommends projects to the SADC for funding approvals. A permanent source of funding needs to be put in place to ensure that farmers can continue to participate in these beneficial programs.

2. SADC Deer Fencing Grant Program

Farmers can apply to the SADC for cost-sharing grants for the installation of high-tensile woven wire deer fencing on permanently preserved farms. Farmers who are successful in their applications can cover up to 50% of the cost of materials and installation. Assistance for this program is capped at \$200/acre or a total grant amount of \$20,000. Program contact: ¹⁵²

SADC: David Clapp or David Kimmel
Phone, Email: 609-984-2504, sadc@ag.nj.gov

3. Federal Conservation Programs

Farm Bill Programs

The Farm Security and Rural Investment Act of 2002 (2002 Farm Bill) was landmark legislation, with much of its focus on conservation funding and environmental issues. Since 2002, the U.S. legislature has drafted and instituted new Farm Bill programs in 2008, 2014, and 2018.

Voluntary programs relevant to New Jersey, and Warren County, included the Conservation Reserve Enhancement Program (CREP), Conservation Innovation Grant Program (CIG), Environmental Quality Incentives Program (EQIP), Farm and Ranch Land Protection Program (FRPP), Grassland Reserve Program (GRP), Wetlands Reserve Program (WRP), and Wildlife Habitat Incentives Program (WHIP).¹⁵³ These programs were continued under the Food, Conservation and Energy Act of 2008 (2008 Farm Bill). These programs were renewed in 2014 and 2018, with the most recent legislation being The Agricultural Improvement Act of 2018

(2018 Farm Bill).¹⁵⁴ The 2018 Farm Bill will be active until 2023. As in the past, these programs are administered by the local NRCS office in Hackettstown, and the Upper Delaware SCD.

In 2014, the Farm Bill repealed the 2008 Average Crop Revenue Election (ACRE) program. This voluntary program provided payments when revenues fell below established levels. In 2014, the USDA Farm Service Agency (FSA) replaced the ACRE program with two new programs: Price Loss Coverage (PLC) and Agricultural Risk Coverage (ARC), which are continued through the 2018 Farm Bill.¹⁵⁵ These programs, “*pay producers who have eligible historical base acres when prices and/or yields of covered commodities fall below a certain amount, regardless of their current planting decisions.*”¹⁵⁶ Since a significant acreage of field crops such as corn and soybeans are grown in Harmony, and are also covered commodities under these programs, such a revenue support system may well have a positive effect since it would help specialty crops and niche markets receive their fair share of payment support.

The 2018 Farm Bill, in effect since December 2018, made minor changes regarding conservation programs administered by the NRCS and the FSA. Some highlights include:

- Increases mandatory funding for conservation programs by about 2% from 2019-2023.
- Increases Conservation Reserve Program (CRP) acreage cap from 24 million acres to 27 million acres by 2023.
- Continues the Conservation Stewardship Program (CSP), but at a reduced funding level, and replaces an acreage cap with a funding cap.
- Increases funding for EQIP, the Agricultural Conservation Easement Program (ACEP), and direct funding for the Regional Conservation Partnership Program (RCPP).¹⁵⁷

Conservation Reserve Program (CRP)

The CRP is a land conservation program where farmers enroll on a volunteer basis to remove environmentally sensitive land from agricultural production. In exchange, participating farmers plant species that improve the environmental health of the land and receive a yearly rental payment. The contract period is between 10-15 years.¹⁵⁸

Conservation Reserve Enhancement Program (CREP)

The NJ CREP program is an offshoot of the CRP and establishes a partnership between the USDA and the state 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 to 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. Like CRP, farmers enter in a voluntary contract for 10-15 years. This 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.¹⁵⁹

Environmental Quality Incentive Program (EQIP)

EQIP is a voluntary conservation program that offers financial and technical assistance to implement conservation practices on eligible agricultural land.¹⁶⁰ Opportunities include:

- Funding opportunities for beginning farmers
- Financial assistance to help agricultural producers and forest owners address specific natural resource concerns
- Financial assistance to install high tunnels (similar to hoop houses) to protect high-value crops
- Soil health initiative to provide technical and financial assistance for soil conservation practices.¹⁶¹

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 the Working Lands for Wildlife (WLFW) initiative through EQIP.

EQIP is the most popular and widely used conservation program in Warren County. There were 1,285 contracted acres, with 16 contracts in 2019. These contracts totaled \$141,205 (amount available, not paid out). While some farms in Harmony may be assisted through EQIP, the number of farms enrolled is not tracked on a municipal level.¹⁶²

Conservation Innovation Grants (CIG)

Funded by EQIP, 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.¹⁶³ Each year, the NRCS announces a new round of competitive grants; NJRC&D was the most recent Warren County recipient of such a grant in 2019 worth \$74,995 to assess the use of short season variety corn and soybeans to facilitate adoption of multi-species cover crop.¹⁶⁴

Conservation Stewardship Program (CSP)

The CSP, initiated in 2007, is a voluntary conservation program that provides technical and financial assistance to manage and maintain existing conservation systems, implementing additional conservation activities on land currently under 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. Minimum annual payments amount to \$1,500. Participants can apply for renewal at the end of the five-year contract. The local NRCS administers this program.¹⁶⁵

Working Lands for Wildlife (WLFW) Program

Administered by the local NRCS, WLFW provides technical and financial assistance to agricultural producers to assist the implementation of conservation practices that benefit target

species and priority landscapes. Harmony is situated in focal areas for one out of three target species in New Jersey, the American Black Duck.¹⁶⁶

Agricultural Conservation Easement Program (ACEP)

In 2014, the Farm and Ranch Land Protection Program (FRPP) was repealed and consolidated into the ACEP. Administered by the local NRCS, the ACEP merges three former programs – Wetlands Reserve Program (WRP), Grassland Reserve Program (GRP), and Farm and Ranch Land Protection Program (FRPP). It has two components:

- Agricultural Land Easements – prevents 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 – provides habitat for fish and wildlife and improves 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).¹⁶⁷

In February 2021, the USDA released a final rule to update ACEP as directed by the 2018 Farm Bill. This update incorporates public comments and makes minor changes improving the processes in place to protect ecologically important lands.¹⁶⁸

Regional Conservation Partnership Program (RCPP)

RCPP was introduced in the 2014 Farm Bill, and significant changes were made in the 2018 Farm Bill. This program encourages partnerships to implement solutions to conservation challenges. Partnerships can be formed by agricultural producer associations, farmer cooperatives, municipal entities, and non-government organizations. Significant changes that were made in 2018 to RCPP are:

- RCPP is now a standalone program with its own funding of \$300 million annually. Moving forward, landowners and ag producers will enter RCPP contracts and RCPP easements.
- Enhanced Alternative Funding Arrangement provision – NRCS may award up to 15 AFA projects, which are more grant-like and rely more on partner capacity to implement conservation activities.
- Three funding pools reduced to two – the National pool was eliminated. Partners must apply to either the Critical Conservation Area (CCA) or State/Multistate funding pool.
- Emphasis on project outcomes – all RCPP projects must now develop and report on their environmental outcomes.¹⁶⁹

Partnerships must apply for a project grant on a competitive basis during the grant applications period. There are two funding categories: critical conservation areas (CCA) (New Jersey does not fall within one of these eight areas), and state/multi-state. To apply for state funding, the project must address at least one of the national or state priorities of soil erosion, soil quality, water quality, and wildlife habitat. In April 2020, the NRCS announced investment in 48 projects

totaling \$206 million; none of these projects reside in New Jersey. The most recent New Jersey projects that were awarded funding were in 2018:

- Columbia Dam Removal and Restoration on Paulins Kill (\$567,000) – Plan to remove the Columbia Dam and a downstream remnant dam to restore and reconnect habitat for diadromous fish species.
- Black River Gateway – Soil and Water Protection (\$922,000) – Plan to preserve farms in the Black River.¹⁷⁰

C. Water Resources

1. Supply Characteristics

The Harmony *Master Plan* recognizes the importance of water resources to the Township. The Plan highlights an objective to “protect groundwater resources, including limestone formation, aquifer recharge zones, and wetland protection” and calls for the Township to “establish ordinances/overlay zones to protect, preserve and maintain...stream corridors and riparian area.”¹⁷¹

The western portion of the Township is in the Ridge and Valley province, which is characterized by a chain of parallel hills and valleys, with ridges that align approximately northeast-southwest in the Township. The eastern part of Harmony Township lies within the Highlands Province. As discussed on the Warren County Environmental Commission’s website:

The 2018 Warren *County Open Space Plan* indicates the importance of agriculture to the water resource by 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. 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. The remaining 40 percent is soil so stony, steep, shallow or wet that it is not suited for development.” The Plan also states that *“Areas designated for open space can protect many natural resources, such as the quality and quantity of surface and groundwater, cultural and historic areas, and view sheds associated with ridge tops.”*¹⁷²

2. Agricultural Demand & Supply Limitations

Agricultural lands are identified as cropland harvested, cropland pastured, woodland, equine, and permanent pasture. The most recent farmland assessment identifies 8,824 acres of agricultural land in the township. About 51% of this total is harvested cropland, land that requires the most amount of water for production. This comprises about 10% of Warren County’s total harvested acres.

Harmony's water demand for agricultural use stems primarily from the production of water-intensive crops such as alfalfa, corn, and soybeans, which comprise over 92% of the field crops grown in the Township. However, because of the region's climate, only 105 acres, or about 2.5% of the township's field crops are labeled as irrigated.

Both population increases and agricultural irrigation can affect Harmony's water supply. From 2015 to 2017, Harmony experienced a decline of about 60% in total irrigated acres.¹⁷³ Climate conditions or shifts in production contributed to the decline in irrigation, reducing the pressures on water sources caused by this activity. In terms of population pressures, data indicates that the rate of permits, while slowing, are still increasing in Harmony. Increased pressure from development and the concomitant demands on water supplies are being felt by Harmony farmers. Increased development exacerbates water supply concerns, not only by increased water usage from occupants of the units, 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 can compromise soil conditions and means less water stays in the area and flows away to other areas, adversely impacting the region due to the fluctuations in natural water distribution.

3. Water Conservation and Allocation Strategies

Droughts in recent years have highlighted the precarious nature of the agriculture (and general) water supply, and the need for water conservation systems and regimens. Historically, from 2008 to 2018, dry conditions occurred with greater frequencies than in years prior.¹⁷⁴ The dominant crops in Harmony are hay, corn, and soybeans. These crops rely on rain and some groundwater for water needs, making water conservation strategies difficult to implement. For the more water intensive nursery, 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. Total irrigated acres in Harmony increased about 86% from 57 acres in 2006, to 106 acres in 2017. In the same 11-year period, irrigated field crops rose from 30 acres in 2006 to 105 acres in 2017. Field-crop irrigation comprises of almost all irrigated acres in the township.

Seasonal differences in water demand combined with such occurrences as drought, changes in land cover, and other natural or manmade circumstances can influence water supply from which an ecosystem cannot easily recover. Harmony falls within the Highlands Region and so has access to water resource analysis completed as part of the *Highlands Regional Master Plan*. Harmony can also benefit the use of monitoring stream base flows as a measure of water sustainability, using the severity and duration of low flow to understand impacts of water use on ecosystem and water supply, as well as the need to protect groundwater recharge areas, which are susceptible to variations in soil, land cover, and precipitation.¹⁷⁵

The NJDA encourages farmers to implement water-management practices as a routine part of their conservationist approach. The faculty of NJAES-RCE 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.¹⁷⁶ Farmers can use floats and timers to eliminate the needs for constantly running water to keep troughs full for livestock.

The Office of the New Jersey Climatologist at Rutgers University operates the Weather and Climate Network of weather monitoring stations. Farmers can use the information from stations near them to assist with irrigation scheduling, as well as pest management and other conservation issues, 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.¹⁷⁷

D. Waste Management Planning

Livestock farmers in Harmony 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, farmers can remove the waste from the temporary storage facilities and apply it to the fields, following BMPs.¹⁷⁸

Animal Waste

Waste production from horses and cows is a continuous focal point of conservation practice in the Township.¹⁷⁹ Horse waste on farms can be a problem due in part to the relatively small land area of horse farms, making the manure more difficult to distribute on fields effectively and safely. This can contribute to the spread of disease from the manure if not controlled. For dairy farms, however, manure concentration and distribution are less of a concern because of the relatively large land area dedicated to those operations assuming that manure is managed and applied in an appropriate manner and in accordance with New Jersey state regulations.¹⁸⁰

Many farmers have “Nutrient Management Plans” to manage the manure generated on their farms.¹⁸¹ For livestock waste disposal services, Ag Choice LLC in Andover, Sussex County, picks up, accepts, and 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.¹⁸²

Animal feeding operations (AFOs) have the potential to cause water pollution since mismanagement of the animal waste can lead to soil and groundwater contamination via introduction of organic matter, nitrogen, phosphorus, and bacterial pathogens into nearby surface waters.¹⁸³ The Criteria and Standards for Animal Waste Management (N.J.A.C. 2:91), which went into effect on March 16, 2009, 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.

In general, self-certified waste management plans will be coordinated through the NJAES-RCE, which continues to aid farmers who have not yet completed AWMPs or implemented environmental BMPs on their farms. Farmers can apply for funding through 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 Comprehensive Nutrient Management Plan (CNMP). NRCS can assist producers with the development of a CNMP which in turn can be used as guide for implementing waste management practices in the future. These plans are developed with the assistance of a Technical Service Provider (TSP).¹⁸⁴

Recycling

Recycling is an important part of natural resource conservation for the agriculture industry. Hay, corn, and soybeans, the dominant farm products by acreage in Harmony, use limited products that can be recycled, and as such limit recycling opportunities. Although nursery and produce make up a small part of Harmony's agricultural operations, there still is a need to provide outlets for recyclable waste from these operations. The following are the recycling facilities available to Harmony farmers:

- Warren County Recycling Center – 500 Mt. Pisgah Ave., Oxford, NJ, 908-453-2174. This facility is open to all Warren County residents and accepts #1-#7 plastics in addition to glass bottles and jars and aluminum, tin, steel, and bimetal cans.¹⁸⁵
- The Recycling Center of North Jersey – 48 Hope Road, Blairstown, 908-362-1255. This facility accepts comingled glass and plastics, all types of metal, aluminum, and more.¹⁸⁶
- Warren County District Landfill – 500 Mt. Pisgah Ave., Oxford, NJ, 908-453-2174. This facility accepts tires daily between 8:00 am – 3:30 pm. Proof of Warren County residency is required. Charges range from \$2.50 for each automobile tire up to 22" to \$10.00 for each farm equipment tire up to 50".¹⁸⁷

In the past, Warren County has organized "Tire Amnesty Day," which provided opportunities for farmers to dispose of their used tractor tires for free.¹⁸⁸ For other farm-oriented recyclables, the NJDA website lists resources for agricultural recycling. Programs listed include options for nursery and greenhouse film, pesticide containers, nursery pots, plug trays, flats, mulch film, and irrigation tape. Some of these services are free, and others come at a cost to the farmer.¹⁸⁹

E. Energy Conservation Planning

In January 2010 (P.L. 2009, c.213) allows 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.¹⁹⁰

In 2019, Governor Phil Murphy signed the Updated Global Warming Response Act seeking to reduce greenhouse emissions 80% by 2050. Green energy policy is also echoed in Governor Murphy's Energy Master Plan, in which, the state seeks to transition to 100% clean energy by

2050.¹⁹¹ Harmony farmers can take advantage of this initiative by applying for the financial incentives to implement energy efficient improvements to their farms and operations. The Rural Energy for America Program (REAP) funds grant and loan guarantees to agricultural producers for assistance in purchasing renewable energy systems. Renewable energy systems include generation from: biomass, geothermal, hydropower, hydrogen, wind, and solar.¹⁹²

The NRCS also has the authority to use EQIP to implement Agricultural Energy Management Plans (AgEMP) to address concerns of energy conservation. As a part of the EQIP On-Farm Energy Initiative, these plans are designed to evaluate energy use and efficiency within farming operations. These energy audits can qualify a farmer for financial assistance to implement recommendations of the process if the audit meets the proper time and standard requirements. This plan is implemented to assist the landowner's goals of achieving cheaper and more efficient energy consumption.¹⁹³

The EQIP natural resource conservation program pays for some energy production programs, such as replacement of older, dirty polluting working diesel engines, with newer, more efficient, cleaner burning diesel engines that will meet EPA Tier requirements for the program year.¹⁹⁴ The New Jersey Board of Public Utilities offers rebates for solar electric, wind, and sustainable biomass systems if funding is available.

Solar Energy

The SADC does allow solar generating facilities on preserved farms, and rules for these installations are contained in Subchapter 24 of Chapter 76.¹⁹⁵ Solar generating facilities are also allowed on unpreserved farms and the SADC has provided AMP (agricultural management practices) for these facilities.¹⁹⁶ A summary of the policies aligned by both the subchapter and the AMP is given below:

- Solar panels (solar energy general facilities) are allowed on commercial farms (preserved and unpreserved).
- Panels cannot be constructed/installed on prime farmlands (to maximum extent practicable).
- The SADC prefers they be constructed on buildings or facilities; if on the ground, they are to be installed without concrete footing or permanent mounting.
- Facilities cannot exceed more than 1% of the total farm area.
- Purpose of the facilities must be to provide energy for the farm, with an allowance for income opportunity for farmers.
- System cannot exceed height of 20 feet.
- Must minimize views from public roadways and neighboring residences.
- Facilities must use existing roadways to provide access to facilities to avoid construction of new roadways.

EQIP provides cost-share funding for solar livestock watering facility as part of a grazing system. Special rates are available to qualified farmers. In 2018, two contracts were planned and applied, but in 2019 no contracts were developed.¹⁹⁷

Wind Energy

According to the NJDA, the northwest part of New Jersey, which includes Warren County, has ample and consistent enough wind power to make turbine energy feasible. In Harmony, wind energy conversion systems are permitted as a conditional use in all nonresidential zone districts and carry a height restriction of 35 feet. Current zoning regulations would require a height variance.¹⁹⁸ This, along with the solar energy requirements that already have been included in the Township's regulations, are indicative of Harmony's willingness to consider alternative energy source.

Incentives and Assistance for Terrestrial and Small Wind Systems include the Renewal Energy Incentive Program (REIP) and the Anemometer Loan Program, administered by Rutgers and four other state universities. The program is funded by the United States Department of Energy Wind Powering America Program and funds provided by the New Jersey Board of Public Utilities (NJBPU) Office of Clean Energy Program. By measuring wind power at the target location, the anemometers help determine the economic feasibility for wind turbine installation. Target market includes municipalities, farms, residential, and small commercial customers. Both Rutgers and Rowan University have waiting lists for anemometer loans. Currently, anemometers are installed on farms as close to Harmony as Hackettstown and Long Valley.¹⁹⁹

Biopower

Starting in 2017, biopower projects are incentivized through the Combined Heat and Power Program (CHP). Program participants are eligible to receive financial incentives for CHP installations to further enhance energy efficiency in their buildings through on-site power generation and using distributed generation to provide reliability solutions for New Jersey while supporting the state's Energy Master Plan. Harmony farmers can find the program eligibility requirements and the program's financial incentives in the CHP-FC Program Guide.²⁰⁰

Ethanol and Pelletized Switchgrass

Corn, the most dominant field crop in Harmony, could position the Township's farmers to financially capitalize on the spreading movement towards ethanol-blended fuels. Interest has been shown in utilizing switchgrass to make energy producing pellets. This could add an additional market for Harmony farmers, and another source of clean energy.²⁰¹

Biodiesel

Biodiesel, made from the oils of soybeans, is an alternative to petroleum diesel. The Environmental Protection Agency reported a record 2.1 billion gallons of biofuel were consumed in 2015. Countywide, soybean production has nearly doubled since 2011, from 221,000 bushels to 430,000 bushels in 2015. Warren County leads northern New Jersey in soybean production. Harmony can utilize its soybean production to maximize the benefits of its second largest field crop. While no bio-diesel producers are available nearby, several retailers operate within the region, including:

- Dixon Energy – 99 Cobb St. Rockaway, NJ, 973-334-1000
- Wooley Fuel Co. – 12 Burnett Ave. Maplewood, NJ, 973-762-7400
- Quarles – 1046 N Godfrey St. Allentown, PA, 877-444-3835²⁰²

Biogas

In 2020, New Jersey ranked 30th nationwide in biogas production. Out of 59 operational systems, down from 62 in 2015, 22 are landfill systems and 32 are wastewater systems, and five are food waste systems. Increasing biogas operations can lead to economic opportunity through job creation and environmental benefits through reducing greenhouse gasses.²⁰³

Renewable Energy Grant Programs

New Jersey's Clean Energy Program: Administered by the NJBPU, this program provides financial incentives to install clean energy systems, including fuel cells, solar energy, small wind, and sustainable biomass equipment. Financial incentives are in the form of rebates, grants, energy certificates, and loans.

