

County of Warren

COMPREHENSIVE FARMLAND PRESERVATION PLAN



Compiled by



Morris Land Conservancy
A nonprofit land trust

with



**Warren County Agriculture
Development Board**

DRAFT - September 2007

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for

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DRAFT—SEPTEMBER 2007

The County of Warren Comprehensive Farmland Preservation Plan

Produced by:

Morris Land Conservancy's Partners for Greener Communities Team:
"Partnering with Communities to Preserve Natural Treasures"

David Epstein, President

Barbara Heskins Davis, PP, AICP, Vice President, Programs

Holly Szoke, Communications Director

Kenneth Fung, GIS Manager

Daniel Bello, Project Consultant

Andrew Szwak, Project Consultant

Jaimie Collins, Planning Intern

Casey Dziuba, Planning Intern

Sarah Kelsey, Planning Intern

For further information please contact:



Morris Land Conservancy
19 Boonton Avenue
Boonton, NJ 07005
(973) 541-1010
Fax: (973) 541-1131
www.morrislandconservancy.org



Warren County
Agriculture Development Board
Department of Land Preservation
500 Mt. Pisgah Avenue, P.O. Box 179
Oxford, NJ 07863
(908) 453-3252
Fax: (908) 453-3150
www.co.warren.nj.us

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County of Warren Board of Chosen Freeholders

Everett A. Chamberlain, Director
John DiMaio, Deputy Director
Richard D. Gardner

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EXECUTIVE SUMMARY



Expansive fields, busy dairy farms, and bucolic farm stands highlight the rural beauty and heritage of Warren County. Nearly half of the County is farmland assessed, and more than one-third of it is actively farmed. Warren County has some of the most productive soils in the region, which support the highest yields of corn and field crops anywhere in the State. Where steep, scenic slopes and less productive soils cover the County's landscape, the epicenter of New Jersey's dairy and livestock industry are found. Warren County farmers are also continuing to explore more profitable agricultural practices, such as nursery and floriculture production. Niche markets, such as wineries, farm stands, and equine facilities, have also become prominent in the County. This combination of traditional and innovative farming practices will ensure the continued preeminence of agriculture in Warren County.

Of the land in Warren County that is not in agricultural production, most is covered by rich forests, wetlands, and winding rivers. The County's vast acreage of parkland and natural resource areas are concentrated on top of the Highlands and Kittatinny Ridgelines. These places provide a fitting backdrop to the large farm belts within the Musconetcong, Delaware, and Pequest River Valleys. Warren County's natural and agricultural areas are dotted by many charming small towns. These towns play an important role in the County's agricultural infrastructure as well as providing centers for sales and marketing of agricultural products and supplies. The rural setting of Warren County – with its delicate combination of natural areas, farm belts, and small towns – is rare in New Jersey. Thankfully, Warren County has been able to retain its agricultural landscape and way of life in the face of overwhelming pressure.

Despite its success, the agricultural industry in Warren County faces threats to its long-term prosperity. The milk and dairy industry – one of Warren County's most vital agricultural sectors – is experiencing an extended, steady decline. A growing number of dairy farmers are seeking other sources of revenue to supplement their agricultural income. While many have adjusted their operations to produce different livestock, products, or crops, such as cattle and nursery goods, others find selling their land to be a more attractive option. Increasing costs of farming compound this trend. Record-high land prices impose dramatically increasing property taxes on farmers. More farmers than ever are renting ground and young, prospective farmers are finding the costs of purchasing land to be prohibitively high. Farmers must also contend with the inadequate inventory of locally available support services, and rely heavily on one another's help and expertise.

Farmers in Warren County face challenges from outside the agricultural realm as well. Warren County's population has more than doubled during the past sixty years, which has drastically changed the local political climate. Residents are less amenable to agriculture than in the past, and farmers' access to necessities such as groundwater rights and road usage has been negatively impacted. Unfortunately, municipal zoning schemes presently zone most of the land in Warren County for development densities of one unit for every one to five acres – a development pattern that, if realized, will perpetuate farmers' hardships and make selling their lands increasingly attractive.

Land use planning efforts at the state and county levels have aimed to minimize the impact of new development on the agricultural industry. The State Development and Redevelopment Plan designated a large portion of Warren County as Rural and Environmentally-sensitive lands, and encourages the clustering of development within defined "centers" in order to preserve the County's rural environs. Warren County's recently released Strategic Growth Plan also advocates development clustering, smart growth practices, and land preservation to advance similar objectives.

Consequently, Warren County has aggressively pursued the preservation of its rural environs. Since the program's inception in 1986, the County Agriculture Development Board (CADB) has preserved **15,125 acres** of farmland in Warren County, and the Board of Chosen Freeholders has established the goal of preserving **20,000 total acres** by 2010. This Comprehensive Farmland Preservation Plan furthers this effort by outlining the County's Agricultural Development Area and identifies seven Project Areas that will be the basis for future farmland preservation efforts. This Plan also identifies the criteria used by the Warren CADB that guide its members in targeting farms for preservation. These criteria include:

- soil quality
- tillable acreage
- buffers and boundaries
- zoning
- infrastructure
- municipal commitment
- financial partnership

There are many innovative ways to promote Warren County agriculture into the future. Efforts to support "value-added" products such as organic and processed goods promise to make individual operations more profitable. Government conservation programs such as the WHIP and LIP programs, offer funding to farmers who actively work to minimize the ecological footprint of their farms. Also, fourteen out of twenty-two Warren County municipalities have enacted Right-to-Farm ordinances, and ten towns have established municipal planning incentive grant (PIG) programs. Strong actions like these show support for the practice of agriculture and indicate a willingness to cooperate in order to maintain local farms. Recommendations for future policy initiatives to preserve agriculture in Warren County include:

- Partner with government agencies to encourage participation in various agricultural and natural resource conservation programs that are available.
- Encourage municipalities with existing Right-to-Farm ordinances to strengthen and enforce them. Help municipalities without Right-to-Farm ordinances develop them.
- Ensure the availability of farm laborers.
- Ensure farm workers are treated fairly and humanely.
- Support young farmer and labor education programs.
- Continue public outreach and education efforts.
- Assist in the development of wildlife management strategies.
- Allow adequate agricultural vehicular traffic on County roads.
- Advocate regulatory flexibility regarding approved agricultural activities.
- Encourage more towns to participate in the State-sponsored municipal planning incentive grant (PIG) program;
- Support innovative farming practices that support local farmers by increasing their marketability and profits.
- Develop regulations that support, encourage, and sustain farming in the County.

CHAPTER 1: AGRICULTURAL LAND BASE OF WARREN COUNTY



Warren County is integral to New Jersey’s agricultural economy and farming heritage. The County supported 814 individual farms in 2002 (fifth in the State) on 78,042 acres (fourth in the State). Corn for grain – the County’s principal crop – was planted on 16,840 of these acres (first in the State). Warren County also contains New Jersey’s most notable concentration of livestock operations with 8,269 cows (first in the State) on 236 farms (second in the State) that range over 12,504 acres (third in the State). (*2002 Census of Agriculture*)¹

Numbers alone do not capture the full impact of Warren County’s farmland. The County’s contiguous farm belts and scenic agricultural lands bestow the County with a unique rural setting found nowhere else in New Jersey. Motorists and cyclists enjoy roadways that pass through miles of uninterrupted farmland, and fertile valleys spread out beneath towering ridgelines offering breathtaking viewsheds. Many farms in Warren County are also located near or operated in conjunction with valuable natural resource and park lands. This combination of agriculture and open space creates an undeveloped, natural landscape that spans large areas of the County. This landscape has been the living and working environment for generations of Warren County residents, and for many, it means home.

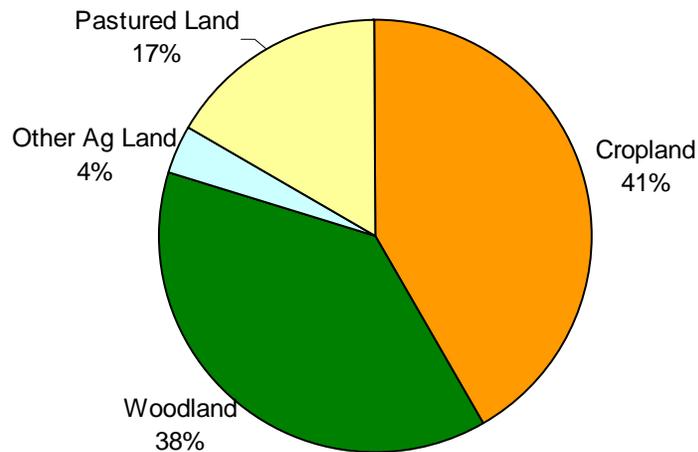
Agricultural Landscape

Agricultural areas dominate the countryside of Warren County. Over 114,000 of the County’s 232,000 acres (49%) are assessed as farmland, and large agricultural areas are found throughout the County. The agricultural land base of Warren County is also very diverse. The County’s farmlands support 47,689 acres of cropland, 19,057 acres of pastures, and 43,441 acres of privately owned woodlands, as well as a variety of other agricultural operations (see *Farm Assessed Land* chart below). (*2004 Warren County Farmland Assessment*)²

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

Warren County Farm Assessed Land: 2005

Source: New Jersey Farmland Assessment (SADC)



Warren County's most productive field crop areas fall within the broad plains associated with the Musconetcong, Delaware, and Pequest River Valleys. The Musconetcong River Valley encompasses the southern portions of Mansfield, Washington, Franklin, Greenwich, and Pohatcong Townships, and contains the greatest concentration of cropland in the County. The towns within this valley alone support more corn and soybean acreage than the rest of the County combined. The western portions of Knowlton, White, Harmony, Lopatcong and Pohatcong Townships, as well as Belvidere and Phillipsburg, comprise the Delaware River Valley, which supports a second large concentration of cropland in the County. The Pequest Valley in Allamuchy, Independence, and Liberty Townships is known as the muck lands, and supports a majority of the County's sod farms and other nursery crops. (2004 Warren County Farmland Assessment)

Pastured lands are common throughout Warren County, but their largest concentrations are found in the Appalachian foothills that comprise the northern parts of the County. The northern Townships of Blairstown, Knowlton, Hope, and Frelinghuysen are the County's leading municipalities in terms of pastured acreage. Combined, they contain more than half of Warren County's pastured lands. (2004 Warren County Farmland Assessment)

Woodland managed farms are most commonly found near the natural areas and mountainous regions in Warren County. One significant belt of wooded farmland extends from the Kittatinny Ridgeline and the Delaware Water Gap National Recreation Area on the County's northern border. It encompasses farms in parts of Knowlton, Blairstown, Hardwick, and Frelinghuysen Townships. The Highlands Ridgeline, which incorporates a number of individual mountains, is also associated with wooded farmland areas. Allamuchy Mountain borders farms in Allamuchy and Independence Townships; the Upper Pohatcong Mountain adjoins farms in Mansfield Township; Jenny Jump Mountain is near farms in Hope, Liberty, and northern White Townships; and Scott's Mountain has farms in Oxford, Harmony, and southern White Townships. (2005 Warren County Farmland Assessment data)

Soils

More than one hundred individual soil types are found throughout Warren County. Soil types are determined by the parent bedrock material from which they were formed, drainage characteristics, and the steepness of the slopes on which they are found. Soil types are also grouped into larger categories called soil series, based on their parent material, chemical composition, and profile. Soil series are themselves grouped into broader categories called soil associations. There are twenty-eight soil series that comprise eleven soil associations in Warren County. A more complete listing of the County's soils can be found at the end of this chapter (*NRCS Soil Data Mart website*)³.

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

The Natural Resource Conservation Service (NRCS) classifies certain soils as prime, statewide, important, or unique based on their agricultural productivity. *Prime farmland soil* has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops, and is capable producing sustained high yields when managed with acceptable farming methods. *Prime farmland soil* is not easily eroded or saturated with water for long periods, and it floods infrequently. Although *farmland soils of statewide importance* produce high crop yields, they are not capable of the same productivity as prime farmland soils. *Unique soils* exhibit specific qualities that favor production of specialized crops (*NJ NRCS website*)⁴. *Soils of local importance* are not mapped or designated by NRCS, but can support field crops, hay, livestock pasturing, and some fruits and vegetables. These soils are significant in Warren County.

The *NRCS Soil Data Mart website* reports that 113,630 acres (49%) of the County are covered by soils of prime, statewide, or unique importance (see *Soils* chart and *Agricultural Soils* table below). The *Warren County Soils Map* shows that these soils are concentrated in the Musconetcong, Delaware, and Pequest Valleys with additional pockets along the Paulins Kill in Blirstown and Knowlton Townships and Beaver Brook in Hope and White Townships. Agricultural soils are present but more scattered across the Highlands Ridgeline and the foothills of northern Warren County.

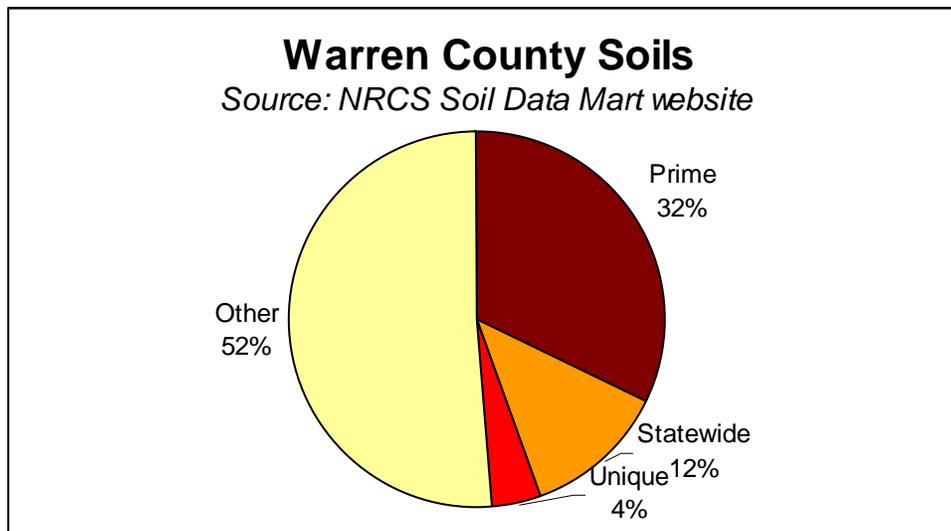
The County's river valleys contain most of its cropland, where soils of the Washington-Bartley Association are the most common. These soils tend to rest on flat slopes and are loamy and well-drained, making them well suited to crop agriculture. In the northern parts

of the County, glacial outwash soils of the Pope and Hazen-Hero-Fredon Associations support the County’s largest concentration of vegetable acreage. These soils are found on flat to moderately sloping ground along the Paulins Kill, Pequest, Delaware, and Musconetcong Rivers in Warren County. Additionally, soils formed from organic deposits – including the Carlisle-Adrian and Wayland-Middlebury Associations – support the sod and nursery farms near Great Meadows. These soils are often very wet and poorly drained, but are usually found on flat slopes and contain significant amounts of organic material.

Prime Soils of Warren County			
ABBR	SOIL DESCRIPTION	ACRES	% OF COUNTY
AnB2	Annandale gravelly loam, 3 to 8 percent slopes, eroded	2,940	1.3%
BaA	Bartley loam, 0 to 3 percent slopes	1,190	0.5%
BaB	Bartley loam, 3 to 8 percent slopes	6,480	2.8%
BfB	Bath gravelly loam, 3 to 8 percent slopes	5,441	2.3%
CbB	Califon gravelly loam, 3 to 8 percent slopes	3,240	1.4%
EdB	Edneyville gravelly loam, 3 to 8 percent slopes	4,960	2.1%
HbA	Hazen loam, 0 to 3 percent slopes	1,320	0.6%
HbB	Hazen loam, 3 to 8 percent slopes	270	0.1%
HfA	Hazen gravelly loam, 0 to 3 percent slopes	3,970	1.7%
HfB	Hazen gravelly loam, 3 to 8 percent slopes	4,310	1.9%
HkA	Hero loam, 0 to 3 percent slopes	810	0.3%
HkB	Hero loam, 3 to 8 percent slopes	1,000	0.4%
HrA	Hero gravelly loam, 0 to 3 percent slopes	770	0.3%
HrB	Hero gravelly loam, 3 to 8 percent slopes	1,300	0.6%
Md	Middlebury loam	1,580	0.7%
PaA	Palmyra gravelly fine sandy loam, 0 to 3 percent slopes	420	0.2%
PaB	Palmyra gravelly fine sandy loam, 3 to 8 percent slopes	530	0.2%
PnA	Pope fine sandy loam, high bottom, 0 to 3 percent slope s	2,040	0.9%
PnB	Pope fine sandy loam, high bottom, 3 to 8 percent slope s	1,060	0.5%
PoA	Pope gravelly fine sandy loam, high bottom, 0 to 3 perc ent slopes	810	0.3%
PoB	Pope gravelly fine sandy loam, high bottom, 3 to 8 perc ent slopes	3,050	1.3%
SuB	Swartswood gravelly loam, 3 to 8 percent slopes	480	0.2%
WaA	Washington loam, 0 to 3 percent slopes	2,850	1.2%
WaB	Washington loam, 3 to 8 percent slopes	22,440	9.7%
WgB	Washington gravelly loam, 3 to 8 percent slopes	760	0.3%
WmA	Wassaic gravelly loam, 0 to 3 percent slopes	480	0.2%
WmB	Wassaic gravelly loam, 3 to 8 percent slopes	960	0.4%
	TOTAL PRIME SOILS	75,461	32.4%

Statewide Important Soils of Warren County			
ABBR	SOIL DESCRIPTION	ACRES	% OF COUNTY
AnC2	Annandale gravelly loam, 8 to 15 percent slopes, eroded	4,869	2.1%
BbC	Bartley gravelly loam, 8 to 15 percent slopes	1,900	0.8%
BdB	Bartley stony loam, 3 to 8 percent slopes	310	0.1%
BfC	Bath gravelly loam, 8 to 15 percent slopes	4,440	1.9%
CbC2	Califon gravelly loam, 8 to 15 percent slopes, eroded	1,720	0.7%
EdC	Edneyville gravelly loam, 8 to 15 percent slopes	2,990	1.3%
HbC	Hazen loam, 8 to 15 percent slopes	470	0.2%
HcB	Hazen cobbly loam, 3 to 8 percent slopes	870	0.4%
HfC	Hazen gravelly loam, 8 to 15 percent slopes	4,040	1.7%
VeA	Venango silt loam, 0 to 3 percent slopes	280	0.1%
VnB	Venango gravelly loam, 3 to 8 percent slopes	1,360	0.6%
VnC	Venango gravelly loam, 8 to 15 percent slopes	390	0.2%
WaC2	Washington loam, 8 to 15 percent slopes, eroded	4,910	2.1%
TOTAL STATEWIDE IMPORTANT SOILS		28,549	12.2%

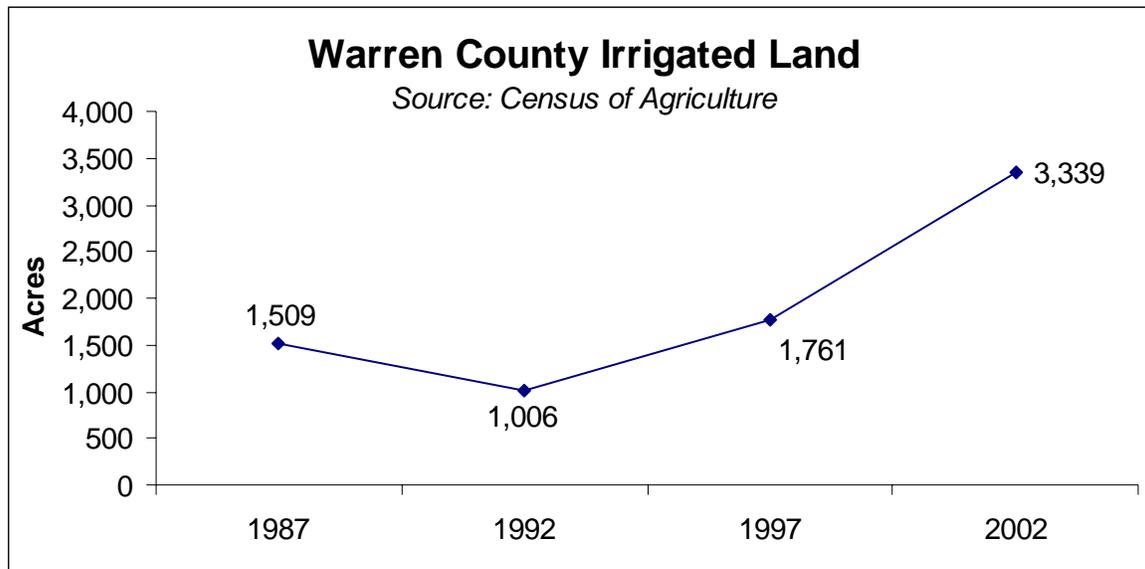
Unique Soils of Warren County			
ABBR	SOIL DESCRIPTION	ACRES	% OF COUNTY
WgC	Washington gravelly loam, 8 to 15 percent slopes	1,400	0.6%
Ad	Adrian muck	1,650	0.7%
Ck	Carlisle muck	3,550	1.5%
WOC	Wassaic-Rock outcrop complex, 8 to 15 percent slopes	3,020	1.3%
TOTAL UNIQUE SOILS		9,620	4.1%



Irrigated Land & Water Sources

Groundwater provides the supply of water for irrigation in Warren County. Groundwater sources are generally preferred to surface waters because they contain less sediment and particulates that may clog irrigation pipes and damage crops. Warren County’s productive groundwater aquifers – that yield more than 100 gallons per minute – are found in areas underlain by Jacksonburg Limestone, Kittatinny Supergroup and Hardyston Quartzite. These bedrock species are roughly located beneath the County’s existing crop lands in the Musconetcong, Delaware, Pequest, and Paulins Kill Valleys. (*1999 Warren County Open Space Plan*)⁵

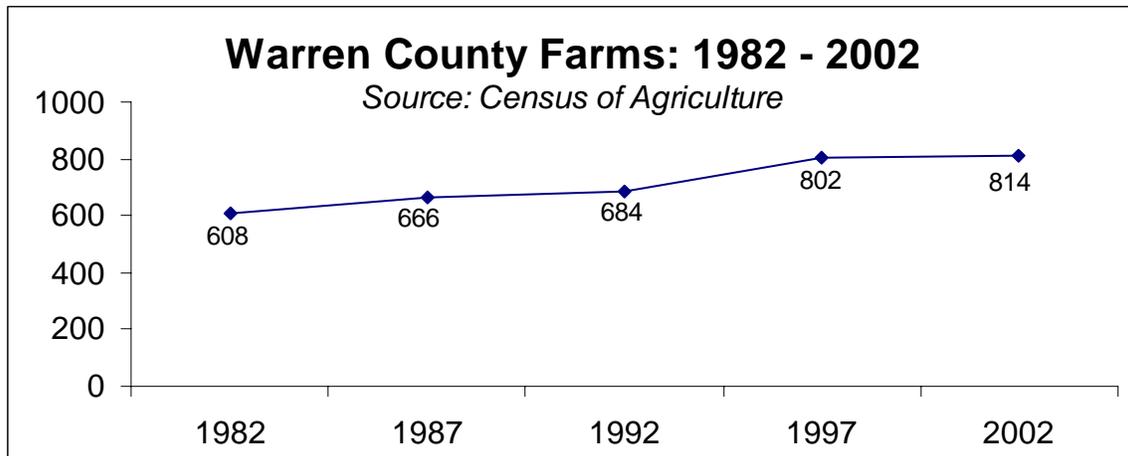
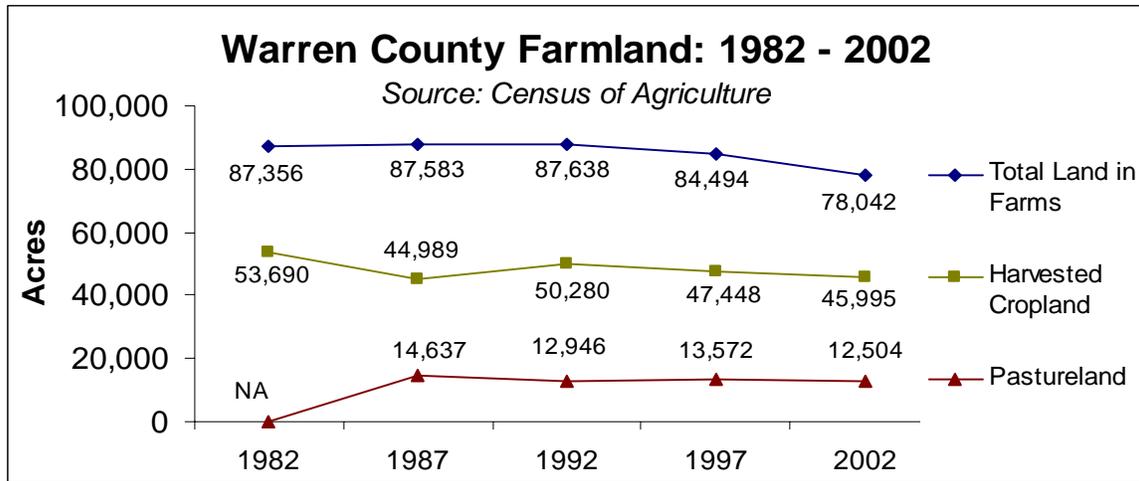
Warren County’s farmers irrigated 3,339 acres of land in 2002. This represents roughly 4% of the County’s 78,042 total acres of farmland. (*2002 Census of Agriculture*) The primary crops of Warren County – corn, soybeans, and hay – have little to no need for irrigation. However, the irrigated acreage in Warren County has more than tripled since 1992 (see *Irrigated Land* chart below), and more than two times as many farms utilize irrigation (from 45 in 1987 to 98 in 2002). This trend is partly attributable to the increasing number of water-intensive agricultural operations, such as nurseries and vegetable farms, which have taken root in the County. Additionally, the 2002 Census year was abnormally dry, which may account for some of the irrigation increases that were observed. Despite recent increases in the demand for irrigation, there is little concern over the availability of groundwater for irrigation in the future.



Farmland Trends & Statistics

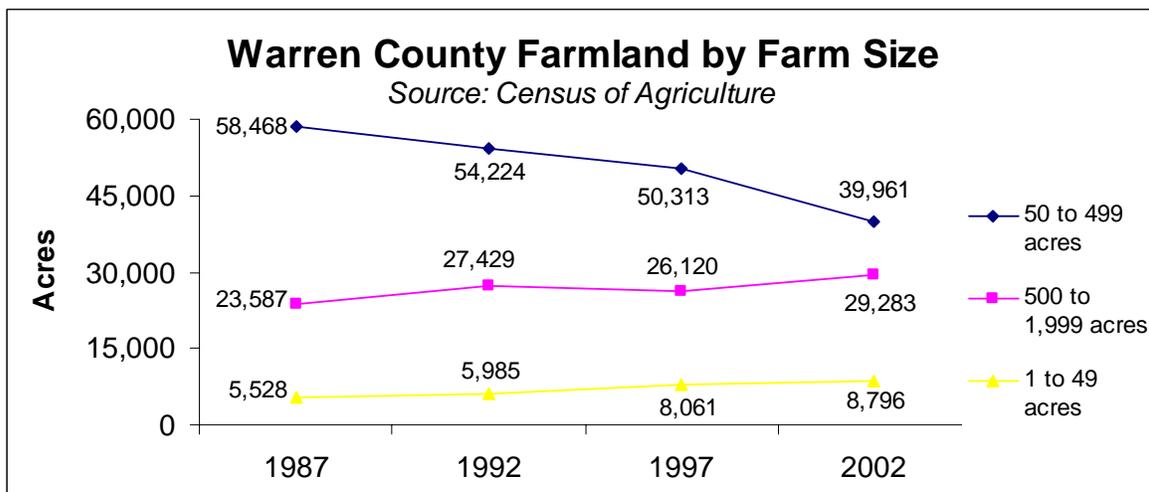
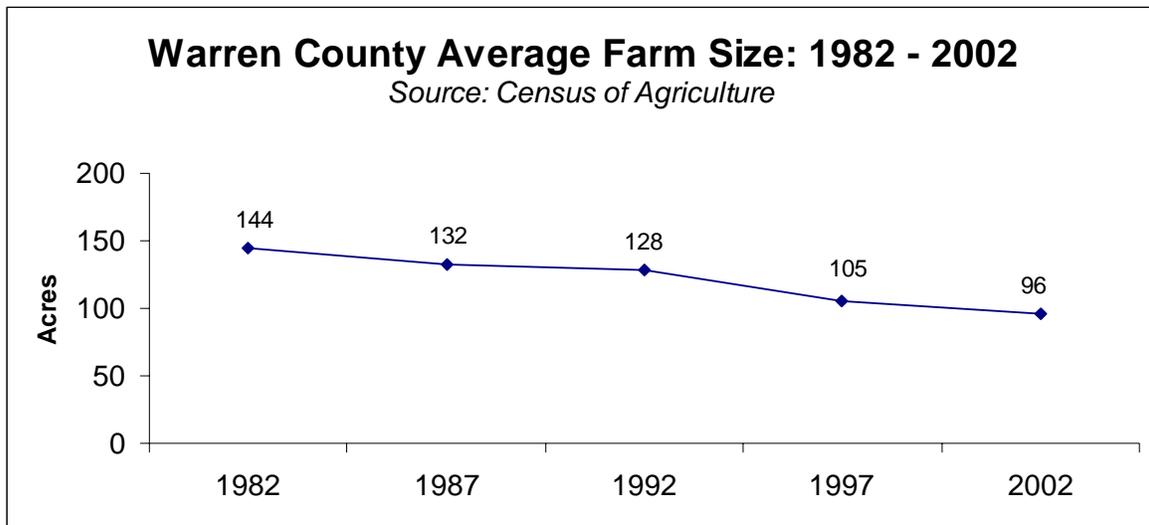
The size of the agricultural land base in Warren County has declined in recent years. Between 1992 and 2002, Warren County lost nearly 10,000 acres of farmland, corresponding to an 11% drop in overall acreage. The amount of land in agricultural production occupied 78,042 acres in 2002 with 45,995 acres in harvested cropland and 12,504 acres in pastures. (see *Farmland Acreage* chart below) Declines in harvested cropland and pastureland have been less severe than that of total farmland, with croplands and pasturelands declining 8.5% and 3.5%, respectively, since 1992.