Renewable Energy Incentive Program (REIP): This program previously offered funding assistance for solar, wind, and sustainable biomass installations. Currently, this program is on hold for wind systems. Solar projects are no longer eligible for REIP incentives. Those who sought assistance for solar projects used to register for Solar Renewable Energy Certificates (SREC) through the SREC Registration program (SRP).²⁰⁴ Since the Spring of 2020, those who seek to register solar projects do so through the Transition Incentive Program (TI).²⁰⁵

Anemometer Loan Program: Administered by five New Jersey universities, provides a way for prospective locations to test the potential for wind power production and assess its economic feasibility.²⁰⁶

New Jersey Smart Start Buildings: Operated by the New Jersey Board of Public Utilities, this program is a statewide energy efficiency program available to qualified commercial, industrial, institutional, governmental, or agricultural customers that seek to change their electric or gas equipment.²⁰⁷

USDA Rural Energy for America Program (REAP): Reauthorized under the Agricultural Improvement Act of 2018 (2018 Farm Bill), the REAP program provides guaranteed loan financing to agricultural producers and rural small businesses for renewable energy systems or to make energy efficiency improvements.²⁰⁸ For agricultural producers, a guaranteed loan and grant program can provide financial assistance with the installation of renewable energy systems.

Advanced Biofuel Payment Program: This program is to increase the production of advance biofuels. Quarterly payments are distributed to participants for actual quantity of eligible advance biofuel production. An advanced biofuel is a fuel that is derived from renewable biomass, other than corn kernel starch. Biofuels that may be specific to Harmony farmers are those derived from waste material such as crop and animal wastes.²⁰⁹

Biorefinery, Renewable Chemical, and Biobased Product Manufacturing Assistance Program: This program provides loan guarantees up to \$250 million to assist the development of new and emerging technologies. These technologies include advanced biofuels, renewable chemicals, and biobased products.²¹⁰

F. Outreach and Incentives

The Township's Open Space/Farmland Committee is committed to working with the Warren CADB to assist in outreach and education to farmers and landowners regarding natural resource conservation and agricultural productivity. Harmony Township looks to the County, State, and regional agencies for leadership, direction, and help. Harmony will continue to work with the Warren CADB to implement programs to aid in natural resource conservation on farms in the Township. As competing uses impact farmers in Warren County and in Harmony, education, outreach, and regional coordination will become more integral to the success of farming operations.



Chapter 8
**AGRICULTURAL INDUSTRY
SUSTAINABILITY,
RETENTION, & PROMOTION**

Chapter 8. Agricultural Industry, Sustainability, Retention, & Promotion

A. Existing Agricultural Industry Support

1. Right to Farm

In 1983 the State Legislature enacted the Right to Farm Act (RFA) and amended it in 1998, ensuring that farmers can continue accepted agricultural operations. Another critical piece of legislation in support of agriculture was the 1983 Agriculture Retention and Development Act. This Act created the SADC, and authorized counties to create CADB's.²¹¹

The SADC works to maximize protection for commercial farmers under the RFA by developing Agricultural Management Practices (AMPs), tracking right-to-farm cases, offering a conflict resolution process, and reviewing rules proposed by other state agencies for the impact they may have on agriculture. To qualify for right-to-farm protection a farm must meet the definition of a “commercial farm” in the RFA; be operated in conformance with federal and state law; and comply with AMPs recommended by the SADC, or site-specific AMPs developed by the Warren County CADB at the request of a commercial farmer.²¹²

As of 2021, the SADC had 12 AMPs in place, the latest, an AMP for On-Farm Direct Marketing Facilities, Activities and Events, adopted April 7, 2014. The SADC lists 19 site-specific AMPs for Warren County, all of which the Warren CADB resolved.²¹³

All right to farm complaints or issues that are 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.²¹⁴

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 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.²¹⁵
- Making agriculture a permitted use in all appropriate zones.
- Requiring buffers between new non-agricultural development and adjacent existing farmlands.
- Requiring notification to homeowners purchasing a home in a new subdivision where active agriculture occurs on adjacent property.

Right to Farm ordinances are a necessary item for municipalities that wish to enter the Farmland Preservation Program. Harmony amended its Right-to-Farm Ordinance (Ord. No. 0:92-6; amended by Ord No. 01-7) in November 2001. (**Appendix C**)

The Ordinance states that *“this section shall not be construed as a zoning section and does not supersede any zoning section and the rights and privileges arising from said sections. It is the intent of this section to prohibit farming from being found to be a nuisance when practiced according to customary farming practices.”*²¹⁶

To protect its farmers, the Harmony Township Right to Farm Ordinance requires for all zoning districts where agriculture is a permitted use:

- That each deed of conveyance of land will read as follows: *“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.”*
- Furthermore, these activities can take place on holidays, weekdays, and weekends at any time of the day or night²¹⁷

The Ordinance declares, *“the right to farm lands and properties within the Township of Harmony is hereby recognized to exist as the right of the farmer, his agents or assigns to utilize his land and properties in such a manner as to pursue his livelihood.”* Here the protected farming activities under Harmony Township’s Right to Farm Ordinance are:

- Use of large irrigation pumps and equipment
- Aerial and ground seeding and spraying
- Large tractors
- The application of chemical fertilizers
- Insecticides and herbicides

- Other customary 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, aquaculture, flowers, and seeds.
- Use of land for grazing of livestock, subject to the restrictions for intensive fowl or livestock farms or such restrictions as may be required by county, state, and federal laws
- Use of necessary farm laborers
- Travelling and transportation of large slow-moving equipment over roads in Harmony Township
- Construction of fences for animals and livestock

Harmony's Right to Farm Ordinance does not specifically list some of the suggested activity rights in the SADC Model Right to Farm Ordinance. These include:

- Housing of farm laborers
- Erection of essential agricultural buildings
- Conduction of agriculture-related education and farm-based recreation activities
- Processing and packaging of agricultural output of a commercial farm
- Farm-market and pick-your-own signage
- Replenishment of soil nutrients and improvement of soil tilth
- Clearing of woodlands using open burning and other techniques; installation and maintenance of vegetative and terrain alterations for water and soil conservation and surface water control in wetland areas
- On-site disposal of organic agricultural wastes
- Installation of wells, ponds, and other water resources
- Engage in renewable energy (biomass, solar, wind) ²¹⁸

It does not mention the Agricultural Mediation Program, which is a process where an impartial mediator can help disputing parties solve issues. This program was established by the State Agricultural Development Committee as a voluntary process to examine mutual problems, identify and consider options, and come to a solution.

Harmony's Township's Open Space/Farmland Committee can help avoid or minimize Right to Farm conflicts by making farmers and other residents aware of the provisions in the Township's code and by having an open-door policy that allows those with issues to talk informally with a member or members of the Committee or Township officials to try to resolve issues before engaging the formal processes of appeals to the Warren CADB or the SADC. Although Township officials feel the current RTF Ordinance and other Township code meets their needs, the OSFC take advantage of opportunities in the Township's planning process to promote strengthening of the RTF ordinance, as appropriate.

2. Farmland Assessment

The Farmland Assessment program is a tax incentive that reduces property taxes on active commercial farmed land. 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 \$0.50 per acre for any acreage over five. Dependent on the agricultural or horticultural products being produced, the farmer can also offer clear evidence of anticipated yearly gross sales, payments, or fees within a reasonable period.
- The property owner must represent that the land will continue in agricultural or horticultural use to the end of the tax year.²¹⁹

The Farmland Assessment program does not apply to farm structures, such as barns and storage facilities.

There are 8,824 acres devoted to agricultural or horticultural use. Within these 8,824 acres, 5,275 are in agricultural use as either cropland or pasture. The remaining 3,548 acres are woodland/wetland areas or equine boarding rehabilitation or training operations.²²⁰ According to New Jersey Farmland Assessment data from 2009 to 2019, general trends indicate:

- From 2009 to 2019, total assessed acreage decreased 13% from 10,139 acres to 8,824 acres.
- Harvested cropland decreased 6% from 2009 (4,760 acres) to 2019 (4,486 acres).
- Pastured cropland decreased 21% from 2009 (235 acres) to 2019 (185 acres).
- Permanent pasture decreased 1% from 2009 (610 acres) to 2019 (604 acres).
- Total acreage in active agricultural use (cropland harvested, cropland pastured, and permanent pasture) decreased 6% from 2009 (5,605 acres) to 2019 (5,275 acres).
- Woodland/wetland acreage decreased 22% from 2009 (4,518 acres) to 2019 (3,540 acres).
- Equine acreage decreased 0.5% from 2009 (16 acres) to 2019 (8 acres).

By making agriculture more profitable and viable, tax incentives will help to ensure a steady, permanent source of agricultural lands for the Township's farmland preservation efforts. The Township considers the assessment procedure as essential to continued agricultural success and supports the law in its current form.

B. Additional Strategies to Sustain, Retain, and Promote Agriculture in Harmony

1. Permit Streamlining

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. 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 Harmony's strong agricultural base requires support on many fronts, one of which is flexibility in government regulation.²²¹

- *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).
- *Flexibility:* State agencies should consider the *NJDA Agricultural Smart Growth Plan* when making decisions regarding existing and proposed infrastructure, developing and amending regulations and programs, and protecting environmental and historical resources. These agencies should coordinate with NJDA to ensure that regulations and programs are attuned to the needs of Warren County and Harmony Township farmers.
- *Agriculture-Friendly Zoning:* This refers to a comprehensive land use practice that coordinates zoning and land use policy in a proactive way which encourages agribusiness, while at the same time reducing the incidence of farmer-homeowner nuisance issues.

2. Agricultural Vehicle Movement

Harmony farmers need to move heavy, slow-moving agricultural equipment over local, county, and sometimes state roads to access unconnected fields and barns. The township'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 transportation paces can, and do, cause conflict between Harmony's farmers 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. Harmony Township does include slow-moving equipment as a protected farming activity in their Right-to-Farm ordinance.

Signage alerting fast-moving cars to 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 Harmony life. Where absent or inadequate, appropriate signage can be posted. Township officials may consult with farmers as to what adequate signage is and where it should be posted.

3. Agricultural Labor Housing/Training

An adequate labor supply is integral to harvesting vegetables, fruits, and berries. Measured in farmed acreage, Harmony has a relatively small industry for these products compared with field crops such as hay, corn, and soybean. Harvesting of the latter farm products is more mechanized, and/or not as labor intensive as produce, with most work being done by farm family members.²²² As of 2017, only 30 acres in Harmony Township were devoted to fruits, berries, and vegetables, while 4,211 acres were devoted to field crops and nursery products. Since the overall acreage of labor-intensive farming is small in Harmony Township, farm labor housing, a large issue in towns and counties with high farm labor populations is, for the most part, not of high concern in the Township.

In recent years, problems that face New Jersey Employers persist as the wage (\$10.44/hour) for agricultural employers as of January 1, 2021. It is expected to increase to \$15.00/hour by 2027.²²³ 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 New Jersey, Warren County, and Harmony.

Agricultural Labor Housing

Since the overall acreage in Harmony dedicated to the intensive labor is few, likewise, the demand for agricultural labor housing is scarce. There are no seasonal labor housing structures in the Township.

Farmer 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.

The NJAES-RCE of Warren County provided one-on-one, on-site consultations with farmers to assist with control of insect infestations and plant diseases for fruits. NJAES of Warren County also provides practical assistance to farmers, such as assistance with obtaining pesticide application licenses and water certification and registration permits from the NJDEP.

The Warren County Community College teaches crop monitoring for precision agriculture techniques in their photogrammetry class. The College would be willing to explore the possibility of setting up college-level or continuing education courses if requested to so by the Warren CADB, or the wider agriculture community.²²⁴

NOFA-NJ offers educational programs for farmers of all ages and skill sets, including a Beginning Farmer Program. Other educational programming includes organic gardening, permaculture design certification, business courses, technical assistance, and farm-to-table workshops.²²⁵

Through its Division of Agriculture and Natural Resources, NRCS, the NJDA offers technical, financial, and regulatory assistance, and provides educational outreach to landowners throughout the state.²²⁶

Agriculture labor education and training funding may be available through the New Jersey Department of Labor and Workforce Development Programs. These programs can help assist in upgrading the skills and productivity of the agricultural workforce.²²⁷ 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.²²⁸

The NJFB also hosts educational meetings and provides educational information for farmers on its website about legislative issues, farmland preservation, and labor resources.²²⁹

Youth Farmer Education Programs

According to the *Census of Agriculture*, the farmer population in Warren County is getting older, with an increase of 1.2 years of an average age of 58.4 in 2017 versus 57.2 in 2007.²³⁰ The nationwide average age of operators in 2017 was 58.6, less than a half year difference compared to Warren County.²³¹ In 2017, there were 83 farmers (5.5%) out of 1,516 farmers in Warren County who were under the age of 35.²³²

Due to the aging farmer population, the next generation of the county's farmers needs to become interested in, and exposed to the business of agriculture, and prepared to enter the industry. At the post-secondary level, neither Centenary University nor Warren County Community College offer agriculture education courses, but Centenary University does offer programs in Equine Sciences and Equine Studies.²³³ Typically, students who enter programs in natural sciences (biology, chemistry, etc.) at these schools can also adapt their degree plan to include elements of business, economics, and resource management to receive a well-rounded education that can translate to practical use on Harmony farms.²³⁴

The closest post-secondary institutions to Harmony Township that offer programs relating to agriculture and horticulture are:

- 6 miles - Lafayette College, 730 High Street, Easton, PA.
- 15 miles – Northampton Community College, 3835 Green Pond Road, Bethlehem, PA.
- 24 miles – East Stroudsburg University of Pennsylvania, 200 Prospect Street, East Stroudsburg, PA.
- 32 miles – Sussex County Community College, One College Hill Road, Newton.
- 33 miles – Lehigh Carbon Community College, 4525 Education Park Drive, Schnecksville, PA.

Changes in the cost of attendance/financial assistance for college education in New Jersey may offer incentives for young farmers to seek enrollment in higher education. In the Spring of 2019, the state piloted the New Jersey Community College Opportunity Grant, where students may be eligible for tuition-free college.²³⁵

Future Farmers of America (FFA) is a national educational organization that helps prepare youth for careers and leadership in agriculture by aiding students in the development of agricultural skills.²³⁶ The National FFA has 8,612 chapters and 700,170 members aged 12-21 in all 50 states.²³⁷ In 2020, there were 36 chapters in New Jersey with more than 2,400 members.²³⁸ North Warren Regional High School in Blairstown offers Applied Horticulture/Horticultural Operations²³⁹ and has a local FFA Chapter. North Warren Regional High School in Blairstown also offers courses in animal science/wildlife management. Based on student interest, the school could consider offering other related courses such as environmental science or agriculture business management.²⁴⁰

There are several other secondary institutions (high schools) offering agricultural courses and are FFA chapters close to Harmony in the Northern Region and Warren County area. These include:

- 17 miles - Belvidere High School, Belvidere.
- 20 miles - Warren Hills Regional High School, Washington.
- 27 miles - Phillipsburg High School, Phillipsburg.

4-H is an informal, practical educational program for youth, which assists young people interested in farm animals through livestock projects. The 4-H Youth Development Program is overseen by the Warren County NJAES-RCE.²⁴¹ 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.²⁴²

There are two local non-profit groups that focus on agricultural issues, the Foodshed Alliance and Genesis Farm, located in Blairstown and Frelinghuysen respectively. These organizations are concerned with supporting and promoting sustainable agricultural practices and connecting farming with the community at-large. They also work to foster and train the next generation of farmers in the county.

NJ Farm Link is a program for farmers, new and established, and assists:

- New farmers looking for opportunities to gain experience.
- New farmers looking for land to get started.
- Established farmers looking for land to expand.
- Farm owners looking to lease, sell, or make land available for farming.
- Retiring farmers who would like to ensure their land stays in agricultural production but have no family members who want to continue to farm.
- Farmers looking to hire farm managers, fill apprenticeship positions, or mentor a new farmer.

- Non-profits, municipalities, and counties looking for farmers for farmland they own or manage.
- Farmers and landowners working on farm transfer plans.²⁴³

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 through the interactive NJ Land Link website. In 2020 there are 14 farmland listings in Warren County.²⁴⁴

4. Wildlife Management Strategies

Crop damage from wildlife leads to economic loss for the farmer and is a serious problem throughout Warren County. At present, hunting is about the only effective method available to farmers. Although many farmers are avid hunters and do apply for depredation permits that allow them to hunt out of season, even hunting is becoming a less viable solution. Encroaching development that takes away territory from 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 neighborhood dwelling. In many instances, this is the only short-term solution to control crop damage. Special hunting options include:

- License exemptions for farm families
- Special farmer black bear permit
- Farmer Depredation Permit
- Deer Management Assistance Program

Insects are also 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 NJAES-RCE, such as the perimeter trap study on insects and pumpkins undertaken several years ago and the integrated pest management resources available through the NJAES-RCE, are attempts to help solve these problems in ways that work for both the farmer and the environment.²⁴⁵

Warren County has also been placed on quarantine by the NJDA, due to an outbreak of the spotted lanternfly. This insect has the potential to damage crop output and has been a concern since at least 2018.²⁴⁶

The NJDA's Division of Plant Industry works to safeguard the state'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.²⁴⁷ 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. 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. The gypsy moth, responsible for defoliation, which causes environmental and economic damage to woodlands was reported as a "severe problem" in Harmony Township in

2009 but disappeared from the aerial defoliation surveys until 2015 when there was one reported instance of a “heavy problem”. In 2016 and 2017 Harmony Township was reported to have a “heavy problem”; however, Harmony was not included in the surveys in 2018 or 2019. It did reappear as a “moderate problem” in 2020, but the decreased frequency shows that the invasion has improved through the years, though it is still present in Warren County.²⁴⁸

5. Agricultural Education and Promotion

The USDA has an 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 2018 (Farm Bill) updates the Rural Development Program in several ways, including:

- Amends the definition of rural to exclude from population thresholds individuals incarcerated on a long-term or regional basis and excludes the first 1,500 individuals residing in on-base military housing.
- Increases annual appropriated funding for broadband deployment from \$25 million in FY2019 to \$350 million in FY2023.
- The 2018 Farm Bill redirects program funds of existing rural development programs to target a range of rural health issues.
- The 2018 Farm Bill also includes other provisions to reauthorize and/or amend loan and grant programs that help with rural water and wastewater infrastructure, business development and retention, and community and regional development.²⁴⁹

Grants and loans are available in three key areas: Business-Cooperative, Housing and Community Facilities (including farm labor housing), and Utilities (including Broadband).²⁵⁰ To qualify for some of the program’s loans and grants, municipalities must have less than 10,000 residents, other program thresholds have increased. At a population of approximately 2,737 as of July 2019,²⁵¹ Harmony may qualify for these loans and grants.

The U.S. Taxpayer Relief Act of 1997, administered by the U.S. Department of Treasury’s Internal Revenue Service, is meant to smooth out economic disparities that farmers experience from year to year due to the cyclical nature of agriculture. Known as **Farm Income Averaging**, qualified farmers can average all or part of their current year farm income over the previous three years. Substantial tax dollars can be saved by income averaging.²⁵²

The New Jersey Legislature has considered bills that would provide income averaging similar to the federal program. In the 2018-2019 Regular Session, Bill NJ A236 was introduced and has since been referred to the Assembly Agriculture and Natural Resource Committee. The NJDA, SADC, Warren County Commissioners, and Warren County CADB can work with, and encourage, the New Jersey Legislature to continue to introduce bills that would assist Warren County and Harmony farmers to remain economically viable.