The largest decreases in overall farmland can be attributed to “other” agricultural land uses where losses in categories such as non-pastured agricultural woodlands (20% drop since 1997) and agricultural support structures such as houses, roads, ponds, and other lands (15% drop since 1997) account for significant percentages of the total farmland decline. (2002 *Census of Agriculture*) The drop in non-pastured agricultural woodlands can be partially explained by farmers using their non-productive acreage for other purposes or selling them to competing land uses. The decline in support structure acreage is consistent with the trend of farmers renting land and no longer utilizing on-site barns and homes.



Falling farmland acreage has not prevented new farmers from entering the industry. Warren County has added over 200 farms since 1982, bringing the total number of farms in the County from 608 to 814 (see *Farms* chart above). At the same time, the acreage of farmland available to farmers has declined. (see *Farmland* chart above) The combination of these trends has caused the average size of farms in Warren County to drop dramatically (see *Average Farm Size* chart below).

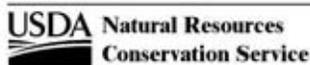
The median size of Warren County farms was 31 acres in 2002, down from 37 acres in 1997. This indicates that there are many small farms and farm parcels (less than 50 acres) in the County, and that their numbers are rising. Additionally, the acreage within medium size farms (50 to 499 acres) is decreasing, indicating that many of these farms are breaking up into smaller operations (see *Farmland by Farm Size* chart below). (*2002 Census of Agriculture*)



Acreage and Proportionate Extent of the Soils

Warren County, New Jersey

Map symbol	Map unit name	Acres	Percent
Ad	Adrian muck	1,650	0.7
AnB2	Annandale gravelly loam, 3 to 8 percent slopes, eroded	2,940	1.3
AnC2	Annandale gravelly loam, 8 to 15 percent slopes, eroded	4,869	2.1
AnD2	Annandale gravelly loam, 15 to 25 percent slopes, erode d	2,660	1.1
AsB	Annandale very stony loam, 3 to 8 percent slopes	370	0.2
AsC	Annandale very stony loam, 8 to 15 percent slopes	1,060	0.5
AsD	Annandale very stony loam, 15 to 25 percent slopes	830	0.4
BaA	Bartley loam, 0 to 3 percent slopes	1,190	0.5
BaB	Bartley loam, 3 to 8 percent slopes	6,480	2.8
BbC	Bartley gravelly loam, 8 to 15 percent slopes	1,900	0.8
BdB	Bartley stony loam, 3 to 8 percent slopes	310	0.1
BfB	Bath gravelly loam, 3 to 8 percent slopes	5,441	2.3
BfC	Bath gravelly loam, 8 to 15 percent slopes	4,440	1.9
BfD	Bath gravelly loam, 15 to 25 percent slopes	1,850	0.8
BfE	Bath gravelly loam, 25 to 40 percent slopes	550	0.2
BgB	Bath very stony loam, 3 to 8 percent slopes	1,280	0.6
BgC	Bath very stony loam, 8 to 15 percent slopes	1,070	0.5
CbB	Califon gravelly loam, 3 to 8 percent slopes	3,240	1.4
CbC2	Califon gravelly loam, 8 to 15 percent slopes, eroded	1,720	0.7
CcB	Califon very stony loam, 3 to 8 percent slopes	570	0.2
CcC	Califon very stony loam, 8 to 15 percent slopes	400	0.2
Ck	Carlisle muck	3,550	1.5
CmA	Chippewa silt loam, 0 to 3 percent slopes	2,140	0.9
CmB	Chippewa silt loam, 3 to 8 percent slopes	610	0.3
CnA	Chippewa very stony silt loam, 0 to 3 percent slopes	930	0.4
CnB	Chippewa very stony silt loam, 3 to 8 percent slopes	730	0.3
CoA	Cokesbury loam, 0 to 3 percent slopes	560	0.2
CoB	Cokesbury loam, 3 to 8 percent slopes	920	0.4
CsB	Cokesbury very stony loam, 3 to 8 percent slopes	1,080	0.5
EdB	Edneyville gravelly loam, 3 to 8 percent slopes	4,960	2.1
EdC	Edneyville gravelly loam, 8 to 15 percent slopes	2,990	1.3
EeB	Edneyville extremely stony loam, 3 to 8 percent slopes	2,460	1.1
EeC	Edneyville extremely stony loam, 8 to 15 percent slopes	4,460	1.9
EPD	Edneyville-Parker-Rock outcrop association, steep	7,450	3.2
FrA	Fredon loam, 0 to 3 percent slopes	2,050	0.9
Ha	Halsey loam	1,540	0.7
HbA	Hazen loam, 0 to 3 percent slopes	1,320	0.6
HbB	Hazen loam, 3 to 8 percent slopes	270	0.1
HbC	Hazen loam, 8 to 15 percent slopes	470	0.2
HcB	Hazen cobbly loam, 3 to 8 percent slopes	870	0.4
HfA	Hazen gravelly loam, 0 to 3 percent slopes	3,970	1.7
HfB	Hazen gravelly loam, 3 to 8 percent slopes	4,310	1.9
HfC	Hazen gravelly loam, 8 to 15 percent slopes	4,040	1.7



Tabular Data Version: 2
Tabular Data Version Date: 02/28/2006

* See footnote at end of table.

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Acreage and Proportionate Extent of the Soils

Warren County, New Jersey

Map symbol	Map unit name	Acres	Percent
HfD	Hazen gravelly loam, 15 to 25 percent slopes	730	0.3
HfE	Hazen gravelly loam, 25 to 40 percent slopes	360	0.2
HkA	Hero loam, 0 to 3 percent slopes	810	0.3
HkB	Hero loam, 3 to 8 percent slopes	1,000	0.4
HrA	Hero gravelly loam, 0 to 3 percent slopes	770	0.3
HrB	Hero gravelly loam, 3 to 8 percent slopes	1,300	0.6
LyA	Lyons silt loam, 0 to 4 percent slopes	1,440	0.6
LzB	Lyons very stony silt loam, 3 to 8 percent slopes	460	0.2
MD	Mine dump	340	0.1
Md	Middlebury loam	1,580	0.7
NaC	Nassau rocky silt loam, 8 to 15 percent slopes	4,890	2.1
NbB	Nassau shaly silt loam, 3 to 8 percent slopes	2,740	1.2
NfD	Nassau-Rock outcrop complex, 15 to 25 percent slopes	5,750	2.5
NfE	Nassau-Rock outcrop complex, 25 to 45 percent slopes	3,140	1.4
ORD	Oquaga-Swartswood-Rock outcrop association, steep	720	0.3
PaA	Palmyra gravelly fine sandy loam, 0 to 3 percent slopes	420	0.2
PaB	Palmyra gravelly fine sandy loam, 3 to 8 percent slopes	530	0.2
PbD	Parker gravelly sandy loam, 15 to 25 percent slopes	1,530	0.7
PbE	Parker gravelly sandy loam, 25 to 40 percent slopes	1,090	0.5
Pc	Pits, muck	580	0.3
Pd	Pits, sand and gravel	380	0.2
PnA	Pope fine sandy loam, high bottom, 0 to 3 percent slopes	2,040	0.9
PnB	Pope fine sandy loam, high bottom, 3 to 8 percent slopes	1,060	0.5
PoA	Pope gravelly fine sandy loam, high bottom, 0 to 3 percent slopes	810	0.3
PoB	Pope gravelly fine sandy loam, high bottom, 3 to 8 percent slopes	3,050	1.3
QU	Quarry	110	*
RcD	Rockaway very stony loam, 8 to 25 percent slopes	920	0.4
ROF	Rock outcrop-Oquaga association, very steep	6,900	3.0
RPF	Rock outcrop-Parker-Edneyville association, very steep	12,600	5.4
RRE	Rock outcrop-Rockaway-Parker association, very steep	720	0.3
RWD	Rock outcrop-Wassaic complex, 15 to 25 percent slopes	2,170	0.9
RWF	Rock outcrop-Wassaic complex, 25 to 45 percent slopes	3,550	1.5
StC	Steinsburg fine sandy loam, 8 to 15 percent slopes	870	0.4
SuB	Swartswood gravelly loam, 3 to 8 percent slopes	480	0.2
SvB	Swartswood very stony loam, 3 to 8 percent slopes	2,620	1.1
SvC	Swartswood very stony loam, 8 to 15 percent slopes	2,220	1.0
SvD	Swartswood very stony loam, 15 to 25 percent slopes	2,230	1.0
SxC	Swartswood-Oquaga extremely stony loams, 8 to 15 percent slopes	2,470	1.1
VeA	Venango silt loam, 0 to 3 percent slopes	280	0.1
VnB	Venango gravelly loam, 3 to 8 percent slopes	1,360	0.6
VnC	Venango gravelly loam, 8 to 15 percent slopes	390	0.2
VsB	Venango very stony loam, 3 to 8 percent slopes	520	0.2
W	Water (less than 40 acres)	1,320	0.6

Acreage and Proportionate Extent of the Soils

Warren County, New Jersey

Map symbol	Map unit name	Acres	Percent
WaA	Washington loam, 0 to 3 percent slopes	2,850	1.2
WaB	Washington loam, 3 to 8 percent slopes	22,440	9.7
WaC2	Washington loam, 8 to 15 percent slopes, eroded	4,910	2.1
WaD2	Washington loam, 15 to 25 percent slopes, eroded	1,630	0.7
WATER	Water (greater than 40 acres)	2,100	0.9
WgB	Washington gravelly loam, 3 to 8 percent slopes	760	0.3
WgC	Washington gravelly loam, 8 to 15 percent slopes	1,400	0.6
WgD	Washington gravelly loam, 15 to 25 percent slopes	1,260	0.5
WkB	Washington very stony loam, 3 to 8 percent slopes	490	0.2
WkC	Washington very stony loam, 8 to 15 percent slopes	950	0.4
WkD	Washington very stony loam, 15 to 25 percent slopes	500	0.2
WkE	Washington very stony loam, 25 to 40 percent slopes	920	0.4
WmA	Wassaic gravelly loam, 0 to 3 percent slopes	480	0.2
WmB	Wassaic gravelly loam, 3 to 8 percent slopes	960	0.4
WnC	Wassaic rocky gravelly loam, 8 to 15 percent slopes	1,260	0.5
WnD	Wassaic rocky gravelly loam, 15 to 25 percent slopes	470	0.2
WOB	Wassaic-Rock outcrop complex, 3 to 8 percent slopes	1,400	0.6
WOC	Wassaic-Rock outcrop complex, 8 to 15 percent slopes	3,020	1.3
WOD	Wassaic-Rock outcrop complex, 15 to 25 percent slopes	1,060	0.5
Wp	Wayland silt loam	4,100	1.8
WvB	Wurtsboro extremely stony loam, 3 to 8 percent slopes	2,560	1.1
WvC	Wurtsboro extremely stony loam, 8 to 15 percent slopes	430	0.2
Total		231,700	100.0

* Less than 0.1 percent.

¹ United States Department of Agriculture: National Agricultural Statistic Service, 2002 Census of Agriculture.

http://www.nass.usda.gov/Census_of_Agriculture/index.asp. Accessed June 2007.

² New Jersey State Agricultural Development Commission. *Warren County Farmland Assessment 2004*.

³ Natural Resource Conservation Service. “Soil Data Mart”. Online at: soildatamart.nrcs.usda.gov/. Accessed 17 September 2007.

⁴ New Jersey Office of the Natural Resource Conservation Service website. “Soils” Online at: <http://www.nj.nrcs.usda.gov/technical/soils/>. Accessed 16 September 2007.

⁵ Warren County Planning Department. *1999 Warren County Open Space Plan*.

CHAPTER 2: AGRICULTURAL INDUSTRY IN WARREN COUNTY



The large and fertile land base of Warren County supports a thriving farming industry that is among New Jersey's most productive agricultural areas. Warren has more cattle and calves than any other county in the State, and is among the top three in both milk cows and milk production. The County is also a leader in field crops. It is second behind Salem County in corn for grain production and third in hay, soybeans, and apples (*2002 Census of Agriculture*)¹.

The agricultural industry provides stability for the local economy of Warren County. During 2002, agriculture accounted for more than \$39.7 million in sales despite severe drought conditions. (*2002 Census of Agriculture*)² In addition to its direct sales, the agriculture industry supports ancillary businesses, such as equipment suppliers and livestock veterinarians, whose sales are not captured within agricultural figures, but depend upon agriculture to create the necessary demand for their services. Farms also provide indirect support to the local economy. For example, they offer seasonal employment opportunities for young residents and seasonal workers who, in turn, patronize local stores and businesses. The influence of these agricultural linkages on Warren County's economy is unmistakable.

Agriculture also provides a greater economic benefit to the local community than other kinds of land uses. Contrary to residential neighborhoods and commercial districts, farms require little, if any, municipal services. In fact, farms often provide important benefits, such as groundwater recharge and storm water control, which local governments might otherwise have to supply. Additionally, farms generate a positive cash flow by selling their products to buyers outside the County. Local farmers spend the revenue earned from these sales locally, which supports the County's economy. Contrarily, retail stores and other non-agricultural firms that cater to local residents often send their revenues out of the County. In this way, agricultural production is preferable to other kinds of business activities because it promotes a more stable and independent local economy.

Statistical Information

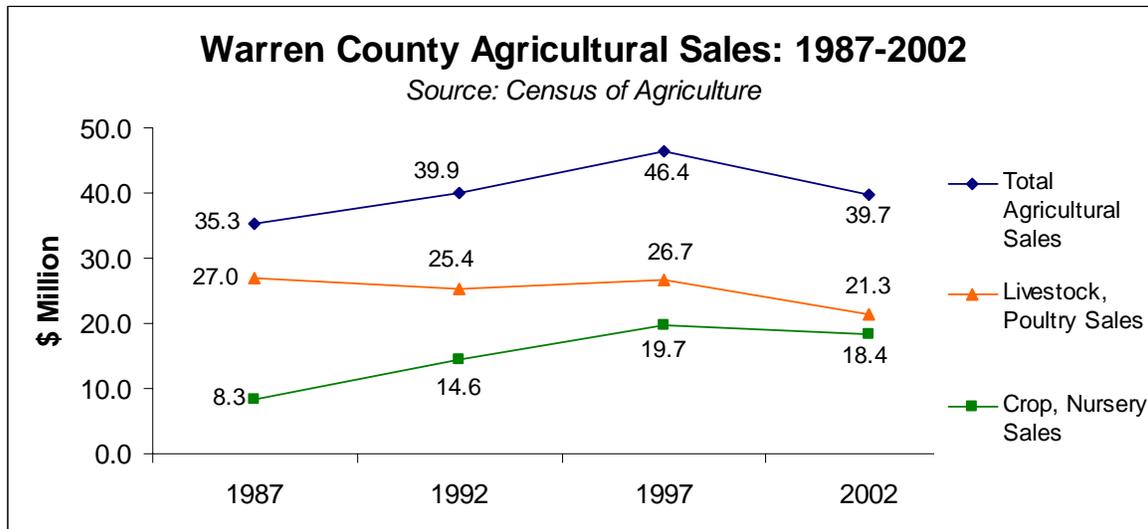
Agricultural production and market value trends were calculated using data from the United States Department of Agriculture's National Agriculture Statistics Service. (*NASS*)³ The agricultural yields for many products have been tabulated annually since 1953, while the yields of other products have been recorded only in more recent years. Historical pricing information for some of these products is also available. These historical trends are

supplemented by data from the annual reports of the New Jersey Department of Agriculture. (2006 Annual Report of the New Jersey Department of Agriculture)⁴

Trends in the market value of the products produced by Warren County’s agricultural industry are more difficult to determine. Overall county-level market values are not compiled annually, but rather reported every five years as part of the National Census of Agriculture. The next Census report will be available at the beginning of 2008. Further obscuring this trend is the additional susceptibility to sampling error that occurs with less frequent data observations. For example, the last Census report was taken in 2002 – a year in which New Jersey experienced severe drought conditions that greatly reduced the agricultural output of many crops. This variability has been considered when interpreting the market value data.

Agricultural Production and Market Trends

The Census of Agriculture separates agricultural activities into two categories: “livestock, poultry and their products” and “crops, including nursery and greenhouse”. “Livestock, poultry and their products” from Warren County produced \$21.3 million in sales during 2002, down 25% from \$26.7 million in 1997. Sales from the “crops, including nursery and greenhouse” category were down 7% from \$19.7 million in 1997 to \$18.4 million in 2002. Similar declines were seen across New Jersey due to the severe drought conditions that were observed during the 2002 Census year.

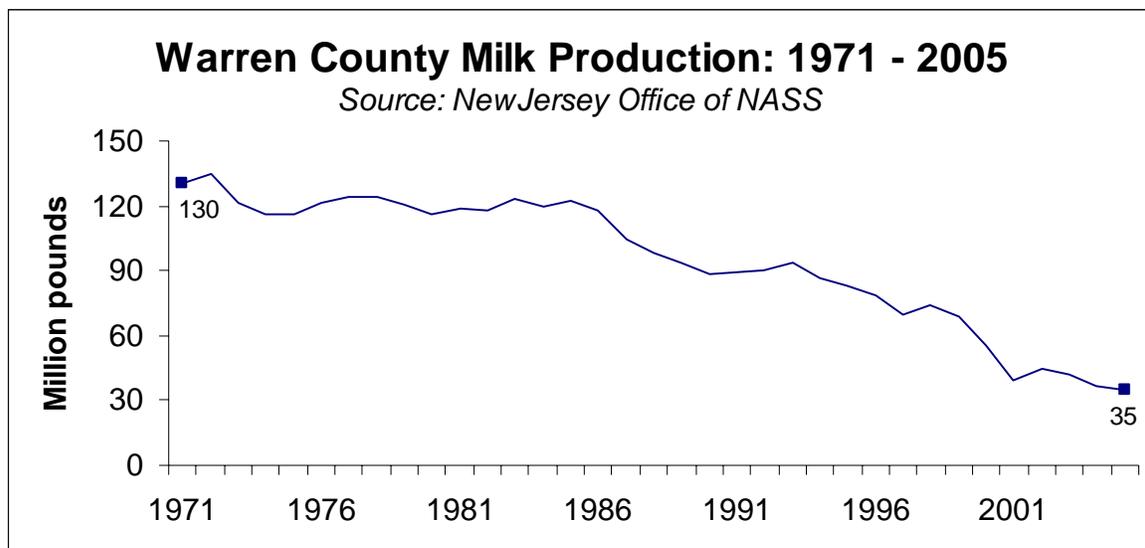


Livestock and Poultry Products

The largest agricultural sector in Warren County involved the sale of products from livestock including dairy and beef cows. The livestock industry in Warren County is important at both the state and local levels. There are more livestock farms raising more livestock in Warren County than anywhere else in New Jersey. The livestock industry also provides the demand for much of the County’s field crop production. Much of the grain and hay that is produced in Warren County is sold to local dairy farmers to feed their herds.

Other dairy farmers minimize feed costs by growing their own grain, which is not reported in the Census sales figures. Consequently, the viability and continued growth of Warren County's livestock farms is fundamentally important to the County's agriculture industry as a whole.

Dairy has been the dominant subsector in Warren County throughout its history. Unfortunately, sales of dairy products declined from over \$12.6 million in 1987 to just over \$9.0 million in 1997⁵. This corresponds to a similar decrease among the number of farms that sold dairy products within the County (from 118 in 1987 to 45 in 2002). Milk production trends show that the decline in Warren County's dairy industry has been occurring gradually for some time. The County's best year on record in terms of milk production was 1972 when it produced over 135 million pounds, while its worst year on record was 2005 when it produced less than 35 million pounds (see *Milk Production* chart).

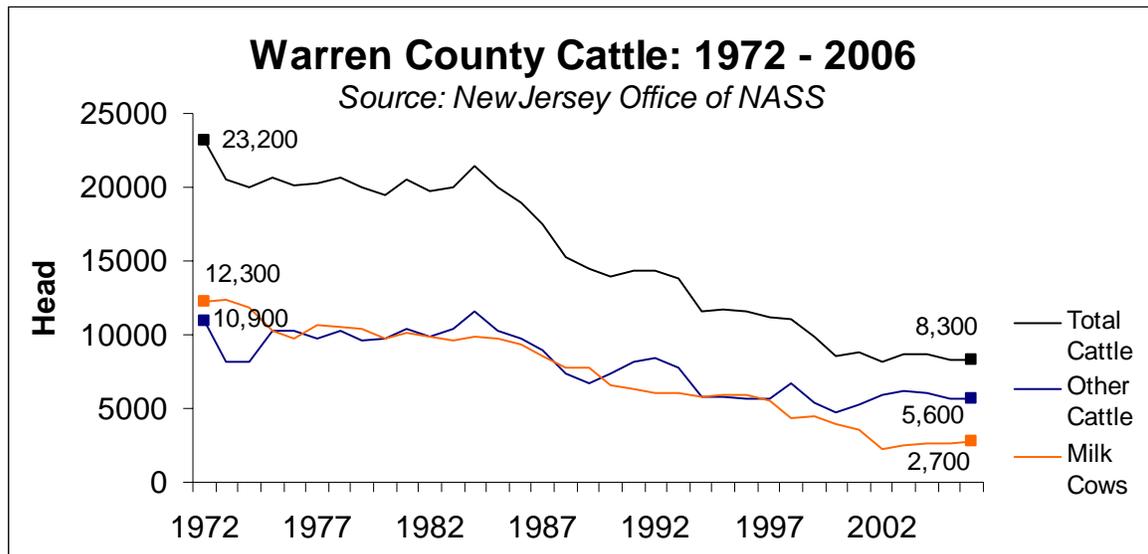


Decreasing dairy production has been largely influenced by unfavorable market conditions. A combination of high input costs, historically low milk prices and weather related losses in 2005 created a scenario that the New Jersey Department of Agriculture likened to “a perfect storm”. (*2006 Annual Report of the New Jersey Department of Agriculture*) Among the most significant input costs to Warren County dairy farmers are high land prices and property taxes. Dairy farms require more extensive plots of land than most agriculture operations, and increasing land prices have made alternative uses of dairy land economically attractive to many farmers.

Erosion of the local supporting infrastructure has impacted dairy producers as well. After the New York demand for Warren County dairy products dropped during the 1960's, many dairy support businesses relocated or closed. Consequently, there are no remaining creameries in Warren County, which forces dairy producers to ship their products over considerable distances to be processed. There is also a need for large animal veterinarians in the region. The expenses incurred by dairy farmers due to inadequate support services have influenced those that wish to remain in agriculture to transition their operations

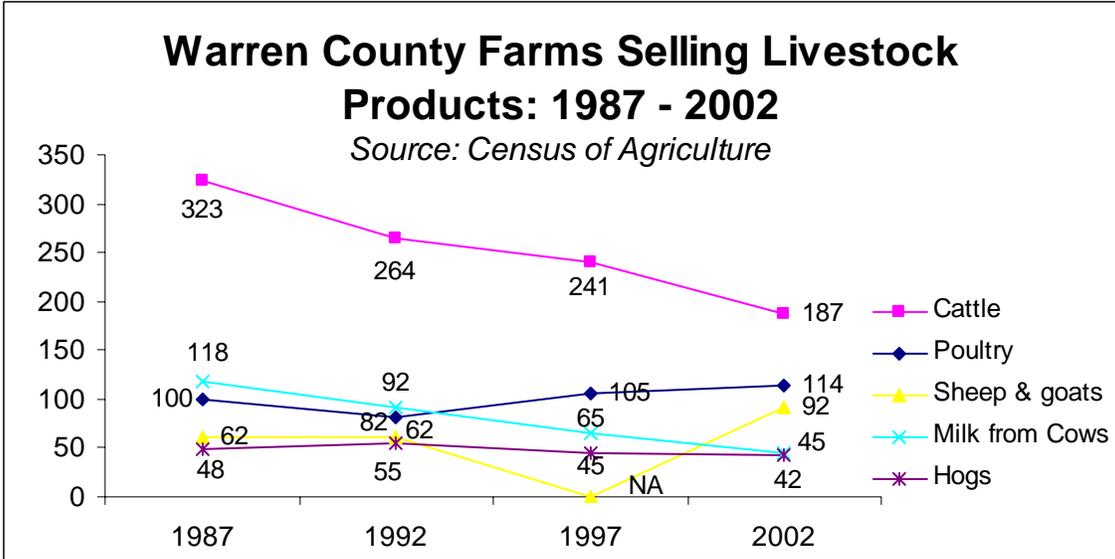
towards less infrastructure-intensive practices, such as corn or wheat production. These factors present a significant risk to the continued success of dairy farms in Warren County.

Non-dairy cattle operations comprise a significant portion of the County’s livestock activity as well. The number of non-dairy cattle in Warren County (5,600) actually exceeded the number of dairy cattle (2,700) during 2006, and more farms engage in the sale of cattle (187 in 2002) than any other livestock-related activity. Data on the sales of beef cattle and their products were last recorded in 1997, when there were 5,700 animals that yielded \$1.25 million⁶. In 2006, there were roughly the same number of non-dairy cattle in Warren County (5,600), and sales were probably comparable to 1997 levels. Therefore, non-dairy cattle sales are likely comparable to the 1997 figure today⁷. The comparatively low land intensity of non-dairy cattle operations has made this a more attractive option for some dairy farmers in Warren County. If land values continue to increase, it is likely that more dairy farmers will begin to utilize their land in other ways and that new livestock farmers will run non-dairy cattle.



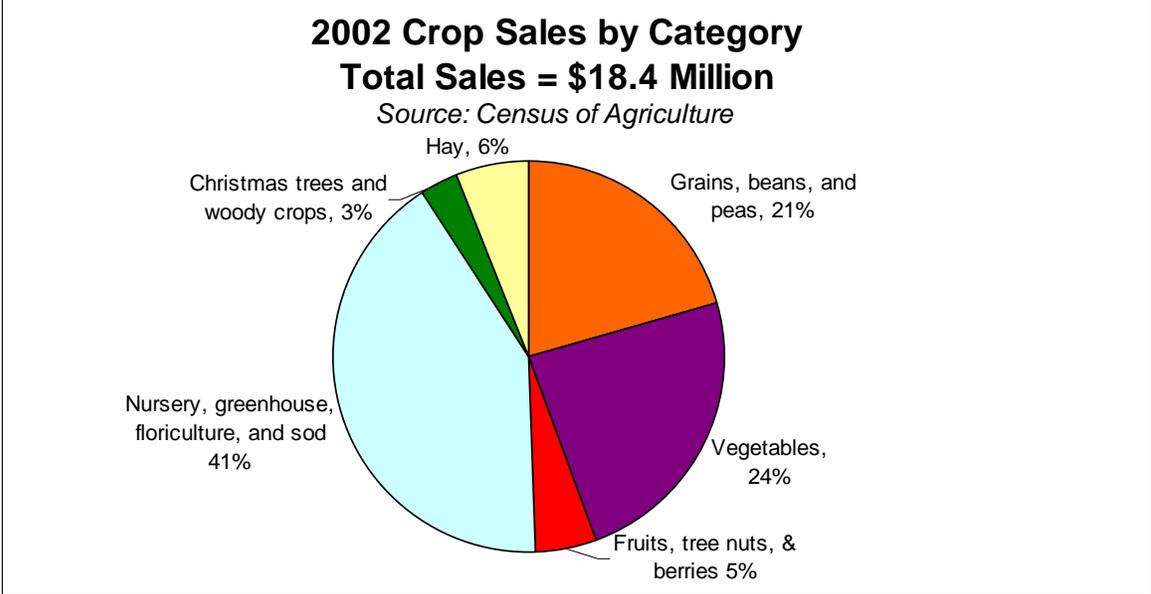
Along with dairy and cattle farming, poultry is another large livestock industry in Warren County. This type of farming includes egg production, meat chickens, and other birds including turkeys and ducks. While the vast majority of eggs are produced by one very large operation in Franklin Township (with more than 100,000 animals), there are 113 smaller farms (less than 100 animals) that supplement their incomes through egg sales. Similarly, most farms that sell meat chickens and other birds are relatively small-scale averaging 68 birds sold annually per farm.

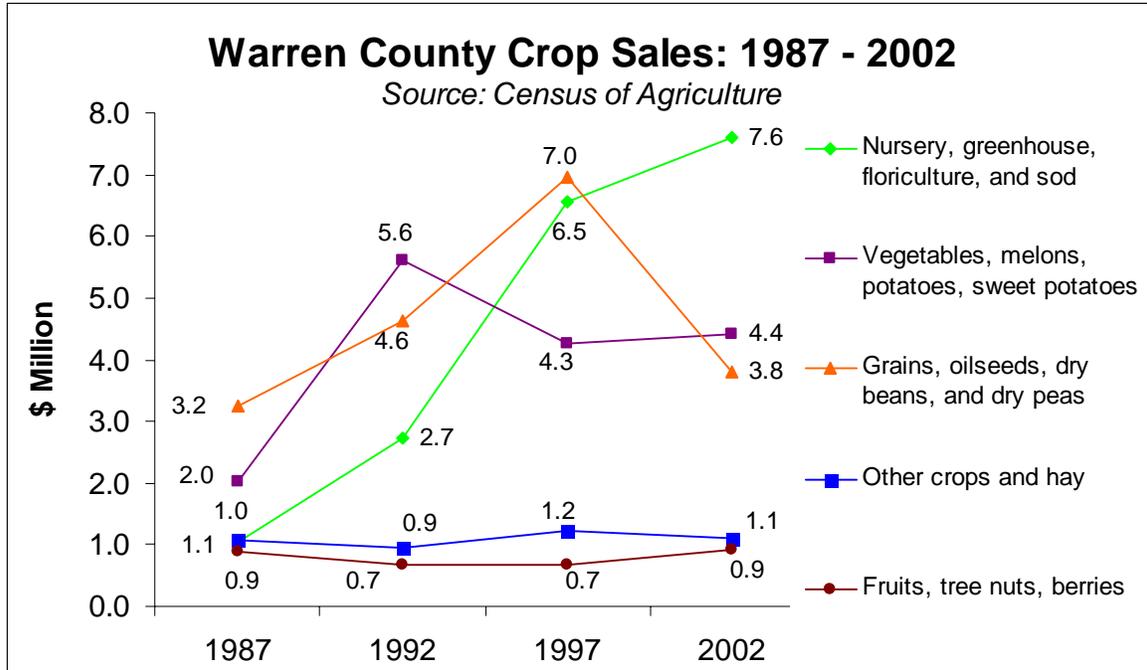
Warren County also supports a number of hog and sheep farms. There were 692 hogs on 44 farms in 2002. These operations earned roughly \$60,000 in the sale of their hogs. There have been no notable fluctuations in this trend over time. Contrarily, the sheep industry in the County has exhibited an upward trend in the number of sheep (1,921 in 2002 from 1,186 in 1997), the farms raising sheep, and the sheep that were sold in 2002.