The New Jersey FSA has both **Direct and Guaranteed Farm Ownership** loans available for farmers, including those in Warren County. Direct Farm Ownership Loans are available up to

\$600,000, and guaranteed loans can go up to \$1,776,000. Down Payment loan funds may be used to partially finance the purchase of a family farm. Loan applicants must contribute a minimum down payment of 5% of the purchase price of the farm and the Agency will finance 45% to a maximum loan amount of \$300,015.²⁵³ The Hackettstown Service Center handles loans for Warren County.²⁵⁴

FSA loans can be used for most agriculture necessities such as purchasing land, livestock, equipment, feed, seed, supplies, and for construction of buildings, or to make farm improvements.²⁵⁵

Maps

Map 1. Farmland

Map 2. Preserved and Public Lands

Map 3. Agricultural Soil Categories

Map 4. Agricultural Development Area

Map 5. Project Area Map

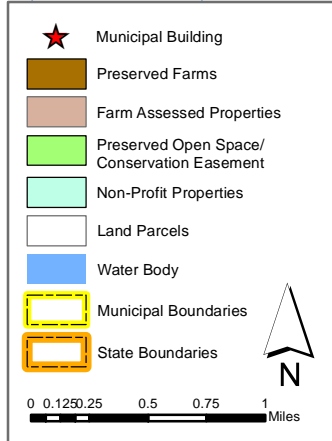
Target Farm Analysis Maps:

Map A. Farm Parcels & Units that meet the SADC Minimum Eligibility Criteria for Tillable Land

Map B. Farm Parcels & Units that meet the SADC Minimum Eligibility Criteria for Agricultural Soils

Map C. Target Farms - Potentially Eligible Farm Parcels & Units over 10 acres that meet SADC criteria for Agricultural Soils and Tillable Land

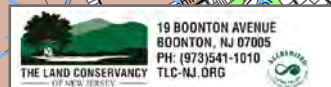
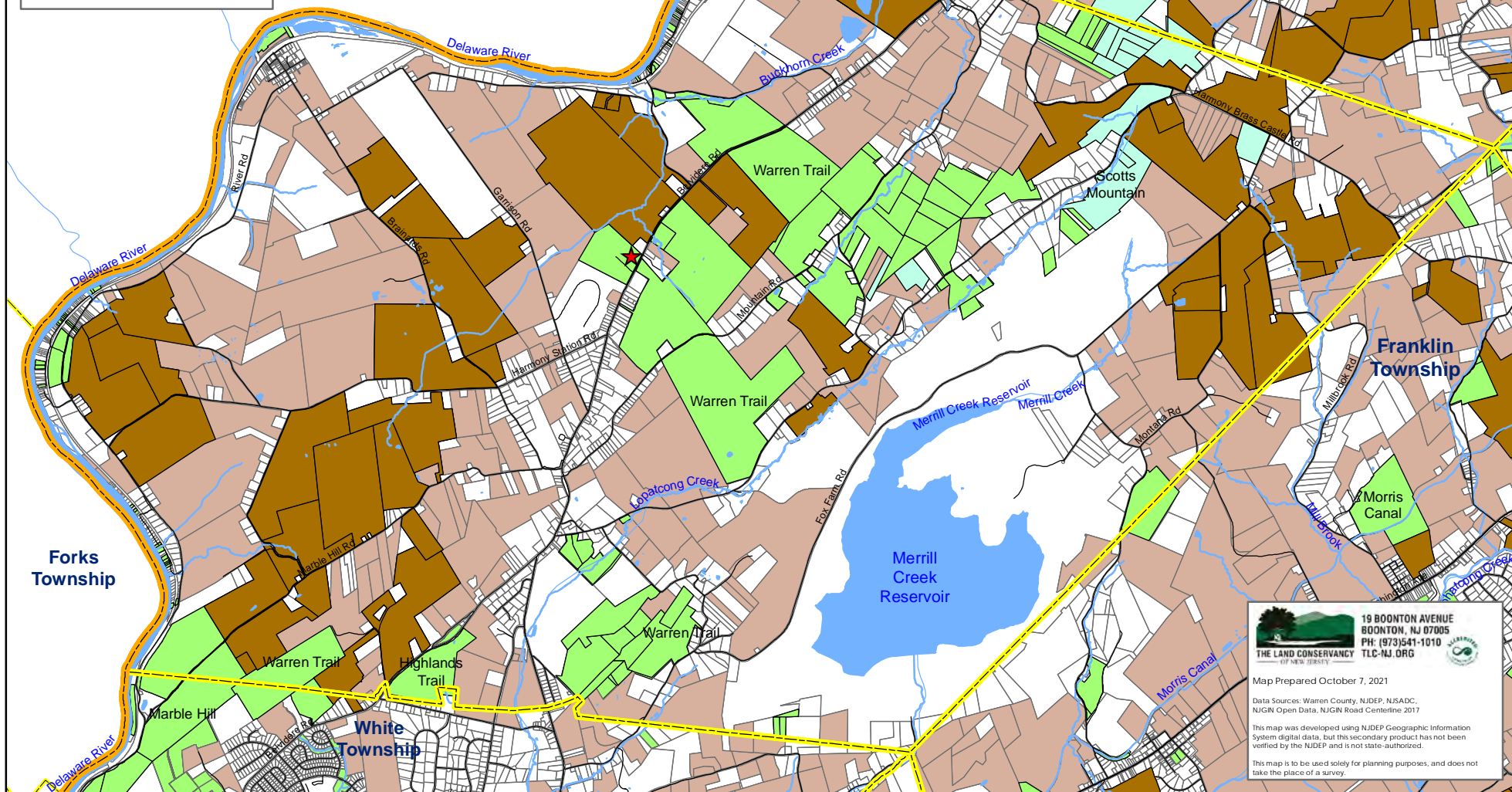
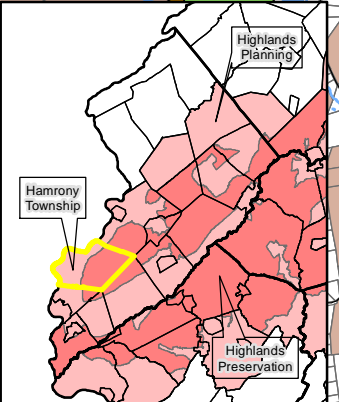
Map 1: Farmland Harmony Township, Warren County



Pennsylvania

Lower
Mt Bethel
Township

White
Township



Map Prepared October 7, 2021

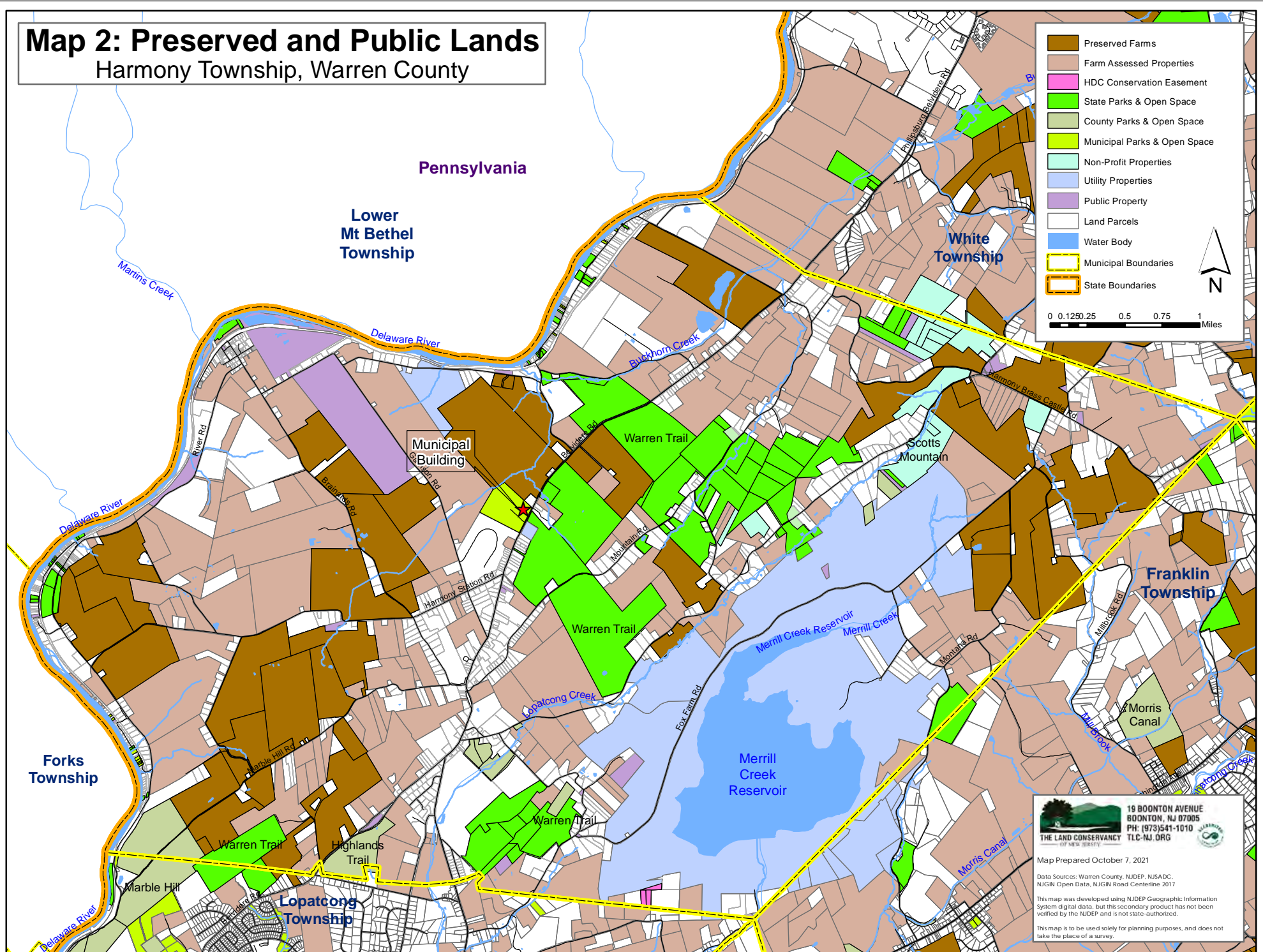
Data Sources: Warren County, NJDEP, NJADC,
NJGIN Open Data, NJGIN Road Centerline 2017

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.

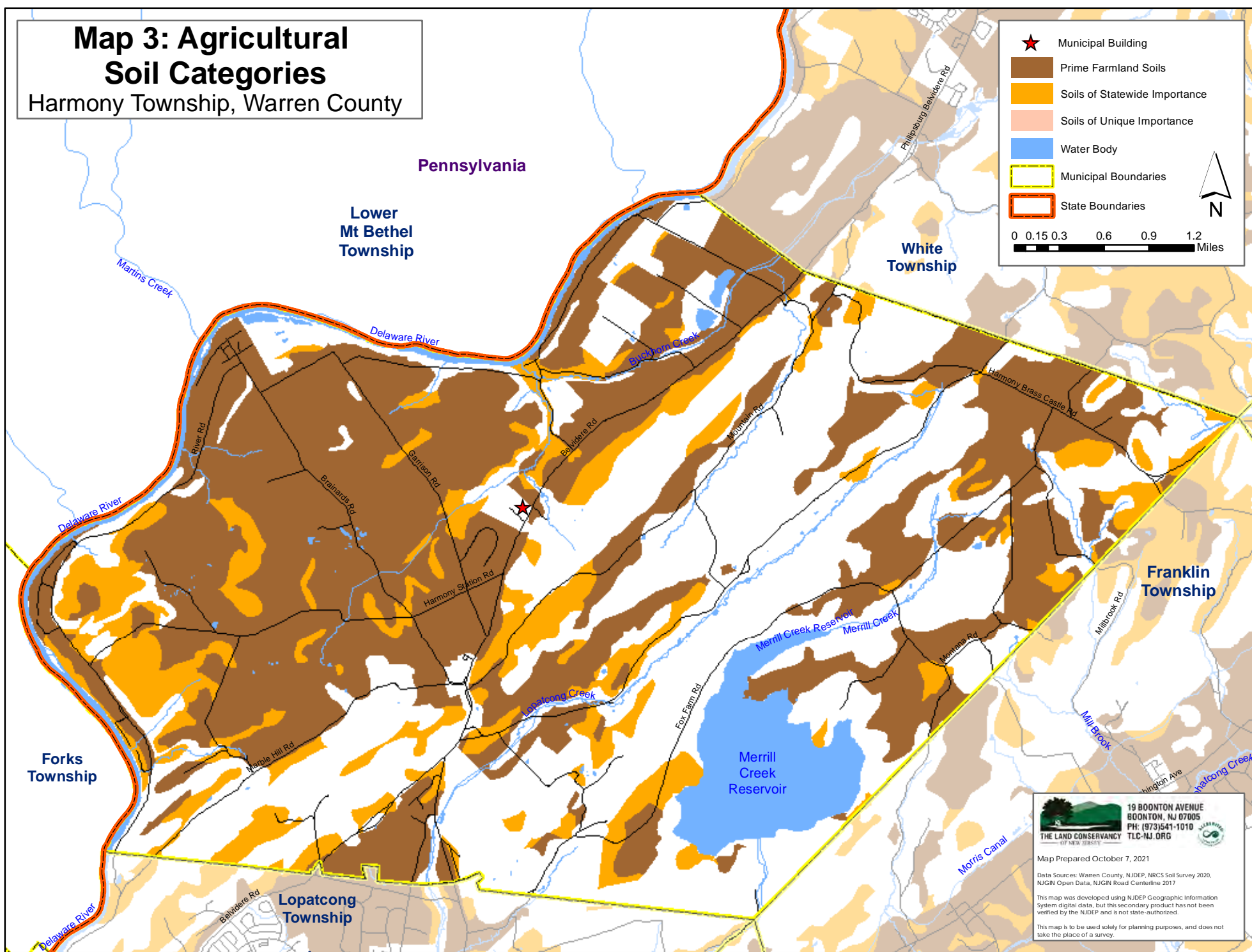
Map 2: Preserved and Public Lands

Harmony Township, Warren County

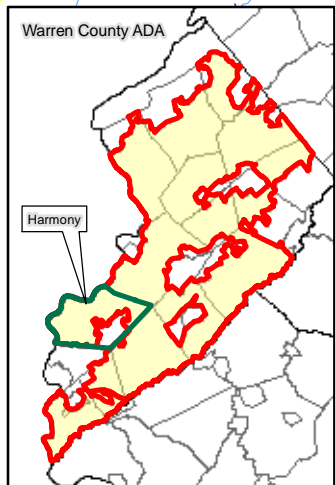


Map 3: Agricultural Soil Categories

Harmony Township, Warren County



Map 4: Agricultural Development Area Harmony Township, Warren County



Pennsylvania

Lower
Mt Bethel
Township

White
Township

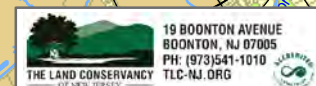
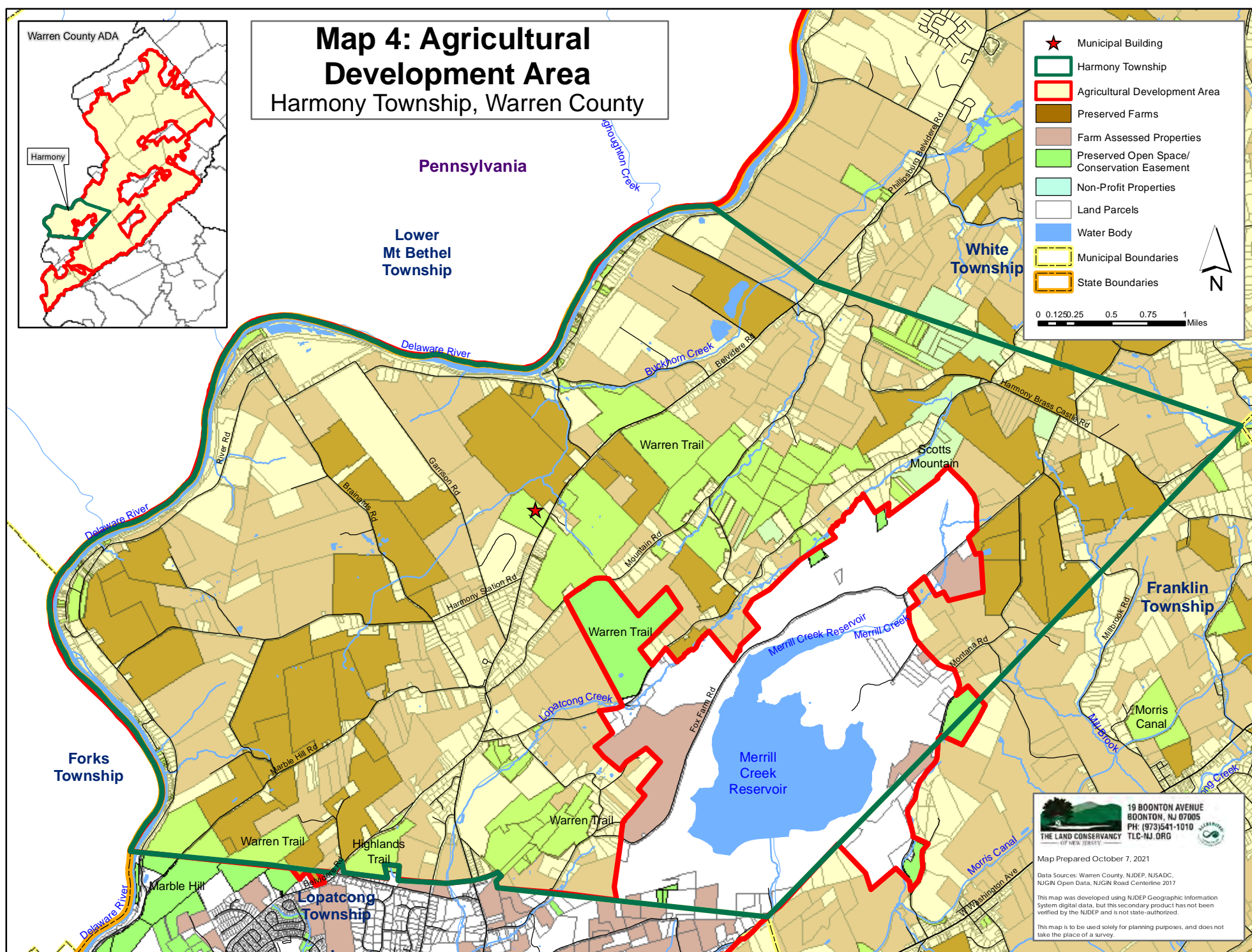
Franklin
Township

Forks
Township

Lopatcong
Township

- ★ Municipal Building
- Harmony Township
- Agricultural Development Area
- Preserved Farms
- Farm Assessed Properties
- Preserved Open Space/
Conservation Easement
- Non-Profit Properties
- Land Parcels
- Water Body
- Municipal Boundaries
- State Boundaries

0 0.125 0.25 0.5 0.75 1 Miles



Map Prepared October 7, 2021

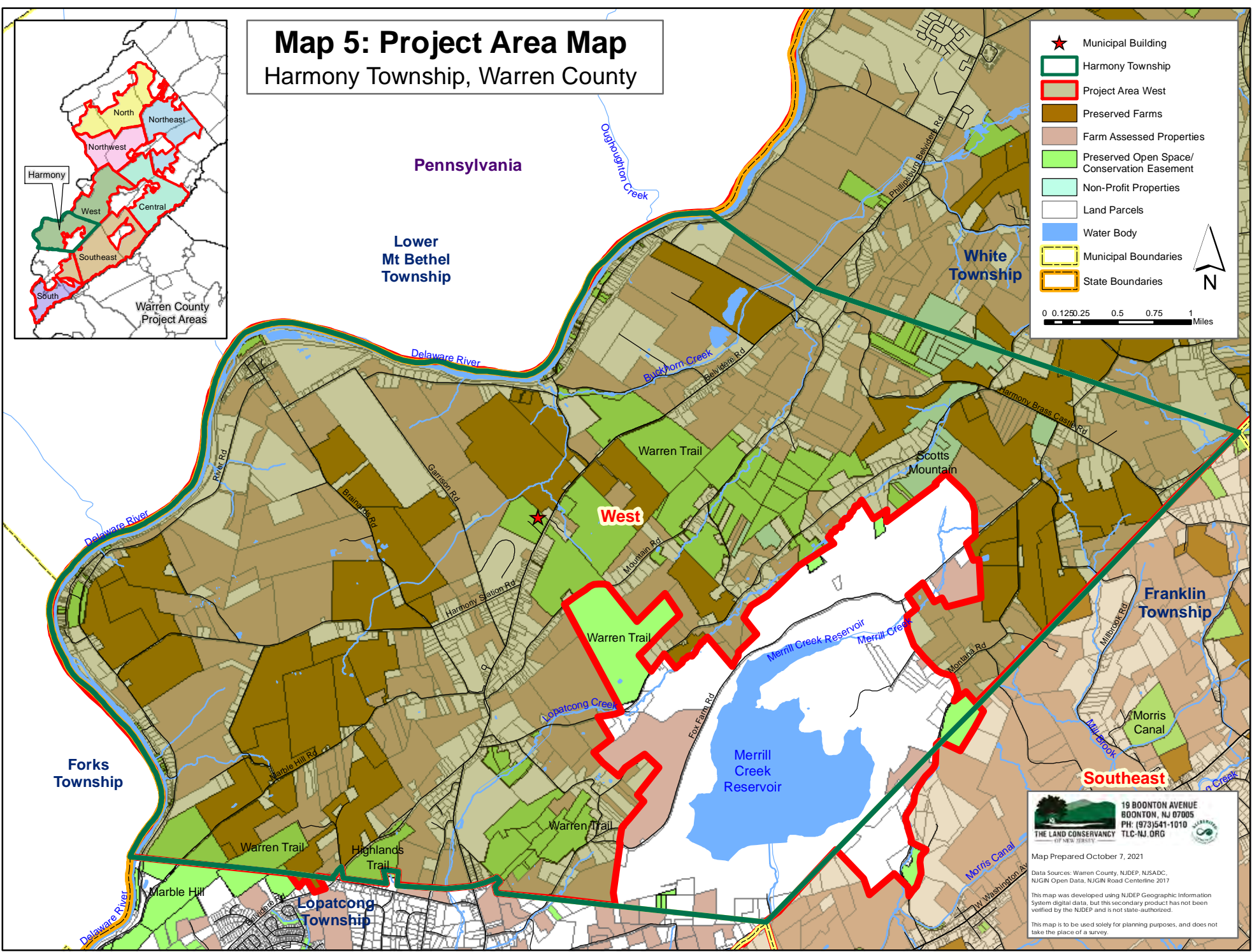
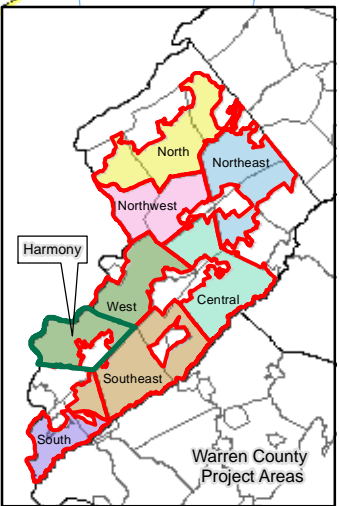
Data Sources: Warren County, NJDEP, NJADC,
NJGIN Open Data, NJGIN Road Centerline 2017

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take the place of a survey.