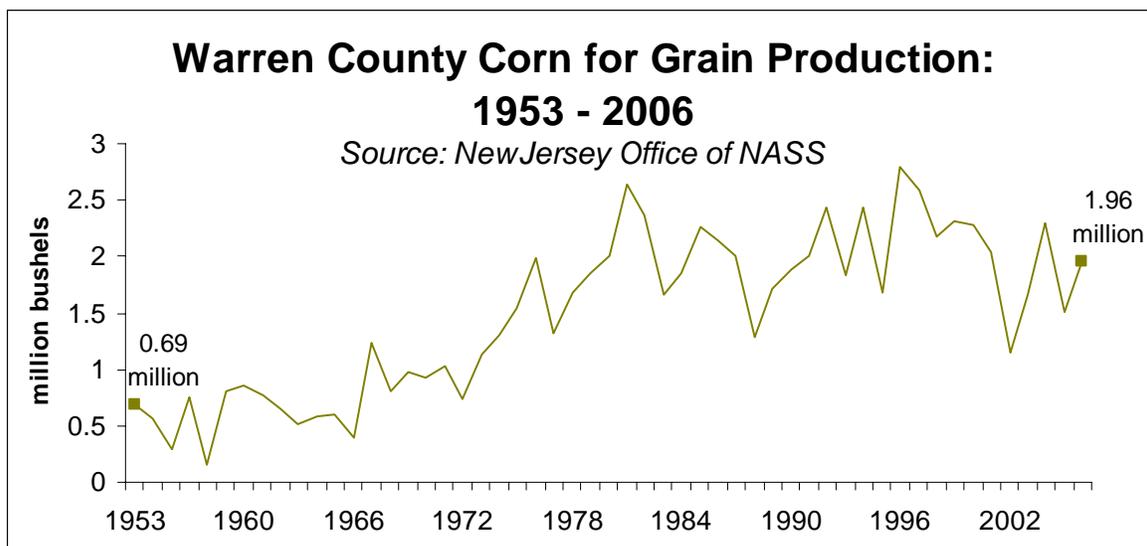
Field Crops

Crops in Warren County sold for a total of \$18.4 million in 2002, slightly less than in 1997. Within this category of agricultural products, nursery and greenhouse operations are the County’s highest grossing subsector. Sales of nursery and greenhouse products, including sod, account for roughly 41% of the County’s agricultural sales, which corresponds to \$7.6 million (see *2002 Crops Sales by Category* chart below). Nursery and greenhouse yields were not as adversely affected by drought conditions during the 2002 census year as the yields of other field crops, and thus their share of Warren County’s crop sales may be somewhat inflated. However, the nursery and greenhouse industry has experienced far more growth than any other agricultural sector in the County over the last 20 years, indicating a continuing upward trend (see *Warren County Crop Sales* chart below).





Corn for grain has been the historically dominant field crop of Warren County. Over 27% of the agricultural land in the County was tilled for corn during 2002. However, severe drought reduced the output of this crop to a 36-year low in 2002. This temporarily dropped corn and other grains, including soybeans, wheat, and oats, to third among Warren County's highest grossing crop categories with \$3.8 million in 2002 sales. Despite the high variability in annual corn yields, as shown by the *Corn for Grain Production* chart below, corn remains among the staple crops of Warren County. It provides feed for many of the County's dairy and livestock farms, and provides the primary income for many of the County's farmers.



Vegetables were the County's second highest earning crop during 2002 with \$4.4 million in sales. More than 2,000 acres in Warren County were planted with vegetables during 2002 with the largest acreages devoted to sweet corn (436 acres) and pumpkins (186 acres). Vegetables do not require as much land as other field crops, and therefore most vegetable-producing farms use only a few acres or less for each vegetable crop. Larger farms produce sweet corn and collards, which respectively occupy 11 and 20 acres per farm in Warren County.

While vegetables account for a large percentage of Warren County's agricultural sales, the expenses incurred by the County's vegetable farmers tend to exceed those of other farmers. Vegetables require more intensive irrigation than most field crops, and may require seasonal laborers during their harvest. These additional expenses reduce the overall profit derived from vegetable production compared with similar sales of other field crops.

A small but significant portion of Warren County's agricultural sales come from other crops, such as hay and fruit. Warren County produced roughly 28,000 tons of hay during 2002 and 2005, which was the third highest hay yield in the state. Due to severe weather conditions and declining acreage, the County's 2002 and 2005 production totals are the lowest that have ever been recorded. Warren County is home to many fruit farms as well, and these farms are currently experiencing a surge in production. Warren County produced roughly four million pounds of apples in 2005 – three times more than it did during the 2002 Census year. Peaches and grapes greatly supplement the County's fruit production, and are being produced by many more farms in recent years.

Agricultural Support Services and Related Industries

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

Local support businesses are often insufficient to meet all the needs of Warren County's agricultural community. Consequently, Warren County's farmers have become very adept at minimizing the need for many repair services by fixing many mechanical problems themselves. Farmers tend to specialize in some kind of agricultural repair and supplement their incomes by offering their services to other farmers. Warren County's farmers also rely heavily upon mail order and out-of-state retailers for their agricultural supplies. Processing facilities such as creameries and lumber mills have become absent from Warren County as well, forcing local farmers to ship their products out-of-town to be processed. Some farmers have found that reliance upon out-of-state suppliers and non-local processing

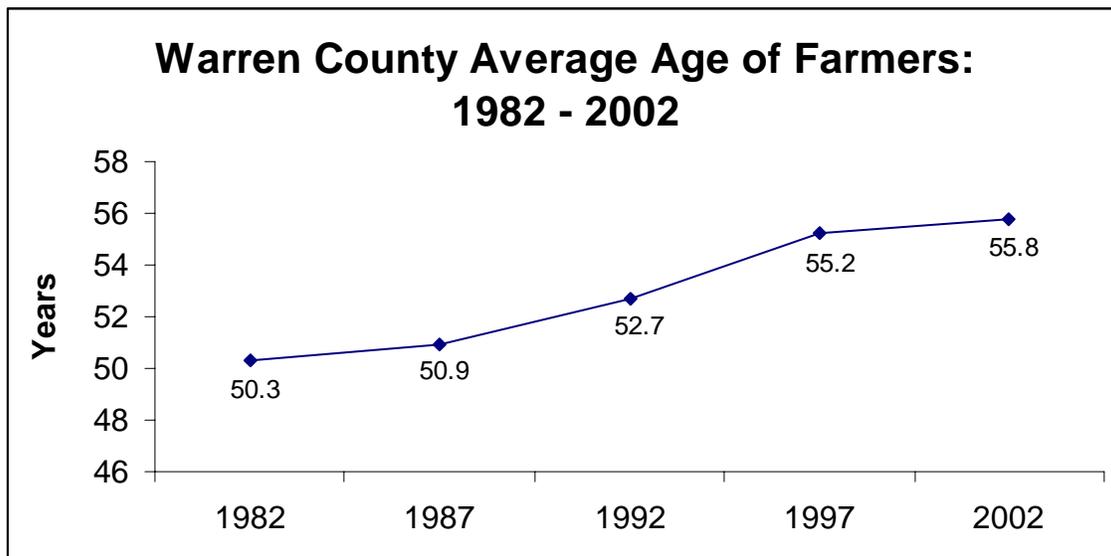
facilities imposes high transportation costs that cut deeply into the profitability of their operations.

Future of Agriculture

The future of agriculture in Warren County is being shaped by market forces and social trends that are occurring throughout New Jersey. These trends have already begun to redefine the traditional agricultural industry in Warren County and may replace it with a much different type of farming than currently exists in the County. Among the most substantial trends shaping Warren County agriculture is the recent decline in the dairy market. Dairy is the foundation of Warren County's agricultural industry, and its continued decline will correspondingly impact dairy farmers and their support businesses as they transition towards other forms of agriculture. Consequently, grain and hay farms that support them may assume different agricultural activities as well.

Another challenge facing Warren County farmers is increasing land prices and property taxes. This trend dictates that farmers will show a greater preference for renting land rather than owning land, and that farm operations will take up less space and utilize more intensive practices on their land. Increasing land prices also threaten to replace many of Warren County's farmlands and open space areas with residential and commercial developments that are less compatible with agricultural production.

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



The combination of traditional agricultural markets declining and land costs increasing promises to promote innovation in the ways that farmers supplement their incomes. Farmers are currently trying to meet these challenges by producing goods with higher rates

of return, such as nursery goods and sod, farm stand merchandise, and equine services. Agritourism facilities, such as farm stands, pick-your-owns, and petting zoos, may become more numerous as the County's residential population grows and the market for these types of services expands. Increasing returns from "direct" sales of agricultural products to consumers indicates that these anticipated trends have already begun to influence agriculture in Warren County. Direct agricultural sales generated \$1.28 million for 162 Warren County farms in 1997 – a figure which, despite unfavorable growing conditions, grew to \$1.55 million from 174 farms in 2002. (*2002 Census of Agriculture*) Niche products, such as packaged and organic goods, that generate "value added" revenue streams are likely to increase as well. Young farmers are more likely to be able to adapt to these changing market conditions and modify existing operations to better suit current economic trends.

¹ United States Department of Agriculture: National Agricultural Statistic Service, 2002 Census of Agriculture.
http://www.nass.usda.gov/Census_of_Agriculture/index.asp. Accessed June 2007.

¹ United States Department of Agriculture: National Agricultural Statistic Service, 2002 Census of Agriculture.
http://www.nass.usda.gov/Census_of_Agriculture/index.asp. Accessed June 2007.

³ New Jersey Office the National Agriculture Statistics Service.
http://www.nass.usda.gov/Statistics_by_State/New_Jersey/index.asp. Accessed June 1, 2007.

⁴ New Jersey Department of Agriculture. "New Jersey Agriculture 2006 Annual Report."
www.state.nj.us/agriculture/pdf/06AnnualReport.pdf

⁵ The 2002 Census withheld this data to avoid disclosing information for individual farms.

⁶ The 2002 Census withheld this data to avoid disclosing information for individual farms.

CHAPTER 3: THE LAND USE PLANNING CONTEXT IN WARREN COUNTY



Land Use Patterns and Trends

During the formative years of Warren County, land use patterns were deeply influenced by the natural geography and topography. The County's rocky, mountainous ridgelines helped to concentrate colonists within its broad valleys. These valleys contained especially fertile soils, which prompted settlers to establish agricultural homesteads along the Musconetcong and Delaware Rivers. The Delaware River itself offered a natural transportation connection between Warren County's farmers and the markets for their products.

Transportation was another major influence on Warren County's land use patterns. During the 1800's, the Morris Turnpike (Route 57) and Morris Canal served as principal connectors to agricultural markets in eastern New Jersey and New York City. The Morris Canal and Turnpike roughly paralleled the Musconetcong River from the Delaware River at Phillipsburg through Washington to Hackettstown on the County's eastern border. Completion of the Morris Canal in the 1830's prompted industrial as well as agricultural development in the County. Many of the new industrial facilities were constructed along the Canal and close to the County's existing settlements. Consequently, the towns of Phillipsburg, Washington and Hackettstown became the County's population and commercial centers. (2005 Warren County Strategic Growth Plan)¹

This centers-based land use pattern – development in existing towns with agricultural or natural areas surrounding them – remained prevalent in Warren County through the mid-twentieth century. After 1950, residential development expanded westward from New York City and Morris County causing Warren County's population to double from 54,374 in 1950 to 108,910 in 2005 (see *Population Table* below). (Workforce New Jersey Public Information Network website)² (American Factfinder website)³ A number of factors contributed to the County's rapid growth during this time. Government incentives enacted during the 1950's encouraged the construction of single-family homes, causing developers to seek out larger and cheaper parcels of land on which to build. Simultaneously, the nation began constructing Interstate highways, which greatly increased the ease of living in rural communities far from traditional employment centers.

Warren County contained the necessary combination of inexpensive land and automobile accessibility that promoted rapid growth. The County road network was greatly expanded during this time and was further enhanced by the construction of Interstates 80 and 78 during the 1970's and 1980's. (2005 Warren County Strategic Growth Plan) The

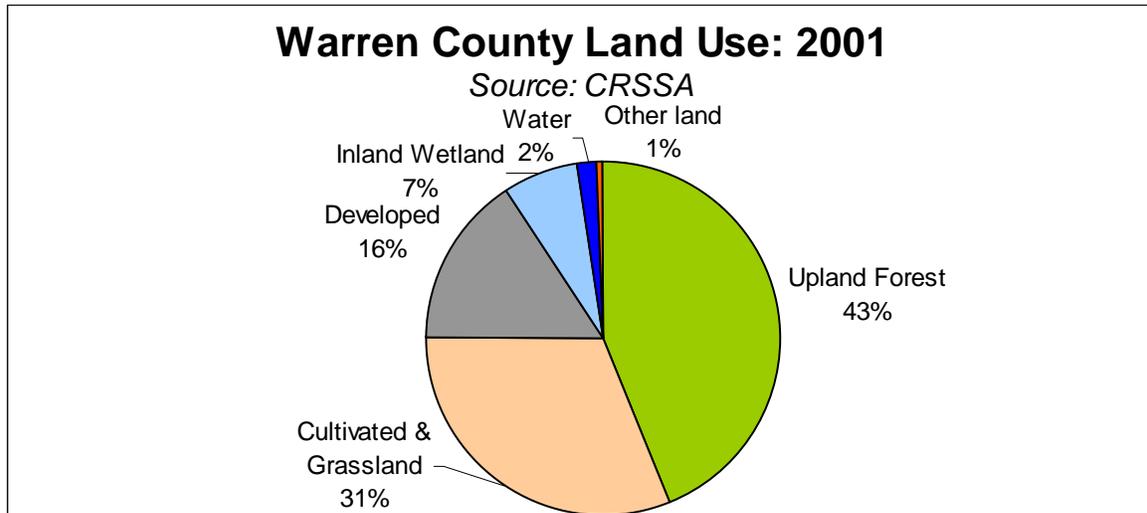
County's expanded rural road network and new arterial highways prompted growth in previously remote areas of the County. Growth near highway interchanges, in towns such as Blairstown, Allamuchy and Greenwich, was especially evident.

The County's centers also grew substantially during this time. In addition to their roles as concentrations of agricultural trade and support services, Warren County's towns also began to accommodate residential-oriented land uses such as neighborhoods, restaurants and retail stores. Much of the residential population that gravitated towards the County's centers and transportation hubs settled in the surrounding areas as well. Towns adjacent to traditional centers, including Mansfield, Lopatcong, and Washington Townships, roughly quadrupled in population after 1950. The residential population of Warren County continues to grow today (see *Population Table* below).

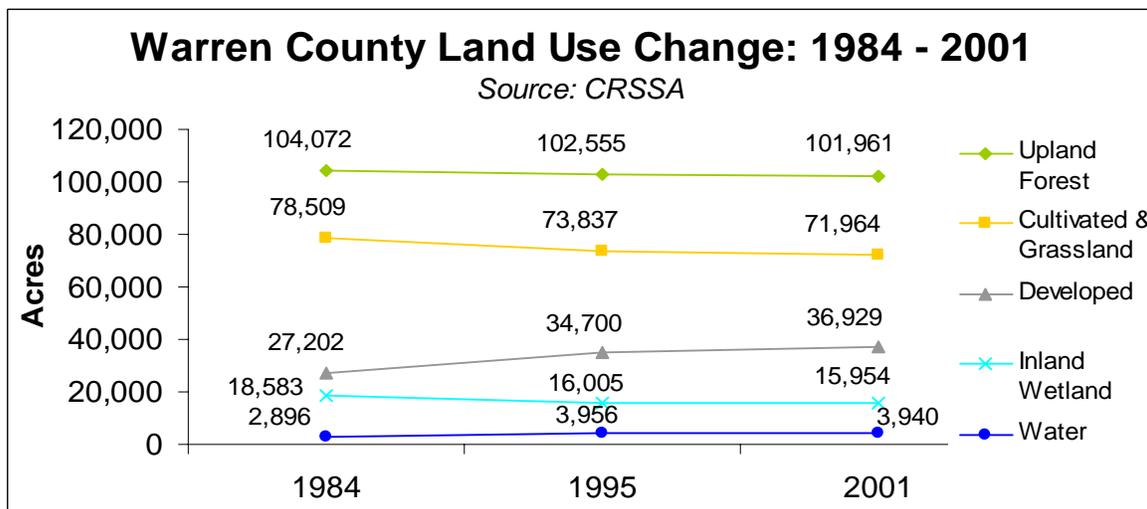
MUNICIPALITY	1930	1940	1950	1960	1970	1980	1990	2000	2005*
Allamuchy Township	684	686	736	973	1,138	2,560	3,484	3,877	4,122
Alpha Borough	2,374	2,301	2,117	2,406	2,829	2,644	2,530	2,482	2,639
Belvidere Town	2,073	2,060	2,406	2,636	2,722	2,475	2,669	2,771	2,946
Blairstown Township	1,416	1,449	1,571	1,797	2,189	4,360	5,331	5,747	6,110
Franklin Township	1,213	1,540	1,530	1,729	1,973	2,341	2,404	2,768	2,943
Frelinghuysen Township	696	715	779	845	1,118	1,435	1,779	2,083	2,215
Greenwich Township	1,141	1,125	1,217	1,397	1,482	1,738	1,899	4,365	4,641
Hackettstown Town	3,038	3,289	3,894	5,276	9,472	8,850	8,120	8,984	9,414
Hardwick Township	331	367	370	370	548	947	1,235	1,464	1,557
Harmony Township	1,311	1,465	1,763	2,039	2,195	2,592	2,653	2,729	2,901
Hope Township	553	646	681	833	1,140	1,468	1,719	1,891	2,011
Independence Township	964	1,046	1,169	1,509	2,057	2,829	3,940	5,603	5,957
Knowlton Township	1,049	1,084	1,260	1,442	1,738	2,074	2,543	2,977	3,165
Liberty Township	419	441	529	760	1,229	1,730	2,493	2,765	2,940
Lopatcong Township	1,269	1,450	1,737	2,703	3,144	4,998	5,052	5,765	6,129
Mansfield Township	1,139	1,254	1,497	2,130	3,546	5,780	7,154	8,072	8,602
Oxford Township	1,723	1,548	1,489	1,657	1,742	1,659	1,790	2,307	2,453
Pahaquarry Township**	80	72	67	63	71	26	20	0	0
Phillipsburg Town	19,255	18,314	18,919	18,502	17,849	16,647	15,757	15,166	16,124
Pohatcong Township	1,974	2,029	2,540	3,543	3,924	3,856	3,591	3,416	3,632
Washington Borough	4,410	4,643	4,802	5,723	5,943	6,429	6,474	6,712	7,136
Washington Township	1,007	1,320	1,765	3,055	3,585	4,243	5,367	6,248	6,643
White Township	1,200	1,335	1,536	1,832	2,326	2,748	3,603	4,245	4,513
WARREN COUNTY	49,319	50,181	54,374	63,220	73,960	84,429	91,607	102,437	108,910
GROWTH RATE		1.75%	8.36%	16.27%	16.99%	14.15%	8.50%	11.82%	6.32%
* - Estimates from U.S. Census and Warren County Planning Department									
** - Pahaquarry Township was annexed by Hardwick Township in 1997									

Despite the increasing pace of development over the last fifty years, much of Warren County has retained a predominately rural character. The Center for Remote Sensing and Spatial Analysis at Rutgers University reports that 71,964 acres of cultivated and grasslands (roughly 31% of Warren County) remained in 2001. (*Center for Remote*

Sensing and Spatial Analysis)⁴ This land use was second in the County only to upland forests, which occupied 101,961 acres (43%). Developed areas, the third most common land use in the County, encompassed 36,929 acres. Wetlands, open waters and barren land comprise the remainder of Warren County (see *Land Use* chart below). (*Center for Remote Sensing and Spatial Analysis*)



Unfortunately, developed areas are gradually consuming forested and agricultural lands. Almost 10,000 acres of developed land was added to Warren County between 1984 and 2001, while forested and cultivated acreage was significantly decreased (see *Land Use Change* chart below). (*Center for Remote Sensing and Spatial Analysis*) Between 1995 and 2000, Warren County lost approximately 1,000 acres of forests and 1,200 acres of farmland to development. The large majority of this new development took the forms of residential subdivisions and transitional areas. Areas along Route 94 accounted for most of the County’s losses in forested and cultivated acreage. Agricultural losses were also common around the County’s centers at Belvidere, Washington Borough, Hackettstown, and Phillipsburg. (*Center for Remote Sensing and Spatial Analysis*)



Public Infrastructure – Sewer and Water

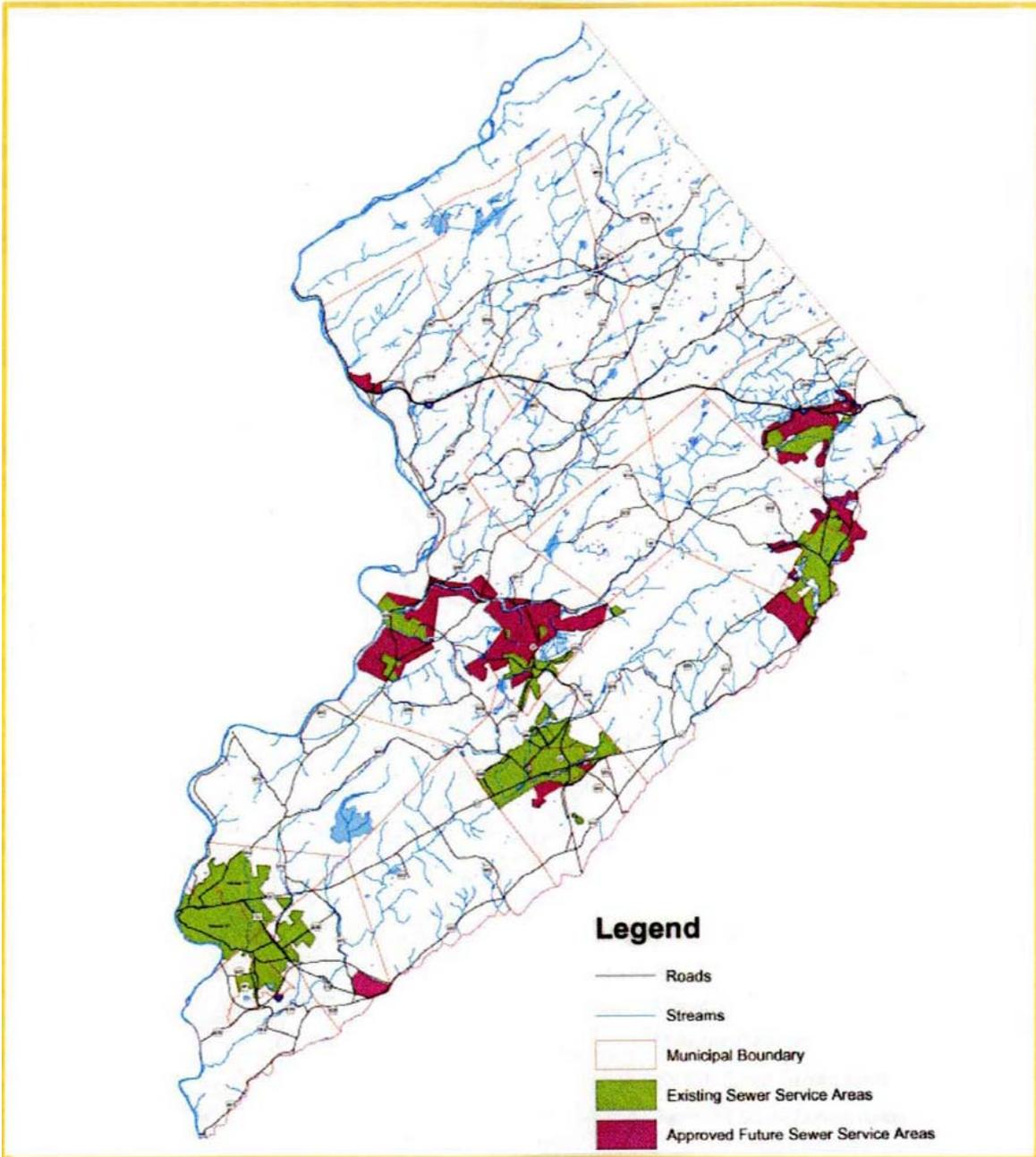
Roughly 6% of Warren County’s land area is currently within sewer service areas, and another 4% of the County will receive sewer service in the future. These areas are generally located near existing development centers, and contain some of the most appropriate lands for new development in Warren County. Developments in sewer service areas can be easily connected to the existing wastewater system, which helps prevent contamination of the County’s aquifers and drinking water reserves from the addition of new septic systems. Restricting development to areas around established centers with existing infrastructure also conserves the rural environs that surround them. The following chart shows the sizes and locations of these existing and proposed sewer service areas (*Warren County Planning Department*) and the *Existing and Future Sewer Service Areas map* on the following page outlines them geographically.

Warren County Sewer Service Areas: Existing and Future		
Existing		
Service Provider	Acres	Towns
Alpha Boro Sewer Service	610	Alpha
Hackettstown Municipal Utilities Authority	1,822	Hackettstown, Independence, Mansfield
Pequest River MUA(Belvidere)	785	Belvidere, White
Pequest River MUA (Oxford)	1,055	Oxford, White
Pequest Sewer Company (Allamuchy)	712	Allamuchy
Phillipsburg Stormwater Treatment Plant	5,108	Greenwich, Lopatcong, Phillipsburg, Pohatcong
Washington Borough Sewer Utility	949	Washington Borough
Washington Twp Municipal Utilities Authority	2,250	Washington Township
TOTAL	13,291	
Future		
Service Provider	Acres	Towns
Greenwich Twp Southerly Sewer Area	361	Greenwich
Hackettstown Municipal Utilities Authority	1,635	Hackettstown, Independence, Mansfield
Knowlton Twp Wastewater Treatment Facility	200	Knowlton
Pequest River MUA(Belvidere)	2,332	Belvidere, White
Pequest River MUA(Oxford)	2,790	Oxford, White
Pequest Sewer Company (Allamuchy)	1,295	Allamuchy
Washington Borough Sewer Utility	273	Washington Borough
TOTAL	8,887	
TOTAL (EXISTING AND FUTURE)	22,178	

Warren County currently has 25 public community water supply systems, 262 public non-community systems, and approximately 15,000 private wells. (*Warren County Health Department*)⁵ Public water is available to between 10 and 15% of Warren County’s residents. All drinking water resources in Warren County, public and private, are derived from local groundwater. The principle groundwater wells that supply water to the County’s public community systems are shown in the *Public Community Wells map* on page 3-6.

Figure 3

Existing and Future Sewer Service Areas



WARREN COUNTY SMART GROWTH PLAN

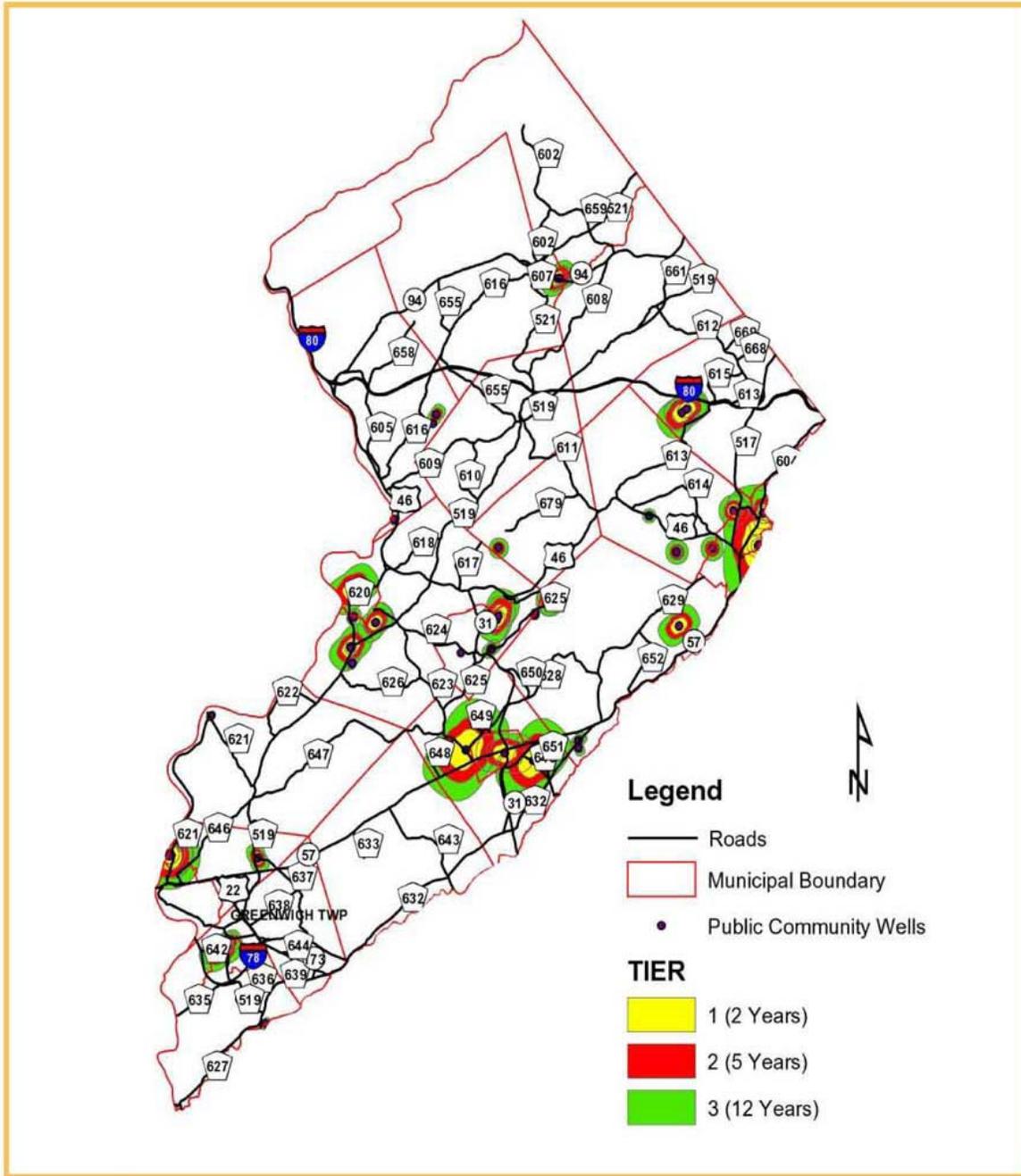


**Edwards
AND
Kelcey**

Source: Warren County Planning Department

Figure 2

Public Community Wells



WARREN COUNTY SMART GROWTH PLAN



**Edwards
AND
Kelcey**

Source: Warren County Planning Department

Land Use Planning Initiatives

Warren County has been the subject of extensive and sustained land use planning efforts undertaken by all levels of government. Through the *State Development and Redevelopment Plan* and the *Highlands Regional Master Plan*, New Jersey has recognized Warren County as the location of prime agricultural and natural resource lands. The County incorporates a large portion of the State's policy directives from these plans into its own *2005 Strategic Growth Plan*. Many of the County's municipalities also conduct their own master planning efforts and participate in the State's Cross-acceptance process.

State Development and Redevelopment Plan

The New Jersey State Planning Commission has drafted the *State Development and Redevelopment Plan (SDRP)*⁶ that outlines general policy objectives concerning land use and future development in the State. The SDRP identifies five Planning Areas within the State where different sets of goals and guidelines are considered appropriate to determine development activities. (see *Planning Areas Map* at the end of this section) These Planning Areas are labeled as Metropolitan, Suburban, Fringe, Rural and Environmentally Sensitive lands. The SDRP also identifies Designated Centers where future development and redevelopment activities are most appropriate and will be actively promoted. Centers are categorized as Urban Centers, Regional Centers, Towns, Villages, and Hamlets corresponding to criteria including size, regional location, population, residential and employment densities, and available housing stock. The combination of Planning Areas and Designated Centers establishes a comprehensive framework for pursuing land use and development regulation throughout New Jersey.

Metropolitan Planning Areas are comprised of the highly developed regions in the state. The goals in this planning area revolve around revitalizing existing cities and towns by encouraging compact growth and redevelopment. The Metropolitan Planning Area is identified as the most appropriate location for future development in New Jersey. Warren County contains one concentration of Metropolitan Planning Area that is centered in Phillipsburg and extends into the surrounding municipalities including Greenwich Township, Lopatcong Township, Pohatcong Township and Alpha Borough.

Suburban Planning Areas are called upon to support most of the new development that will occur in New Jersey while maintaining the character of existing communities there. Growth in suburban town centers is especially encouraged in order to help protect and preserve the natural resources that exist in these areas. The Suburban Planning Area is meant to complement metropolitan areas, and is most commonly found outside heavily urban areas. Warren County has one small pocket of Suburban Planning Area land located east of Phillipsburg in Lopatcong, Pohatcong and Greenwich Townships.

Fringe Planning Areas serve as an appropriate interface between suburban and rural areas. They are not as developed as metropolitan and suburban areas, but support more development activity than nearby rural lands. Fringe Areas play the important role as a buffer between these largely incompatible land uses. Consequently, they are often the

frontlines of urban sprawl, and must be carefully planned to ensure that development is appropriately restricted to existing urbanized areas. Warren County does not contain any land within the Fringe Planning Area.

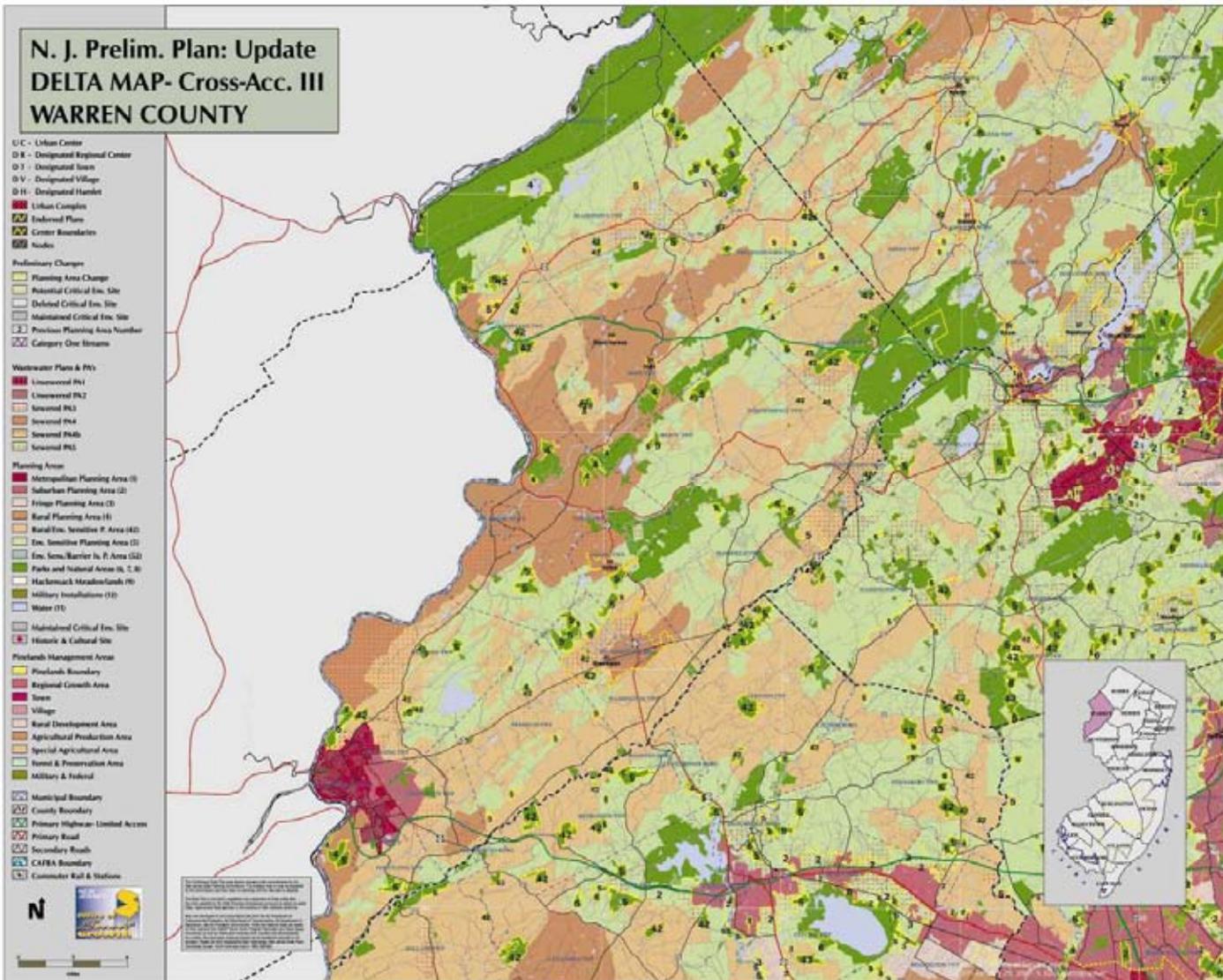
Rural Planning Areas are suitable for the preservation of large contiguous areas of farmland. Sustaining the agricultural industry while confining development and redevelopment within existing towns are included among the policy objectives applicable to these areas. Much of the land within the Rural Planning Area supports environmentally-sensitive resources such as underground aquifers or critical wildlife habitats. Lands within the Rural and Rural-Environmentally Sensitive Planning Area are widespread throughout Warren County. The Rural Planning Area is concentrated along the Delaware River and Hope Township while the Rural-Environmentally Sensitive Planning Area is primarily located in the Musconetcong and Pequest Valleys with scattered occurrences in the northern municipalities.

Environmentally Sensitive Planning Areas contain lands where natural resource preservation should be the primary planning consideration. Development should be minimized or constrained to existing centers while large contiguous natural areas should be preserved as open space. Large areas of Warren County fall within the Environmentally Sensitive Planning Area. Most of this area is associated with the Highlands Ridge that runs between Allamuchy and Lopatcong Townships or Kittatinny Range that runs along the County's northern border.

Centers are defined by the New Jersey State Planning Commission as "compact forms of development that, compared to sprawl development, consume less land, deplete fewer natural resources and are more efficient in the delivery of public services." (*SDRP*) Centers become designated after the municipalities or counties that encompass them submit development plans to the State Planning Commission (now the Office of Smart Growth) that are subsequently endorsed. Proposed Centers are currently in the process of having their plans endorsed by the State. The only municipalities in Warren County that have endorsed centers are Hope Township, Oxford Township, Washington Borough and Washington Township.

There are various types of center designation according to the characteristics of the urban areas being considered with different policies concerning land use and the promotion of future development opportunities applicable in each. *Urban Centers* are the most intensively utilized areas in the state. They serve as concentrations for corporate headquarters, industry, residential areas and culture. Warren County contains no Designated, Proposed or Potential Urban Centers.

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



3Towns are smaller than Urban and Regional Centers, usually less than 2 square miles in size, that serve as a local concentration of commerce and government activity. They commonly support residential neighborhoods and offer access to local goods and services as well. The Washington Town Center, which incorporates parts of Washington Township and all of Washington Borough, is the only Designated Town in Warren County, while Belvidere and Alpha have been proposed as Towns.

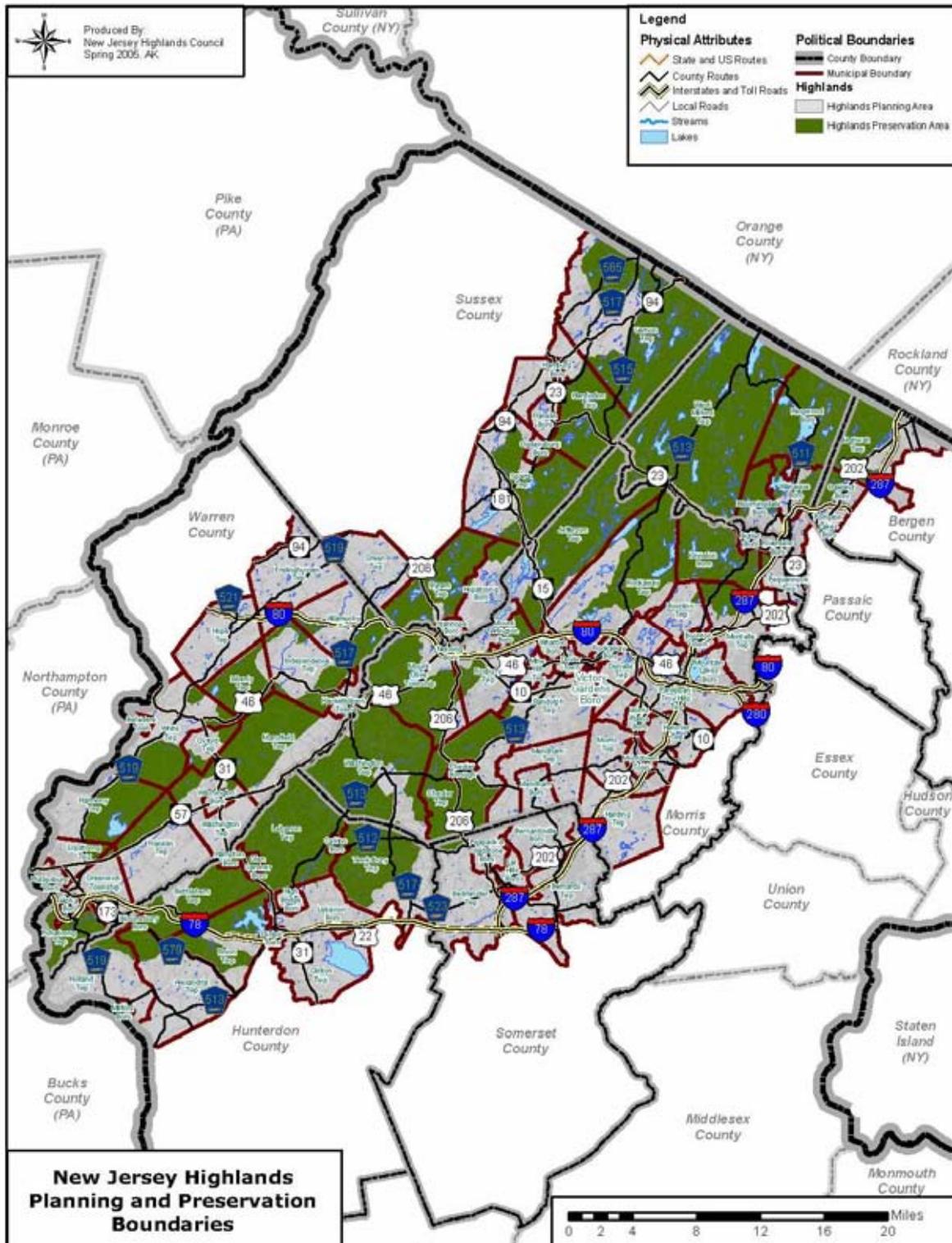
Villages are residential neighborhoods that have access to some local public and commercial facilities. Villages are small, occupying less than 1 square mile. The only Designated Villages in Warren County are Hope and Oxford, but many areas have been identified as suitable for Village designation by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

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

Warren County Centers			
<i>Source: Warren County Strategic Growth Plan</i>			
Municipality	Name	Type	Status
Allamuchy Township	Allamuchy	Hamlet	Proposed
Alpha Borough	Alpha Town Center	Town	Proposed
Belvidere	Belvidere Town Center	Town	Proposed
Hackettstown	Hackettstown Regional Center	Regional	Proposed
Hope Township	Hope	Village	Designated
Hope Township	Mount Herman	Hamlet	Designated
Oxford Township	Oxford	Village	Designated
Phillipsburg	Phillipsburg Regional Center	Regional	Proposed
Washington Borough	Washington Town Center	Town	Designated
Washington Township	Washington Town Center	Town	Designated

Highlands Regional Master Plan

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



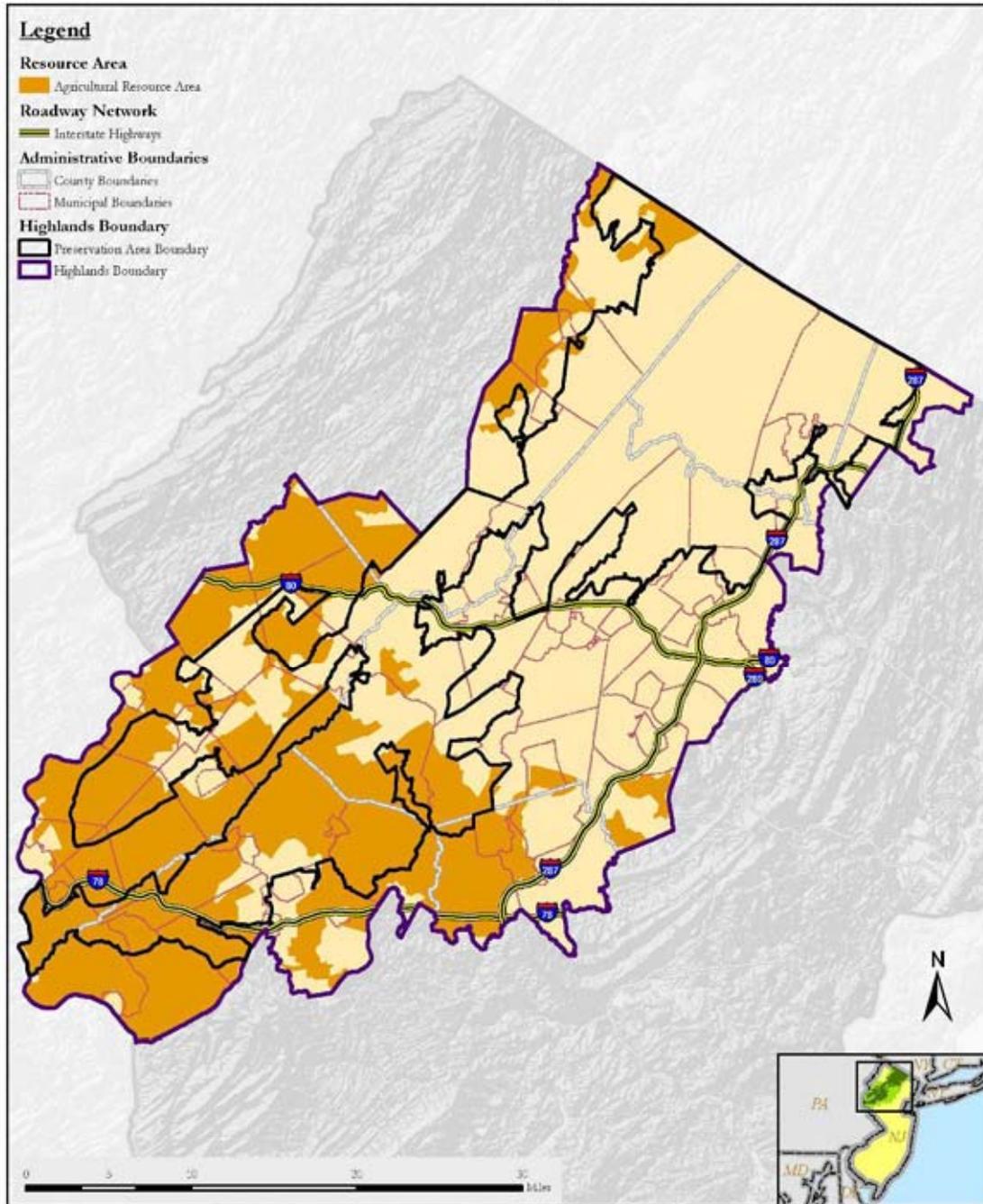
Source: New Jersey Highlands Council

Large portions of Warren County fall within the Highlands region. Blairstown, Knowlton and Hardwick Townships are the only municipalities in the County that are not affected by the Highlands Act. Over 67,000 acres in Warren County fall within the Highlands Preservation Zone and are subject to the restrictions that apply there (see *Highlands Acreage* chart below). (*Highlands Draft Regional Master Plan*)¹ The Preservation Area in Warren County roughly incorporates the Highlands Ridgeline starting with Allamuchy Mountain and running southwest through Upper Pohatcong Mountain and Jenny Jump Mountain before terminating at Scott’s Mountain in Lopatcong Township. Significant areas in the lower Delaware and Musconetcong Valleys, encompassing most of Pohatcong Township and parts of Greenwich Township, are included in the Preservation Zone as well. (see *Highlands South Zone* map at the conclusion of this chapter)

HIGHLANDS ACREAGE			
<i>Source: New Jersey Highlands Council</i>			
MUNICIPALITY	PLANNING AREA	PRESERVATION AREA	TOTAL
Allamuchy Township	7,683	5,228	12,911
Alpha Borough	1,098	0	1,098
Belvidere Town	950	0	950
Franklin Township	11,284	3,792	15,077
Frelinghuysen Township	15,278	0	15,278
Greenwich Township	5,986	792	6,778
Hackettstown Town	2,168	203	2,371
Harmony Township	7,018	8,387	15,405
Hope Township	11,702	0	11,702
Independence Township	6,510	6,250	12,760
Liberty Township	543	7,095	7,638
Lopatcong Township	3,673	1,051	4,723
Mansfield Township	5,966	13,047	19,014
Oxford Township	1,671	2,184	3,855
Phillipsburg Town	2,110	0	2,110
Pohatcong Township	1,210	7,582	8,793
Washington Borough	1,262	0	1,262
Washington Township	7,970	3,604	11,574
White Township	9,984	7,812	17,796
Total	104,066	67,030	171,096

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 Draft 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. The large majority of Warren County’s Highlands acres falls within the Agricultural Resource Area. (see *Agricultural Resource Area* map below)

Agricultural Resource Area



The Highlands Council makes no representations of any kind, including, but not limited to, the warranties of merchantability or fitness for a particular use, nor are any such warranties to be implied with respect to the information contained on this map. The State of New Jersey shall not be liable for any actions taken or omissions made from reliance on any information contained herein from whatever source nor shall the State be liable for any other consequences from any such reliance.

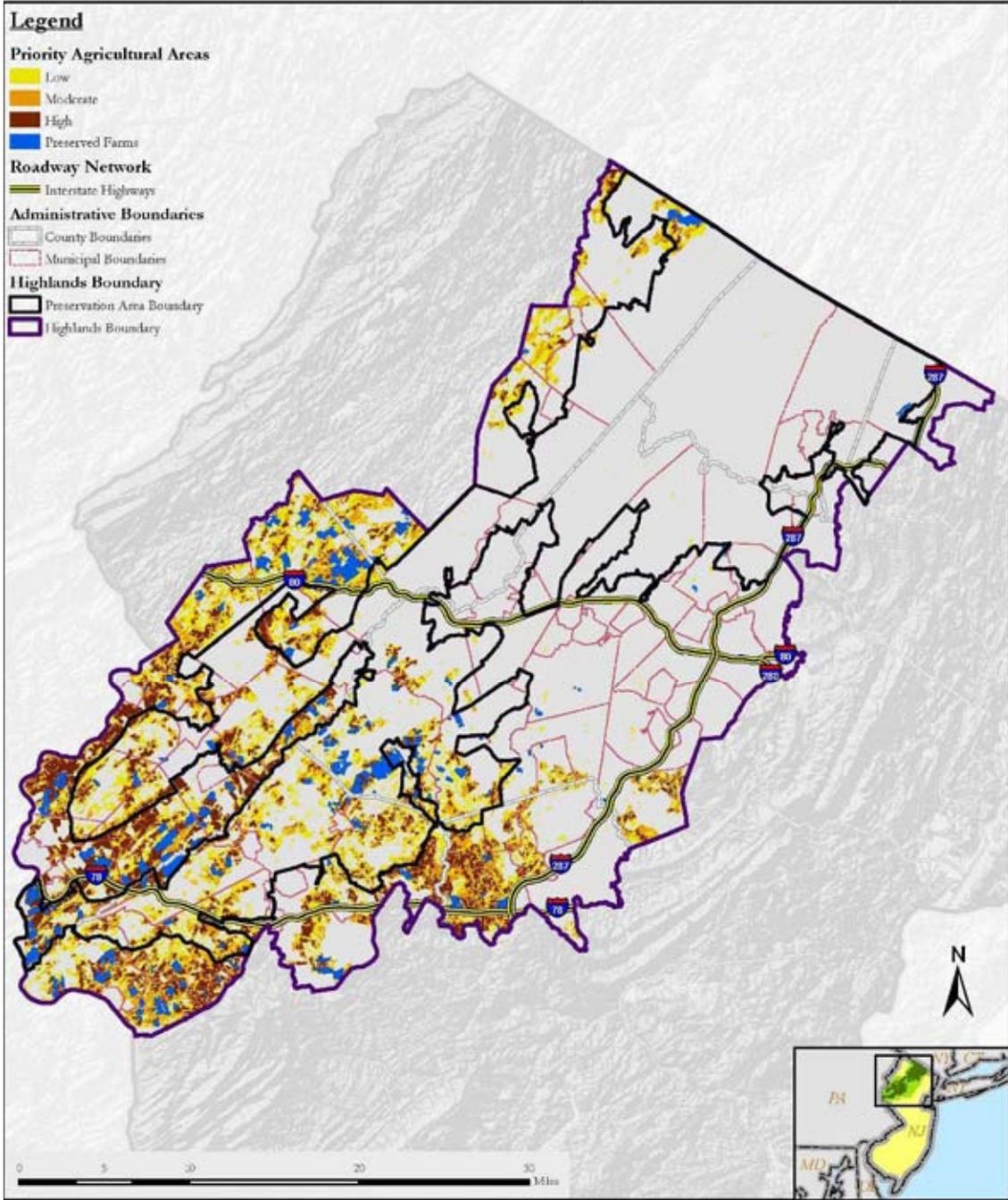
Draft Regional Master Plan, November 2006



Sources:
New Jersey Highlands Council, 2006

Source: New Jersey Highlands Council

Agricultural Priority Area



The Highlands Council makes no representations of any kind, including, but not limited to, the warranties of merchantability or fitness for a particular use, nor are any such warranties to be implied with respect to the information contained on this map. The State of New Jersey shall not be liable for any actions taken or omissions made from reliance on any information contained herein from whatever source nor shall the State be liable for any other consequences from any such reliance.

Draft Regional Master Plan, November 2006



Sources:
 New Jersey Highlands Council, 2006
 New Jersey Department of Agriculture -
 State Agriculture Development Committee, 2006

Source: New Jersey Highlands Council

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. (*Highlands Sustainable Agriculture Technical Report*)⁸ The Delaware, Musconetcong and Pequest Valleys in Warren County contain the greatest concentrations of High Priority Agricultural Areas in the Highlands region. (see *Agricultural Priority Areas* map above)

HIGHLANDS AGRICULTURAL LANDS (ACRES)						
Municipality	Preservation Area		Planning Area		Total	
	Preserved Farmland	All Agricultural Land	Preserved Farmland	All Agricultural Land	Preserved Farmland	All Agricultural Land
Allamuchy Township	47	736	94	3,661	141	4,396
Alpha Borough	0	0	125	393	125	393
Belvidere Town	0	0	3	97	3	97
Franklin Township	239	2,572	1,750	8,421	1,989	10,993
Frelinghuysen Township	0	0	1,456	10,333	1,456	10,333
Greenwich Township	0	514	435	3,417	435	3,931
Hackettstown Town	0	0	0	0	0	0
Harmony Township	334	3,408	1,057	4,897	1,390	8,306
Hope Township	0	0	396	7,251	396	7,251
Independence Township	0	3,141	318	4,548	318	7,689
Liberty Township	0	2,838	0	466	0	3,304
Lopatcong Township	0	474	0	932	0	1,406
Mansfield Township	117	7,075	614	3,094	731	10,169
Oxford Township	0	477	0	574	0	1,051
Phillipsburg Town	0	0	0	263	0	263
Pohatcong Township	1,702	5,345	0	492	1,702	5,837
Washington Borough	0	0	0	74	0	74
Washington Township	592	1,618	559	3,598	1,152	5,217
White Township	85	3,999	454	5,445	539	9,445
TOTAL	3,116	32,198	7,262	57,956	10,378	90,154

Source: Warren County Department of Planning

Warren County Strategic Growth Plan

The *Warren County Strategic Growth Plan* fulfills the requirement set forth by the New Jersey County Planning Enabling Act (NJRS 40:27-2) that counties must adopt a plan that governs their physical development. The *Strategic Growth Plan* was adopted in December 2004 and revised in October 2005, and serves as an update to the County’s *1979 General Development Plan* and the *1984 Transportation Plan*. The *Strategic Growth Plan* is an effort to enhance intergovernmental coordination by serving as an intermediary between State and local governments. As such, it is a vital link in the planning process that connects policy with action. It incorporates State-level land use policies, as outlined in the State Plan, into plans for local, on-the-ground initiatives such as center designations and resource conservation efforts.

The *Strategic Growth Plan* was developed with input from the Warren County Planning Board, an 88-member steering committee and eight public meetings held throughout the planning process. Input from these groups yielded a series of general policy goals and indicators that measure the progress being made towards these goals. The number one goal identified in the *Strategic Growth Plan* is the preservation and enhancement of the County's rural character. Corresponding indicators include preserved open space and farmlands, designated historic sites, agricultural output and agricultural land base. Among the goals identified by the *Strategic Growth Plan* are concentrating growth in existing centers, improving public infrastructure in these centers, and maintaining quality of life for local residents. (2005 Warren County Strategic Growth Plan)⁹

The *Warren County Strategic Growth Plan* supports an alternative, centers-based scenario where commercial and industrial zones are restricted to existing centers of development. Public opinion surveys that were conducted as part of the *Strategic Growth Plan* identify this alternative scenario as the preferred option to the existing zoning scheme. The Plan's transportation modeling also shows that the alternative zoning is less likely to induce additional traffic delays. (2005 Warren County Strategic Growth Plan)

The *Strategic Growth Plan* concludes with a series of recommendations that are aimed at advancing this alternative, centers-based scenario. Many recommendations are focused on promoting development in existing centers. These include allowing non-residential zones only in existing centers, reviewing and improving local design standards, creating transportation financing districts and pursuing downtown revitalization through brownfield redevelopment and Urban Enterprise Zone designation. Other recommendations advocate resource preservation efforts such as open space and farmland preservation, stormwater planning, density transfer programs (including TDR) and subdivision design ordinances that mandate clustering or conservation design. (2005 Warren Co. Strategic Growth Plan)

Municipal Planning

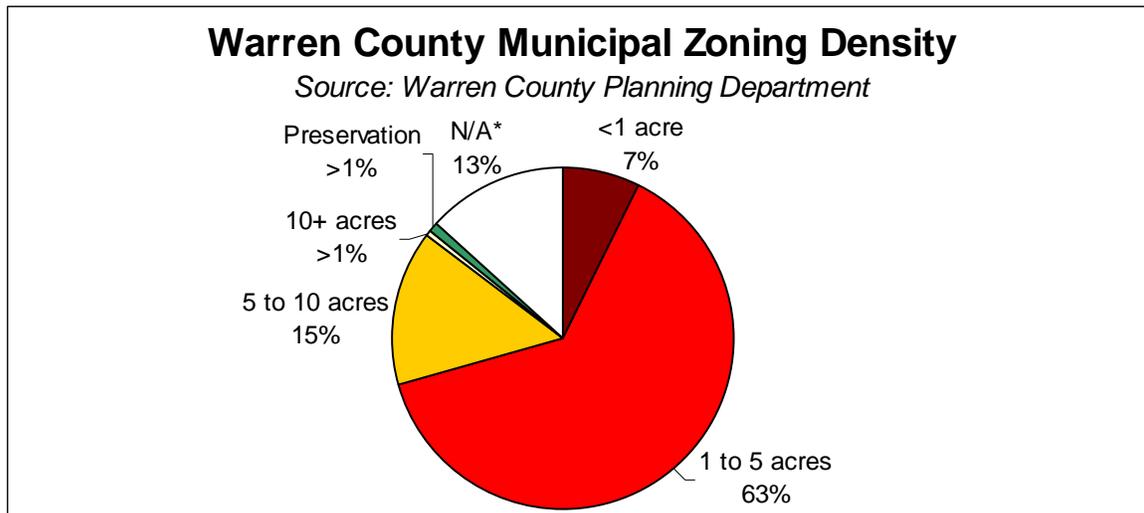
Municipalities in Warren County have utilized a variety of planning tools that seek to preserve agricultural and open space lands. Some towns have implemented zoning ordinances that require or strongly encourage "clustering" that restricts development to a portion of the parcel in question. For example, if a 10-acre parcel is approved for a 10-unit development, a cluster zoning scheme would require the developer to set aside five acres for agriculture or open space and build up to ten homes on the remaining 5 acres. Density bonuses are often awarded to developers who agree to cluster units within their developments. Alpha Borough offers such a clustering provision while Blairstown Township requires that up to 70% of some parcels be preserved as open space or farmland. Knowlton has recently implemented similar, broad-reaching efforts to preserve land including levying an open space tax and "downzoning" residential lands.