Map 5: Project Area Map

Harmony Township, Warren County



19 BOONTON AVENUE
BOONTON, NJ 07005
PH: (973)541-1010
TLC-NJ.ORG

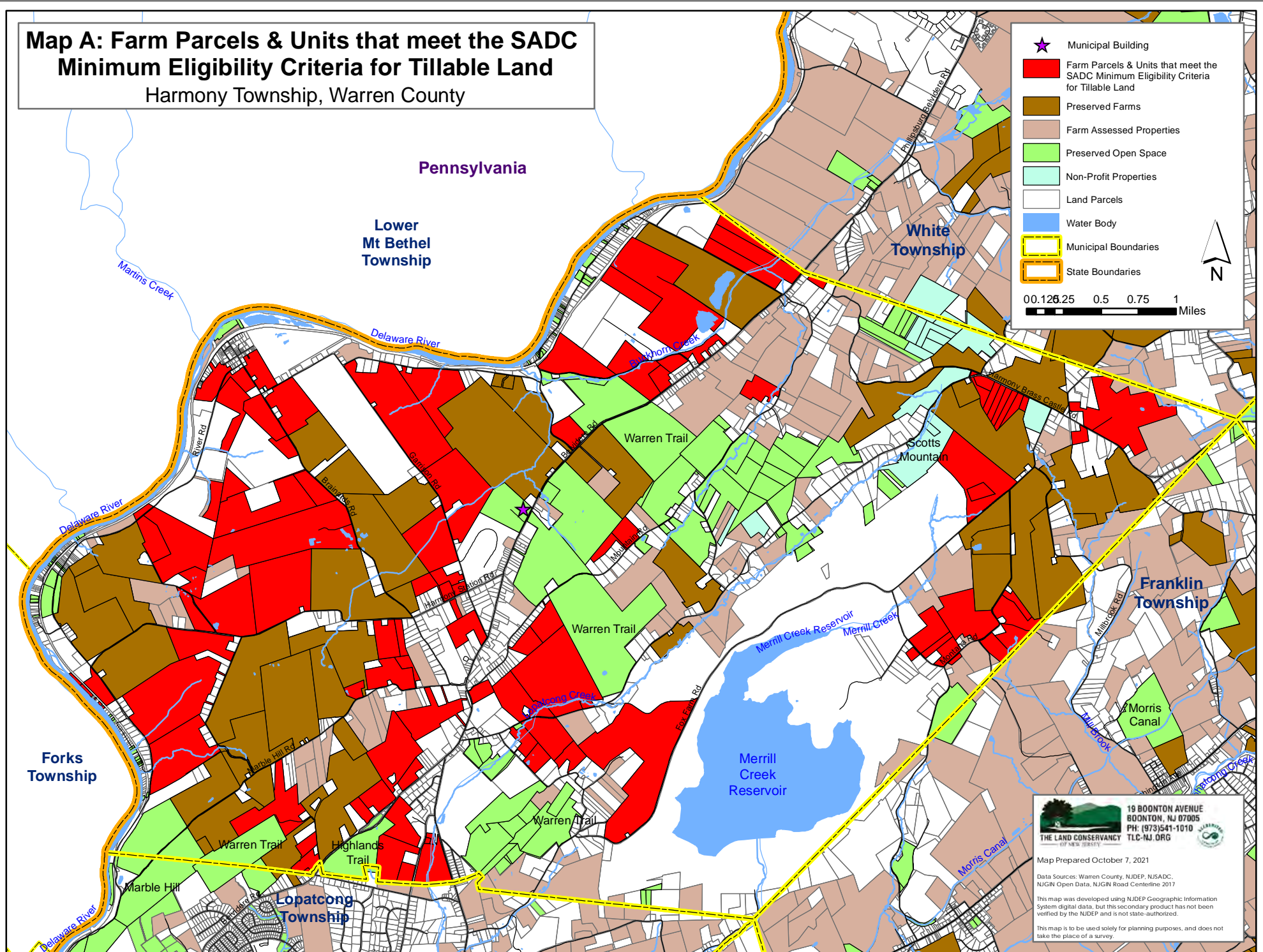
Map Prepared October 7, 2021

Data Sources: Warren County, NJDEP, NJADC, NJGIN Open Data, NJGIN Road Centerline 2017

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 A: Farm Parcels & Units that meet the SADC
Minimum Eligibility Criteria for Tillable Land**
Harmony Township, Warren County



Map B: Farm Parcels & Units that meet the SADC Minimum Eligibility Criteria for Agricultural Soils* Harmony Township, Warren County

*SADC defines Agricultural Soils as soils capable of supporting agricultural or horticultural production. This is measured using the NRCS Soil Survey or NJDEP Land Cover/Land Use for tillable land.

Pennsylvania

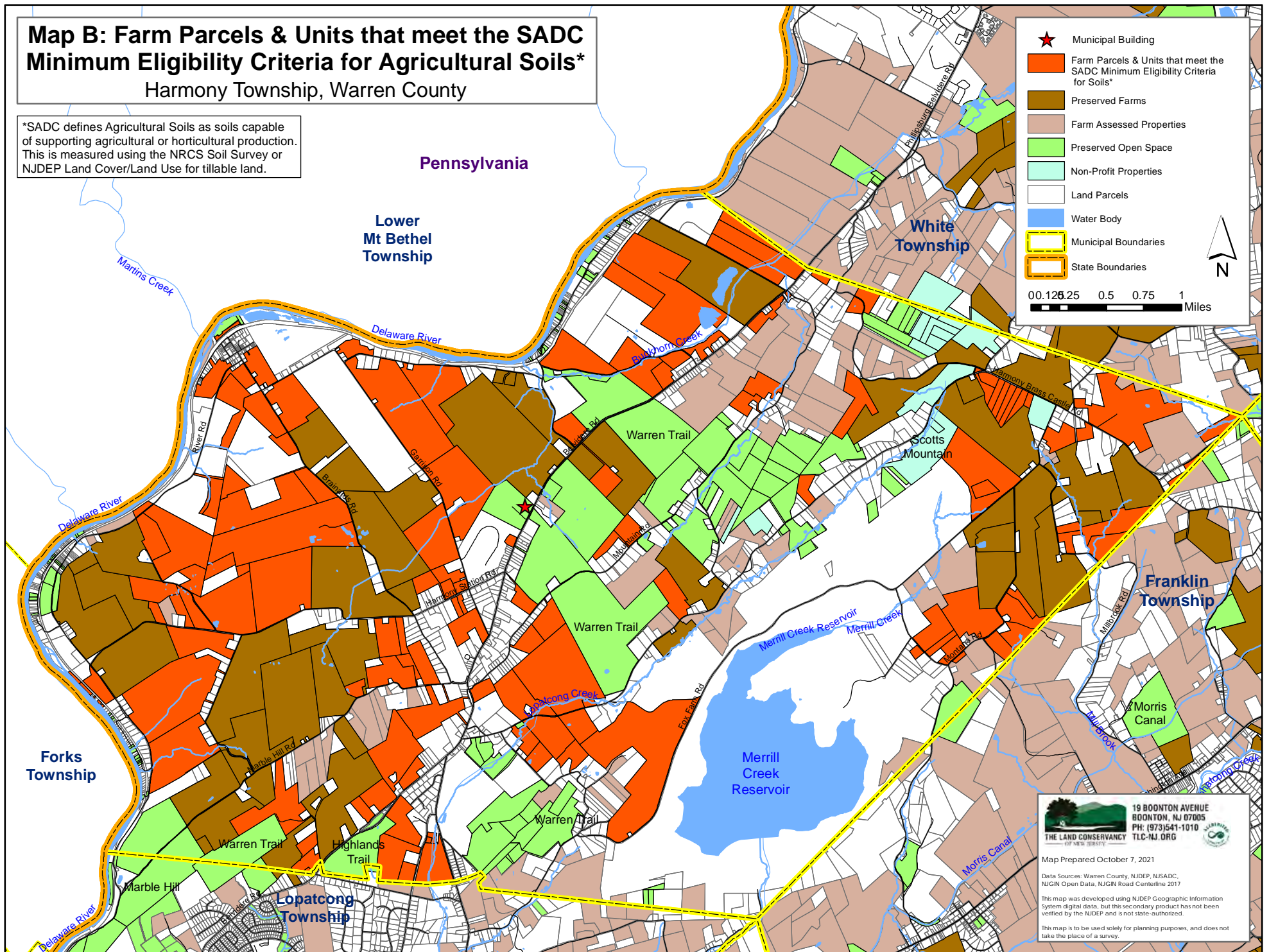
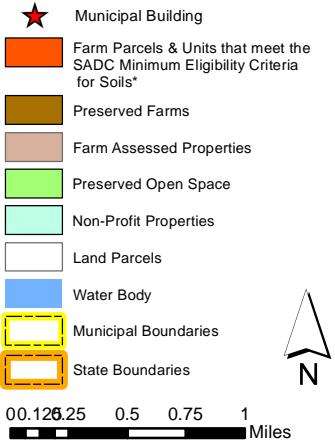
Lower
Mt Bethel
Township

White
Township

Franklin
Township

Forks
Township

Lopatcong
Township



19 BOONTON AVENUE
BOONTON, NJ 07005
PH: (973)541-1010
TLC-NJ.ORG

Map Prepared October 7, 2021

Data Sources: Warren County, NJDEP, NJSADC,
NJGIN Open Data, NJGIN Road Centerline 2017

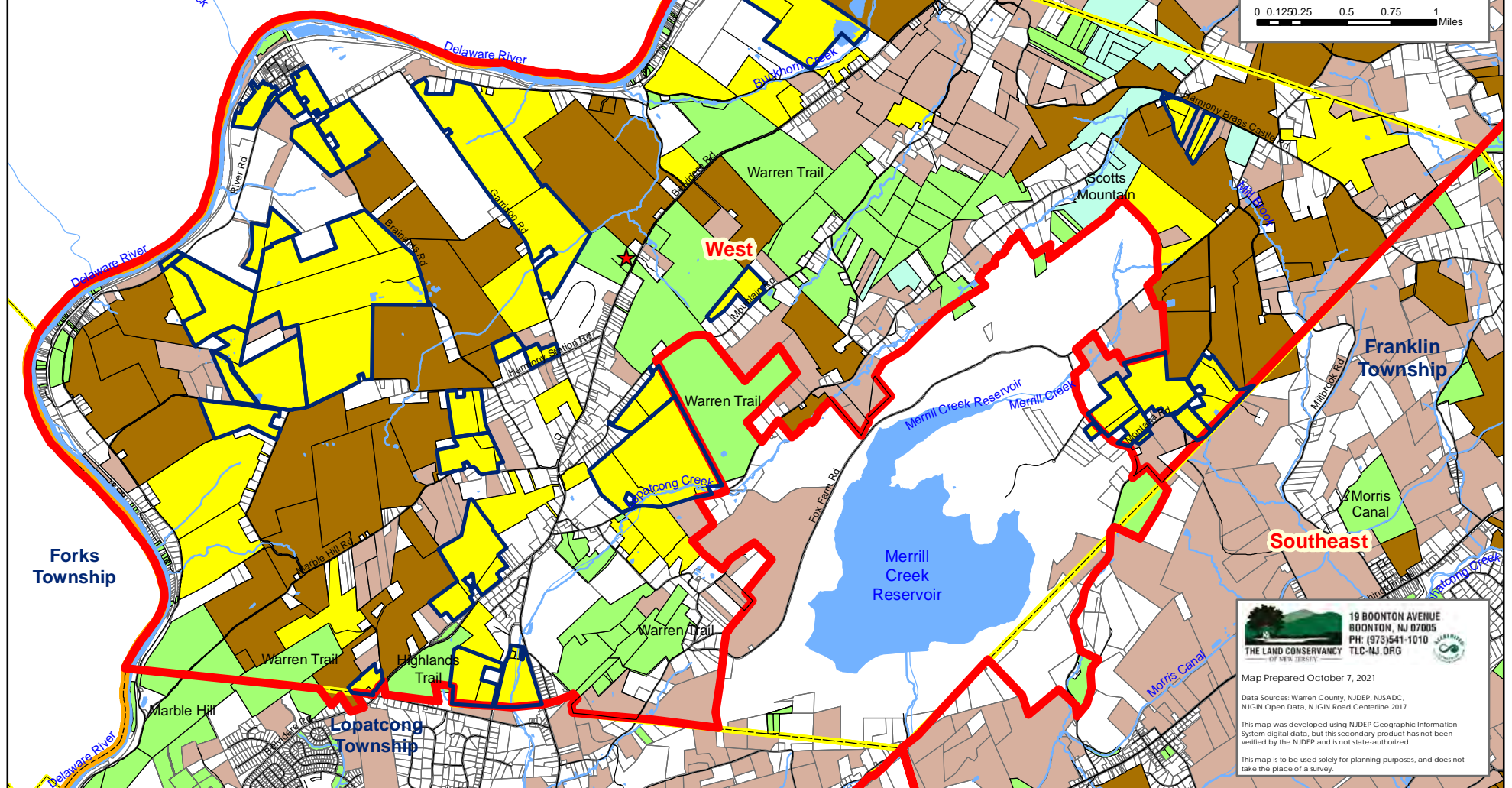
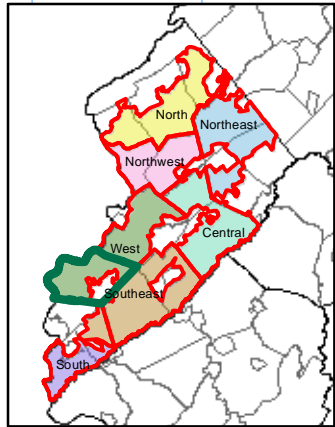
This map was developed using NJDEP Geographic Information
System digital data, but this secondary product has not been
verified by the NJDEP and is not state-authorized.

This map is to be used solely for planning purposes, and does not
take the place of a survey.

Map C: Target Farms

Harmony Township, Warren County

Target Farms are those farms which are greater than 10 acres, meet the SADC minimum eligibility criteria, and are located within the County ADA.



19 BOONTON AVENUE
BOONTON, NJ 07005
PH: (973)541-1010
TLC-NJ.ORG

THE LAND CONSERVANCY
OF NEW JERSEY

Map Prepared October 7, 2021

Data Sources: Warren County, NJDEP, NJSADC, NJGIN Open Data, NJGIN Road Centerline 2017

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

Appendix A. Public Meeting Materials

Appendix B. Agricultural Support Services

Appendix C. Harmony Right to Farm Ordinance (2001)

Comprehensive Farmland Preservation Plan 2020 Update

Township of Harmony
Township Committee
September 1, 2020



1

SADC Guidelines for Developing and Updating Municipal Comprehensive Farmland Preservation Plan


SADC Rules Adopted May 24, 2007
Amended July 25, 2019:

- Provides uniform standards for municipal farmland preservation plans
- Requires the latest data: agricultural statistics, economic development, land use and resource conservation
- SADC providing 50% grant to Harmony Township to complete Plan Update



Smith Farm

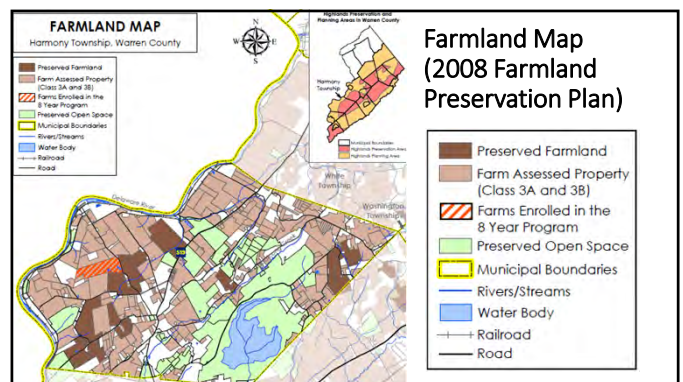
2



2008 Comprehensive Farmland Preservation Plan

- Harmony Township supports many forms of agriculture, including field crops, livestock, woodlands.
- As of 2008, the Township had preserved 1,273 acres
- 1997 - the Township established their Farmland Preservation Program.
- 2008 Goals of the Farmland Preservation Program:
 - Preserve an additional
 - 100 acres in 2008
 - 500 acres by 2013
 - 1,000 by 2017


3



4

I. Agricultural Land Base

- Inventory and map farm properties
- Document and map agricultural soils
- Number of irrigated acres and available water sources.
- Assessment by average farm size and agricultural use (cropland, pasture, equine)



5

II. Agricultural Industry

- Historic crop trends
- Market value of agricultural products over the last 20 years
- Support services within the market region
- Regional agricultural trends



6

III. Land Use Planning

- Master Plan and municipal development regulations
- Transfer of Development Rights (TDR), mandatory clustering, non-contiguous clustering and lot size averaging
- Buffer requirements between agriculture and other land uses



7

IV. Farmland Preservation Program

- Farmland preservation program and expenditures
- County Agricultural Development Areas (ADA)
- Planning Incentive Grant Project Areas (PIGs)
- Coordination with open preservation
- Easement monitoring and enforcement



8

V. Future Farmland Preservation Program

- Goals for farmland preservation
- Minimum eligibility and ranking criteria to prioritize preservation
- Municipal policies
- Limiting factors, as well as potential strategies—funding, costs, landowner interest



9

VI. Agricultural Economic Development

- Agricultural industry retention, expansion and recruitment strategies
- Business and institutional support providers, to address marketing, education, and community supported agricultural opportunities
- Anticipated agricultural trends