Other municipalities in Warren County have utilized project-specific negotiations with developers to advance local initiatives. Pohatcong used non-contiguous density transfer to preserve one parcel of land while allowing the developer to apply the development rights from this parcel to another local project. Washington Borough used project-specific

negotiation to produce a development plan that accommodated the preservation and recreation interests of the town while providing adequate building density to the builder. Clustering should be performed whenever possible in order to preserve the best and most productive agricultural land.

Municipal Zoning

The majority of land in Warren County (161,513 acres) is zoned at densities between one and five acres per unit. Zoning densities of greater than one unit per acre tend to be concentrated within towns that have existing or proposed centers and wastewater treatment facilities such as Hackettstown, Phillipsburg and Allamuchy. Conservation zoning districts that allow for little to no development within them are utilized in some Warren County towns. However, many towns still permit significant development within these zones, and thus they do not appear under the “conservation” category in this chart. Large lot zoning of greater than five acres per development unit exists in many municipalities, but only Frelinghuysen and Knowlton use it on most of their land (see *Zoning* charts below).



This zoning scheme, where most of the County’s land is zoned between one and five acres, encourages growth of the sprawling, suburban landscape that Warren County is trying to prevent. A zoning scheme that is more consistent with a centers-based land use pattern has more land designated as high density (<1 acre) near development centers and very low density (>10 acres) outside the centers. Some municipalities in Warren County have begun to adopt such a zoning scheme by utilizing natural resource features, such as nitrate dilution capacity, to establish appropriate development densities for agricultural and natural areas. Mixed-use, or “other”, zoning standards within existing centers may help encourage attractive and economically feasible land uses there while drawing development demand away from prime agricultural and natural resource lands. Intermediate zoning, between one and ten acres per development unit, is appropriate for some TDR receiving areas so that additional development credits can be applied to these lands. Also, conservation zoning should be applied to a broader range of preserved lands including local recreational areas, preserved farm belts, and natural resource lands.

WARREN COUNTY ZONING DENSITIES (ACRES)							
MUNICIPALITY	<1 Ac/Unit	1 to 5 Ac/Unit	>5 to 10 Ac/Unit	>10 Ac/Unit	Conservation	N/A*	Total
Allamuchy Township	6,828	472	5,798	0	0	0	13,099
Alpha Borough	361	331	40	26	55	285	1,098
Belvidere Town	752	4	0	32	47	115	950
Blairstown Township	143	19,641	0	0	0	0	19,784
Franklin Township	149	14,192	0	60	0	675	15,076
Frelinghuysen Township	0	7,014	8,264	0	0	0	15,278
Greenwich Township	468	288	0	0	778	5,244	6,778
Hackettstown Town	1,584	459	0	0	339	0	2,382
Hardwick Township	0	10,978	0	0	0	13,870	24,848
Harmony Township	0	14,961	0	0	0	188	15,149
Hope Township	113	11,396	0	0	0	0	11,508
Independence Township	255	9,124	3,193	0	0	188	12,759
Knowlton Township	469	698	15,113	0	0	0	16,280
Liberty Township	266	7,030	404	0	0	0	7,701
Lopatcong Township	1,081	2,033	922	388	0	0	4,424
Mansfield Township	1,053	17,669	0	0	0	292	19,014
Oxford Township	580	3,330	30	0	0	0	3,940
Phillipsburg Town	1,058	0	0	0	0	966	2,024
Pohatcong Township	0	0	0	0	622	8,171	8,793
Washington Borough	812	0	0	0	80	306	1,198
Washington Township	945	10,049	0	0	0	404	11,398
White Township	0	16,732	35	1,028	0	0	17,795
TOTAL	16,917	146,400	33,799	1,534	1,921	30,704	231,276
* Zoning densities not available or reported using other means, such as Floor-Area Ratios							
Source: Warren County Planning Department							

Transfer of Development Rights

Transfer of Development Rights (TDR) is a planning tool that channels development into desirable locations without diminishing landowners' equity. TDR allows development rights to be separated from the land in TDR *sending areas* and transferred to parcels in a different location – TDR *receiving areas*. Sending areas are places where further development is inconsistent with the local landscape, such as natural resource lands or contiguous farm belts, while receiving areas are places where further development is consistent with local planning objectives, such as Towns and Boroughs.

By allowing the development rights of sending area lands to be exercised in a geographically different location, TDR preserves the economic value of land in sending areas without requiring that development take place there. Therefore, sending area land (where physical development may be legally precluded) can be sold at fair market values that are comparable to those in areas where development is still permitted. Sending area lands are thereby effectively preserved in an undeveloped state while sending area landowners retain the economic value of their full property rights.

The New Jersey State Transfer of Development Rights Act (*N.J.S.A. 40:55D-140*)¹⁰ authorizes the transfer of development rights by municipalities and outlines what a town must do in order to adopt or amend a TDR ordinance. First, the municipality must 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. It must then 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. Finally, a town must receive approval from the State Planning Commission to adopt the TDR ordinance. (*N.J.S.A. 40:55D-140*)

There are many different transfer-of-development rights programs that may be instituted in Warren County. One such program is the *intra-municipal TDR* in which sending and receiving areas are located within the same town. Intra-municipal TDR programs would be appropriate for the many Warren County towns that have designated or proposed centers and large amounts of agricultural or natural resource lands such as Hope, Oxford, and Allamuchy. Townships with large acreages of resource lands and proximity to existing centers in adjoining municipalities might be better served by *inter-municipal TDR* programs. In this case, sending areas are established in one municipality with receiving areas in another. Some form of tax-based revenue sharing is normally involved with these programs. Pairs of Warren County municipalities where inter-municipal TDR programs may be appropriate are White Township-Belvidere Town, Pohatcong Township-Alpha Borough, Greenwich Township-Phillipsburg, Mansfield Township-Hackettstown, Independence Township-Hackettstown, and Washington Township-Washington Borough.

Regional TDR programs could also be instituted in Warren County. These may operate throughout the County or at a higher level of regional government. The New Jersey Highlands Council is currently establishing a regional TDR program that will be open to all Warren County municipalities. Through the Highlands program, landowners may sell the development rights on their lands at pre-Highlands Act prices to a Highlands TDR Bank, which will then allocate them to voluntarily designated receiving areas throughout the seven-county region. The municipalities containing these receiving areas will have the right to assess impact fees of up to \$15,000 per unit for all new development. They will also be able to apply for grants to offset the costs associated with amending their master plans municipal ordinances. Warren County contains both areas that are suitable regional TDR sending areas, such as Franklin and Harmony Townships, and regional TDR receiving areas, such as Phillipsburg and Columbia.

In the future, the New Jersey TDR Bank will facilitate TDR activities Statewide. It plans to offer Planning Assistance Grants 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 banking on loans secured using development credits as collateral, and keep records of all development credit transfers within the State. The New Jersey Office of Smart Growth (OSG) also offers Smart Future Planning Grants to municipalities in order to help them plan for and implement TDR programs.

Oxford Township is currently the only municipality in Warren County seeking to develop and implement a TDR program. Oxford is attempting to establish a TDR receiving area on the site of an abandoned industrial site – the Oxford Furnace property – adjacent to its central business district. This 300-acre brownfield area would become the focus of a large redevelopment initiative aimed at bolstering economic activity in downtown Oxford. Oxford Township has received numerous grants to pursue their TDR program including a \$40,000 Planning Assistance Grant from the New Jersey State TDR Bank, a Highlands MP3 TDR Grant, and a \$65,000 Smart Future Grant from the New Jersey Office of Smart Growth. Oxford has also held pre-petition meetings in order to receive Plan Endorsement through the New Jersey State Planning Office. Oxford has suspended its pursuit of an intra-municipal TDR program until the Highlands regional TDR program is implemented.

¹ Warren County, New Jersey Planning Department. Warren County Strategic Growth Plan. October 2005.

² Workforce New Jersey Public Information Network. Labor Market Information Website: <http://www.wnjpin.net/OneStopCareerCenter/LaborMarketInformation/lmi01/poptrd6.htm> . Accessed July 5, 2007.

³ United States Census Bureau. American Factfinder – Warren County, New Jersey. www.factfinder.census.gov . Accessed July 5, 2007.

⁴ Lathrop, R. Land Use / Land Cover Update to Year 2000/2001. Center for Remote Sensing and Spatial Analysis – Cook College, Rutgers University. 2004.

⁵ Warren County Health Department. Environmental Health Assessment and Improvement Plan. 2002.

⁶ New Jersey State Planning Commission. New Jersey State Development and Redevelopment Plan. March 2001.

⁷ New Jersey Highlands Council. Draft Highlands Regional Master Plan. November 2006.

⁸ Highlands Sustainable Agriculture Technical Report. January 2007.

⁹ Warren County Planning Department. *Warren County Strategic Growth Plan*. Belvidere, NJ. 2005.

¹⁰ New Jersey Statutes Annotated 40:55D: *Municipal Land Use Law*.

CHAPTER 4: FARMLAND PRESERVATION PROGRAM – OVERVIEW



Farmland is an irreplaceable natural resource; once lost it cannot be recreated or replaced. The farmers who work the land are not only stewards of the agricultural landscape of Warren County, but they are also the stewards of the rural heritage and legacy that defines the County and its environs. The business of agriculture supports the local economy and provides a unique and bucolic quality of life for residents. Agriculture provides food and fiber, clean air, storm water management, groundwater recharge, wildlife habitat, and the beautiful scenic vistas that surround the County's mountains and rivers.

Since 1986 Warren County has permanently preserved **15,125 acres** of farmland. The first farm preserved by the Warren County Board of Chosen Freeholders was the Gibbs in Allamuchy Township. Farmers and local officials in Warren County remains firmly committed to farmland protection and continue to support the preservation of agricultural land throughout the County.

Agricultural Development Areas (ADAs)

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

Statutory Criteria:

- 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 of 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 this year, the entire county had been designated as being part of the Agricultural Development Area (ADA) with the exceptions of Hackettstown, Belvidere, Philipsburg, and Washington Borough. As part of this Comprehensive Farmland Preservation Plan, the

Warren CADB has updated their ADA designating land capable of supporting agricultural and excluding those lands that are protected as public open space, developed areas, and land contained within the developed Boroughs and Towns located within the County.

Utilizing the state's regulatory criteria for designating 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. A map of the ADA is included in the *Maps Section* of this Plan.

County Criteria:

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

Overall, there are 113,191 acres of farm assessed parcels in Warren County. Of this, 101,872 acres of farm assessed land is included within the ADA, or 82% of Warren County is within the proposed ADA. The Warren CADB has scheduled a public hearing on the proposed ADA for October 18, 2007. Upon approval of the proposed ADA by the CADB, the County will send this to the SADC for their review and final certification.

Description of the Warren County ADA

The proposed ADA for Warren County includes productive agricultural lands, soils, and preserved farms throughout the County. In general, it excludes publicly preserved open space and populous regions of Warren County. Areas ***excluded*** from the Warren County ADA in their entirety include:

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

Other areas ***excluded*** from the Warren County ADA are described in detail below and shown on the *Proposed Agriculture Development Area Map*:

- 1) All lands in Pohatcong and Alpha Borough north of Interstate 78 from the Delaware River east to its intersection with the Norfolk Southern Railroad Right-of-way, along this right-of-way to its intersection with Municipal Drive, on Municipal Drive

southwest to its intersection with Ravine Road, on Ravine Road to its intersection with the Greenwich Township border.

- 2) All lands in Greenwich Township beginning at the intersection of CR-173 and the Musconetcong River, and running southwest on CR-173 to its intersection with Ravine Road, on Ravine Road south to the border of Greenwich and Pohatcong Townships, along the Greenwich Township border to its intersection with Interstate 78, northeast along I-78 to its intersection with the Musconetcong River.
- 3) Beginning at the intersection of the boundaries of Greenwich, Franklin, Harmony, and Lopatcong and running along the Greenwich border south to the intersection of Willow Grove Road, south on Willow Grove Road to its intersection with Washington Street, west on Washington Street to its intersection with North Main Street, north on North Main Street to Thomas Stewart Drive, southeast on Thomas Stewart Drive to its intersection with Marlin Farm Road, south on Marlin Farm Road to its intersection with Stocker Drive, easterly on Elizabeth Road to its intersection with Gary Road, east on Gary Road to its intersection with Valerie Lane, easterly on Valerie Lane to its intersection with CR-638, thence south on CR-638 to its intersection with US-22.
- 4) All land in Mansfield Township southeast of the intersection of the Mansfield-Hackettstown border and CR-629 and running along CR-629 southwest to its intersection with Allen Road, on Allen Road southeast to the Musconetcong River.
- 5) All land in Allamuchy Township east of the Allamuchy-Independence border on CR-613 and running to its intersection with CR-615, north on CR-615 to its intersection with the Conrail Railroad right-of-way, to its intersection with CR-612, east on CR-612 to its intersection with CR-517, north on CR-517 to the Sussex County border.
- 6) All land in Independence Township west of the Conrail Railroad Right-of-Way
- 7) All land in Independence Township east of the intersection of CR-613 and the border of Allamuchy Township, west to Ryan Road, southwest on Ryan Road to its intersection with CR-614, west on CR-614 to its intersection with US-46, east on US-46 to its intersection with Barkers Mill Road, south on Barkers Mill Road to its intersection with Cemetery Road, west on Cemetery Road to its intersection with the Pequest River, on the Pequest River to its intersection with the Independence Township border, east on the Independence-Mansfield border to the Hackettstown municipal boundary.
- 8) All land in Liberty Township east of CR-611.
- 9) All land in Knowlton Township north and west of the Delaware River and running east on Stony Brook to its intersection with Hainesburg River Road, easterly on Hainesburg River Road to its intersection with Hemlock Road, northerly on

Hemlock Road to its intersection with Mount Pleasant Road, north on Mount Pleasant Road to its intersection with Wishing Well Road, east on Wishing Well Road into Blirstown Township.

- 10) All land in Blirstown Township north and west of Wishing Well Road to its intersection with Frog Pond Road, south on Frog Pone Road to its intersection with Benton Road, south on Benton Road to its intersection with NJ-94, northeast on NJ-94 to its intersection with Cobblewood Road, north on Cobblewood Road to its intersection with Mohican Road, north on Mohican Road to its intersection with Johnsonburg Creek and east to Maines Lane in Hardwick Township
- 11) All land in Hardwick Township north east of Maines Lane to its intersection with Millbrook road, north on Millbrook Road to its intersection with Johnsonburg Creek, northeast along Johnsonburg Creek to its intersection with Sand Pond Road, east on Sand Pond Road to its intersection with Millbrook-Stillwater Road, south on Millbrook-Stillwater Road to its intersection with Sunset Lake Road, south on Sunset Lake Road to its intersection with Spring Valley Road, south on Spring Valley Road to its intersection with Primrose Road, north on Primrose Road to its intersection with Old Orchard Road, east on Old Orchard Road to its intersection with the Hardwick-Frelinghuysen border (Paulins Kill), north on the Hardwick-Frelinghuysen border to the Warren-Sussex County border.
- 12) All land in Frelinghuysen Township north and east of the intersection between the Frelinghuysen-Stillwater (Sussex County) border and Henfoot Road and running south on Henfoot Road to its intersection with Stillwater Road, south on Stillwater Road to its intersection with Lincoln Laurel Road, southwest on Lincoln Laurel Road to its intersection with NJ-94, northeast on NJ-94 to its intersection with CR-661 to its intersection with CR-519, northeast on CR-519 to the County border.
- 13) All land in White Township west CR-620 and the Belvidere border and running east along this border, around the preserved farm south of Pequest Road, to the intersection of the White-Pequest border and US-46, west on US-46 to the White Township border.
- 14) All land in Washington Township beginning at the intersection of Cemetery Hill Road and the Franklin/Washington Township border and running along Cemetery Hill Road to the Washington Township/Washington Borough border, along the border northeast, northwest, then west to its intersection with NJ-31, north along NJ-31 to its intersection with CR-628, southwest on CR-628 to its intersection with NJ-57, southwest on NJ-57 to its intersection with the Franklin/Washington border, to its intersection with Cemetery Hill Road.

Farmland Preserved to date by program and municipality

The Warren County Board of Chosen Freeholders created the Warren County Agriculture Development (CADB) in 1986. In 1983, the New Jersey State Legislature adopted the

State Agriculture Retention and Development Act and created the State Agriculture Development Committee (SADC), which provides funding for farmland preservation programs, establishes farmland preservation policy statewide, and oversees program administration.

As of July 1, 2007, there are 150 permanently preserved farms in Warren County, permanently protecting 15,125 acres. Sixteen towns in Warren County have preserved farmland. The County has spent a total of \$18,591,819 to protect farmland in the County, just under 30% of the total cost share. The cost per acre varies throughout the County, but on average, over the course of the program, the average cost per acre is \$4,527 (see below Table).

Township	Acres	Farms Per Town	Total Cost	State Cost	County Cost	Cost Per Acre
Allamuchy	2,043	11	\$7,864,993	\$4,758,307	\$3,108,687	\$3,850
Alpha	122	2	\$656,992	\$438,408	\$218,584	\$5,378
Belvidere	3	1	\$15,459	\$10,600	\$5,198	\$5,500
Blairstown	1,211	12	\$4,746,836	\$2,316,202	\$1,600,245	\$3,920
Franklin	1,961	22	\$8,768,164	\$5,775,652	\$2,619,786	\$4,471
Frelinghuysen	1,433	16	\$4,426,145	\$2,472,083	\$1,959,464	\$3,088
Greenwich	425	5	\$2,326,949	\$692,989	\$1,526,960	\$5,472
Hardwick	203	4	\$955,619	\$384,936	\$420,845	\$4,706
Harmony	1,273	10	\$6,454,485	\$3,097,536	\$860,709	\$5,070
Hope	382	5	\$1,541,537	\$838,430	\$603,107	\$4,037
Independence	352	4	\$1,420,481	\$805,795	\$614,687	\$4,038
Knowlton	1,596	15	\$5,392,939	\$3,666,119	\$825,564	\$3,379
Mansfield	610	5	\$1,668,501	\$1,203,614	\$270,167	\$2,736
Pohatcong	1,784	11	\$9,832,008	\$5,785,156	\$1,707,427	\$5,511
Washington	1,228	12	\$10,627,446	\$6,489,434	\$1,691,272	\$8,657
White	498	6	\$2,255,316	\$1,695,861	\$559,117	\$4,527
County Total:	15,125		\$68,953,872	\$40,431,121	\$18,591,819	\$4,559

On the following pages is a table detailing the farmland preservation program history in Warren County. Allamuchy Township has the highest amount of preserved farmland: 2,043 acres with Blairstown (1,211 acres), Franklin (1,961 acres), Frelinghuysen (1,433 acres), Harmony (1,273 acres), Knowlton (1,596 acres), Pohatcong (1,784 acres) and Washington Township (1,228 acres) each all over 1,000 acres of preserved farmland.

Farmland Preservation in Warren County – Program History

Farm	Township	Acres	Total Cost	State Cost	County Cost	Cost Per Acre	Year Purchased
Gibbs Farm #1	Allamuchy	287	\$1,338,698	\$1,070,959	\$ 267,740	\$4,658	1989
Gibbs Farm #2	Allamuchy	290	\$ 1,101,340	\$881,072	\$220,268	\$3,798	1989
Total 1989:		577	\$2,440,038	\$ 1,952,031	\$ 488,008	\$4,226	
Steinhardt / Bogyos	Franklin	191	\$661,464	\$ 429,952	\$ 231,512	\$3,467	1991
Caputo / Tucker	Washington Twp	147	\$1,671,686	\$1,003,012	\$ 668,674	\$11,381	1991
Total 1991:		338	\$2,333,150	\$1,432,963	\$ 900,187	\$6,910	
Leyburn, Robert	Franklin	58	\$ 315,522	\$189,313	\$ 126,209	\$ 5,400	1992
Schnetzer Farms	Franklin	50	\$ 257,217	\$154,330	\$102,887	\$ 5,131	1992
Schnetzer Farm	Washington Twp	68	\$ 324,781	\$ 189,754	\$ 135,028	\$ 5,131	1992
Total 1992:		176	\$897,520	\$533,397	\$364,123	\$5,086	
Gibbs, James	Allamuchy	432	\$1,433,494	\$1,146,795	\$286,699	\$ 3,319	1993
Fox / Engborg	Franklin	98	\$353,412	\$229,718	\$ 123,694	\$ 3,600	1993
Jelliffe, Myrtle	Washington Twp	78	\$329,056	\$197,433	\$131,622	\$4,195	1993
Total 1993:		608	\$2,115,962	\$1,573,946	\$542,015	\$3,478	
Schnetzer Estate	Franklin	18	\$ 82,724	\$46,293	\$ 36,431	\$ 4,579	1994
Schnetzer Estate	Washington Twp	3	\$15,221	\$8,518	\$ 6,703	\$ 4,579	1994
Total 1994:		21	\$97,945	\$54,811	\$ 43,134	\$4,579	
Schnetzer, Marie	Franklin	127	\$465,500	\$ 319,992	\$145,508	\$ 3,680	1995
Cummins, George	Independence	104	\$ 482,131	\$330,311	\$ 151,820	\$ 4,655	1995
Makarevich, Gene	Knowlton	171	\$ 538,489	\$391,473	\$ 147,016	\$ 3,150	1995
Millheim Estate	Knowlton	161	\$479,358	\$351,691	\$127,667	\$ 2,970	1995
Terpstra, Orrie	Knowlton	109	\$ 338,799	\$246,995	\$91,804	\$ 3,100	1995
Total 1995:		672	\$ 2,304,277	\$1,640,462	\$663,815	\$3,430	
Semanchik Estate	Allamuchy	19	\$ 99,179	\$ 66,431	\$ 32,748	\$ 5,300	1997
Oostdyk, John	Franklin	138	\$ 525,601	\$ 370,687	\$ 154,914	\$ 3,800	1997
Trout, Henry	Franklin	159	\$ 545,192	\$390,881	\$ 154,312	\$ 3,419	1997
Risko, Louis	Harmony	97	\$ 158,623	\$126,898	\$ 31,724	\$ 1,633	1997
Total 1997:		414	\$1,328,595	\$954,897	\$ 373,698	\$3,212	
Genesis Farm	Frelinghuysen	139	\$ 318,916	\$237,107	\$ 81,809	\$ 2,300	1998
Moore, Chan	Frelinghuysen	72	\$186,009	\$137,361	\$ 48,649	\$ 2,600	1998
Jozwik / Suk	Knowlton	169	\$ 400,546	\$297,071	\$ 103,474	\$2,400	1998
Corestates	Pohatcong	561	\$3,250,000	\$1,910,964	\$400,000	\$ 5,794	1998
Total 1998:		940	\$4,155,471	\$2,582,503	\$ 633,932	\$4,420	
McShane / Semanchik, K.	Independence	109	\$ 401,113	\$ 284,032	\$ 117,082	\$ 3,686	1999
Baldwin / Warren County	Mansfield	139	\$ 630,000	\$461,007	\$ 112,662	\$ 4,532	1999
Total 1999:		248	\$ 1,031,113	\$745,039	\$ 229,744	\$ 4,151	
Anisfield / Gibbs	Allamuchy	237	\$ 720,988	\$533,575	\$ 187,413	\$3,045	2000
Csiszlak, John	Alpha	100	\$518,005	\$348,658	\$ 169,348	\$ 5,198	2000
Schneiber, Harry	Belvidere	3	\$ 15,459	\$10,600	\$ 5,198	\$ 5,500	2000
Gouger, Mary	Blairstown	113	\$315,338	\$231,610	\$ 83,727	\$ 2,784	2000
Teel, Gloria	Blairstown	124	\$ 371,334	\$ 272,312	\$99,022	\$ 3,000	2000
Augusta, Joseph	Franklin	111	\$345,640	\$ 257,114	\$ 97,526	\$ 3,200	2000
Bennett, Thomas	Frelinghuysen	90	\$ 269,292	\$ 197,481	\$ 71,811	\$ 3,000	2000
Young, Joseph	Frelinghuysen	65	\$ 225,852	\$ 161,323	\$ 64,529	\$ 3,500	2000
Heeres, Harold	Harmony	144	\$ 469,521	\$339,500	\$ 130,021	\$ 3,250	2000
Hengst Farm	Harmony	121	\$ 1,125,000	\$ 660,383	\$ -	\$ 5,567	2000
Vegh Brothers	Harmony	110	\$ 351,514	\$ 254,847	\$ 96,666	\$ 3,194	2000
Durholz	Knowlton	63	\$ 152,822	\$113,239	\$ 39,583	\$ 2,440	2000
Kayhart / Watters	Mansfield	171	\$ 512,704	\$ 374,316	(twp)	\$ 3,003	2000
Yentema, Peter	Mansfield	102	\$ 336,587	\$ 242,750	\$ 93,836	\$ 3,300	2000
Csiszlak, John	Pohatcong	61	\$ 315,873	\$ 212,607	\$ 103,266	\$ 5,198	2000

Farm	Township	Acres	Total Cost	State Cost	County Cost	Cost Per Acre	Year Purchased
Frey Living Trust	Pohatcong	94	\$468,880	\$318,838	\$ 150,042	\$ 5,000	2000
Blazier	Washington Twp	136	\$750,000	\$ 419,724	\$ -	\$ 5,512	2000
Schneiber, Harry	White	28	\$154,612	\$102,285	\$51,988	\$ 5,500	2000
Total 2000:		1,871	\$ 7,419,420	\$5,051,161	\$ 1,443,978	\$3,965	
Tranquility Farms	Allamuchy	203	\$997,592	\$775,054	\$ 222,538	\$ 3,400	2001
Pehowski	Blairstown	161	\$ 742,610		\$ 742,610	\$ 4,600	2001
Arvystas	Franklin	49	\$ 229,275	\$ 154,151	\$ 75,124	\$ 4,700	2001
Fischer-Bigelow, Barbara	Franklin	13	\$ 52,874	\$ 26,815	\$ 26,059	\$ 4,111	2001
Joseph, Peter	Franklin	86	donation	\$ -	\$ -	\$ -	2001
Smolha / Lolos	Frelinghuysen	51	\$ 162,963	\$ 118,148	\$ 44,815	\$3,200	2001
Parrott / Simonetti	Frelinghuysen	117	\$ 203,465	\$153,729	\$ 49,736	\$ 1,739	2001
Smolha / Feldman	Frelinghuysen	103	\$289,069	\$ 212,672	\$ 76,397	\$ 2,800	2001
Smolha, Jean	Frelinghuysen	79	\$ 236,145		\$ 236,145	\$ 3,000	2001
Fischer-Bigelow, Barbara	Harmony	176	\$ 722,408	\$ 366,364	\$ 356,044	\$ 4,111	2001
MacQueen, William	Harmony	55	\$ 299,844	\$136,293	\$ 163,551	\$ 5,500	2001
Santini, Santino	Pohatcong	75	\$ 602,264	\$319,953	\$ 282,311	\$ 8,000	2001
Kingsbury, Robert	Washington Twp	135	\$ 471,811	\$320,831	\$150,979	\$ 3,500	2001
Marra	Washington Twp	97	\$ 173,716	\$131,252		\$ 1,800	2001
McDonough	Washington Twp	188	\$ 1,034,817	\$1,034,817	\$ -	\$ 5,500	2001
Total 2001:		1,587	\$ 6,218,853	\$3,750,079	\$ 2,426,310	\$3,918	
Bockbrader, Kathleen	Allamuchy	86	\$ 181,881	\$137,978	\$ 45,903	\$2,100	2002
Bockbrader, Ronald	Allamuchy	141	\$271,190	\$146,443	\$ 124,747	\$ 2,000	2002
Schuster, John	Franklin	184	\$ 1,010,856	\$661,651	\$ 349,205	\$ 5,500	2002
Oberly, Clifford	Greenwich	130	\$ 739,440	\$ 440,200	\$ 299,240	\$ 5,688	2002
Tom	Greenwich	46	\$ 252,789	\$252,789	\$ -	\$ 5,436	2002
Walters	Knowlton	149	\$ 472,765	\$472,765	\$ -	\$3,166	2002
Gambino	Pohatcong	100	\$ 500,015	\$500,015	\$ -	\$ 5,000	2002
Smith, Mary	Pohatcong	188	\$ 914,039			\$5,060	2002
Snyder	Pohatcong	86	\$ 293,780	\$ 293,780	\$ -	\$3,400	2002
Total 2002:		1,110	\$ 4,636,755	\$2,905,621	\$ 819,096	\$ 4,177	
Braun	Blairstown	41	\$ 111,310	\$82,119	\$ 29,191	\$ 2,700	2003
Dukes	Blairstown	67	\$ 200,541	\$147,057	\$ 53,484	\$ 3,000	2003
Flitcroft	Blairstown	1	\$ 3,719	\$ 2,387	\$ 1,331	\$3,100	2003
Mowbray	Blairstown	81	\$218,981	\$ 57,584	\$ 161,397	\$ 2,700	2003
Dischler, Est. of Robert	Franklin	28	\$147,011	\$98,468	\$ 48,543	\$ 5,300	2003
Gurba, Stephen #1	Frelinghuysen	179	\$ 679,790		\$ 679,790	\$ 3,800	2003
Silverside	Frelinghuysen	49	\$ 161,799	\$ 161,799	\$ -	\$ 3,300	2003
Staufenberger	Frelinghuysen	125	\$ 463,233	\$328,019	\$ 135,214	\$ 3,700	2003
Estate of Rinehart	Greenwich	107	\$ 816,605		\$709,605	\$7,600	2003
Estate of Rinehart #2	Greenwich	68	\$ 518,115	\$ -	\$ 518,115	\$ 7,600	2003
Motyka (RVC)	Hope	78					2003
Nykun, Peter	Independence	93	\$ 399,633	\$191,452	\$208,181	\$ 4,300	2003
Flitcroft, David	Knowlton	172	\$ 533,645	\$ 342,566	\$ 191,079	\$ 3,100	2003
Hillyerd (Knowlton Direct)	Knowlton	84	\$ 320,500			\$ 4,088	2003
Ridgewood Hunt Club	Knowlton	311	\$ 1,120,885	\$1,120,885	\$ -	\$ 3,600	2003
Munniksmas, George	Mansfield	37	\$ 189,210	\$125,541	\$63,669	\$5,100	2003
Munniksmas, George	Washington Twp	61	\$ 320,016	\$ 212,311	\$107,705	\$ 5,100	2003
Total 2003:		1,583	\$ 6,204,992	\$2,870,188	\$2,907,304	\$ 3,920	
Ervey, Joyce	Allamuchy	224	\$ 896,868		\$ 896,868	\$ 4,000	2004
Gurba, Stephen #2	Allamuchy	26	\$ 88,298		\$ 88,298	\$ 3,400	2004

Farm	Township	Acres	Total Cost	State Cost	County Cost	Cost Per Acre	Year Purchased
Oberly, Jack	Alpha	23	\$ 138,987	\$ 89,751	\$ 49,236	\$ 6,175	2004
DeBlock/ Blairstown Twp	Blairstown	165	\$ 1,069,543	\$ 822,725		\$ 6,500	2004
Round Hill Farm (RVC)	Blairstown	42	\$ 260,888	\$ -	\$ 56,172	\$ 6,250	2004
Falk, Norman	Franklin	45	\$ 234,489	\$ 139,791	\$94,697	\$ 5,200	2004
Warren Rod & Gun Club	Franklin	92	\$ 422,289	\$290,351	\$ 131,938	\$ 4,568	2004
Gurba, Stephen #2	Frelinghuysen	88	\$ 299,115		\$ 299,115	\$ 3,400	2004
Westbrook, Jacob	Frelinghuysen	8			\$ 5,402		2004
Rayna	Greenwich	74					2004
Joseph P. Young & Son, Inc.	Hardwick	77	\$ 383,730	\$158,097	\$ 225,633	\$ 5,000	2004
Round Hill Farm	Hardwick	27	\$ 171,069	\$ -	\$ 36,828	\$6,250	2004
William Vosper	Hardwick	92	\$ 379,572	\$226,839	\$ 152,733	\$ 4,113	2004
F. Santini	Harmony	55					2004
Zahn / Aguero	Knowlton	29	\$99,834	\$ 71,641	\$ 28,193	\$ 3,400	2004
Smith, E. R. Estate	Mansfield	161					2004
Chelsea Forge Vintners	Pohatcong	69	\$ 320,839	\$ 208,720	\$ 46,687	\$ 4,673	2004
Horizon Associates	Pohatcong	101	\$ 426,033	\$293,489	\$ 132,544	\$ 4,500	2004
Marchesi	Pohatcong	18	\$ 95,877	\$64,218	\$15,829	\$ 5,300	2004
Oberly, Jack	Pohatcong	122	\$ 755,839	\$488,082	\$ 267,757	\$ 6,175	2004
Willard, Donald	Pohatcong	50	\$ 317,470	\$204,101	\$ 56,684	\$ 6,300	2004
Willard, Donald #2	Pohatcong	240	\$ 1,441,488	\$888,918	\$ 228,236	\$ 6,000	2004
Pineyhill Farm	Washington Twp	126	\$ 339,825	\$339,825	\$ -	\$ 2,687	2004
Crossroads Farm (Polhemus)	White	108	\$ 648,762	\$419,402	\$ 229,360	\$ 6,000	2004
Total 2004:		2,064	\$8,790,813	\$ 4,705,951	\$3,042,211	\$4,260	
Mangine	Blairstown	30	\$ 135,000	\$ 91,574	\$21,713	\$ 4,500	2005
Maple Hill Farm	Blairstown	124	\$395,936	\$ -	\$107,350	\$ 3,200	2005
Sigler, Ronald #1	Franklin	91	\$ 600,518	\$382,148	\$ 109,185	\$ 6,600	2005
Sigler, Ronald #2	Franklin	82	\$ 576,271	\$362,227	\$107,022	\$7,000	2005
Sigler, Ronald #3	Franklin	98	\$ 587,280	\$381,732	\$102,774	\$ 6,000	2005
Sigler, Ronald #4	Franklin	53	\$347,099	\$221,609	\$ 62,745	\$ 6,500	2005
Gurba, Stephen #3	Frelinghuysen	123	\$345,794	\$254,400	\$ 91,394	\$ 2,800	2005
Van Grouw, William	Frelinghuysen	102	\$ 356,318	\$356,318	\$ -	\$ 3,500	2005
Maple Hill Farm	Hardwick	7	\$ 21,248	\$ -	\$5,650	\$ 3,200	2005
Hengst, L.	Harmony	63	\$239,727	\$169,070	\$ 70,656	\$ 3,800	2005
Tjalma	Harmony	219	\$1,463,700	\$ -	\$ -	\$ 6,682	2005
Rohsler, Barbara	Hope	60	\$ 167,793	\$89,889	\$ 77,904		2005
Rohsler, H. Mark	Hope	71	\$ 162,175	\$105,767	\$ 56,409		2005
Arena	Knowlton	35	\$ 175,555	\$119,377	\$ 28,089	\$ 5,000	2005
Brugler Farm #1	Knowlton	33	\$ 224,748			\$ 6,750	2005
Brugler Farm #2	Knowlton	47	\$ 325,455			\$ 6,950	2005
Mangine	Knowlton	4	\$ 15,840	\$10,912	\$ 2,464	\$ 4,500	2005
Bullock	White	102	\$ 392,400	\$255,060	\$137,340	\$ 3,850	2005
Caruso	White	126	\$ 673,716	\$673,716	\$ -	\$ 5,343	2005
Total 2005:		1,470	\$ 7,206,573	\$3,473,800	\$980,695	\$4,903	
Van Horn Estate	Allamuchy	98	\$735,465		\$ 735,465	\$7,500	2006
Bungert, Mary Lou	Franklin	42	\$ 328,581	\$201,716	\$126,865	\$7,900	2006
Peck	Frelinghuysen	44	\$ 228,386	\$153,726	\$ 74,659	\$ 5,200	2006
Dering (White Oak Farm)	Hope	47	\$ 311,568	\$193,542	\$ 118,027	\$6,650	2006
Grochowicz, T. & L	Hope	127	\$900,000	\$449,233	\$350,767	\$ 7,112	2006
McCloskey, Anne	Independence	46	\$ 137,604	\$ -	\$ 137,604	\$ 3,000	2006
Diecidue, Agostino	Knowlton	46	\$182,148	\$127,504	\$54,644	\$ 2,800	2006
Weeks III	Pohatcong	19	\$ 129,612	\$81,470	\$ 24,071	\$7,000	2006
AJR REALTY	Washington Twp	151	\$ 5,000,000	\$2,508,000	\$ 418,000	\$27,768	2006

Farm	Township	Acres	Total Cost	State Cost	County Cost	Cost Per Acre	Year Purchased
Enz, Kathleen	Washington Twp	38	\$ 196,518	\$123,958	\$ 72,561	\$ 5,200	2006
Enz, Kathleen	White	38	\$ 196,836	\$ 124,158	\$72,678	\$ 5,200	2006
Matthews, Ivan	White	36	\$ 188,992	\$121,240	\$ 67,752	\$ 5,300	2006
Pequest Development	White	60					2006
Total 2006:		789	\$ 8,535,709	\$4,084,546	\$2,253,093	\$10,815	
Hill	Blairstown	29	\$ 216,638	\$ 134,315	\$ 62,237	\$ 7,500	2007
Ruh	Blairstown	136	\$ 705,000	\$474,520	\$182,009	\$ 5,200	2007
Convey, Frenk et als	Franklin	148	\$ 679,349	\$466,713	\$212,636	\$ 4,600	2007
Hamlen/McNerney	Harmony	20	\$ 103,585	\$5,589	\$12,046	\$ 4,000	2007
Schanzlin, Robert	Harmony	83	\$531,974	waiting for state funds		\$ 6,400	2007
Fritz, Gladys	Knowlton	13	\$ 11,550	waiting for reimbursement	\$ 11,550	\$ 924	2007
Total 2007:		428	\$ 2,248,096	\$ 1,131,137	\$480,478	\$5,256	
Handel, Marjorie	Blairstown	98					
Magyar	Harmony	130	\$ 988,591	\$988,591	\$ -	\$ 7,625	
Total Unknown:		228	\$ 988,591	\$988,591	\$ -	\$ 4,343	
County Total:		15,125	\$ 68,953,872	\$40,431,121	\$ 18,591,819	\$4,559	

Below is a table detailing the breakdown of preserved farmland by type of program.

Program	Acres	Total Cost
Municipal	552	\$7,112,462
Nonprofit Grant	154	\$ 453,204
Municipal PIG	1,319	\$ 7,070,073
SADC Direct	2,689	\$ 13,110,830
County Easement	10,411	\$ 41,207,301
Totals:	15,125	\$ 68,953,872

The majority of projects (69% of the total preserved farmland) are protected through the County Easement Purchase program. The State Direct program funds 18% of the projects in Warren County. The municipal Planning Incentive Grant (PIG) program is a growing segment of the preservation program and has preserved 9% of all farmland in Warren County. Nonprofits have preserved 1% and towns have preserved 4% directly.

County Easement Purchase

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

To be eligible for the County Easement Purchase program, a landowner must complete an application. In the past, these applications were distributed once a year, with the new County Planning Incentive Grant program there will no longer be an annual application date for the County Easement Purchase program. Following review of the application and a site visit by the CADB are two independent appraisals, one to determine the land's fair

market value, and one to determine its agricultural value. The difference between these two is the price of the farm's "development rights," also known as the easement value. This is the price that the State offers to the landowner, and if this price is accepted, the County "has title work and a survey done for farms receiving final State, County and Municipal approvals, and then schedules a closing." The landowner still retains ownership of his or her farm and can sell it on the open market at any time, but the land is deed-restricted, in perpetuity, for agricultural use.

Over one hundred farms (105) farms have been preserved through the County Easement purchase program, protecting 10,411 acres of farmland in Warren County.

County Planning Incentive Grants

The goal of County Planning Incentive Grants (PIGs) is to protect and preserve large pieces of contiguous farmland through the purchase of development easements. The State Agricultural Development Committee (SADC) has recently updated their rules (N.J.A.C. 2:76-6.3 through 2:76-17A.17) to promote County PIGs to streamline and expand the farmland preservation program throughout the state. In order to qualify for PIGs, an agricultural advisory committee, as which the County Agricultural Development Board (CADB) functions for the county, is necessary. Additionally, the county must maintain a dedicated source of funding or alternative means for funding farmland preservation. Both county and municipal applications should correlate with county comprehensive farmland preservation plans. Warren County has developed this *Comprehensive Farmland Preservation Plan* in order to bring it in to compliance with the newly adopted guidelines and qualify for the County Planning Incentive Grant program.

Municipal Planning Incentive Grants

Municipal Planning Incentive Grants (PIGs) are very similar to the County PIGs in their goals, requirements, and implementation. Like the County PIGs, Municipal PIGs require a local financial commitment for preserving farmland. Upon the completion of a municipal Farmland Preservation Plan and application to the SADC, grants are provided by the SADC in order to purchase development easements. The Farmland Preservation Plan Element describes the farms that are the focus of the municipal PIG. In order to qualify for this program, the town must have an agricultural advisory board and a source of funding for farmland preservation. Farms to be preserved through a municipal PIG need to be approved by the CADB. Warren County requires matching funding (50:50) between the County and the municipality, as part of a municipal PIG.

Currently there are ten communities in Warren County enrolled in the Municipal Planning Incentive Grant program:

- 1) Blairstown Township
- 2) Franklin Township
- 3) Frelinghuysen Township
- 4) Greenwich Township

- 5) Harmony Township
- 6) Hope Township
- 7) Knowlton Township
- 8) Pohatcong Township
- 9) Washington Township and
- 10) White Township

The table below details the municipal Planning Incentive Grant Program in Warren County. Four farms have been preserved in Blirstown, four in Franklin, one in Harmony, five in Knowlton, five in Pohatcong and one in Washington Township for a total of 20 farms on 1,319 acres.

Farm	Township	Acres	Total Cost	State Cost	County Cost	Cost Per Acre	Year Purchased
Hill	Blirstown	29	\$ 216,638	\$ 134,315	\$ 62,237	\$7,500	2007
Mangine	Blirstown	30	\$135,000	\$ 91,574	\$ 21,713	\$4,500	2005
Maple Hill Farm	Blirstown	124	\$ 395,936	\$ 237,000	\$107,350	\$3,200	2005
Ruh	Blirstown	136	\$ 705,000	\$ 474,520	\$ 182,009	\$5,200	2007
Sigler, Ronald #1	Franklin	91	\$ 600,518	\$ 382,148	\$ 109,185	\$6,600	2005
Sigler, Ronald #2	Franklin	82	\$ 576,271	\$362,227	\$107,022	\$7,000	2005
Sigler, Ronald #3	Franklin	98	\$ 587,280	\$381,732	\$102,774	\$6,000	2005
Sigler, Ronald #4	Franklin	53	\$347,099	\$221,609	\$ 62,745	\$6,500	2005
Hamlen/McNerney	Harmony	20	\$ 103,585	\$55,589	\$12,046	\$4,000	2007
Arena	Knowlton	35	\$175,555	\$119,377	\$ 28,089	\$5,000	2005
Brugler Farm #1	Knowlton	33	\$224,748	\$138,920	\$42,914	\$6,750	2005
Brugler Farm #2	Knowlton	47	\$ 325,455	\$204,672	\$60,291	\$6,950	2005
Diecidue, Agostino	Knowlton	46	\$182,148	\$ 127,504	\$ 54,644	\$2,800	2006
Mangine	Knowlton	4	\$15,840	\$10,912	\$ 2,464	\$4,500	2005
Chelsea Forge Vintners	Pohatcong	69	\$ 320,839	\$208,720	\$46,687	\$ 4,673	2004
Marchesi	Pohatcong	18	\$95,877	\$ 64,218	\$15,829	\$5,300	2004
Weeks III	Pohatcong	19	\$129,612	\$ 81,470	\$ 24,071	\$7,000	2006
Willard, Donald	Pohatcong	50	\$ 317,470	\$204,101	\$ 56,684	\$6,300	2004
Willard, Donald #2	Pohatcong	240	\$ 1,441,488	\$888,918	\$ 228,236	\$6,000	2004
Marra	Washington Twp.	97	\$ 173,716	\$131,252	\$21,232	\$ 1,800	2001
Total PIG Projects:		1,319	\$7,070,073	\$3,940,188	\$ 1,223,785	\$5,359	

The individual municipal PIG project areas are described in the following section for each of the ten towns.

Blirstown Township

The municipal PIG for Blirstown Township divides the Township into three project areas: the Northern, Central, and Southern Project Areas. The Northern Project District is located north of State Route 94 and includes three preserved farms: the Handel farm, the Teel farm, and the Braun farm. Four properties in this district are targeted for preservation. These properties are all located to the north of State Route 94 and to the east of Stony Brook Road.

The Central Project District is located south of Route 94 and north of the Erie-Lackawanna Railroad. This district contains ten preserved farms. These include the Benton farm,

Gouger farm, a town park, and six NJDEP properties. In addition to the ten preserved farms, there are eight properties targeted for preservation.

The Southern Project District is located south of the Erie-Lackawanna Railroad and north of Hope Township. This district contains five preserved farms. These are the Shotwell farm, Dukes farm, Mowbray farm, Deblock farm, and Beech Ridge preserve. There are eighteen properties targeted for preservation in this district.

Franklin Township

The municipal PIG for Franklin Township divides the Township into three project areas: Stage 1 Prime Preservation, Stage 2, and Stage 3 Significant Agricultural Lands with Future Development Potential.

The Stage 1 Prime Preservation project area is located to the southeast of Mountain View Road and northwest of the Musconetcong River. Growth Areas, State Open Space, and areas designated as steep slopes, wetlands, and soils are also present in the Stage 1 Area. There are fifty-five properties designated as Stage 1 Farmland, five of which are existing preserved farmland. There are forty-five Stage 1 properties targeted for farmland preservation.

The Stage 2 project area is located southeast of Route 57 and northwest of Good Springs Road. It consists of thirty-two properties that have been targeted for farmland preservation. One of these properties, the Cole property, has already been designated as Open Space.

Stage 3 properties are those that have been deemed significant agricultural lands with future development potential. This project area is located southeast of the old Morris Canal and northwest of Good Springs Road. There is one existing preserved farm. There are forty-four properties in this project area that have been targeted for preservation.

Frelinghuysen Township

The municipal PIG for Frelinghuysen Township divides the Township into six project areas. These project areas include the Allamuchy Farmland Belt, Limestone Valley-Bear Brook and Trout Brook, Martinsburg Ridge, Paulins Kill Valley, Johnsonburg District, and Hope Preservation Area.

These project areas contain thirteen preserved farms and two farms that have been listed in an eight year preservation plan. The preserved farms are scattered throughout the different project areas. The farm assessed properties listed in the 8-Year Program are located to the east of the Paulins Kill Valley project area. These properties include the Kuhn and Size farms.

The Paulins Kill Valley project area is located in the northernmost part of the Township. Directly south of this project area are the Martinsburg Ridge and Johnsonburg District project areas. The Hope preservation area is the southernmost of the preservation areas and

is located in the western portion of the Township, bordering Hope. The Limestone Valley-Bear Brook is located to the south of the Johnsonburg District. The Allamuchy Farmland Belt project area is located directly south of the Limestone Valley-Bear Brook project area, on the border of Allamuchy Township.

Greenwich Township

The municipal PIG for Greenwich Township divides the existing properties into three types: existing preserved farmland property, properties within the 1999 Farmland Preservation PIG, and properties previously added to PIG. All of the properties that have been targeted for farmland preservation are located in a cluster in the center of the Township, with many of the properties located on the border with Franklin Township.

There are eight properties in Greenwich Township that have been designated as preserved farmland. These include the Oberly, Tom, Bortz, Santini, and Rayna farms. Eleven properties in the Township have been targeted for farmland preservation.

Harmony Township

The municipal PIG for Harmony Township encompasses the entire township rather than dividing it into different project areas. The Township contains eight preserved farmland properties which include the Risko, Vegh, Heeres, MacQueen, Hengst, Fischer/ Schanzlin, Magyar/ Toll Brothers, and Santini properties. Four properties are listed as “in works” for farmland preservation. These are the Tjalma, Shandor, Santini, and Hamlin/ Mc Nerney properties. There are six properties that are listed as potential farmland preservation targets.

Hope Township

The municipal PIG for Hope Township divides the Township into three proposed project areas: Project Area 1, Project Area 2, and Project Area 3. Project Area 1 is located to the north of the border with White Township. It is bordered by Honey Run Road, Swayze Mill Road, and Kostenbader Road. Project Area 1 contains seventy properties that qualify as Farmland Protection eligible farms.

Project Area 2 is located between North Locust Lake Road and Foundry Road to the south of Interstate Route 80. It contains twenty nine farms that are candidates for protection.

Project Area 3 is located to the south of Interstate Route 80 and to the northeast of Project Area 2. Project Area 3 contains thirty-five farms that are candidates for protection.

Knowlton Township

The municipal PIG for Knowlton Township divides the Township into two areas: Project Area No.1 and Project Area No. 2. Project Area No. 1 is located in the northern section of the Township, to the north of Interstate Route 80. It consists of nine properties that have

been designated as preserved farms. Project Area No. 1 also includes eight properties targeted for preservation.

Project Area No. 2 is located in the southern portion of the Township, south of Interstate Route 80. This area contains twenty-eight preserved farms which include the Makervich, Millheim, Terpstra, Durholz, Diecidue, Hillyerd, Gladner, Joswik, Morrisey, Roussos, Walters, Schwartz, Zahn, Brugler, and Cool farms. It also contains forty-seven farms targeted for preservation.

Pohatcong Township

The municipal PIG for Pohatcong Township divides the Township into four Agriculture Development Areas. These development areas are the Pohatcong Grasslands ADA, the Valleys and Ridge ADA, the Still Valley ADA, and the Silver Hill ADA.

The Pohatcong Grasslands ADA is located to the northwest of Creek Road and extends to the town's border with Pennsylvania. This ADA contains fourteen preserved farms which include the Long farm, Oberly farm, Hartung farm, Csiszlak farm, Santini farm, and Horizon Associates land. There are twenty-four properties targeted for preservation.

The Valleys and Ridge ADA is located to the northwest of the Musconetcong River southeast of Creek Road. There are thirteen preserved farms located within this ADA. These include the Smith Trust, the Rosenbaum farm, the Frey Trust, the Marchesi farm, and the Chelsea Forge Vintners. In addition to the preserved farms, there are forty-eight properties targeted for preservation.

The Still Valley ADA is the northernmost Agricultural Development Area, located to the east of the Borough of Alpha and to the north of Pohatcong Creek. This ADA does not contain any preserved farms. It contains twenty-six properties which have been targeted for preservation.

The Silver Hill ADA is located to the south of Pohatcong Creek and extends to the border of Warren and Hunterdon County. It contains four preserved farms including the Weeks farm as well as twenty-one properties targeted for preservation.

Washington Township

The municipal PIG for Washington Township is divided into project phases. These project phases have been labeled A, B, and C. Project Phase A is located to the north of Route 57. It consists of nine properties which have been targeted for preservation. These include the Knittel, Marra, McDonough, Munniksmas, Sheilds, Sodtalbers, and Vacchiano properties.

Project Phase B is located to the south of Route 57 and to the east of Route 31. Project phase B consists of six lots that have been targeted for preservation. These lots include the Terry, Anema, Piazza, and Kingsbury properties.

Project Phase C is located to the west of Route 31 and to the south of Route 57. It contains two lots that have been designated as preserved farmland, the Caputo and Schnetzer properties. It also contains six lots that have been targeted for preservation. These include the Sigler, Abbot, Rush, and Lipka properties.

White Township

The municipal PIG for White Township divides the Township into two project areas: Stage 1 selected farm targeted properties and Stage 2 selected farm target properties. Stage 1 selected farm targeted properties are located to the east of Route 46 and extend as far as the township lines between White, Hope, Liberty, and Knowlton Townships. This area contains three preserved farmland properties and sixty properties targeted for farmland preservation.

Stage 2 selected farm targeted properties are located to the west of Route 46 and extend to as far as the White Township lines with Harmony, Washington, and Belvidere Townships. The Stage 2 project area has four preserved farms. It has two properties listed as under application. The project area has ninety-seven selected farm properties targeted for preservation.

Municipal Farmland Preservation Program

Four farms in Warren County have been preserved directly by the municipality. These farms total 552 acres.

Farm	Township	Acres	Total Cost	Year Purchased
Rayna	Greenwich	74		2004
Tjalma	Harmony	219	\$ 1,463,700	2005
AJR REALTY	Washington Twp	151	\$5,000,000	2006
Crossroads Farm (Polhemus)	White	108	\$648,762	2004
Total Municipal Projects:		552	\$7,112,462	

SADC Direct Easement Purchase

Also important to Warren County farmers is the State Agriculture Development Committee (SADC). The SADC is the lead program in administering the state’s Farmland Preservation Program. The SADC:

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

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

Farm	Township	Acres	Total Cost	Year Purchased
Corestates	Pohatcong	561	\$3,250,000	1998
Anisfield / Gibbs	Allamuchy	237	\$720,988	2000
DeBlock / Blairstown Twp.	Blairstown	165	\$ 1,069,543	2004
Silverside	Frelinghuysen	49	\$ 161,799	2003
Van Grouw, William	Frelinghuysen	102	\$ 356,318	2005
Tom	Greenwich	46	\$ 252,789	2002
F. Santini	Harmony	55		2004
Hengst Farm	Harmony	121	\$ 1,125,000	2000
Magyar	Harmony	130	\$ 988,591	
Ridgewood Hunt Club	Knowlton	311	\$1,120,885	2003
Walters	Knowlton	149	\$472,765	2002
Gambino	Pohatcong	100	\$500,015	2002
Snyder	Pohatcong	86	\$293,780	2002
Blazier	Washington Twp.	136	\$750,000	2000
McDonough	Washington Twp.	188	\$1,034,817	2001
Pineyhill Farm	Washington Twp.	126	\$339,825	2004
Caruso	White	126	\$673,716	2005
Total SADC Direct:		2,689	\$13,110,830	

The state has preserved 17 farms on 2,689 acres in Warren County at a cost of \$10,542,671 in state funds and \$587,413 in County funds.

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 SADC negotiates a purchase price subject to recommendations of two independent appraisers and review by a state review appraiser. The land becomes restricted so that it becomes permanently preserved for agriculture. In this type of acquisition, the landowner does not retain any rights. The property is then resold at auction, the SADC does not retain ownership. To qualify to participate in this program, the farmland must be within an ADA and be eligible for Farmland Assessment.

Nonprofit Grant Program

Grants are provided to nonprofit organizations by the State Agricultural Development Committee. These grants fund up to 50% of the fee simple or development easement values on farms. (*SADC website*) These grants help to preserve farmland throughout the

county, generally these transactions involve properties with both agricultural and environmental significance. These grants are obtained through an application process, in which the land is valued by independent appraisers. Three farms have been preserved in Warren County, one in Blirstown, two in Hardwick and one in Hope Township for a total of 154 acres.

In 2006 Warren County creatively partnered with the Morris Land Conservancy (MLC), utilizing MLC’s non-profit SADC Planning Incentive Grant, to preserve 350 acres of farmland in the county. This successful coalition was repeated and expanded upon in 2007 with 506 acres expected to be preserved.

This successful partnership model opened up an entirely new revenue stream for farmland funding in Warren County. As a result, in the first two years of the partnership, Morris Land Conservancy was able to bring an additional \$1,994,408 in state non-profit state farmland funding for easement acquisitions in Warren County.

Farm	Township	Acres	Total Cost	State Cost	County Cost	Other*	Cost Per Acre	Year Purchased
Round Hill Farm (RVC)	Blirstown	42	\$431,956	\$190,250	\$94,000	\$147,706	\$6,260	2004
Round Hill Farm (RVC)	Hardwick	27						
Maple Hill Farm (RVC)	Blirstown	124	\$417,184	\$237,000	\$113,000	\$67,184	\$3,185	2005
Maple Hill Farm (RVC)	Hardwick	7						
Motyka (RVC)**	Hope	78					\$1,800	2003
Total Nonprofit Grants:		154	\$453,204		\$98,650		\$2,948	

* Other: Charitable contribution or Conservancy Funds

** Motyka: This was a bargain sale, requiring no county or local funds. The entire easement cost came from the SADC through the nonprofit grant program.

Transfer of Development Rights

The transfer of development rights is a growth management tool that transfers development rights from one location, a preservation area, to another, an identified growth area. The development rights are used to allow for development at a higher density than what the previous zoning of the receiving area allowed. To date, this program has not been used by Warren County to preserve farmland.

Consistency with SADC Strategic Targeting Project

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

- The coordination of farmland preservation and retention of agricultural practices “with proactive planning initiatives.”

- To update and create maps which serve as a tool for more accurate preservation targets.
- To coordinate different preservation efforts, such as open space, with farmland preservation.

Through the use of the Strategic Targeting Program, the SADC hopes to more efficiently target and designate farmland for preservation and, by doing so, boost the State's agricultural industry.

The Warren CADB, through the completion of its 2007 Comprehensive Farmland Preservation Plan, meets each of the goals as outlined in the Strategic Targeting Project.

Eight Year Programs

The 8-Year Farmland Preservation Program and the Municipally Approved 8-Year Farmland Preservation Program are both cost sharing programs for soil and water conservation projects, in which the farmer receives 50% cost sharing for these projects as well as protection against emergency energy and water restrictions and eminent domain. In return, the farmer signs an agreement that restricts the land to agricultural use for eight years. For entrance into these programs and to qualify for benefits, a farm must be located within an ADA. Technical assistance for the soil and water practices comes through the Natural Resource Conservation Service.

In Warren County, 1,190 acres are currently protected through an eight-year program. This includes one farm in Allamuchy, one farm in Blirstown, one farm in Frelinghuysen, one farm in Hope, one farm in Harmony, one farm in Lopatcong, one farm in Washington, five farms in Independence, and three farms in Liberty.

Coordination with Open Space Preservation Initiatives

A cooperative project involves a partnership and/or funding from more than one agency. This kind of project leverages county farmland preservation dollars and makes use of municipal open space trust funds or grants to non-profit organizations. These "hybrid" projects are an opportunity to use traditional open space funds, where appropriate, to help preserve farm properties, especially where those properties are a mixture of cropland and woodland areas. The use of Green Acres funding, local open space trust funds, and nonprofit grant funds are becoming increasingly important to preserving agricultural landscapes. All publicly preserved open space is shown in "green" on the *Farmland Map*.

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. As the establishment of trails and parks in local communities grows in Warren County the CADB can look to the Open Space Plans to determine whether public access easements should be negotiated as part of a farmland preservation project.

Fifteen towns in Warren County currently have municipal Open Space trust funds (see table below). Working with these towns and N.J. Green Acres, the Warren CADB is in a better position to coordinate farmland preservation with open space preservation.

TOWNS	Municipal Open Space fund	Municipal Tax Rate (per \$100)	Existing Balance (\$)	Amount Generated per Year (\$)	Green Acres Planning Incentive Program (if Yes, date enrolled)	Open Space Plan (if Yes, date)
Allamuchy Township	Yes	0.020	350,000 (1-05)	90,000	Yes 2000	Yes. Dec 04
Alpha Borough	Yes	0.040	313,870.87	80,000	No	Yes. Feb 07
Town of Belvidere	No	n/a	n/a	n/a	No	No
Blairstown Township	Yes	0.035	0	300,000	Yes 2001	Yes
Franklin Township	Yes	0.065	239,716.00	260,000	Yes, July 2006	Yes. Jan 06
Frelinghuysen Township	Yes	0.020	191,139 (05-07)	53,000	Yes, April 2006	Yes. Feb 06
Greenwich Township	Yes	0.040	245,000 (9-06)	245,000	Yes, 2002	Yes.
Hackettstown	No	n/a	n/a	n/a	No	No
Hardwick Township	Yes	0.01-0.03	92,632	49,000	Yes 2001	Yes
Harmony Township	Yes	0.050	\$1,161,000	260,000	Yes 2006	Yes. Apr 06
Hope Township	Yes	0.020	56,000	28,000	No	Yes. Nov 06
Independence Township	Yes	n/a	n/a	n/a	No	No
Knowlton Township	Yes	0.020	104,000	20,774	Yes 2003	Yes
Liberty Township	Yes	0.020	104,012.60	53,000	No	Yes. Feb 05
Lopatcong Township	No	n/a	n/a	n/a	No	No
Mansfield Township	No	n/a	n/a	n/a	No	No
Oxford Township	No	n/a	n/a	n/a	No	No
Town of Phillipsburg	No	n/a	n/a	n/a	No	No
Pohatcong Township	Yes	0.02-0.05		180,000	Yes 2005	Yes. Sept 04
Washington Borough	No				No	Yes
Washington Township	Yes				Yes 2001	Yes
White Township	Yes	0.020	42,052	124,431	No	Yes

Farmland Preservation Program Funding Expended to Date by Source

The Warren County Open Space Preservation Trust Fund was initially established in January 1995 and set at two cents. In 1999 the Freeholders renamed the Trust Fund to the Open Space Recreation Farmland Preservation Trust Fund and increased it to four cents. The Fund was subsequently increased to six cents in 2003. Prior to the establishment of the dedicated Trust, Warren County funded farmland preservation through a bond. The present division for the Trust Fund is: 55% farmland, 25% municipal and charitable grants and 20% open space. Approximately 6% to 7% of the Trust is used for administrative costs. The below table details the amount generated per year since 2002 and the percent increase in the Trust Fund since that time.