10

VII. Natural Resource Conservation

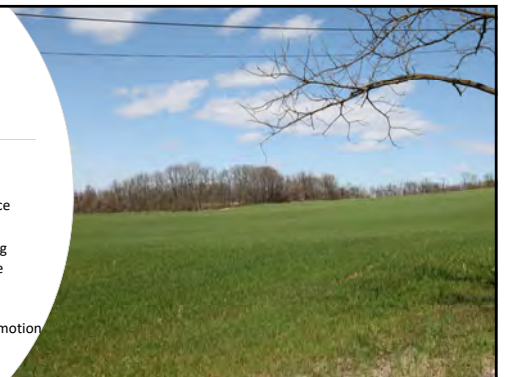
- Soil and water conservation programs
- Water conservation and allocation strategies
- Energy conservation and waste management



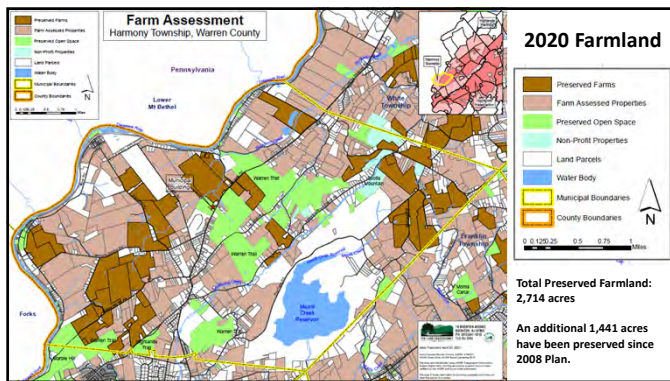
11

VIII. Sustainability, Retention and Promotion

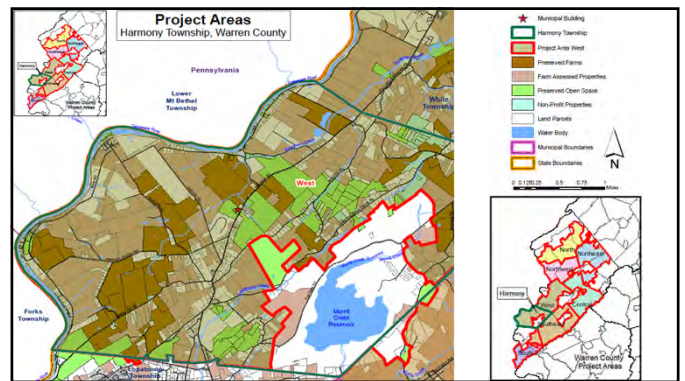
- Right-to-Farm and agricultural mediation
- Right-to-Farm ordinance
- Efforts on:
 - Permit Streamlining
 - Agricultural Vehicle Movement
 - Labor Housing
 - Education and Promotion



12



13



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Thank You

Barbara Heskins Davis, PP, AICP
The Land Conservancy of New Jersey
Email: bhdavis@tlc-nj.org
Phone: (973) 985-1762 (mobile)

THE LAND CONSERVANCY
OF NEW JERSEY

15

2021 Farmland and Open Space Plans

Township of Harmony

October 6, 2021
Township Committee &
Land Use Board



1

SADC and Green Acres Guidelines

For updating
Municipal Comprehensive
Farmland Preservation Plans
and
Open Space and Recreation Plans

The SADC Rules for Farm Plans and the PIG program:

- ✓ adopted May 24, 2007
- ✓ amended July 25, 2019

Requires the latest data.

The Farm Plan uses the most up-to-date data on agricultural statistics, economic development, land use, and resource conservation.

The Open Space Plan relies on municipal data for revenues/expenditures and priorities for preservation.

The SADC is providing a 50% grant to Harmony Township to complete the Farm Plan.

The Land Conservancy applied for and received a grant to cover 100% of the cost to update the Open Space Plan.

2

Schedule and Deliverables

March 5 2020 Kickoff Meeting with SADC	July 7, Sept. 22 2021 Draft I, II Farm Plan Sent to Harmony Twp. and SADC	October 1 2021 Final Comments Received from SADC
September 1 2020 First Public Meeting: Farm Plan (Township Committee)	August 24 2021 Open Space Tour	October 6, 2021 2nd Public Meeting: Farm Plan 1st Public Meeting: Open Space Plan (Land Use Board and Township Committee)

3

Why update the Farm and Open Space Plans?

The Township's current Farm Plan (2008) and Open Space Plan (2006) are out of date.

The Updates will keep the municipality current for 10 years for matching funds through SADC and Green Acres programs.

Since 2008, 23 farms have been preserved (1,362 acres).

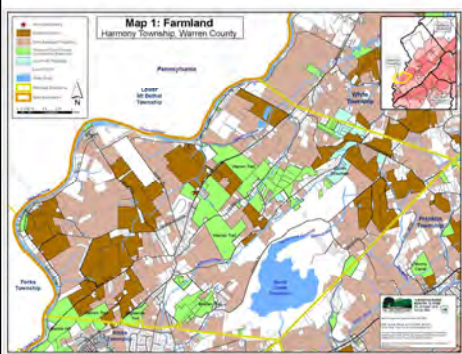
4

Agricultural Land Base

- Inventory and map farm properties
- Document and map agricultural soils
- Number of irrigated acres and available water sources
- Assessment by average farm size and agricultural use (cropland, pasture, equine)



5



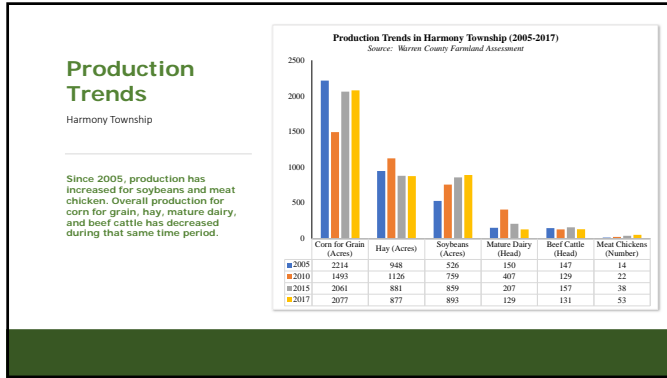
Map 1: Farmland
Harmony Township, Warren County

2021 Farm Assessed Land

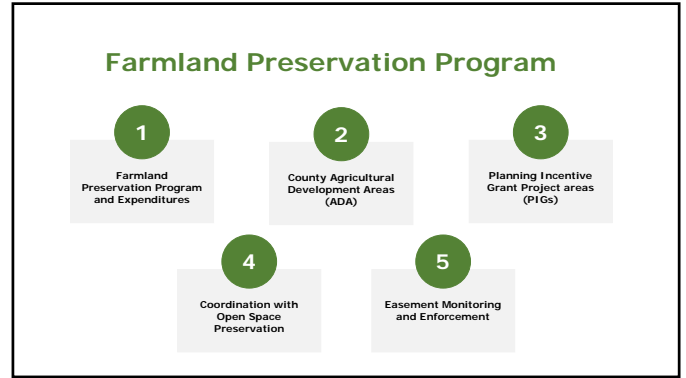
8,824
acres of farm assessed
land

2,793
acres of preserved
farmland on 36 farms

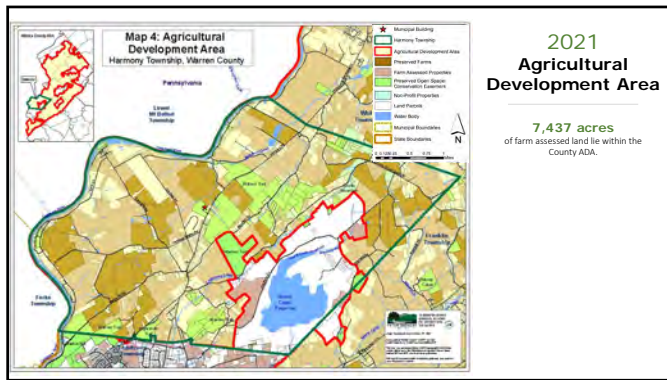
6



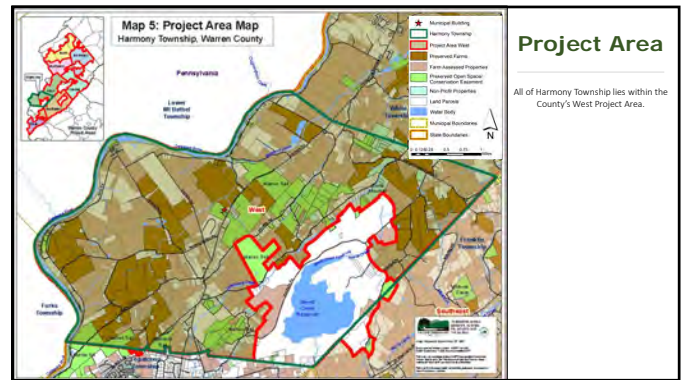
7



8



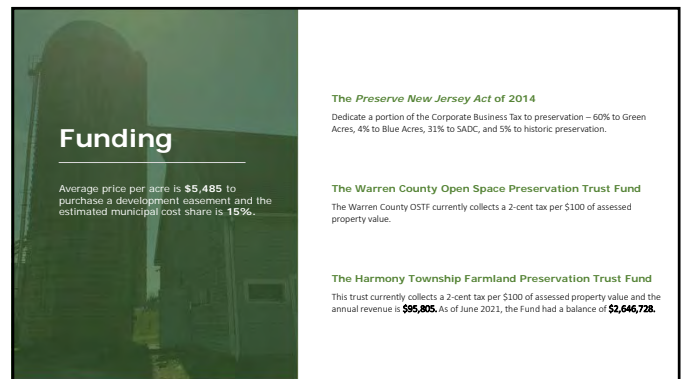
9



10



11



12

Farm Program Expenditures

As of 2021

\$824,735

Harmony Township
(6% of total cost share)

7 farms were preserved through the Muni PIG program, (1 Municipal). The Township has used their Preservation Trust Fund to cover the costs for appraisals, survey, and title work for farmland projects.

\$3,988,979

Warren County
(27% of total cost share)

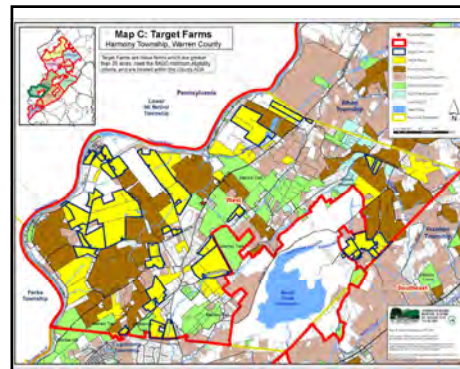
7 farms were preserved through the County PIG program, and 12 farms were preserved through the County Easement Purchase program.

\$9,274,651

State of New Jersey
(63% of total cost share)

4 farms have been preserved through the SADC Direct Easement Purchase program. 5 Farms have been preserved through the state's Nonprofit Grant program.

An additional five farms are pending preservation.



Potentially Eligible Farm Parcels & Units over 10 acres that meet SADC criteria for Agricultural Soils and Tillable Land

48 farms, or 2,861 acres, are greater than 10 acres and meet the SADC minimum eligibility for farmland preservation.

These are identified as the TARGET farms in Harmony Township.

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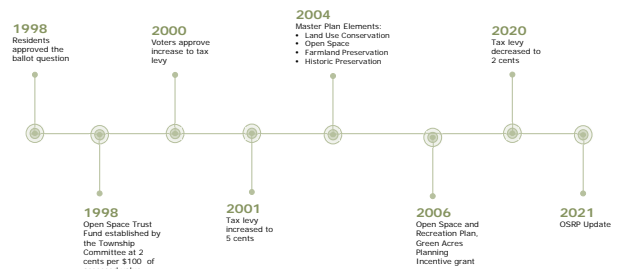
Target Goals

Based on the available funding to purchase and preserve farmland, and the amount of farmland potentially eligible for preservation the town has identified the following goals.



15

Open Space Planning



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2006 Open Space Goals

Protect and Preserve	Historic sites	Environmentally unique sensitive areas	Groundwater resources
Provide	Areas of unique recreational or scenic value	Active and passive open land	Conservation easements on properties restricted from development
Township	Retain the rural atmosphere without impacting growth and development	Encourage preservation of farmland and open space while maintaining property owner equity	Partner to leverage funding and achieve open space objectives

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Open Space Funding

The current balance of the OSTF is \$2,646,728 as of December 2020.

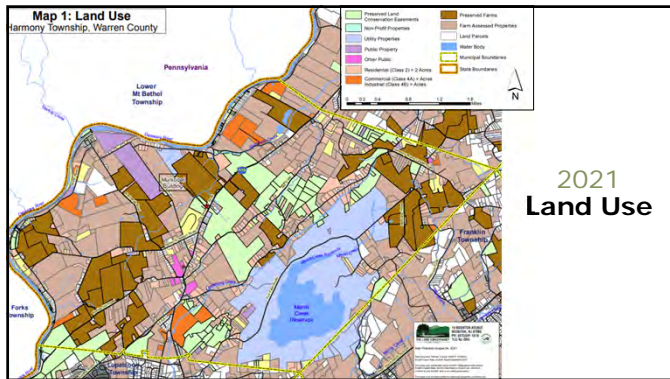
The Warren County Municipal and Charitable Conservancy Trust Fund has contributed \$2,011,552 for open space and historic preservation.

NJDEP Green Acres has contributed \$1,327,02 for open space and recreation.

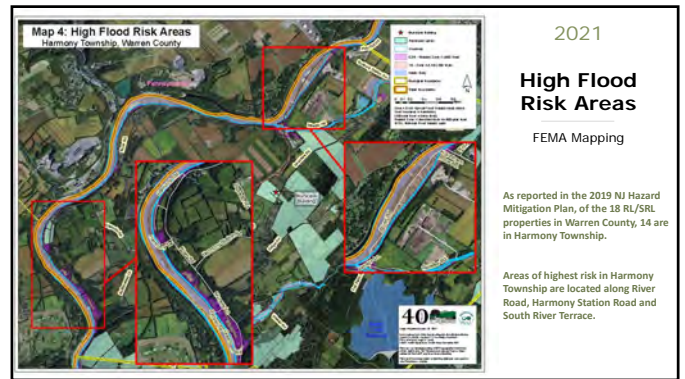
2004 Hoff-Vannatta Farm I for \$279,222.00
 2005 Hoff-Vannatta Farm II for \$360,000
 2006 Bossert/Scotts Mt. for \$125,000
 2008 Hoff-Vannatta Farm III for \$398,780
 2009 Morrison/Scotts Mt. for \$88,750
 2011 Harmony Presbyterian Church for \$48,000
 2011 Hoff-Vannatta Farm IV for \$353,000
 2013 NJCF Scott's Mt. for \$157,800
 2016 Hoff-Vannatta Farm for \$6,000
 2019 Hoff-Vannatta Farm for \$75,000

1987 Harmony Township Rec. Development I for \$91,545
 1987 Harmony Township Rec. Development II for \$60,000
 2014 Harmony Township OSRP Acquisition for \$1,175,479.88

18



19



20

Harmony Township Next Steps

- Update Goals
- Review Income/Expenditures
- Inventory Preserved Lands
- Identify Action Items
- Submit Draft Report
- Present to Land Use Board
- Element of the Master Plan
- Submit to NJDEP Green Acres

21

Thank You

Barbara Heskins Davis, PP, AICP
The Land Conservancy of New Jersey
bhdavis@tlc-nj.org

22

Agricultural Businesses Servicing Warren County and Harmony Township

Sources: SADC Green Pages

Equipment

Central Jersey Equipment
228 State Rt 94
Columbia, NJ 07832
Warren County
(908) 362-6916

Garden State Heirloom Seed Society
82 Delaware Rd
Columbia, NJ 07832
Warren County
(973) 475-2730

Everitt Equipment LLC
258 County Rd 579
Ringoes, NJ 08551
Hunterdon County
(908) 782-5082
<http://www.everittequipment.com/>

Animal Feed
Blairstown Ace
2 Bridge St
Blairstown, NJ 07825
Warren County
(908) 362-6177

Powerco, Inc
12 NJ-173
Clinton, NJ 08809
Hunterdon County
(908) 735-2149
<https://www.powercoinc.com/>

Morristown Agway Store
176 Ridgedale Ave
Morristown, NJ 07960
Morris County
(973) 538-3232
<https://morristownagway.com/>

Smith Tractor & Equipment, Inc
115 NJ-31
Washington, NJ 07882
Warren County
(908) 689-7900
<https://www.smithtractorandequipment.com/>

Sergeantsville Country Store
735 Route 523
Sergeantsville, NJ 08557 Hunterdon County
(609) 397-0807
<https://sergeantsvillegrainandfeed.com/>

Seed

Growmark FS
60 Lehigh Ave
Bloomsbury, NJ 08804
Hunterdon County
(908) 479-4500

Tractor Supply Company
128 NJ-94 #9
Blairstown, NJ 07825
Warren County
(908) 362-0082
<https://www.tractorsupply.com/>

Nutrien Ag Solutions
127 Perryville Rd
Pittstown, NJ 08867
Hunterdon County
(908) 735-5545

Tractor Supply Company
293 US Hwy 206, Unit 15A
Flanders, NJ 07836
Morris County
(973) 252-2925

Tractor Supply Company
144 Hwy 202/31 North
Ringoes, NJ 08551
Hunterdon County
(908) 284-2021

Tractor Supply Company
775 NJ-23
Sussex, NJ 07461
Sussex County
(973) 875-7087

Tractor Supply Company
398 Rte 57 West 4
Washington, NJ 07882
Warren County
(908) 689-3202

Dover Pet Shop
112 E Blackwell St
Dover, NJ 07801
Morris County
(973) 361-2322

Ise Feed
110 Good Springs Rd
Stewartsville, NJ 08886
Warren County
(908) 859-8424

Mike's Feed Farm
90 Hamburg Turnpike
Riverdale, NJ 07457
Morris County
(973) 839-7747
<https://www.mikesfeedfarm.com/>

New Village Farms
11 Stewartsville Rd
Stewartsville, NJ 08886
Warren County
(908) 859-3381

Outlaw Outfitters
530 US-206
Newton, NJ 07860
(844) 780-3261
Sussex County
<https://outlawtack.com/>

Penwell Mills
448 Penwell Rd
Port Murray, NJ 07865
Warren County
(908) 689-3725

The Tack Room
367 Pittstown Rd
Pittstown, NJ 08867
Hunterdon County
(908) 730-8388

Schaefer Farms
1051 County Rd 523
Flemington, NJ 08822
Hunterdon County
<http://www.schaeferfarms.com/>

Delaware Valley Feed and Farm Supply
1133A NJ-12
Frenchtown, NJ 08825
Hunterdon County
(908) 628-3550

Deer Run Hay Company
110 Amwell Rd
Flemington, NJ 08822
Hunterdon County
(732) 904-5137

Brodhecker Farm, LLC
2 Branchville-Lawson
Newton, NJ 07860
Sussex County
(973) 383-3592
<https://brodheckerfarm.com/>

Slaughterhouses
A&M Packing LLC
268 Newton-Swartwood Rd
Newton, NJ 07860
Sussex County
(873) 383-4291

Seugling Meat Packing Inc.
9 Mandeville Ave
Pequannock, NJ 07440
Morris County
(973) 694-3156

V Roche Butcher Shop
9 High St
Whitehouse Station, NJ 08889
Hunterdon County
(908) 534-2006

Green Village Packing Co.
68 Britten Rd
Green Village, NJ 07935
Morris County
(973) 377-0875
<https://greenvillagepacking.com/>

Louie Chiu Slaughterhouse
40 Montana Rd
New Village, NJ 08886
Warren County
(908) 859-6635

Livestock Supplies

Ackerman & Sons Livestock Hauling LLC
932 Maple Ave
Stillwater, NJ 07875
Sussex County
(973) 383-4240

Construction & Concrete

Morton Buildings
512 State Rt 57
Phillipsburg, NJ 08865
Warren County
(908) 454-7900
<https://mortonbuildings.com/phillipsburg-nj>

Fine Woodworking
606 Rt 519
Sussex, NJ 07461
Sussex County
(973) 875-8779

County Concrete Corp.
50 Railroad Ave
Kenvil, NJ 07847
Sussex County
(973) 584-7122
<https://www.countyconcretenj.com/>

Lentini Ready Mix, Inc.
217 Limecrest Rd
Newton, NJ 07860
Sussex County
(973) 300-4146

SCC Concrete, Inc.
1051 River Rd
Phillipsburg, NJ 08865
Warren County
(908) 859-2172
<https://www.sccconcreteinc.com/>

Sparta Redi-Mix
33 Demarest Rd
Sparta, NJ 07871
Sussex County
(888) 383-4651
<https://www.spartaredimix.com/>

Flemington Precast & Supply, LLC
18 Allen St
Flemington, NJ 08822
Hunterdon County
(908) 782-3246
<https://www.flemingtonprecast.com>

Franklin Precast
95 Scott Rd
Franklin, NJ 07416
Warren County (973) 827-7563
<https://www.franklinprecast.com/>

Precast Manufacturing Co.
187 Stryker's Rd
Phillipsburg, NJ 08865
Warren County
(908) 454-2122
<https://www.precastmfgco.com/>

B&B Concrete Co.
811 Rt 57
Stewartsville, NJ 08886
Warren County
(908) 454-1622
<http://www.bakermason.com/>

Donald Baker Mason Contractors, Inc.
188 Thatcher Hill Rd
Flemington, NJ 08822
Warren County
(908) 782-2115
<http://www.bakermason.com/>

JM Lenze Construction
69 Upper North Shore Rd
Branchville, NJ 07826
Sussex County
(937) 948-5491

SMB Construction
73 Mercer St
Phillipsburg, NJ 08865
Warren County
(908) 454-9530

William R. Hunt Stonework & Masonry, LLC
PO Box 346
Whitehouse Station, NJ
Hunterdon County
(908) 534-2194

Bill Wroblewski, LLC
5 Whitehall Rd
Andover, NJ 07821
Sussex County
(973) 347-3888

Brad Lauyer Masonry Contractor, LLC
611 Main St
Pattensburg, NJ 08802
Hunterdon County
(908) 735-0875

A.A. Matulay
PO Box, 539 70 Rt 202
Ringoes, NJ 08551
Hunterdon County
(908) 782-7666

Well Drilling

Samuel Stothoff Co., Inc.
PO Box, 59 Rt 31
Flemington, NJ 08822
Hunterdon County
(908) 782-2116
<https://www.stothoffwellwater.com/>

Colaluze Well & Pump Service
2293 Rt 57
Washington, NJ 07882
Warren County
(908) 454-8008
<https://www.colaluzeWell.com/>

Dan Ballentine Well Drilling, Inc.
PO Box 178, Port Murray Rd
Port Murray, NJ 07865
Warren County
(908) 689-7666
<https://www.ballentinedrilling.com/>

Site Work Contractors

Apgar Brothers Excavating Co.
PO Box 91
Whitehouse Station, NJ 08889
Hunterdon County
(903) 303-9758

Harrington Contractors
50 Parker Pd
Chester, NJ 07930
Morris County
(908) 879-7500
<http://www.harringtoncontractors.com>

KOR Companies
1 Greenwood Place
Flemington, NJ 08822
Hunterdon County
(908) 284-2272

Charles T. Matarazzo Excavating & Masonry, LLC
1024 Route 173
Asbury, NJ 08802
Warren County
(908) 479-2025

John P. Martin Excavating, LLC
112 Ferry Rd
Flemington, NJ 08822
(908) 782-2512
Hunterdon County
<https://www.jpmartinexcavating.com>

A.S. Milkowski & Sons Contracting
249 Rocky Run Rd
Glen Gardner, NJ 08826
Hunterdon County
(908) 537-2590

Rick Mueller Excavating, Inc.
31 Rick Rd Milford, NJ 08848
Hunterdon County
(908) 996-3031

S Snook Excavating, Inc.
150 Pelltown Rd
Lafayette, NJ 07848
Sussex County
(973) 875-5754

Wantage Excavating Co.
137 Holland Rd
Sussex, NJ 07461
Sussex County
(973) 875-5670
<https://www.wantageexcavating.com/>

Willever Excavating
200 Creek Rd
Phillipsburg, NJ 08865
Warren County
(908) 454-6242

Bill Wroblewski, LLC
5 Whitehall Rd
Andover, NJ 07821
Sussex County
(973) 347-3888

Petersen Excavating
273 Mt. Lake Rd
Belvidere, NJ 07823
Warren County
(908) 637-8531

Earthway Excavating
16 Greengate Rd
Lebanon, NJ 08833
Hunterdon County
(908) 534-4343

William R. Hunt Stonework & Masonry
PO Box 346
Whitehouse Station, NJ 08889
Hunterdon County
(908) 534-2194

The Viersma Companies
PO Box 224, Airport Rd
Allamuch, NJ 07820
Warren County
(908) 852-0552
<https://www.viersma.com>

Richard Pfauth, Jr. & Son
239 Halls Mill Rd
Lebanon, NJ 08833
Hunterdon County
(908) 534-2535

John Peach Excavating
PO Box 78, Pleasant Grove Rd
Schooleys Mountain, NJ 07870
Morris County
(908) 852-5875

William H. Wilson Contracting Co., Inc.
210 Houses Corner Rd
Sparta, NJ 07871
Sussex County
(973) 579-5353

D&V Construction Co.
83 Good Springs Rd
Asbury, NJ 08802
Warren County
(908) 479-6911

A. Mokros Backhoe Service, Inc.
17 Lynnbrook Dr
Lambertville, NJ 08530
Hunterdon County
(609) 737-8311

Razz Construction
79 Sky Manor Rd
Pittstown, NJ 08867
Hunterdon County
(908) 996-3298

Ravcon Construction Group LLC
PO Box 1098
Whitehouse, NJ 08889
Hunterdon County
(908) 482-7037
<https://www.ravcon.us/>

Paul W. Steinbeiser Landscape
718 County Rd 519
Frenchtown, NJ 08825
Hunterdon County
(908) 996-6609
<https://www.pwsteinbeiser.com/>

Fence Installation

Farmette Services
67 Henry Rd
Newton, NJ 07860
Sussex County
(973) 300-0103

Hunt's Fencing
567 Rt 94
Newton, Nj 07860
Sussex County
(973) 383-4426

The Fence Company
3 Hill Hollow Rd
Pittstown, NJ 08867
Hunterdon County
(908) 735-8879

J&M Fence & Sheds
328 Rt 46 West
Great Meadows, NJ 07838
Warren County
(908) 637-8799

Seamless Gutters

Warren Valley Seamless Gutters
17 Ernella Dr
Belvidere, NJ 07823
Warren County
(908) 752-5397

Wayne Johnson & Sons, Inc.
1167 NJ-23
Kinnelon, NJ 07405
Morris County
(201) 838-2358
<https://www.waynejohnsonandsons.net>

NJ Soil Conservation Districts

Upper Delaware Soil Conservation District
51 Main Street, Suite B
Blairstown, NJ 07825
Warren County
(908) 852-2579
<https://upperdelawarescd-nj.com>

NJ County Agricultural Development Boards

Warren County Agricultural Development
Board
500 Mt. Pisgah Ave, PO Box 179
Oxford, NJ 07863
(908) 453-3252
<https://www.co.warren.nj.us/Land%20Preservation%20Dept/CADB.html>

Rutgers

Cooperative Extension of Warren County
165 County Rd 519 South, Suite 102
Belvidere, NJ 07823
(908) 475-6505
<https://warren.njaes.rutgers.edu/>

**United States Department of Agriculture
(USDA) – Farm Service Agency (FSA)**

Hackettstown Service Center
101 Bilby Rd, Suite 1H
Hackettstown, NJ 07840
(908) 852-2576
<https://www.fsa.usda.gov/state-offices/New-Jersey/index>

USDA – Natural Resources Conservation Service (NRCS)

Hackettstown Service Center
101 Bilby Rd, Suite 1H
Hackettstown, NJ 07840
(908) 852-2576
<https://www.nrcs.usda.gov/wps/portal/nrcs/site/nj/home/>

USDA Rural Development

Hackettstown Service Center
101 Bilby Rd, Suite 1H
Hackettstown, NJ 07840
(908) 852-2576
<https://www.rd.usda.gov/nj>

Auctions

Hackettstown Livestock Auction
225 W Stiger St
Hackettstown, NJ 07840
Warren County
(908) 852-0444
<https://www.hackettstownauction.com>

Crop Insurance Agents

Crop Growers, LLC
9 County Rd 618
Lebanon, NJ 08833
Hunterdon County
(800) 234-7012
<https://www.cropgrowers.com/>

Financial Services

Farm Credit East
9 County Road 618
Lebanon, NJ 08833
(908) 782-5215
<https://www.farmcrediteast.com/>

Licensed Foresters

G. Lester Alpaugh
PO Box 211
Stockton, NJ 08559
Hunterdon County
(609) 397-0615

Andrew Bennett
PO Box 790
Lafayette, NJ 07848
Sussex County
(973) 729-7430
<https://www.ridgeandvalleyforest.com/>

Dylan Borger
PO Box 790
Lafayette, NJ 07848
Sussex County (570) 730-1977
<https://www.ridgeandvalleyforest.com/>

Thomas S. Broddle
217 Hickory Corner Rd
Milford, NJ 08848
Hunterdon County
(908) 996-2333

E. Joseph Bruschetta
1178 Bridge Rd
Phillipsburg, NJ 08865
Warren County
(908) 475-8466

Donald Donnelly
650 Jackson Valley Rd
Oxford, NJ 07863
Warren County
(908) 752-2538

Thomas D. Doty
45 Lilac Dr
Flemington, NJ 08822
Hunterdon County
(973) 813-3222

Joseph Dunn
49 Millbrook-Stillwater Rd
Blairstown, NJ 07825

Lorens D. Fasano
PO Box 72
Brookside, NJ 07926
Morris County
(973) 214-8294

G. Mike Fee
10 Paulinskill Rd
Hardwick, NJ 07825
Warren County
(908) 362-5565

William Grundmann
151 County Rd
Frenchtown, NJ 08825
Hunterdon County
(908) 309-6611
<https://www.organicplantcarellc.com/>

Kris Hasbrouck
9 East Buena Vista Way
Bloomington, NJ 07403
Passaic County
(201) 819-6454

Thomas Koepfel
PO Box 54
Pequannock, NJ 07440
Morris County
(973) 633-0360

John D. Linson
PO Box 6089
West Orange, NJ 07052
Essex County
(973) 766-2143

Robert A. Sidor
154 President St
Passaic, NJ 07055
Passaic County
(973) 356-8828

Timothy J. Slavin
319 Route 515
Stockholm, NJ 07460
Sussex County
(973) 697-6646

Douglas Tavella
PO Box 313
Newton, NJ 07860
Sussex County
(570) 350-5359

Richard S. Wolowicz
4 Maude Lane
Hackettstown, NJ 07840
Warren County
(973) 220-6797

Veterinarians

Dr. Carole Edwards AVCA, CHI, FIAMA
Specialty: Equine
PO Box 232
Frenchtown, NJ 08825
Hunterdon County
(908) 575-7834
<https://www.carole-edwards.com>

Mountain Pointe Equine Veterinary Services
Specialty: Equine
14 Schooleys Mountain Rd
Long Valley, NJ 07853
Morris County
(908) 269-8451
<https://www.mountainpointequine.com>

Woods End Equine Veterinary Services
Specialty: Equine
67 Rose Morrow Rd
Wantage, NJ 07461
Sussex County
(973) 209-4994
<https://www.woodsendequine.com>

Equihart Veterinary Services
Specialty: Equine
PO Box 215
Califon, NJ 07830
Hunterdon County
(732) 616-6188
<https://www.equiheartvet.com>

- Harmony*
- E. Unlawful uses. No unlawful structure or unlawful use of a building or structure, lot or land existing at the effective date of this chapter shall be deemed to be a nonconforming structure or use.
 - F. Notwithstanding the lot area, lot width and lot coverage requirements, a single-family dwelling may be erected on any lot separately owned and not adjacent to any lot in the same ownership at the effective date of this subsection or acquired subsequent thereto, provided that the aggregate width of the side yard is no less than twenty-five percent (25%) of the lot width and that the narrower side yard is not less than ten percent (10%) of the lot width or fifteen (15) feet, whichever is greater. [Amended 11-6-79 by Ord. No. 0:79-6; 3-3-81 by Ord. No. 0:81-3]

§ 165-20. Preservation of natural features.

- A. Existing natural features such as trees, brooks, drainage channels and view shall be retained. Whenever such features interfere with the proposed use of such property, a retention of the maximum amount of such features consistent with the use of the property shall be required.
- B. Streams and streambeds. No structure shall be built on a lot any side of which fronts on a natural watercourse unless a permit or certificate of exemption has been issued by the New Jersey Department of Environmental Protection or its successor agency as required by the Stream Encroachment Law (N.J.S.A. 58:1-26 et seq.)⁵ and the Floodplain Act (N.J.S.A. 58:16A-50 et seq.).
- C. Topsoil. No person, firm or corporation shall strip, excavate or otherwise remove topsoil for other than reuse on the same lot.

§ 165-20.1. Right to farm. [Added 5-5-1992 by Ord. No. 0:92-6]

- A. There is hereby included in the Zoning Ordinance of the Township of Harmony a section entitled "Right to farm."

⁵ Editor's Note: See now N.J.S.A. 58:16A-50 et seq.

B. Legislative findings.

- (1) The Township Committee of the Township of Harmony finds that farming has existed and been carried on in the township for hundreds of years and long before the residential development that has since been prevalent in the township. The Township Committee of the Township of Harmony further finds that residences have been located in close proximity to existing working farms that engage in spraying, the spreading of animal wastes, fertilizing and irrigation as well as other activities which are indigenous to farming. The Township Committee of the Township of Harmony finds and determines that farmers must be secure in their ability to earn a livelihood and utilize customary procedures and techniques.
- (2) The Township of Harmony further finds that 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.

C. Statement of intent. This section shall not be construed as a zoning ordinance and does not supersede any zoning ordinance and the rights and privileges arising from said ordinances. It is the intent of this section to prohibit farming from being found to be a nuisance when practiced according to customary farming practices.

D. Recognition of right.

- (1) The right to farm lands and properties within the Township of Harmony is hereby recognized to exist as a right of the farmer, his agents or assigns to utilize his land and properties in such a manner as to pursue his livelihood, subject only to the restrictions and regulations set forth in the township, county and state health codes and regulations.
- (2) The right to farm recognize 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 from the land agricultural products such as vegetables, grains, hay, fruits, fibers, wood, trees, plants, shrubs, aquaculture, flowers and seeds.

- (3) The right to farm shall also include the right to utilize the land for grazing of animals, subject to the restrictions for intensive fowl or livestock farms or such restrictions as may be required by county, state and federal laws.
- (4) The right to farm shall also recognize activities such as the use of necessary farm laborers, the traveling and transportation of large slow-moving equipment over roads within the Township of Harmony and the construction of fences for animals and livestock.

E. Times of operation; ancillary effects. The activities set forth herein incidental to the right to farm and when reasonable and necessary for that particular farming activity and livestock or fowl production and when conducted in accordance with generally accepted agricultural practices 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 this section and the right to farm.

F. Notice of right to farm. For the purpose of giving due notice of nearby uses to proposed residents, the Planning Board of the Township of Harmony shall require an applicant for a major or minor subdivision, as a condition of approval thereof, to include the following notice, both on the subdivision plat itself and in an instrument in recordable form, to provide constructive record notice to buyers of the existence of any proximate, nonresidential uses, such instrument to be approved by the Planning Board of the Township of Harmony prior to the filing of the final subdivision plat or recording of any deed(s), as the case may be. Such notice shall read as

follows: "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."

§ 165-21. Buffers, screening and landscaping.

A. Buffer strips. Wherever a buffer strip has been specified by this chapter or as may be required by the Board or governing body, such buffer strip shall be of the width so specified or required and shall:

- (1) Be landscaped by the planting of grass and/or ground cover, shrubs and trees. Two (2) shrubs and one (1) tree shall be provided for each five hundred (500) square feet of area or fraction thereof of the buffer strip. If the buffer strip is naturally wooded in its entire width, it shall remain in its natural condition in place of the required shrubs and trees.
- (2) Not contain parking area or driveways, unless specifically permitted elsewhere in this chapter, or other accessory structures or uses except for decorative purposes or passive recreational purposes.

B. Screening. Wherever screening has been specified by this chapter or as may be required by the Board, such screening, unless otherwise required, shall extend to the lesser of the required front yard setbacks of the lots to be screened and shall, as a minimum, consist of dense hedges or deciduous trees and at least fifty percent (50%) evergreen shrubbery, planted at thirty (30) inches on center in a single row or at five (5) feet on center in each of two (2) staggered rows, provided that if all evergreens are used, they may be planted at five (5) feet on center in a single row or at ten (1) feet on center in each of two (2) staggered rows. Plants shall be a minimum of six (6) feet tall at the time of planting or, if the Board so approves:

Inventory Tables

Inventory Table 1. Farm Assessed Property in Harmony Township

Inventory Table 2. Targeted Farm Parcels and Farm Units in Harmony Township

Inventory Table 1A. Unpreserved Farmland in Harmony Township (Class 3A, 3B)

*Farm Parcel: Individual Lot

**Farm Unit: Collection of Lots Comprising a Farm

Block	Lot	Class	Location	Owner's Name	Farm Parcel*		Farm Unit **	
					Acres (Tax Data)	Acres (GIS)	Acres (GIS)	Farm Unit
44	10	3B	166 BRAINARDS ROAD	166 BRAINARDS RD LLC	148.82	155.99	360.39	46
44	14	3B	713 HARMONY STATION RD.	715 HARMONY STATION, LLC	108.31	108.84		
44	23	3B	BRAINARDS ROAD	R HABITATS, LLC	75.40	76.70		
44	9	3B	126 BRAINARDS RD	R HABITATS, LLC	17.50	18.85		
45	2.03	3B	275 HARMONY STATION RD	ABBOTT, DEBORAH A & HAROLD W JR	5.02	5.96		
26	23.01	3B	352 HARM BRASS CASTLE RD	APGAR JOAN	3.59	4.78		
25	16	3B	27 WESTER RD.	BAKER, JEFFREY S & YVONNE D	9.49	12.41		
11	14	3B	FIDDLERS ELBOW RD.	BELBY, MICHAEL	2.02	2.53	8.70	1
12	1	3B	FIDDLERS ELBOW RD.	BELBY, MICHAEL	5.97	6.17		
17	17	3B	MILLBROOK RD.	BENBROOK, KEVIN P	17.48	19.32		
8	10.01	3B	BELVIDERE RD	BICHLER, MATTHEW & HOLLY	10.64	10.58		
17	7	3B	326 MILLBROOK ROAD	BIGELOW, BARBARA & ROBERT SCHANZLIN	2.20	2.02	4.04	2
17	8	3B	290 MILLBROOK ROAD	BIGELOW, BARBARA & ROBERT SCHANZLIN	1.20	1.16		
17	6	3B	290 MILLBROOK RD	SCHANZLIN, ROBERT C & SANDRA L	1.79	2.54		
46	4.09	3B	119 BUTTONWOOD LANE	BREESE, MARJORIE & SHARPE, MARLENE	82.00	82.21		
11	22	3B	SCOTTS MTN	BRONICO P JR & C STAATS	30.91	28.33		
11	23	3B	RIDGE ROAD	BRUSCHETTA EPIFANIO J.	27.70	28.73	33.08	3
11	6	3B	1178 RIDGE RD.	BRUSCHETTA, EPIFANIO J & BARBARA	4.80	4.36		
17	16	3B	MONTANA	BUCKEN, NEIL C/O MURPHY	31.58	32.49		
17	18	3B	276 MILLBROOK ROAD	BUNGERT, KARL F	2.34	5.45	13.21	4
17	18.02	3B	MILLBROOK RD	BUNGERT, KARL F	7.94	7.76		
9	51.03	3B	3046 BELVIDERE RD.	BURKE, DANA & BARBARA DINSMORE	15.76	17.02		
10	16	3B	ROUTE 519	CALAFIORE, PATRICK M	4.80	4.48	47.34	5
4	2	3B	3245 BELVIDERE RD	CALAFIORE, PATRICK M	40.69	42.86		
33	12.01	3B	546 MARBLE HILL ROAD	CALVIN NEIL R. & GERI LYNN	10.53	11.01	21.42	6
33	11	3B	546 MARBLE HILL RD.	CALVIN, NEIL R.	10.52	10.41		
24	4	3B	133 MONTANA ROAD	CHOUDHARY, BONA S	17.50	21.45		
4	1	3B	3259 BELIVDERE RD	CLINE, LORRAINE	19.82	18.98		
45	2.01	3B	111 ESPOSITO ROAD	CRONCE, THEORDORE & CAROL MONIQUE	23.80	25.05		
21	43	3B	629 ALLEN'S MILLS ROAD	DALRYMPLE, DANIEL W & STACY L	5.64	8.31		
45	2.04	3B	285 HARMONY STATION RD	DELLA VENTURA, FRANK & VIRGINIA	7.01	8.21		
14	3	3B	SCOTTS MTN	DEMETER, FRANK	10.02	9.74	15.84	7
14	9.07	3B	SCOTTS MT	DEMETER, FRANK	6.00	6.10		