Year	Amount Generated	Percent Increase
2002	\$2,900,000	
2003	\$5,180,000	78% (two cent increase)
2004	\$5,520,000	7%
2005	\$6,200,000	12%
2006	\$7,300,000	17%
2007	\$7,800,000	6.5%

Of the available funding in 2007, approximately \$4,500,000 is available for farmland preservation. To date Warren County has expended \$18,591,819 on 150 projects preserving 15,125 acres.

Monitoring the Easements

To verify that compliance with the deed restrictions on preserved property is taking place, the Warren County Soil Conservation District performs annual inspections of the property. These 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

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. See *Chapter 3* for a discussion of the possibilities for implementing and coordinating transfer-of-development rights programs within the Highlands and throughout Warren County.

CHAPTER 5: FUTURE FARMLAND PRESERVATION PROGRAM



Preservation Goals

Warren County has set ambitious goals for their Farmland Preservation Program. The County Board of Chosen Freeholders has set a target goal of preserving **20,000 acres by 2010**. There are already over 15,125 acres of farmland currently preserved within Warren County, and therefore progress towards the 2010 goal is well underway. In order to reach this goal, the County will need to preserve an additional 4,875 acres over the next three years, or 1,625 acres a year.

Warren County is 232,207 acres (363 square miles) in size. Of this, **114,237 acres** are under farmland assessment, which includes croplands, woodlands, farm structures and wetlands/waterways that occur on an agricultural property. The *2002 Census of Agriculture* identifies **78,042 acres** in Warren County as land in farms, which excludes some farmland assessed parcels that are not in active agricultural production.

Since 1989, Warren County has preserved **15,125 acres** of farmland. Using the 78,042 acres identified as farm property by the 2002 Census of Agriculture, this leaves 62,917 acres of unprotected farmland remaining in Warren County, or 81% of the County's agricultural base.

Based upon the State's Minimum Eligibility Criteria for productive soils and tillable land, **52,772 acres** are potentially eligible for farmland preservation in Warren County. Based upon the Board of Chosen Freeholders goal of preserving 20,000 acres by 2010, available funding to purchase and preserve farmland, and the amount of potential farmland eligible for preservation, the following preservation goals are identified for Warren County:

One year target:	1,625 acres,
Five year target:	8,125 acres,
Ten year target:	16,250 acres.

Public Participation

For the development of this Comprehensive Farmland Preservation Plan, the Warren CADB hosted three public meetings seeking input and direction from local residents, farmers, officials, and representatives of agencies and nonprofit organizations interested in

farmland preservation. The first two of these meetings were held towards the beginning of the plan development and the third and final meeting was held after the Draft Plan had been released to the public, in order to receive comments on the Draft Plan.

Public Hearing #1 - April 19, 2007

The Warren County Board of Chosen Freeholders and the Warren County Agricultural Development Board (CADB) hosted an initial public meeting on Thursday, April 19, 2007. Present at the meeting were representatives from the County Agricultural Development Board, Morris Land Conservancy, farmland owners, and residents of Warren County interested in the issue. Nearly 70 people were in attendance. Those present were informed of the purpose and specifics of the Warren County Comprehensive Farmland Preservation Plan and an open forum followed, in which those present asked questions and voiced their opinions about the current status and the future of agriculture in Warren County. Attendees raised their concerns while offering suggestions for improving the existing program.

Concerns raised included inconsistency between various agencies, such as those at the state level and at the county level, which has led to complexity that makes preserving one's farmland and farming on that land difficult. Attendees of the meeting requested a less complex, user-friendly system, suggesting more coordination at the municipal level is needed. Objections to some of the restrictions placed on preserved farmland were also raised. These restrictions exist to ensure that the land and its buildings are being used for agricultural uses only, yet some farmers expressed that these restrictions increase a farmer's economic difficulties, especially those limiting the ways in which farmers can use structures on their property. The restrictions may limit more economical practices, decreasing a farmer's profit, and therefore making it more difficult to maintain the farm. Attendees of the meeting suggested that revising the restrictions would promote agriculture in the region.

Attendees of the meeting expressed opposition to the Highlands Water Protection and Planning Act, stating that the Act, designed to protect land and natural resources in the region, has in fact limited farmers' access to land, inhibiting agricultural practices in Warren County. 32,198 acres of farmland in Warren County is located in the Highlands Preservation Area. Because this land, under the Highlands Act, cannot be developed for homes or businesses, the value of the land decreases. Farmers borrow money against that land, and when that land's value declines, the ability of a farmer to borrow money also declines or disappears.

County residents voiced concerns over the appraisals they are receiving for their farms; many farmers feel that these appraisals are inaccurate. They reported vast variations in appraisals, from different appraisers, often exist for the same property, or that the formula appraisers use is not appropriate.

The common sentiment is that, in addition to preserving the land on which agriculture takes place, efforts to preserve the farmer—the ability of individuals to practice agriculture on the preserved land—are necessary. Impediments to this, as stated by attendees of the

meeting, include high input costs and a lack of a supply and service infrastructure in the area. In general, many of Warren County farmers' difficulties in continuing to farm are economic in nature.

As farm acreage in the county has decreased, the customer base of businesses offering services to farmers has also declined, causing such businesses to leave the area. As a result, Warren County farmers needing agricultural supplies, equipment repair, veterinary services for farm animals, and other services, must pay a higher price. Attendees of the public meeting described how they must obtain these goods and services from locations very far from the County, leading to added costs for shipping or for travel. Dairy farmers are at a disadvantage because they cannot sell their produce directly to the consumer. Since there are no creameries in northwestern New Jersey, the milk has to travel, which is costly. The existence of businesses providing parts, goods, services, and processing of a farm's produce would decrease excess shipping costs and lighten the economic burden that New Jersey farmers face. Increased presence of such businesses would further assist in the sustainability of Warren County agriculture.

A concern of some of the attendees of the meeting is that land purchased through the farmland preservation program is not being used for agricultural purposes. Though the current owners are not violating the regulations, they are not keeping the farm active, either. Additionally, attendees of the meeting expressed worry that the younger generations are losing knowledge of how to farm as well as interest in pursuing a career in agriculture. The need to create a market for local agricultural produce, to reduce shipping costs and increase viability of local agriculture, was discussed as a potential solution to some of the economic challenges facing the Warren County farmer.

Public Hearing #2 - June 21, 2007

The Warren County Agriculture Development Board (CADB) invited farmers, county boards and commissions, and state and federal farming organizations and agencies to the second public meeting. The Warren CADB sought information from municipal officials, farmers, and area residents concerning agriculture and farmland preservation. This included effectiveness of the farmland preservation program.

Close to thirty people attended this meeting. Concerns expressed were with the currently defined project areas, the process of farmland preservation as it relates to the new SADC rules, and the classification of soils. Primarily, attendees of the meeting voiced their opinions on the proposed Project Areas defined by Warren County. At the time of this meeting, Warren CADB had proposed five project areas for identifying potential projects for farmland preservation. Attendees felt that the five project areas should not be ranked by importance and also should not take the Highlands into consideration. Some also expressed that how productive the farm is should be used as criteria in farmland preservation.

A major concern of those present at the meeting was the state classification of soils as capable of supporting agriculture. The classification does not, from the attendees' view,

take into consideration soils of local importance, soils that specifically support agriculture in Warren County. An example cited was Nassau soil.

The invitation and agenda for both public meetings are included in the *Appendix*.

Public Hearing #3 – October 18, 2007 – Comments on Draft Farmland Plan

The Warren CADB will host the third public meeting on the Draft Comprehensive Farmland Preservation Plan on Thursday evening, October 18, 2007 at the Warren County Department of Land Preservation in Oxford. A summary of this meeting will be included in the Final Comprehensive Plan.

Project Area Summaries

The Warren CADB has identified seven distinct project areas within the County's Agricultural Development Area for farmland preservation. These project areas are shown on the *Project Areas Map* included within this Plan and described below. These project areas were developed based upon the public input and comments at the second Public Hearing, by analyzing the County's soils and tillable land areas, as well as productive farmland and existing preserved farmland clusters. Mapping information developed by the Garden State Greenways program was also used in the development of the Project Areas.

Project Area Descriptions

SOUTH PROJECT AREA:

All land within the ADA in Pohatcong Township and Alpha Borough as well as all land within the ADA in Greenwich Township south of Interstate 78.

SOUTHEAST PROJECT AREA:

All land within the ADA in Franklin and Washington Townships as well as all land within the ADA north of Interstate 78 in Greenwich Township.

CENTRAL PROJECT AREA:

All land within the ADA in Liberty and Mansfield Townships.

NORTHEAST PROJECT AREA:

All land within the ADA in Independence, Frelinghuysen, and Allamuchy Townships.

NORTH PROJECT AREA:

All land within the ADA Hardwick and Blirstown Townships as well as all land within the ADA in Knowlton Township north of Interstate 80.

NORTHWEST PROJECT AREA:

All land within the ADA in Hope Township and all land within the ADA in Knowlton Township south of Interstate 80.

WEST PROJECT AREA:

All land within the ADA in White and Harmony Townships.

The below Table summarizes the acreage and parcels within each of the proposed Projects Areas:

Proposed Project Areas:	Total QFarm Parcels		Unpreserved QFarm Parcels		Preserved QFarm Parcels	
	Number Parcels	Acreage	Number Parcels	Acreage	Number Parcels	Acreage
ADA North	523	12,409	480	10,372	42	2,098
ADA Northwest	366	11,717	349	10,358	16	1,359
ADA Northeast	482	14,719	420	10,933	69	3,875
ADA Central	468	12,939	460	12,385	9	731
ADA West	649	17,378	617	15,700	36	1,933
ADA Southeast	630	17,838	570	14,409	62	3,575
ADA South	196	5,464	164	3,637	30	1,827
Subtotal Project Areas:	3,314	92,464	3,060	77,792	264	15,398

Project Area Summaries and Minimum Eligibility Criteria

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

- The size of the total project area (in acres);
- The total acreage of preserved farmland in the project area;
- The acreage of publicly held open space in each project area; and
- The total acreage of prime soils, soils of statewide importance, and unique agricultural soils in each project area.

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

Minimum Eligibility Criteria

Minimum Eligibility Criteria are based upon the SADC’s recently adopted (*May 21, 2007*) rules for farmland preservation and project eligibility. In order to be eligible for preservation the site must be developable, have soils capable of supporting agricultural or horticultural production and meet minimum tillable land standards. (N.J.A.C. 2:76-6.20) 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.
- At least 75% or a minimum of 5 acres of the land (whichever is less) must be tillable.
- At least 75% or a minimum of 5 acres of the land (whichever is less) must be capable of supporting agriculture or horticulture.
- 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%).
- The land must be eligible for allocation of development credits pursuant to a Transfer of Development Credits (TDR) program.

For lands greater than 10 acres:

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

It is important to note that these Minimum Eligibility Standards must be met in order for the State to provide matching funds on a farmland preservation project. The County may proceed without State funding on projects that do not meet these Minimum Eligibility Standards.

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

Farmland that meets the SADC Criteria for Agricultural Soils - Soil acreage was determined using the Soil Survey as prepared by the Natural Resource Conservation Service for prime farmland soils, soils of statewide importance and soils of unique importance. Farm parcels are sorted on size based upon the State Agriculture Development Committee (SADC) Minimum Eligibility Criteria for soils.

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

Information on this Map and Plan regarding farms with agricultural soils is a representation of the GIS data analysis and is subject to individual site review. Farm applications may be submitted that meet the SADC Minimum Eligibility Criteria that are not shown on this map. Any property included within the County's ADA it is potentially eligible for preservation.

Farmland that meets the SADC Criteria for Tillable Land - Tillable acreage was determined using the N.J. Department of Environmental Protection 2002 Land Use/Land Cover mapping for agricultural lands. Farm parcels were sorted on size based upon the State Agriculture Development Committee (SADC) Minimum Eligibility Criteria for tillable land.

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

Information on this Map and Plan regarding farms with tillable land is a representation of the GIS data analysis and is subject to individual site review. Farm applications may be submitted that meet the SADC Minimum Eligibility Criteria that are not shown on this map. Any property included within the County's ADA it is potentially eligible for preservation.

Farmland that meets SADC Criteria for both Tillable Land and Soils – Utilizing the tillable acreage determined from the N.J. Department of Environmental Protection 2002 Land Use/Land Cover mapping for agricultural lands and soil acreage determined using the Soil Survey as prepared by the Natural Resource Conservation Service for prime farmland soils, soils of statewide importance and soils of unique importance, farm parcels were sorted on size based upon the State Agriculture Development Committee (SADC) Minimum Eligibility Criteria for tillable land and soils.

Information on this Map and Plan regarding farms with tillable land and agricultural soils is a representation of the GIS data analysis and is subject to individual site review. Farm applications may be submitted that meet the SADC Minimum Eligibility Criteria that are not shown on this map. Any property included within the County's ADA it is potentially eligible for preservation.

It is important to note that this analysis was completed on an individual “QFarm” basis, whereas a “farm” in many instances is a collection of “QFarm” parcels. Individual parcels that do not meet the state minimum criteria can often be combined to become more competitive applications.

The Project Area Summaries and the farmland meeting the Minimum Eligibility Criteria for each project area are presented in the below tables. As stated earlier, for each category, the land area within each project area is expressed as a ratio between the total acreage for

each category and the total acreage of the project area. Also included is the percentage of each category expressed as a percentage of the total project area.

North Project Area	Acres of ..	Total Acres in Project Area	Ratio	Percent of Project Area with..
Total Preserved Farmland	2,098	23,768	55/623	8.83%
Total Open Space	2,479	23,768	46/441	10.43%
Prime,Statewide, Unique Soils	8,943	23,768	187/497	37.63%
QFarm Parcels with Productive Soils	4,079	23,768	75/437	17.16%
QFarm Parcels with Tillable Land	4,109	23,768	144/833	17.29%
QFarm Parcels with Soils and Tillable Land	2,515	23,768	71/671	10.58%

Northwest Project Area	Acres of ..	Total Acres in Project Area	Ratio	Percent of Project Area with..
Total Preserved Farmland	1,359	17,819	9/118	7.63%
Total Open Space	1,570	17,819	23/261	8.81%
Prime,Statewide, Unique Soils	6,432	17,819	135/374	36.10%
QFarm Parcels with Productive Soils	4,550	17,819	191/748	25.53%
QFarm Parcels with Tillable Land	5,905	17,819	57/172	33.14%
QFarm Parcels with Soils and Tillable Land	3,649	17,819	163/796	20.48%

Northeast Project Area	Acres of ..	Total Acres in Project Area	Ratio	Percent of Project Area with..
Total Preserved Farmland	3,875	20,543	149/790	18.86%
Total Open Space	2,240	20,543	81/743	10.90%
Prime,Statewide, Unique Soils	7,553	20,543	25/68	36.76%
QFarm Parcels with Productive Soils	5,554	20,543	73/270	27.04%
QFarm Parcels with Tillable Land	5,154	20,543	71/283	25.09%
QFarm Parcels with Soils and Tillable Land	3,714	20,543	143/791	18.08%

Central Project Area	Acres of ..	Total Acres in Project Area	Ratio	Percent of Project Area with..
Total Preserved Farmland	731	22,371	5/153	3.27%
Total Open Space	2,126	22,371	44/463	9.50%
Prime,Statewide, Unique Soils	10,401	22,371	444/955	46.49%
QFarm Parcels with Productive Soils	6,982	22,371	152/487	31.21%
QFarm Parcels with Tillable Land	4,540	22,371	83/409	20.29%
QFarm Parcels with Soils and Tillable Land	3,620	22,371	128/791	16.18%

West Project Area	Acres of ..	Total Acres in Project Area	Ratio	Percent of Project Area with..
Total Preserved Farmland	1,933	28,261	61/892	6.84%
Total Open Space	3,232	28,261	82/717	11.44%
Prime,Statewide, Unique Soils	17,767	28,261	149/237	62.87%
QFarm Parcels with Productive Soils	12,174	28,261	423/982	43.08%
QFarm Parcels with Tillable Land	9,661	28,261	147/430	34.19%
QFarm Parcels with Soils and Tillable Land	9,274	28,261	127/387	32.82%

Southeast Project Area	Acres of ..	Total Acres in Project Area	Ratio	Percent of Project Area with..
Total Preserved Farmland	3,575	27,738	128/993	12.89%
Total Open Space	1,988	27,738	21/293	7.17%
Prime,Statewide, Unique Soils	19,404	27,738	156/223	69.95%
QFarm Parcels with Productive Soils	11,510	27,738	261/629	41.49%
QFarm Parcels with Tillable Land	10,561	27,738	91/239	38.08%
QFarm Parcels with Soils and Tillable Land	10,014	27,738	100/277	36.10%

South Project Area	Acres of ..	Total Acres in Project Area	Ratio	Percent of Project Area with..
Total Preserved Farmland	1,827	8,082	26/115	22.61%
Total Open Space	672	8,082	28/337	8.31%
Prime,Statewide, Unique Soils	5,498	8,082	432/635	68.03%
QFarm Parcels with Productive Soils	2,958	8,082	127/347	36.60%
QFarm Parcels with Tillable Land	2,057	8,082	237/931	25.46%
QFarm Parcels with Soils and Tillable Land	2,044	8,082	150/593	25.30%

There are a total of **34,830 acres** of farm assessed land (QFarm Parcels) that meets both the Minimum Eligibility Criteria for soils and tillable land.

There are **114,237 acres** of total assessed farmland in Warren County. The *2002 Census of Agriculture* identifies **78,042 acres** of land in farms, of which **34,830 acres** meet both the soils and tillable land Minimum Eligibility Criteria for farmland preservation. Thus slightly half of the existing farmland in Warren County (45%), as defined by the *2002 Census of Agriculture* meets both the soils and tillable land Minimum Eligibility Criteria as defined by the SADC.

In addition to the State's new Minimum Eligibility Criteria, the SADC has also identified an "Eligible Farm" standard as defined in section 17.2 of the newly adopted rules. In this case, grant funding will be based upon an individual farm having a rank score that is "equal to or greater than 70% of the county's average quality score of all farms granted

preliminary approval by the SADC through the county easement purchase program and/or the county planning incentive grant program within the previous three fiscal years.” The SADC has released this rank score for Fiscal Year 2009 for Warren County, the minimum score for an Eligible Farm is 38. A detailed score listing is included within the *Appendix*. Utilizing this Minimum Score may allow the Warren CADB increased flexibility for identifying potential farmland preservation projects.

County Ranking Criteria

The Warren CADB currently utilizes the state ranking criteria as the basis for calculating the rank of each farm. The CADB has developed its own Ranking Sheet (included within the *Appendix*) that determines 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.

As the County transitions to the new County Planning Incentive Grant program, the CADB will be using the State’s minimum eligibility criteria as the basis for ranking farms for preservation. In special cases where a farm is of special interest, and the CADB purchases land without state funding, it may consider using its current ranking form to prioritize farmland for preservation.

County Policies Related to Farmland Preservation Applications

The Warren CADB follows the SADC’s policies regarding housing opportunities, division of premises and exception areas. Below is a brief summary of the state policies for each of these issues:

Approval of Housing Opportunities

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

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

Residual dwelling site opportunity allocation: Residual Dwelling Site Opportunities (RDSOs) are lingering potential housing prospects located within a deed-restricted farm. By designating an area as an RDSO, the landowner is implying that the land will be used for a residential unit or other structure as referred to in N.J.A.C. 2:76-6.17. These prospective residential units can be allocated to parcels that are at least 100 acres in size. The purpose of the building in question must be for “single-family residential housing and its appurtenant uses.” (*SADC Appraiser Handbook 2007*)¹ To qualify as an RDSO, the SADC requires that the use of the residential unit be for agricultural purposes and “at least one person residing in the residential unit shall be regularly engaged in common farm site practices.”

Division of the Premises

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

Approval of Exception

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

Severable: A severable exception is defined by the SADC as an “area which is part of an existing Block and Lot owned by the applicant which will be excluded from the restrictions of the Deed of Easement and may be sold as a separate lot in the future.” (*SADC Appraiser Handbook 2007*) A severable exception is made “if a landowner wants to be able to sell the excepted area separate from the deed-restricted farm.”

Non-severable: Non-severable exceptions are defined by the SADC as “area which is part of an existing Block and Lot owned by the application that will not be subject to the restrictions of the Deed of Easement but cannot be sold separately from the remaining premises.” (*SADC Appraiser Handbook 2007*) Unlike a severable exception, a non-severable exception is “always attached to the protected farm.”

Exceptions made to farmland have the potential to impact the value of the property. When an appraisal occurs, both severable and non-severable exceptions are considered in the determination of the restricted/ after value of the property.

Funding Plan

Description of County Funding Sources

Prior to the establishment of the dedicated Trust, Warren County funded farmland preservation through a bond. The Warren County Open Space Preservation Trust Fund was initially established in January 1995 and set at two cents. It was subsequently increased in 1999 and again in 2003. The present trust is now at six cents and in 2007 generated approximately \$7,800,000 for farmland, open space, and historic preservation. The present division for the Trust Fund is: 55% farmland, 25% municipal and charitable grants and 20% open space. Approximately 6% to 7% of the Trust is used for administrative costs.

Of the available funding in 2007, approximately \$4,500,000 is available for farmland preservation. To date Warren County has expended \$18,591,819 on 150 projects preserving 15,125 acres. This year, County has available \$8,928,000 in funding of which, \$7,204,675 is encumbered and set aside for farms with final approvals.

Financial Policies Related to Cost-share Requirements Between County and Municipal/ Other Funding Partners/ Installment Purchases

Warren CADB will fund one-half of the difference between the state match and the total cost for preserving a farm, based upon the Certified Market Value, through the municipal Planning Incentive Grant program. The remaining half is funded by the municipalities in the PIG program.

The Warren CADB is supportive of donation/bargain sales and has not recently preserved farms using an installment purchase. Both of these tools serve to leverage limited funding resources and are described below:

Donation and Bargain Sale: This mechanism for preserving a farm involves a 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 County 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. An example of this is the Marra Farm in Washington Township.

Cost Projections and Funding Plan Associated with Preservation Goals

The Warren County Open Space Recreation Farmland Preservation Trust Fund generates approximately \$7.8 million annually. Of this, \$4.5 million is available for farmland preservation this year.

Since 2005, the average cost per acre has increased from \$4,260 an acre in 2004 to \$4,903 an acre in 2005 (13% increase) to \$5,256 an acre in 2007 (19% increase over the three years) (see *Program History Table* in *Chapter 4*). On average, the County pays between 25% and 30% of the cost of an easement with the State paying the remaining share. Since 1989, the average price of purchasing a development easement in Warren County is \$4,559 per acre.

For the 10-year financial analysis, six assumptions were made regarding the growth of the County's Open Space Tax Levy, the rate of increases in land prices and the cost-share between Warren CADB and the SADC. These are described below:

- 1) assume 5% funding growth for Warren County Open Space tax levy
- 2) assume 10% annual increase in the average cost per acre of purchasing an easement
- 3) assume County funding is reduced 10% for administrative costs and due diligence
- 4) assume County funding is not encumbered by prior obligations
- 5) assume County funding is used to pay 100% of the cost of purchasing 100 acres of farmland each year
- 6) assume the County cost share is between 25% and 30%, but for this analysis a variety of cost shares are calculated, using 30% as the minimum participation.

The Open Space Tax Levy is anticipated to grow at a rate of 5% each year. It is also estimated that on average, land values will increase by 10% per year. In special cases where a farm is of special interest, the CADB may purchase land without state funding. For the purposes of this analysis, it is assumed that Warren County may purchase, on average, two 50-acre farms each year as a County direct purchase. Using these assumptions, the following analysis was completed to calculate the funding available to Warren County for farmland preservation:

	Year	Funding for Available	Funding Available	Average
		Less Administration	After Purchasing 2 50-Acre Farms	per Acre Cost
1	2007	4,050,000.00	\$ 3,524,400.00	\$ 5,256.00
2	2008	4,252,500.00	\$ 3,674,340.00	\$ 5,781.60
3	2009	4,465,125.00	\$ 3,829,149.00	\$ 6,359.76
4	2010	4,688,381.25	\$ 3,988,807.65	\$ 6,995.74
5	2011	4,922,800.31	\$ 4,153,269.35	\$ 7,695.31
6	2012	5,168,940.33	\$ 4,322,456.27	\$ 8,464.84
7	2013	5,427,387.34	\$ 4,496,254.88	\$ 9,311.32
8	2014	5,698,756.71	\$ 4,674,511.00	\$ 10,242.46
9	2015	5,983,694.55	\$ 4,857,024.27	\$ 11,266.70
10	2016	6,282,879.27	\$ 5,043,541.97	\$ 12,393.37

Using the above funding formula, and the average cost per acre in Warren County, an analysis was completed to calculate the amount of land that could be purchased in Warren County. At a 30% cost share with the state, the County could preserve slightly more than 2,000 acres each year. Due to uncertainty in the availability of state funding, the analysis was run at 10% intervals. With no funding from the state, the ability of the County to purchase and preserve farmland would be extremely limited. This table also includes municipal PIG projects, since the County cost shares in these as well.

Average per Acre Cost	Year	County Cost Share = 30%	County Cost Share = 40%	County Cost Share = 50%	County Cost Share = 60%	County Cost Share = 70%	County Cost Share = 80%	County Cost Share = 100%
		(plus 100 ac County direct)						
		Acres Preserved Per year						
\$5,256.00	2007	2,335	1,776	1,441	1,218	1,058	938	771
\$5,781.60	2008	2,218	1,689	1,371	1,159	1,008	894	736
\$6,359.76	2009	2,107	1,605	1,304	1,103	960	853	702
\$6,995.74	2010	2,001	1,525	1,240	1,050	915	813	670
\$7,695.31	2011	1,899	1,449	1,179	1,000	871	775	640
\$8,464.84	2012	1,802	1,377	1,121	951	829	738	611
\$9,311.32	2013	1,710	1,307	1,066	905	790	704	583
\$ 10,242.46	2014	1,621	1,241	1,013	861	752	670	556
\$11,266.70	2015	1,537	1,178	962	818	716	639	531
\$ 12,393.37	2016	1,457	1,117	914	778	681	609	507
total acres:		18,687	14,265	11,612	9,843	8,580	7,633	6,306

Farmland Preservation Program CADB Administrative Resources

Staff resources

The County of Warren has a Land Preservation Department that is staffed by Robert Resker, Director, and Susan Beall, Administrative Clerk and a Confidential Aide. The Warren County Agriculture Development Board (CADB) meets the third Thursday of each month. The CADB is composed of seven members and five associate members including the Rutgers Cooperative Extension Agricultural Agent, U.S. Natural Resource Conservation Service, County Planning Director, Planning Board and a representative from the Freeholder Board. Joel Schnetzer is the Chairman of the Warren CADB. The Land Preservation Department oversees Warren County's land preservation program with the County's Agriculture Development Board focus on the farmland preservation program.

Legal support

Legal support for the County's farmland preservation program is provided by special council, Sirkis and Lavery, in Hackettstown.

Database Development and Geographic Information System Resources

The Warren County Department of Land Preservation tracks all farmland preservation projects, including their applications and status. The Department of Planning houses the Geographic Information System mapping and staff for the County.

Factors Limiting Farmland Preservation Implementation

Funding

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

Projected Costs

The value of a development easement in Warren County will vary based upon where the easement is located. For example, easements in areas with poor, rocky soils (such as Hardwick) will cost less than easements in areas where soils are more optimal (such as Greenwich). In addition, the value of a development easement in Warren County has

increased nearly 20% over the past three years. (See *Program History* table in *Chapter 4*) This trend is one that will continue into the future. Much of Warren County's most productive farmland is within the Highlands Planning Area, and thus susceptible to competing development interests and increased land values.

Land Supply and Landowner Interest

As reported in the Census of Agriculture, Warren County has lost 10,000 acres of farmland in a recent ten-year period. Once lost to residential or commercial development, this land cannot be replaced. Of the 78,042 acres of farmland in Warren County, **52,772 acres** are potentially eligible for farmland preservation based upon the new SADC Minimum Eligibility Criteria. The Board of Chosen Freeholders has set a goal of preserving **20,000** acres by 2010, and the CADB is working steadily to meet this goal. Landowner interest remains high and applications continue to be submitted to the CADB for their review. Warren County prides itself on innovative partnerships, which can be seen by the popularity and success of the municipal PIG program (ten towns enrolled!), and local conservation projects with local nonprofit groups, including the Ridge and Valley Conservancy and Morris Land Conservancy. It will take the effort and teamwork of landowners, government officials, nonprofit organizations, and local residents to ensure the farmland preservation program remains popular, supported and successful.

¹ State Agriculture Development Committee, New Jersey Farmland Preservation Program Appraiser Handbook. May 24, 2007. <http://www.state.nj.us/agriculture/sadc/appraiserhandbook.pdf>

CHAPTER 6: ECONOMIC DEVELOPMENT IN WARREN COUNTY



Warren County is a leader in the State of New Jersey in agricultural production. Dairy, crops, and hay form the economic base of the farming industry in Warren County. Building upon this, are the ancillary businesses and infrastructure which support the County's farmers. 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 Warren County is not measured just by acres preserved, but also by the programs put in place to support the farmers and their businesses. The County's agricultural community and its supporting groups and agencies understand that a farmland preservation program constitutes much more than the act of preserving land. In order to be a full partner in a successful farmland preservation program, agriculture as an industry must be vibrant, self sustaining, and innovative.