Inventory Table 1A. Unpreserved Farmland in Harmony Township (Class 3A, 3B)

*Farm Parcel: Individual Lot

**Farm Unit: Collection of Lots Comprising a Farm

Block	Lot	Class	Location	Owner's Name	Farm Parcel*		Farm Unit **	
					Acres (Tax Data)	Acres (GIS)	Acres (GIS)	Farm Unit
26	34	3B	BELVIDERE RD.	DIOCESE OF METUCHEN	10.13	9.66		
24	11	3B	SCOTTS MTN.	DRAKE, RONALD E	16.17	16.55		
9	58.01	3A	3022 DUTT LANE	DUTT, DIANE C	5.58	6.43		
37	5	3B	251 GARRISON RD.	DUTT, NATALIE O	51.97	59.68		
9	54.02	3B	729 RIDGE ROAD	EVANS, KARIN	5.86	7.69		
33	12.02	3B	MARBLE MTN	FALCONE EMIL	8.75	8.98		
33	7	3B	MARBLE MTN	FALCONE, EMIL	53.00	56.92		
25	11.08	3A	21 KLINE LANE	FICHNER, KENNETH	5.50	5.96		
20	2	3B	488 ALLEN'S MILLS RD	FOHR, ROBIN R	23.80	25.02		
9	14	3A	3166 BELVIDERE RD	GARRECHT, TAMARA & CLUCAS, PAUL	1.00	0.94	41.99	8
9	15	3B	1566 BELVIDERE ROAD	GARRECHT, TAMARA & CLUCAS, PAUL	26.60	32.76		
9	16	3B	3166 BELVIDERE ROAD	GARRECHT, TAMARA & CLUCAS, PAUL	8.40	8.29		
38	25	3B	254 GARRISON RD	GARRISON, EDNA	92.90	91.94	227.39	9
38	2	3B	316 GARRISON RD	GARRISON, ROY & BRENDA	131.68	135.45		
9	7	3B	RIDGE RD.	GINAMCROB, LLC	4.41	4.20		
33	15	3B	688 MARBLE HILL ROAD	GOLDSCHMITT, JOEL M & MARIA E	8.22	9.00		
18	8	3B	444 MONTANA RD	HAGGERTY, WILLIAM	10.04	12.90	68.14	10
20	5	3B	427 MONTANA ROAD	HAGGERTY, WILLIAM	55.21	55.25		
11	55	3B	483 HARM BRASS CASTLE RD	HANSEN RAYMOND & DEBORAH	8.75	9.94		
7	14	3B	3183 BELVIDERE ROAD	HARMONY SAND & GRAVEL INC	93.72	149.76	180.45	11
7	13	3B	HUTCHINSON	HARMONY SAND & GRAVEL, INC	31.49	30.69		
44	25	3B	BRAINARDS	HASCHAK STEVE	12.53	13.61	26.51	12
44	22	3B	BRAINARDS	HASCHAK, STEVE	13.50	12.90		
11	18	3B	100 FIDDLERS ELBOW ROAD	HAWK, ROBERT & BONNIE	12.50	13.36		
11.01	1	3B	BRASS CASTLE ROAD	HAYDU, JOSEPH D & STEVEN	0.86	0.66	17.62	13
21	34.01	3B	800 HARM BRASS CASTLE RD.	HAYDU, JOSEPH D	6.41	5.40		
21	34.07	3B	BRASS CASTLE ROAD	HAYDU, JOSEPH D	6.04	5.89		
21	34.08	3B	BRASS CASTLE ROAD	HAYDU, STEVEN C	6.13	5.66		
21	34.02	3B	BRASS CASTLE ROAD	HAYDU, JOSEPH D	2.90	2.67		
21	34.04	3B	BRASS CASTLE ROAD	HAYDU, JOSEPH D	7.13	7.03	13.31	14
21	34.05	3B	BRASS CASTLE ROAD	HAYDU, STEVEN C	6.22	6.28		
33	25.05	3B	2493 BELVIDERE ROAD	HNOT, WALTER RUDOLPH JR & SHELLEY M	42.05	43.54		
24	10.04	3B	HARMONY LOPAT LINE	HOSER, C, C & B COTST HOSER TRST	3.80	4.09		

Inventory Table 1A. Unpreserved Farmland in Harmony Township (Class 3A, 3B)

*Farm Parcel: Individual Lot

**Farm Unit: Collection of Lots Comprising a Farm

Block	Lot	Class	Location	Owner's Name	Farm Parcel*		Farm Unit **	
					Acres (Tax Data)	Acres (GIS)	Acres (GIS)	Farm Unit
7	11	3B	REEDER ROAD - REEDER FARM	HUMMER RICHARD L JR	48.08	47.03		
8	14	3B	OFF 519	HUMMER, RICHARD JR	17.00	18.31		
11	58	3A	70 SWAMP RD.	JACOBSON, IVAN/SHEARING, NATALIE	1.00	7.88		
9	21.01	3B	3094A BELVIDERE ROAD	JIORLE, JAMES & ALICE M	62.82	62.62		
45	2.02	3B	HARMONY STATION RD	JIORLE, JOHN J & KIP M	5.59	9.11		
16	1	3B	BRASS CASTLE ROAD	JONES, MITCHELL	6.40	6.42		
25	19.01	3B	65 WESTER ROAD	KAISER, WILLIAM	12.68	13.63		
34	5.01	3B	900 HARMONY STATION ROAD	KARP, THOMAS & NANCY	21.80	22.72	30.09	15
34	5.02	3B	900 HARMONY STATION ROAD	KARP, THOMAS & NANCY	7.32	7.36		
33	44	3B	57 OLD BELVIDERE ROAD	KELL, RODGER G	6.00	8.08		
4	3	3B	ROUTE 519	KELRICK FARMS, LLC	30.10	31.47		
8	1	3B	200 REEDER RD	KELS, KYLE & JANIS	6.90	8.94		
34	4.02	3B	833 MARBLE HILL ROAD	KENYON, MARK G & CAMILLE	6.00	7.08		
18	7.01	3B	470 MONTANA ROAD	KOBER, WILLIAM & BARBARA	5.77	6.72	45.87	16
18	7	3B	470 MONTANA RD.	KOBER, WILLIAM G & BARBARA A	38.10	39.16		
17	12	3B	974 HARM BRASS CASTLE RD	KRISTOFFERSEN, DAN V & BONNIE F	5.44	6.37		
21	22	3B	566 HARM BRASS CASTLE RD	KUHN, JOHN B, JAN M & HANNAH M	10.72	12.06		
9	6	3A	ROXBURG HILL RD.	KUTZLER, RICKY J. & TRACY L.	0.19	0.52		
38	11.04	3A	2961 BELVIDERE RD	LAPARCH, KENNETH H & JENNIFER A	2.14	2.61		
7	3	3B	225 REEDER RD	LAUBACH, R. GERALD & MICHELLE	9.71	10.96		
25	11.07	3A	13 HOWELL LANE	LITTLEWOOD BARRY	1.00	5.88	10.96	17
25	11	3A	11 HOWELL LANE	LITTLEWOOD, BARRY	1.00	5.08		
25	11.03	3A	9 HOWELL LANE	LITTLEWOOD, FAYE	1.00	5.73		
44	8	3B	BRAINARDS ROAD	LUCIANO, ROBERT A & LORRAINE	9.01	9.35		
7	14.01	3B	135 REEDER RD.	MACOMBER SHIRLEY	20.36	19.69		
44	21	3B	RIVER ROAD	MALLINCKRODT PHARMACEUTICAL	109.91	4.94		
44	21.01	3B	RIVER ROAD	MALLINCKRODT US HOLDINGS LLC %BURKE	30.00	29.94		
24	16	3B	FOX FARM RD.	MARLENE NEMETH REVOCABLE TRUST	57.94	58.12		
28	43	3B	SCOTTS MTN	MARTIN RUTH	33.71	30.56	36.36	18
28	42	3B	SCOTTS MTN	MARTIN, RUTH A	5.87	5.81		
31	7	3B	BELVIDERE ROAD	MCCANN, BRIDGETTE	25.92	27.00		
9	76	3B	BELVIDERE ROAD	MCFADDEN JOHN & PAMELA	10.38	10.87		
26	23	3B	337 HARM BRASS CASTLE RD	MCKEEVER, TIMOTHY & LYNETTE	8.45	8.99		
45	1	3B	385 HARMONY STATION ROAD	MCLAIN, JAMES	14.71	15.86		

Inventory Table 1A. Unpreserved Farmland in Harmony Township (Class 3A, 3B)

*Farm Parcel: Individual Lot

**Farm Unit: Collection of Lots Comprising a Farm

Block	Lot	Class	Location	Owner's Name	Farm Parcel*		Farm Unit **	
					Acres (Tax Data)	Acres (GIS)	Acres (GIS)	Farm Unit
44	19	3B	ESPOSITO ROAD	MCLAIN, JAMES & NANCY	14.72	15.03	140.79	19
46	3	3B	HARMONY STATION ROAD	MCLAIN, JAMES & NANCY	39.56	39.53		
44	15	3B	415 HARMONY STATION RD.	MCLAIN, JAMES W & CHRISTOPHER I	68.89	70.38		
9	8	3B	6 GRIST MILL ROAD	MCROBERTS, GINA	18.00	21.84		
20	3	3B	MONTANA RD.	MERRILL CRK RES C/O PROJ DIRECT	55.52	54.45		
25	1	3B	ALLENS MILL RD.	MERRILL CRK RES C/O PROJ DIRECT	197.91	201.64		
38	4	3A	2798 RIVER ROAD	MERRILL CRK RES C/O PROJ DIRECT	14.56	61.63		
43	40	3B	RIVER ROAD	MIGLIORE SANDRA	4.06	3.43	77.83	20
44	20	3B	160 ESPOSITO RD.	MIGLIORE SANDRA	72.69	74.41		
37	10.01	3B	1069 HARMONY STATION RD	MONTUORI, ANIELLO	3.64	4.14	20.72	21
37	10.02	3B	1059 HARMONY STATION RD	MONTUORI, ANTONIO	5.56	5.69		
37	10.04	3B	1049 HARMONY STATION RD	MONTUORI, ANTONIO,RAFFAELLO&ANIELLO	11.66	10.89		
28	16.03	3B	50 WESTER ROAD	MULLIGAN, PAUL T & DEIRDRE M	9.95	10.96		
11	44.01	3B	571 HARMONY-BRASS CASTLE	MURAWSKI, MATTHEW & JOLYNN	9.18	10.27		
14	5	3B	1099 HARM BRASS CASTLE RD	NEW JERSEY AMERICAN WATER CO	13.27	14.34		
35	8	3B	GARRISON ROAD	NICOLOSI, DOMINIC AND ROBERT	22.85	22.68		
33	24	3B	1018 MARBLE HILL RD	NOWALK CHARLES G JR	5.67	6.98		
11	3	3B	RIDGE ROAD	O'NEIL EDWARD M 111 & JOAN M	14.57	13.96		
9	17.01	3B	1181 RIDGE RD	O'NEIL JAMES C & JOANN L	17.29	18.00		
25	20	3B	120 HARMONY BRASS CAS RD	ORSITA, FRED B	19.80	21.26		
12	11	3B	233 FIDDLERS ELBOW RD	PANTUSO, CURT & JULIE	10.54	11.09	28.74	22
12	12	3A	235 FIDDLERS ELBOW RD	PANTUSO, CURT & JULIE	1.00	7.88		
12	6	3B	FIDDLERS ELBOW RD.	PANTUSO, CURT & JULIE	11.02	9.77		
9	1	3B	ROUTE 519	PANTUSO, CURT & JULIE	9.60	11.58	12.27	23
9	1.01	3A	ROUTE 519	PANTUSO, CURT & JULIE	0.56	0.69		
40	3	3B	BRAINARDS	PETRILAK, JOHN	3.00	2.44		
50	1	3B	RIVER FRONT	PETRILAK, JOHN	5.00	5.96		
44	16	3B	ESPOSITO RD.	PETRILAK, JOHN	3.73	3.40	14.23	24
44	18	3B	ESPOSITO RD.	PETRILAK, JOHN	11.00	10.83		
37	3	3B	99 BRAINARDS RD.	PETRILAK, JOHN	46.62	46.20	122.46	25
39	4	3B	BRAINARDS ROAD	PETRILAK, JOHN	19.68	19.45		
43	26	3B	RIVER ROAD	PETRILAK, JOHN	18.65	19.68		

Inventory Table 1A. Unpreserved Farmland in Harmony Township (Class 3A, 3B)

*Farm Parcel: Individual Lot

**Farm Unit: Collection of Lots Comprising a Farm

Block	Lot	Class	Location	Owner's Name	Farm Parcel*		Farm Unit **	
					Acres (Tax Data)	Acres (GIS)	Acres (GIS)	Farm Unit
44	5	3B	2700 RIVER ROAD	PETRILAK, JOHN	11.17	10.75		
44	7	3B	RIVER ROAD	PETRILAK, JOHN	25.78	26.38		
34	5	3B	MARBLE HILL RD.	PETTY, EMILIE L	28.70	31.21	37.95	26
34	5.11	3B	1033 MARBLE HILL ROAD	PETTY, GREGORY & GAIL	5.94	6.74		
21	63	3B	SCOTTS MTN	PIELL, CHRISTOPHER ALFRED	7.10	8.18	25.68	27
21	69	3B	SCOTTS MTN.	PIELL, CHRISTOPHER ALFRED	8.51	8.52		
21	9	3B	364 HARM BRASS CASTLE	PIELL, CHRISTOPHER ALFRED	8.85	8.97		
9	54.07	3B	603 RIDGE ROAD	POSTMA, WILLIAM & ABIGAIL	7.25	7.99	21.86	28
9	54	3B	607 RIDGE RD	POSTMA, WILLIAM P & ABIGAIL J	13.61	13.87		
21	34.03	3B	BRASS CASTLE ROAD	POTTER, DIANA	6.00	6.11		
21	34.06	3B	BRASS CASTLE ROAD	POTTER, DIANA	6.67	6.40		
9	10	3B	3184 BELVIDERE RD	REED, KEITH & TERESA	24.14	24.75		
12	2	3B	71 FIDDLERS ELBOW ROAD	ROSE, HUGH M & KAREN L	9.20	10.54		
11	19	3B	180 FIDDLERS ELBOW RD	ROSOL, THOMAS J & CELESTE M	9.70	9.41	15.48	30
11	21	3B	SCOTTS MTN	ROSOL, THOMAS J & CELESTE M	6.50	6.08		
26	43.05	3B	RIDGE ROAD	ROSS, ANDREW & LYANDRA	21.50	21.04	34.72	31
26	43	3B	330 RIDGE ROAD	ROSS, LYANDRA	15.00	13.69		
8	10	3B	3089 BELVIDERE RD	RTM PROP MAINTENANCE II LLC/FREER A	22.85	23.88		
39	29	3B	2765 RIVER ROAD	RUBAN, SCOTT M	9.00	11.43		
11	53	3B	513 HARM-BRASS CASTLE RD	RUPP, LAURA J	13.44	11.71		
46	4.02	3B	BUTTONWOOD LANE	RYKER, GAIL	140.49	141.17		
37	7	3B	211 GARRISON ROAD	SALAMONE LAUREN M	8.96	9.69		
35	2.03	3A	1064 HARMONY STATION RD	SALTER ALBERT R JR. & KIMBERLY A.	2.03	2.72		
26	27	3B	BRASS CASTLE ROAD	SALTER, JOHN R	1.91	2.36	169.73	32
26	28	3B	103 HARM BRASS CASTLE RD	SALTER, JOHN R	124.50	127.80		
26	42	3B	BRASS CASTLE ROAD	SALTER, JOHN R	38.08	39.58		
33	20	3B	841 MARBLE HILL RD	SANTINI FARMS TRUCKING	0.62	0.96		
33	18	3B	956 MARBLE HILL ROAD	SANTINI JUNE MARIE	23.95	24.29	41.19	33
33	18.03	3B	956 MARBLE HILL RD	SANTINI JUNE MARIE	8.94	9.03		

Inventory Table 1A. Unpreserved Farmland in Harmony Township (Class 3A, 3B)

*Farm Parcel: Individual Lot

**Farm Unit: Collection of Lots Comprising a Farm

Block	Lot	Class	Location	Owner's Name	Farm Parcel*		Farm Unit **	
					Acres (Tax Data)	Acres (GIS)	Acres (GIS)	Farm Unit
33	18.04	3B	956 MARBLE HILL RD	SANTINI JUNE MARIE	7.77	7.87		
47	1	3B	RIVER ROAD	SANTINI, ROBERT A & SHARON A	8.37	8.33		
34	7	3B	1101 MARBLE HILL ROAD	SCHMID-KAPRAL, KAREN F	18.57	19.13		
18	9	3B	NEW VILLAGE ROAD	SCHOENWOOD FARMS, LLC	1.65	1.67		
19	2	3B	MONTANA ROAD	SCHOENWOOD FARMS, LLC	16.16	18.79	37.50	35
19	2.01	3B	420 MONTANA RD	SCHOENWOOD FARMS, LLC	17.00	17.05		
14	9	3B	BRASS CASTLE ROAD	SMITH, JOHN H. & JEAN M.	111.36	110.04		
26	22	3A	361 HARM BRASS CASTLE RD	STECKEL, THOMAS W & HILLARY	1.00	24.02		
33	42	3B	2191 BELVIDERE RD.	STECKER, MICHAEL O & SUSAN R	5.92	10.44		
33	42.05	3B	99 OLD BELVIDERE RD	STECKER, ROBERT L	18.99	18.53	86.99	37
33	43	3B	2145 BELIDERE ROAD	STECKER, RUSSELL WILLIAM	56.48	58.03		
11	25	3B	FIDDLERS ELBOW RD.	STEELE, DANIEL E	31.06	31.15		
12	7	3B	157 FIDDLERS ELBOW RD	STOKEN, CRAIG & BARBARA	6.03	7.08		
14	7	3B	BRASS CASTLE RD	STOVER, SALLY F	4.81	5.63		
14	8	3B	BRASS CASTLE RD.	STOVER, THOMAS E & SALLY F	7.50	6.79	68.47	38
14	6	3B	1033 BRASS CASTLE ROAD	STOVER, THOMAS E.	54.14	56.05		
33	13	3B	680 MARBLE HILL ROAD	SUCIGAN, MASON & MICHELLE	9.70	10.92		
26	58.06	3B	534 RIDGE RD	SUDYLO, JULIA & ANDREW	44.33	46.35		
35	2	3A	1060 HARMONY STATION RD.	SWANSON, DAVID B & SUZANNE	4.00	3.39		
17	1.03	3B	MILLBROOK ROAD	TALLIA, EDWARD & DOROTHY	17.59	17.48		
12	9	3B	199 FIDDLERS ELBOW RD	THE HELEN MILUNEC REV TRUST	11.48	12.33		
11	4	3B	7 HILLTOP LANE	TINO, CARMEN	15.76	11.73		
25	19	3B	103 HARM BRASS CASTLE RD	TJALMA, BOUKE & AUKJE	36.32	34.99		
21	16	3B	528 HARM BRASS CASTLE RD	TOSCANO, LARRY & MILLIE	14.27	17.41		
33	18.02	3B	802 MARBLE HILL RD	TREICH, KEVIN B & MAUREEN	7.64	7.43		
9	19	3B	1109 RIDGE RD.	TUIN, JOHN A & JOANNE M	12.48	12.05		
11	62.01	3B	80 SWAMP ROAD	VAN HORN, CARL	2.51	3.63	9.00	39
11	61	3B	80 SWAMP ROAD	VAN HORN, CARL B	3.75	5.37		
20	6	3A	419 MONTANA RD	VANASSEN, KARL G. & LINDA A.	2.25	2.32		
21	10.02	3A	400 HARM BRASS CASTLE RD	VINSON, THOMAS E, THOMAS D & CHRIST	1.00	25.36		
24	17	3B	102 FOX FARM ROAD	WADIAK, DAMIAN	6.53	7.35		
11	16	3B	40 FIDDLERS ELBOW RD	WALZ, RUDOLPH IV	5.17	5.82		
30	2	3B	STRYKER RD.	WARREN COUNTY FARMERS FAIR	2.14	2.02		

Inventory Table 1A. Unpreserved Farmland in Harmony Township (Class 3A, 3B)

*Farm Parcel: Individual Lot

**Farm Unit: Collection of Lots Comprising a Farm

Block	Lot	Class	Location	Owner's Name	Farm Parcel*		Farm Unit **	
					Acres (Tax Data)	Acres (GIS)	Acres (GIS)	Farm Unit
30	2.01	3B	STRYKER RD.	WARREN COUNTY FARMERS FAIR	0.86	0.83	79.02	40
30	3	3B	1350 STRYKERS ROAD	WARREN COUNTY FARMERS FAIR	30.31	33.56		
31	8.10	3B	1335 STRYKERS RD	WARREN COUNTY FARMER'S FAIR ASSOC	8.40	8.46		
31	8.11	3B	STRYKERS RD	WARREN COUNTY FARMER'S FAIR ASSOC	33.68	34.14		
21	42	3B	ALLEN'S MILLS ROAD	WATERS DARLA MAE	81.98	81.29		
45	26.02	3A	2148 RIVER ROAD	WEDDERMAN, BRUCE & DEBORAH	2.32	2.10		
44	20.01	3B	160 ESPOSITO RD	WILKENS, FREDERICK R & PATRICIA C	22.03	23.09		
19	1	3B	MONTANA ROAD	WOOLVERTON, DORIS	1.94	1.74	13.24	41
20	8.02	3B	409 MONTANA ROAD	WOOLVERTON, DORIS	9.80	11.50		
20	8.03	3B	24 RICHLINE ROAD	WRIGHT, JAMES J & JOYCE A	24.75	26.02	35.80	42
24	1.10	3B	24 RICHLINE ROAD	WRIGHT, JAMES J & JOYCE A	3.00	3.01		
20	8	3B	24 RICHLINE ROAD	WRIGHT, JOYCE A	7.35	6.77		
11	8	3B	1230 RIDGE RD	WRIGHT, MICHAEL J	22.32	23.04	64.71	43
9	9	3B	RIDGE RD	WRIGHT, MICHAEL J	41.65	41.66		
33	50	3B	35 SLATER LANE	WRIGHT, WILLIAM H & BARBARA J	6.40	7.79		
33	54	3B	1787 BELVIDERE ROAD	YEAGER, GARY W & CATHEY S	10.82	1.12	11.72	44
33	58	3B	1787 BELVIDERE ROAD	YEAGER, GARY W & CATHY, S	0.98	10.60		
25	17	3B	17 WESTER ROAD	YOUNG, ROBERT A & KAREN R	11.53	12.55		
				Total (Unpreserved Farmland):	4,551.07	4,638.32	Acres	
				Total (Preserved Farmland):	2,817.81	2,898.06	Acres	
				Total (Farmland with an HDC Easement):	6.51	6.57	Acres	
				Total Farm Assessed Land:	7,375.38	7,542.95	Acres	
				Total (Unpreserved Farm Units):	2,491.75	Acres		
				Number of Farm Units:	44			

Inventory Table 1B. Preserved Farmland (Class 3B)

Block	Lot	Class	Location	Owner's Name	Acres (Tax Data)	Acres (GIS)
21	6	3B	360 HARM BRASS CASTLE RD	APGAR, JOAN D	18.30	18.79
17	9	3B	290 MILLBROOK RD.	BIGELOW BARBARA & ROBERT SCHANZLIN	84.10	84.25
18	1	3B	520 MONTANA ROAD	BIGELOW, BARBARA B	98.24	98.82
18	3	3B	MILLBROOK ROAD	BIGELOW, BARBARA B	77.48	80.73
17	20	3B	276 MILLBROOK RD	BIGELOW, BARBARA & SCHANZLIN, ROBERT	9.50	9.55
9	51.01	3B	BELVIDERE HWY	BURKE, DANA R & BARBARA DINSMORE	80.56	78.80
9	51.02	3B	3048 BELVIDERE RD	BURKE, DANA R & BARBARA DINSMORE	18.38	18.71
13	14	3B	SCOTTS MTN	DEMETER, FRANK	0.96	0.65
21	33.03	3B	BRASS CASTLE ROAD	DUCKWORTH, DONALD AND ELSIE	13.00	14.09
21	33	3B	545 MONTANA ROAD	DUCKWORTH, DONALD N & ELSIE	114.53	116.71
11	28	3B	FIDDLER'S ELBOW ROAD	DUCKWORTH, ROBERT R	72.93	72.59
12	13	3B	FIDDLER'S ELBOW ROAD	DUCKWORTH, ROBERT R	24.71	26.51
13	5	3B	BRASS CASTLE RD.	DUCKWORTH, ROBERT R	67.60	72.76
37	14	3B	231 BRAINARDS RD.	GRANDPA NINJA, LLC	112.65	111.92
45	2	3B	HARMONY STATION RD.	HARMONY RIVER FARMS LLC	62.18	66.16
45	3	3B	RIVER ROAD	HARMONY RIVER FARMS LLC	96.19	95.40
45	24	3B	RIVER VALLEY	HARMONY RIVER FARMS LLC	11.89	10.74
26	19	3B	381 HARM BRASS CASTLE RD	HOFF, RANDY & LAURA	65.00	63.11
34	4	3B	849 MARBLE HILL RD	JANSEN, PETER C & HEATHER A	76.69	83.33
34	16	3B	683 MARBLE HILL RD.	KINNEY, DARREN	124.88	126.97
33	17	3B	MARBLE HILL RD	QUICK, JR, DONALD W & PEGGY L	18.10	19.73
33	55	3B	MARBLE MTN.	RAUB, RAYMOND L III & GAIL A	24.50	29.06
33	5	3B	300 MARBLE HILL ROAD	RISKO, LOUIS L & DENISE J	22.35	22.93
34	19	3B	60 SO. BUTTONWOOD LANE	RISKO, LOUIS L & DENISE J	62.05	61.05
46	5	3B	MARBLE HILL ROAD	RISKO, LOUIS L & DENISE J	14.24	13.79
34	11	3B	817 MARBLE HILL RD.	SANTINI JUNE M	54.00	55.14
45	26	3B	ESPOSITO ROAD	SANTINI, ROBERT A & SHARON A	67.20	65.40
20	4	3B	650 ALLENS MILL RD	SCHANZLIN, DONALD	86.05	84.29
46	2	3B	HARMONY STATION RD	SHANDOR, D/RIDDLE, J/WEST, J/SPADE	105.70	102.60
47.01	24	3B	1735 RIVER RD.	SHANDOR, DOROTHY/RIDDLE, SR, J & J	12.20	13.13
48	2	3B	RIVER FRONT	SHANDOR, JOSEPH J SR	0.88	1.24
48	6	3B	RIVER FRONT	SHANDOR, JOSEPH SR	0.17	0.12
48	10	3B	RIVER FRONT	SHANDOR, JOSEPH SR.	0.38	0.20
48	3	3B	RIVER FRONT	SHANDOR, JOSEPH SR.	2.15	1.34
48	8	3B	RIVER FRONT	SHANDOR, DOROTHY/WEST, JOYCE/SPADE, J	0.55	0.29
37	13	3B	BRAINARDS ROAD	SMITH JAMES W & KAREN	14.69	14.86
37	17	3B	BRAINARDS RD.	SMITH, JAMES W & KAREN	53.00	52.07
37	17.02	3B	BRAINARD'S ROAD	SMITH, JAMES W & KAREN	49.40	48.34

Inventory Table 1B. Preserved Farmland (Class 3B)

Block	Lot	Class	Location	Owner's Name	Acres (Tax Data)	Acres (GIS)
44	12	3B	785 HARMONY STATION RD.	SMITH, JAMES W & KAREN L	131.44	130.09
7	1	3B	200 ROXBURG STATION RD	STAR D FARM, LLC	102.28	151.46
33	47	3B	1833 BELVIDERE ROAD	STERN, NORMA & SCOT	107.90	109.55
38	6	3B	2900 HUTCHINSON RD.	TJALMA, BAUKE & AUKJE	53.46	53.35
38	6.04	3B	2900 HUTCHINSON RD	TJALMA, BAUKE & AUKJE	3.48	3.84
38	6.05	3B	2900 HUTCHINSON RD	TJALMA, BAUKE & AUKJE	3.84	3.48
38	7	3B	3029 BELVIDERE ROAD	TJALMA, BOUKE & AUKJE	221.61	224.09
37	5.01	3B	261 GARRISON RD	TJALMA, JOHN & RACHELLE	53.62	55.63
17	13	3B	BRASS CASTLE RD.	VENNER, JAMES N & RAELENE M	51.41	56.20
20	4.01	3B	503 MONTANA ROAD	WATERS, D & B / SCHANZLIN, D & P	25.81	27.20
33	2	3B	241 MARBLE HILL RD	WISNER, KEVIN	5.32	4.70
33	3	3B	241 MARBLE HILL RD	WISNER, KEVIN	53.67	53.81
46	7	3B	241 MARBLE HILL RD	WISNER, KEVIN	60.44	61.49
34	20	3B	120 BUTTONWOOD LANE	YEN, LAURA	126.15	126.99
				Total (Preserved Farmland):	2,817.81	2,898.06
24	10.07	3B	SCOTTS MTN	SHANDOR BARRY J	1.69	1.79
24	10.06	3B	SCOTTS MTN	SHANDOR ROBERT JR	2.41	2.31
24	10.05	3B	SCOTTS MTN	SHANDOR, ROBERT L EST & RUTH MARTIN	2.41	2.47
				Total (Farmland with an HDC Easement):	6.51	6.57

Inventory Table 2. Target Farms in Harmony over 10 acres

<i>Farm Parcels that are part of a Farm Unit</i>				Farm Parcel		Farm Unit	
Block	Lot	Location	Owner	Acres (Tax Data)	Acres (GIS)	Farm	Acres (GIS)
10	16	ROUTE 519	CALAFIORE, PATRICK M	4.80	4.48	Calafiore	47.30
4	2	3245 BELVIDERE RD	CALAFIORE, PATRICK M	40.69	42.86		
44	23	BRAINARDS ROAD	R HABITATS, LLC	75.40	76.70	Dale Crouse/ Family LLC	360.39
44	14	713 HARMONY STATION RD.	715 HARMONY STATION, LLC	108.31	108.84		
44	10	166 BRAINARDS ROAD	166 BRAINARDS RD LLC	148.82	155.99		
44	9	126 BRAINARDS RD	R HABITATS, LLC	17.50	18.85		
38	2	316 GARRISON RD	GARRISON, ROY & BRENDA	131.68	135.45	Garrison	227.39
38	25	254 GARRISON RD	GARRISON, EDNA	92.90	91.94		
18	8	444 MONTANA RD	HAGGERTY, WILLIAM	10.04	12.90	Haggerty	68.14
20	5	427 MONTANA ROAD	HAGGERTY, WILLIAM	55.21	55.25		
7	13	HUTCHINSON	HARMONY SAND & GRAVEL, INC	31.49	30.69	Harmony Sand	180.45
7	14	3183 BELVIDERE ROAD	HARMONY SAND & GRAVEL INC	93.72	149.76		
44	22	BRAINARDS	HASCHAK, STEVE	13.50	12.90	Haschak	26.51
44	25	BRAINARDS	HASCHAK STEVE	12.53	13.61		
21	34.01	800 HARM BRASS CASTLE RD.	HAYDU, JOSEPH D	6.41	5.40	Haydu 1	17.62
11.01	1	BRASS CASTLE ROAD	HAYDU, JOSEPH D & STEVEN	0.86	0.66		
21	34.07	BRASS CASTLE ROAD	HAYDU, JOSEPH D	6.04	5.89		
21	34.08	BRASS CASTLE ROAD	HAYDU, STEVEN C	6.13	5.66		
21	34.04	BRASS CASTLE ROAD	HAYDU, JOSEPH D	7.13	7.03	Haydu 2	13.31
21	34.05	BRASS CASTLE ROAD	HAYDU, STEVEN C	6.22	6.28		
34	5.01	900 HARMONY STATION RD.	KARP, THOMAS & NANCY	21.80	22.72	Karp	30.09
34	5.02	900 HARMONY STATION RD.	KARP, THOMAS & NANCY	7.32	7.36		
18	7	470 MONTANA RD.	KOBER, WILLIAM G & BARBARA A	38.10	39.16	Kober	45.87
18	7.01	470 MONTANA ROAD	KOBER, WILLIAM & BARBARA	5.77	6.72		
46	3	HARMONY STATION ROAD	MCLAIN, JAMES & NANCY	39.56	39.53	McLain	140.79
45	1	385 HARMONY STATION RD.	MCLAIN, JAMES	14.71	15.86		
44	15	415 HARMONY STATION RD.	MCLAIN, JAMES W & CHRISTOPHER I	68.89	70.38		
44	19	ESPOSITO ROAD	MCLAIN, JAMES & NANCY	14.72	15.03		

Inventory Table 2. Target Farms in Harmony over 10 acres

Block	Lot	Location	Owner	Acres (Tax Data)	Acres (GIS)	Farm	Acres (GIS)
44	20	160 ESPOSITO RD.	MIGLIORE SANDRA	72.69	74.41	Migliore	77.83
43	40	RIVER ROAD	MIGLIORE SANDRA	4.06	3.43		
37	10.01	1069 HARMONY STATION RD	MONTUORI, ANIELLO	3.64	4.14	Montuori	20.72
37	10.04	1049 HARMONY STATION RD	MONTUORI, ANTONIO,RAFFAELO&ANIELLO	11.66	10.89		
37	10.02	1059 HARMONY STATION RD	MONTUORI, ANTONIO	5.56	5.69		
43	26	RIVER ROAD	PETRILAK, JOHN	18.65	19.68	Petrilak 2	122.46
37	3	99 BRAINARDS RD.	PETRILAK, JOHN	46.62	46.20		
39	4	BRAINARDS ROAD	PETRILAK, JOHN	19.68	19.45		
44	7	RIVER ROAD	PETRILAK, JOHN	25.78	26.38		
44	5	2700 RIVER ROAD	PETRILAK, JOHN	11.17	10.75		
34	5.11	1033 MARBLE HILL ROAD	PETTY, GREGORY & GAIL	5.94	6.74	Petty	37.95
34	5	MARBLE HILL RD.	PETTY, EMILIE L	28.70	31.21		
9	54.07	603 RIDGE ROAD	POSTMA, WILLIAM & ABIGAIL	7.25	7.99	Postma	21.86
9	54	607 RIDGE RD	POSTMA, WILLIAM P & ABIGAIL J	13.61	13.87		
26	43	330 RIDGE ROAD	ROSS, LYANDRA	15.00	13.69	Ross	34.72
26	43.05	RIDGE ROAD	ROSS, ANDREW & LYANDRA	21.50	21.04		
26	27	BRASS CASTLE ROAD	SALTER, JOHN R	1.91	2.36	Salter	169.73
26	28	103 HARM BRASS CASTLE RD	SALTER, JOHN R	124.50	127.80		
26	42	BRASS CASTLE ROAD	SALTER, JOHN R	38.08	39.58		
33	42.05	99 OLD BELVIDERE RD	STECKER, ROBERT L	18.99	18.53	Stecker	86.99
33	42	2191 BELVIDERE RD.	STECKER, MICHAEL O & SUSAN R	5.92	10.44		
33	43	2145 BELIDERE ROAD	STECKER, RUSSELL WILLIAM	56.48	58.03		
31	8.11	STRYKERS RD	WARREN COUNTY FARMER'S FAIR ASSOC	33.68	34.14	Warren Cty Farmers	79.02
30	2	STRYKER RD.	WARREN COUNTY FARMERS FAIR	2.14	2.02		
30	2.01	STRYKER RD.	WARREN COUNTY FARMERS FAIR	0.86	0.83		
31	8.10	1335 STRYKERS RD	WARREN COUNTY FARMER'S FAIR ASSOC	8.40	8.46		
30	3	1350 STRYKERS ROAD	WARREN COUNTY FARMERS FAIR	30.31	33.56		
20	8.02	409 MONTANA ROAD	WOOLVERTON, DORIS	9.80	11.50	Woolverton	13.24
19	1	MONTANA ROAD	WOOLVERTON, DORIS	1.94	1.74		
20	8	24 RICHLINE ROAD	WRIGHT, JOYCE A	7.35	6.77	Wright	35.80
20	8.03	24 RICHLINE ROAD	WRIGHT, JAMES J & JOYCE A	24.75	26.02		
24	1.10	24 RICHLINE ROAD	WRIGHT, JAMES J & JOYCE A	3.00	3.01		

Inventory Table 2. Target Farms in Harmony over 10 acres

Block	Lot	Location	Owner	Acres (Tax Data)	Acres (GIS)	Farm	Acres (GIS)
33	54	1787 BELVIDERE ROAD	YEAGER, GARY W & CATHEY S	10.82	1.12	Yeager	11.72
33	58	1787 BELVIDERE ROAD	YEAGER, GARY W & CATHY, S	0.98	10.60		
			Total Eligible Farm Units (ADA) > 10 acres:			1,869.95	
					23 Farm Units		
Farm Parcels which have not been identified as part of a Farm Unit							
Block	Lot	Location	Owner	Acres (Tax Data)	Acres (GIS Data)		
8	10.01	BELVIDERE RD	BICHLER, MATTHEW & HOLLY	10.64	10.58		
46	4.02	BUTTONWOOD LANE	RYKER, GAIL	140.49	141.17		
4	1	3259 BELIVDERE RD	CLINE, LORRAINE	19.82	18.98		
25	16	27 WESTER RD.	BAKER, JEFFREY S & YVONNE D	9.49	12.41		
9	17.01	1181 RIDGE RD	O'NEIL JAMES C & JOANN L	17.29	18.00		
8	10	3089 BELVIDERE RD	RTM PROP MAINTENANCE II LLC/FREER A	22.85	23.88		
44	20.01	160 ESPOSITO RD	WILKENS, FREDERICK R & PATRICIA C	22.03	23.09		
37	5	251 GARRISON RD.	DUTT, NATALIE O	51.97	59.68		
25	19	103 HARM BRASS CASTLE RD	TJALMA, BOUKE & AUKJE	36.32	34.99		
21	42	ALLEN'S MILLS ROAD	WATERS DARLA MAE	81.98	81.29		
25	17	17 WESTER ROAD	YOUNG, ROBERT A & KAREN R	11.53	12.55		
46	4.09	119 BUTTONWOOD LANE	BREESE, MARJORIE & SHARPE, MARLENE	82.00	82.21		
31	7	BELVIDERE ROAD	MCCANN, BRIDGETTE	25.92	27.00		
7	14.01	135 REEDER RD.	MACOMBER SHIRLEY	20.36	19.69		
4	3	ROUTE 519	KELRICK FARMS, LLC	30.10	31.47		
14	9	BRASS CASTLE ROAD	SMITH, JOHN H. & JEAN M.	111.36	110.04		
25	19.01	65 WESTER ROAD	KAISER, WILLIAM	12.68	13.63		
7	11	REEDER ROAD-REEDER FARM	HUMMER RICHARD L JR	48.08	47.03		
8	14	OFF 519	HUMMER, RICHARD JR	17.00	18.31		
7	3	225 REEDER RD	LAUBACH, R. GERALD & MICHELLE	9.71	10.96		
33	7	MARBLE MTN	FALCONE, EMIL	53.00	56.92		
33	25.05	2493 BELVIDERE ROAD	HNOT, WALTER RUDOLPH JR & SHELLEY M	42.05	43.54		

Inventory Table 2. Target Farms in Harmony over 10 acres

Block	Lot	Location	Owner	Acres (Tax Data)	Acres (GIS)		
38	4	2798 RIVER ROAD	MERRILL CRK RES C/O PROJ DIRECT	14.56	61.63		
35	8	GARRISON ROAD	NICOLOSI, DOMINIC AND ROBERT	22.85	22.68		
26	34	BELVIDERE RD.	DIOCESE OF METUCHEN	10.13	9.66		
		Total Eligible Parcel Acres Not Part of a Farm Unit (ADA) >10 acres:			991.42		
				25 Farm Parcels			
			Total Target Farms > 10 acres:		2,861.37		
				48 farms			

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