The State of New Jersey offers Warren County farmers a number of support agencies and programs ranging from technical advice to farm loans. The New Jersey Department of Agriculture (NJDA) *Smart Growth Tool Kit* provides information to support municipal governments, businesses, non-profit groups, and local citizens in their efforts to achieve the goals and objectives outlined in the NJDA *Agricultural Smart Growth Plan for New Jersey, 2006*. (*Agricultural Smart Growth Tool Kit*)¹ (*Agricultural Smart Growth Plan 2006*)² The Tool Kit embraces the five 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.

As part of this emphasis on the business of agriculture, the NJDA has issued its 2007 "Economic Development Strategies", which identifies and proposes strategies to expand and strengthen various sectors of the agriculture industry in New Jersey, including produce, horticulture, dairy, livestock and poultry, field crops, organic, equine, wine, and Agritourism. The NJDA observes that "*local access to large affluent markets has long been an advantage for the marketing of (those) products. While our markets are still there, competition for those markets has become tougher. New Jersey's (produce) industry must continually work to rediscover its competitive advantages, improving access to nearby markets and strengthening consumer loyalty.*" (*Economic Development Strategies*)³ Warren County farmers continue to look for ways to explore new markets, promote their products, and increase the profitability of their agricultural operations.

2007 NJDA Economic Development Strategies

One of the major efforts undertaken by the NJDA is to identify products grown in New Jersey through branding, Agritourism, farm direct sales programs, and farm markets. The NJDA *Economic Development Strategies* for 2007 support the promotion of Jersey products through a variety of markets and mechanisms. (*Economic Development Strategies*) NJDA is committed to promoting Agritourism through the New Jersey Office of Travel and Tourism, the Jersey Fresh website, the distribution of printed materials, and other forms of advertisement. Warren County farms with appropriate activities, as well as County farmers markets and pick-your-own farms, benefit from this state-wide effort.

NJDA's Jersey Fresh and Jersey Grown labels program is expanding its efforts to promote locally grown produce. The Department will continue to increase the Jersey Fresh Hospitality Industry Program. This program works closely with industry to market Jersey Fresh produce to the hotel, restaurant, educational, and institutional food services. This will strengthen the appeal of the Jersey Fresh brand to supermarket chains and all other retailers. The goal is to increase the use of the Jersey Fresh brand name and discourage the use of the "Locally Grown" product claim. Also, by recently establishing the Jersey Organic brand, the Department will continue to promote New Jersey grown organic products as distinct from, and of higher value than, competing products. (*Economic Development Strategies*)

In addition to its dairy and livestock operations, Warren County is among the state-wide leaders in nursery and greenhouse production. In the 2002 drought year, the agricultural industry accounted for \$39.7 million of Warren County's over \$9 billion in total business sales. For 2002, crops (including nursery and greenhouse operations) brought in \$18.4 million, and livestock and poultry (and their products) generated \$21.3 million. Using recommendations outlined in the 2007 "*Economics Development Strategies*" report, Warren County can build upon this strong agricultural base and continue to direct county programs to ensure sustainable agriculture practices and profitability.

The following is a brief discussion of each of the sectors of Warren County's agriculture industry as they relate to the 2007 "*Economics Development Strategies*" report. For each of the sectors, the 2007 report indicates that Warren County farmers should continually seek new local, state, and interstate markets to strengthen market share.

Produce which includes vegetables, fruits, grains, oilseeds, beans and dry peas accounted for total crop sales of \$9.2 million in 2002, or 50% of all crop products. In 2002, the vegetables sub-sector alone accounted for 2,098 acres, and \$4.4 million in sales, or 48% of the produce sector. Due to 2002 drought-related losses, produce sales figures are likely skewed downward as compared to other years. Vegetables in particular are an important component of the County's farm stand and farmer market industry, with vegetables ranking second in the county for agricultural commodity value in 2002. (*Warren County Agricultural Profile*)⁴ Since they do not require as much land to grow, the county can continue to strengthen and expand the produce sector of the agricultural economy as opportunities arise. Some strategies Warren County could follow are:

- Strengthen the *Jersey Fresh Hospitality Program*;
- Promote the *Jersey Fresh* brand;
- Explore “Contract Growing”, that is, growing produce for specific customers on a contract basis;
- Promote farm markets and pick-your-own operations;
- Aggressively market value-added produce products, such as jams and jellies; and,
- Explore various additional products and markets for produce, including local restaurants and grocery markets, and institutions such as schools, hospitals, and prisons.

Nursery, greenhouses, floriculture and sod are important agricultural commodities in Warren County, ranking first in sales for the county’s crop products. This agricultural sector accounted for total sales of \$7.6 million in 2002, or 41% of total crop sales in the county. Whereas other crop categories have remained stagnant or fallen in recent years, sales figures for this sector of the crop industry have risen steadily since 1987, when it was at \$1.1 million. One likely and major reason this sector of the crop industry has become so important is due to the continued non-agriculture population growth in the county and region, providing a ready market for these products. The County can continue to strengthen and expand this sector of the agriculture economy as opportunities arise. Some strategies to follow are:

- Support efforts by NJDA to ensure plant health and disease-free material;
- Increase consumer awareness of the *Jersey Grown* brand;
- Seek contracts with large box store operations such as Home Depot and Lowes; and,
- Promote “drive up” operations where consumers can buy directly from the nursery or greenhouse.

Dairy has historically been the dominant agricultural sector in Warren County. Though still formidable, dairy production has steadily trended downward since 1972, when the County produced over 135 million pounds of milk. By 2005 this quantity had fallen to 35 million pounds, the county’s all time low. The decrease is further reflected by the fact that in 1987 there were 118 dairy farms, as compared to only 45 in 2002. From 1987 to 1997 sales of dairy products decreased from \$12.6 million to just over \$9 million, a nearly 29% drop. A combination of high input costs (land prices and taxes), low milk prices, and unfavorable weather conditions have driven this trend, which may very well continue if strong steps are not taken to reverse it. To sustain and augment the county dairy industry, some strategies Warren County could follow are:

- Promote *Jersey Fresh* dairy products locally and statewide;
- Explore various additional products and markets for dairy, including local restaurants and grocery markets;
- Work to ensure the health of the dairy industry, and the quality of raw and processed milk;
- Work to bring a local processing creamery back to the area;

- Work to bring more livestock veterinarians back to the area. This strategy can include economic incentives, as many veterinarians prefer to treat house pets (dogs, cats, etc.) since it is more profitable;
- Aggressively market value-added dairy products; and,
- Work to lower high input costs, such as property taxes, on dairy farms.

Corn for grain has historically been the dominant field crop in Warren County. In 2002 over 27% of agricultural lands in the county were tilled for corn. However, due to the 2002 drought, that year's production was at a 36 year low of approximately 1.25 million bushels. Sales figures were also lower than usual, at \$3.8 million. Since then, production has risen to approximately 2 million bushels in 2006. Corn requires relatively less labor and costs inputs than produce, nurseries and greenhouses, and livestock, making it more profitable. It is also grown on livestock farms as feed for animals. Therefore, much of the corn grown never makes it to market, and is not included in any census sales figures. To continue and expand its strong market place in the county economy, some strategies Warren County could follow are:

- Explore ways to produce renewable fuels, thus adding a ready market for Warren County corn; and,
- Support the livestock industry which uses corn as feed.

Hay accounts for a small but significant portion of the county's agriculture sales. In 2002 and 2005, approximately 28,000 tons of hay were produced, the third highest state yield. However, these totals are by far the lowest ever recorded for the county. In part, the 2002 drought accounts for that year's low yield. Much of the hay is grown as feed on livestock farms, never making it to market, and is therefore not included in census sales figures. To continue and expand its strong market place in the county economy, some strategies Warren County could follow are:

- Explore new markets, and also ways to expand existing markets; and,
- Support the livestock industry which uses hay as feed.

Livestock and poultry operations include non-dairy cattle, sheep, hogs, and poultry. This has historically been a strong agricultural sector in Warren County. Due to high input costs, many farmers have opted not to engage exclusively in dairy farming, but rather are sectoring their farms into various agriculture products, such as other livestock. If input costs continue to increase it is possible the dairy industry may continue to decline, but the County's farmers can see this as an opportunity to diversify to other agricultural products such as non-dairy cattle, poultry, hogs, and other animals.

Non-dairy cattle are the leader in non-dairy livestock agriculture for Warren County with 5,600 head in 2006, and 187 farms in 2002. Sales of non-dairy cattle exceeded \$1.25 million in 1997, when the number of non-dairy cattle was 5,700. With the slightly lower 2006 figure for number of non-dairy cattle, sales of non-dairy cattle and their products are likely comparable for 1997 and 2002.

Poultry, which includes egg production, meat chickens, turkeys and ducks, is another large livestock industry in Warren County. With over 100,000 chickens, the Ise Poultry Farm in Franklin Township produces the majority of eggs. However, there are 113 smaller scale egg production farms of less than 100 animals. Farms with meat chickens and other birds are also small, selling an average of 68 birds annually.

Hog and sheep farms constitute a relatively small sector of the Warren County agriculture landscape. In 2002, hog farm operations earned \$60,000 with 692 hogs on 44 farms. Sheep farming has exhibited an upward trend from 1997 to 2002, with 1,186 and 1,921 animals, respectively.

To strengthen and expand its place in the county economy, some non-dairy cattle, sheep, hogs, and poultry strategies Warren County could follow are:

- Ensure animal health;
- Explore various additional products and markets, including local restaurants and grocery markets;
- Work to bring more livestock veterinarians back to the area. This strategy can include economic incentives;
- Aggressively market value-added dairy products from goats;
- Assist farmers with farming techniques, regulatory requirements and the latest research for livestock and poultry. This would include continued and additional cooperation with the Rutgers Cooperative Extension of Warren County, NJDA and NRCS; and,
- Promote the Agritourism portion of livestock and poultry, such as petting zoos.

Organic Farming, including crops and animals, is a potentially important market for Warren County. With the increased consumer awareness in food production, organic products and the markets that support them will continue to gain a stronghold on the agricultural economy and become more “mainstream” as people demand high quality, readily accessible, and affordable, organic products. Certification of organic farms is regulated by the U.S. Department of Agriculture via the Organic Food Production Act of 1990, 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. With its strong produce sector, Warren County is in an excellent position to facilitate the market growth of organic and natural agriculture products. Warren County can explore:

- 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;

- Work with NJDA to expand the “Jersey Organic” Brand as a way to promote and market organic products;
- Educate growers about organic and natural regulatory and certification requirements; and,
- Explore ways to support organic food growing and processing.

Equine is a small but viable agriculture sector in Warren County. For the 2005 tax year, there were 1,638 head of equine in the county, with 222 acres devoted to boarding, 44 acres to rehabilitation, and 124 acres to training. (*New Jersey Farmland Assessment 2004*)⁵ Equine acreage grew slightly from 403 acres in 2000, to 412 acres in 2004. (*Warren County Agricultural Profile*) As can be seen from these figures, many of the equine farms in Warren County consist of pasture and stable horses, and provide riding lessons. This fact is not reflected in any sales figures, but contributes to the County’s economy. To continue and retain the County’s market share in the state and regional equine industry, Warren County farmers can:

- Ensure the health of horses;
- Promote the industry at shows and festivals, such as the annual Warren County Farmer’s Fair; and,
- Promote the Agritourism aspect of the equine industry through petting zoos, horse and pony rides, and boarding and riding lessons.

Wine is a small but viable piece of the Warren County agricultural industry. At present, the county has two wineries. Four Sisters Winery at Matarazzo Farms is in White Township, and is an award winning winery, with over 35 regional, national, and international awards. They also host many events, including corporate picnics and weddings. This year Four Sisters Winery hosted the New Jersey Wine and Blues Festival in June, attracting visitors from throughout the region and state. (*Four Sisters Winery*)⁶ Alba Vineyards is located in Pohatcong Township, in the southwest corner of the County. Alba Vineyards hosts numerous public events, plus corporate gatherings and private events up to 300 people. It has also been the recipient of numerous local, national and international awards. (*Alba Vineyard*)⁷ As of 2002, Warren County had 47 acres in grape production. (*Warren County Agricultural Profile*) To encourage the growth of this small, but potentially important market, Warren County can:

- Encourage increased wine production;
- Encourage county wine festivals, and participation in New Jersey annual wine festivals and tours;
- Coordinate with wineries from other New Jersey counties, and New York and Pennsylvania, to grow a regional wine industry;
- Encourage additional cultural and agricultural events in association with wine festivals; and,
- Market wines to local restaurants and retail stores.

Agritourism is an important link in the long term sustainability of Warren County’s agriculture industry. According to the 2007 “*Economic Development Strategies*”,

“Agricultural tourism draws upon two great strengths of the Garden State, a rich agricultural heritage and a large population of affluent consumers”, and “ ... Agritourism is critical to ensuring the future viability of agriculture in the state.” (*Economic Development Strategies*) Agritourism can be not only county wide and regional, but also interstate to draw visitors from the neighboring states of New York and Pennsylvania.

Warren County has a successful Agritourism program, as evidenced by the many farm stands, pick-your-own operations, and also the Washington Borough Weekly Farmer’s Market held on Fridays from 3 to 7 p.m., between June and September. The Farmer’s Market is now in its fourth year. The Warren County Agriculture Development Board can investigate the possibility of establishing a permanent, three season farmer’s market, which would greatly assist local farmers in selling farm and value-added products, thus strengthening the business of agriculture within the county.

The county’s Agritourism program is highlighted by the brochure entitled “Enjoy Four Seasons of Agriculture in the New Jersey Skylands.” This informative brochure includes the seven counties of Bergen, Hunterdon, Morris, Passaic, Somerset, Sussex and Warren, and provides names, addresses, websites and telephone numbers of farms within the seven counties, and the types of activities (such as hayrides). The brochure also lists ancillary facilities for tourists to enjoy, such as camping, bed and breakfasts, and state parks and forests. The brochure is available at www.njskylands.com.

A highly successful example of Agritourism in the county is the seven-day Warren County Farmer’s Fair held yearly at the County Fairgrounds in Harmony Township. The Farmer’s Fair highlights the past and present agriculture heritage of Warren County, has been operating since 1937, and is extremely popular with area residents, drawing thousands of visitors each year. (*Warren County Farmer’s Fair*)⁸ More information on the fair can be found at <http://www.warrencountymfarmersfair.org/>.

Included within the *Appendix* is a list of the farm stands and pick-your-own farming establishments found throughout Warren County. The Warren County Agriculture Development Board can consider establishing a permanent signage program to alert and direct tourists and local residents to these establishments. Signage could help increase business and income for these farming establishments.

Agricultural Industry Retention, Expansion and Recruitment

By providing key strategies and techniques, the NJDA 2007 “*Economic Development Strategies*” endorses as critical the expansion and strengthening of all areas of the agriculture industry. (*Economic Development Strategies*) There are many key items to the economic expansion, development, and solidification of Warren County’s agricultural industry. Certainly, diversity of agricultural commodities to broaden the agricultural base now dominated by corn, dairy, and horticulture would help to ameliorate any economic downswing in either the general economy or a specific sector of the county’s agriculture

industry. Some key items that the Warren County agriculture community can consider for economic development and sustainability are:

“Sell” agriculture as part of the Warren County “landscape”. There are competing demands on Warren County’s land base. There has been a decline in amount of farmland acreage in Warren County (87,358 acres in 1982 as compared to 78,042 acres in 2002 (*Warren County Agricultural Profile*)), as land is lost to residential and commercial development. Contrasting this is the highly successful County farmland preservation program, having protected over 15,000 acres since 1989.

As more and more Warren County farmland becomes preserved, and support for agriculture is woven into various sectors of the County’s economy, farming will indeed become a permanent facet of life in Warren County, diminishing any perceived agriculture impermanence syndrome the general public may have. A coordinated effort to “sell” agriculture as a way of life that is enduring and significant to the county and its economy, will ensure area residents are aware of the enduring benefits of farmland, and solidify public economic support for the agriculture industry. Signage on preserved farms and other outreach mechanisms, such as adult and youth farmer education, the Warren County Farmer’s Fair in Harmony Township, Washington Borough Farmer’s Market, farm stands and pick-your-own operations, and Community Supported Agriculture will work to enhance farming throughout the County.

Supply products including farming equipment such as tractors and diskers, seeds, fertilizers, herbicides, fungicides, pesticides, etc. Large scale agriculture suppliers, which supply medium to large size agriculture operations, no longer exist in Warren County. The only suppliers in the area are several small, local suppliers. Without an adequate amount of suppliers within reasonable driving distances of farms, the business of farming can become so expensive and time consuming, so as to not be profitable. The county agricultural community can pursue options, which may include tax incentives, to entice suppliers to return to Warren County. As agriculture in Warren County becomes more “permanent” through increased preservation efforts, former suppliers who have left the area may return if they sense that a profitable supply business can be operated in the area.

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

Equipment and supply stores in the area include:

- Gro-Mart in Bloomsbury, Hunterdon County
- D&R Equipment in Ringoes, Hunterdon County
- New Holland Equipment in Washington Township, Warren County

- Smiths Tractor in Washington Township, Warren County
- Frank Rymon and Sons in Washington Township, Warren County
- Tractor Supply in Sussex County
- Farmside Supplies in Sussex County

Inter-county cooperation and healthy competition among New Jersey counties with strong agricultural economies and heritages should be the norm, not the exception. The more broad based (i.e. multi-county or state-wide) agriculture is, the better chance it has to succeed long term. This cooperation to strengthen the agricultural base is evidenced by marketing efforts such as the successful brochure “Enjoy Four Seasons of Agriculture in the New Jersey Skylands”. Regular cooperation among the different County Agriculture Development Boards, Boards of Agriculture, and local Chambers of Commerce, is critical to this effort.

Farmers need to be adaptable to farm for, and supply, emerging markets in and out of the county. Farms in the county, while increasing in total number from 1982 (608) to 2002 (814), have decreased in average size during that same time period (144 acres in 1982, down to 96 acres in 2002). (*Warren County Agricultural Profile*) This decrease in farm size, also typical of other New Jersey farming counties, is due in large part to the decline of large acreage dairy farms. Subsequently, farms are being subdivided to facilitate the increase in beef cattle, equine, nursery and greenhouse, sheep, and goat farms, which require less acreage. As an example of adaptability, the county’s larger farms can (and do) grow hay and corn for the rising equine and beef cattle industries within the county. Also, smaller farms mean more opportunity to focus on specialized farm products for designated customers. As agriculture is indeed a business, farmers must continue to be adaptable to change with the needs and wants of its customer base. Support from the Warren County Agricultural Development Board, Board of Agriculture, N.J. Farm Bureau, and Community Supported Agriculture groups is vital to help the agriculture community be adaptable, and stay profitable.

Market Research – Working closely with Rutgers University Food Policy Institute, and the Rutgers Cooperative Extension of Warren County, the County’s agriculture community may identify and integrate market research on agriculture and economic trends. In this way, Warren County will remain a leader in New Jersey’s agriculture community. The Food Policy Institute can be reached at (732) 932-1966.

Promote in-state, permanent markets – The county agriculture community can seek contracts with state agencies such as the Department of Corrections for prison use, and for all levels of 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 Warren County agriculture community.

Flexible regulatory programs with various agencies – The 2006 *Agricultural Smart Growth Plan for New Jersey*, prepared by the NJDA, identified flexibility in government regulation as an important component relative to farm viability. (*Agricultural Smart*

Growth Plan 2006) The Warren County Agriculture community can work with the New Jersey Department of Agriculture, and through advocacy groups such as the New Jersey Farm Bureau and Warren County Board of Agriculture, to ensure regulatory flexibility to the greatest extent possible. Examples where regulatory flexibility is important are the New Jersey Department of Environmental Protection’s Freshwater Wetlands Protection Act Rules” (N.J.A.C. 7:7A-et. seq.), which grant exemptions for agricultural activities, and also the Flood Hazard Area Control Act Rules (N.J.A.C. 7:13). The latter, when readopted in the later part of 2007, should include numerous agricultural permits-by rule and general permits, which would allow the continuation of agriculture activities in otherwise regulated areas.

The New Jersey Farm Bureau (Bureau) is an advocacy group for New Jersey farmers. Its mission “*is to represent agricultural producers and enterprises at all levels of government - local, state, federal and international. This representation includes the influence of regulations and laws, the creation of positive public relations, and the seeking out of initiatives, activities and ventures to help the profitability of the producer members. This organization will remain faithful to the democratic process managed by representatives from every part of the state*” Robert Frey is the Director for the Warren County Chapter, and Sam Race is the alternate. (*New Jersey Farm Bureau*)⁹

Discussions with the Bureau indicate that farming is extremely difficult in Warren County and the state due to three major factors. The first of these is due to high property taxes, high land values, and high insurance costs; farming in New Jersey is extremely expensive relative to other parts of the country, which in turn reduces profit margins for New Jersey farmers. Simply put, it is extremely difficult to make money as a farmer in Warren County. Second, the regulatory environment in New Jersey is extremely harsh, mostly due to NJDEP regulations. Examples are required stream buffers, which reduce acreage which can be farmed, and also protection for threatened and endangered species. Third, is that commodity prices in New Jersey are lagging behind other parts of the country, and a farmer’s time is therefore not adequately compensated. Suggestions to make farming more profitable for New Jersey farmers include:

- A moratorium on downzoning, since this lowers a farmer’s land equity;
- An immigration bill with a guest worker program;
- More regulatory flexibility;
- Full funding for open space; and,
- Full funding for Transfer of Development Rights, especially in the Highlands Region.

(*Peter Furey, New Jersey Farm Bureau*)¹⁰

Warren County has much cropland devoted to corn, and other farm products, which could be used to produce ethanol. At present, there are no plans to build an ethanol plant in the northern part of New Jersey. However, there is potential that such a plant could be built in the southern part of New Jersey, or in Delaware State. (*Steve Komar*)¹¹ Warren County can closely follow developments relative to such a plant, and farmers can poise themselves to sell “raw materials” to an ethanol plant. Such a plant could prove to be an

economic engine for Warren County farmers. Perhaps Warren County farmers could, in conjunction with farmers from adjacent counties, form a cooperative to share the cost and logistics of shipping raw materials to an ethanol plant. The County can also encourage state and local governments, as well as constituency groups, to encourage the development and building of an ethanol plant.

It should be noted that switchgrass utilizes less of the groundwater resource, and fewer pesticides and other chemicals, than corn. (*Kent Hardmeyer*)¹² As such, the county can consider encouraging the appropriate entities to develop an ethanol plant that utilizes more switchgrass than corn. Such a plant could not only aid the economic development of Warren County, but would also add to the long term goal of natural resource conservation.

Warren County can work closely with municipalities to encourage towns to include agriculture in economic development plans, municipal master plans, and local zoning, and to engage towns to support locally grown agriculture and Agritourism. This “bottoms up” approach would foster a broad base for agriculture within the county, helping to assure economic viability. One way for townships to support locally grown agriculture is to pass and enforce Right to Farm ordinances. Fourteen of the 22 municipalities in Warren County have such ordinances, which are presented in *Chapter 8* of this plan.

Minimum wage impact on farm businesses – In January 2006, the “Agriculture Transition Policy Group” (Group), composed of government and industry representatives, submitted a report to then Governor-elect Corzine, with recommendations to keep agriculture strong and viable in the Garden State. The Group reported a serious problem facing New Jersey farm employers. This was the State minimum wage, which was raised to \$6.15 per hour in October 2005, followed by a second increase to \$7.15, effective October 2006. Many farm employers struggle to cope with the multiple financial effects of these legislated mandates. The minimum wage is frequently used in agriculture as an “indicator wage,” the basis to peg other wage rates, year-end bonuses and a host of other non-wage benefits that are part of the employee’s remuneration. (*Report of the Agriculture Transition Policy Group*)¹³ With production costs in New Jersey higher than in most other areas, due in part to high labor costs, it is more costly and less profitable to produce farm commodity items in New Jersey than elsewhere. A comparison of neighboring states indicates New York with a minimum wage of \$7.15 per hour, and Pennsylvania with a minimum wage of \$6.25 per hour, putting Pennsylvania farmers at a labor price advantage over Warren County farmers.

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. With the exception of the Great Meadows area, Warren County has relatively little production of these products. Other products such as corn, dairy, beef cattle, and horticulture, which are more prevalent in Warren County, 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 Warren County farmers as they are for farmers in other parts of the state that have major produce agriculture industries.

The Rutgers Cooperative Extension (RCE) of Warren County and the Rutgers University Agricultural Experiment Station are vital to the long term economic sustainability of agriculture in Warren County, and the State of New Jersey. Farmer education programs keep the Warren County agriculture industry apprised of the most recent farm research and techniques, which helps Warren County farmers to remain competitive. The Future Farmers of America (FFA) organization trains young people in agriculture practices, preparing them to be future Warren County farmers. Both the RCE and FFA are discussed in detail in *Chapter 8*.

Warren County Economic Development Programs

Warren County has a budding economic development program to assist the county's agricultural community to stay strong and vibrant. The following is a listing and brief discussion:

Livestock Cooperative Auction – This is a co-op run by the Auction Market Association of North Jersey, comprised mostly of farmers, and has been operating since 1941. Farmers, as well as restaurants and private individuals sell, buy, and trade livestock, eggs and crops. Most of the sheep, lambs, goats, hogs, and cattle are sold to slaughterhouses, which use the animals for use in food products. Dairy cows are bought and sold by farmers. Private individuals and restaurants buy mostly eggs. (*The Daily Record*)¹⁴

The Auction is located on Stiger Street in Hackettstown, and is open every Tuesday from 11 am to 8 pm throughout the year. It is one of only two remaining livestock auctions in the state, and is a staple of the Warren County agriculture industry. (*The Daily Record*)

Farmer's Market – The Washington Borough Weekly Farmers Market is held on Fridays from 3 to 7 p.m., between June and September, and is located on Route 57 in the United Methodist Church parking lot, just west of the Route 31 intersection. Now in its fourth year, the Farmer's Market offers for sale various fruits, vegetables, homemade sausage, grains and other products grown or made by local farmers. For the second consecutive year there will also be cooking contests the last Friday in July, August and September. This year the NJDA's Jersey Fresh program awarded the Washington Borough Business Improvement District a grant to help promote the market. (*Washington Borough Business Improvement District*)¹⁵ Further information about the Farmers' Market can be found at www.washingtonBID.org.

The Warren County Agriculture Development Board can investigate the possibility of establishing a permanent, three season farmer's market, which would greatly assist local farmers in selling farm and value-added products, thus strengthening the business of agriculture within the county.

Community Supported Agriculture – Economic support of the Warren County agricultural community also comes from local grass roots groups. This support is embodied in Community Supported Agriculture 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
(*National Agricultural Library*)¹⁶

A local, grass roots group supporting community agriculture is The Food Shed Alliance (FSA). The FSA is a non-profit group devoted to “promoting profitable, sustainable farming and locally-grown, fresh, healthy food in northwestern New Jersey”. The FSA closely links the health of land and communities with the existence of local farms, believing that farmers are the key in connecting people with “food, the land, and our sense of place”. These tenets foster a “self-sustaining “food shed” that supports farmers, nourishes people, respects the land, and strengthens (our) communities.” (*Food Shed Alliance*)¹⁷

An extension of the FSA’s work is the Northwest Jersey “Buy Fresh, Buy Local” Campaign. This is an effort by the Food Shed Alliance, local farmers, and community leaders to build connections between farmers and consumers through food guides, food and farming events, and community outreach, and therefore encourage local residents to buy fresh, local produce. As part of the “Buy Fresh, Buy Local” campaign, the FSA sponsored the 2nd annual “Farm and Food Open House” on Saturday, September 8, 2007. This event featured farm tours, tastings at local farms, and special family oriented events at the farms. Participating Warren County farms included the Community Supported Garden at Genesis Farm, Race Farm, Howling Wolf Farm, Donaldson’s Farm and Best’s Fruit Farm. (*Buy Fresh, Buy Local*)¹⁸

Additional Resources

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

To help solidify Agritourism and the agriculture business in the county, the New Jersey Department of Agriculture lists on its website over 30 Warren County roadside markets and pick-your-own farms. The lists indicate farm or market name, contact information, location, and products available. (*Roadside Markets*)¹⁹ The Warren County agriculture

community can work with NJDA to keep the lists updated and current. The *Appendix* contain these tables, as well as tables with cut your own Christmas tree operations, (*New Jersey Christmas tree Growers Association*)²⁰ and equine operations. (*New Jersey Equine Advisory Board*)²¹

The New Jersey Department of Agriculture lists various informational Agriculture Economic Development Services at its website, and Warren County Farmers should use these resources as appropriate. These include:

- Agriculture credit and finance;
 - Business development for agriculture, food manufacturing and related industries;
 - Farm building construction;
 - Farmland assessment;
 - Motor vehicle regulations for agriculture;
 - Real property appraisal manual, farm building section;
 - Recycling for agriculture;
 - Risk management and crop insurance;
 - Sales and use tax on farmer's purchases; and,
 - Trespass, vandalism, and liability on farms.
- (*Agricultural Development Services*)²²

Sustainable Agriculture Research and Education (SARE) is a “United States Department of Agriculture competitive grants program with regional programs and regional leadership. SARE supports research and education that helps build the future economic viability of agriculture in the United States. SARE funding is authorized under Subtitle B of Title XVI of the Food, Agriculture, Conservation and Trade Act (FACTA) of 1990.” (*SARE*)²³ SARE funds are used for:

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

SARE has the following outcome statement: “Agriculture in the Northeast will be diversified and profitable, providing healthful products to its customers; it will be conducted by farmers who manage resources wisely, who are satisfied with their lifestyles, and have a positive influence on their communities and the environment.” (*Northeast Sustainable Agriculture Research and Education*)²⁴ As defined in FACTA of 1990,

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

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

(Northeast Sustainable Agriculture Research and Education)

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

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

(Agricultural Marketing Resource Center)²⁵

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

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- ¹ New Jersey Department of Agriculture. Agricultural Smart Growth Tool Kit “Planning for Agriculture”. <http://www.state.nj.us/agriculture/toolkit.htm>. Accessed June 2006.
- ² New Jersey Department of Agriculture, Agricultural Smart Growth Plan 2006. <http://www.state.nj.us/agriculture/pdf/smartgrowthplan.pdf>. Accessed March 27, 2007.
- ³ New Jersey Department of Agriculture, 2007 Economic Development Strategies.
- ⁴ New Jersey Department of Agriculture, State Agriculture Development Committee, Agriculture Census Data, Warren County Agricultural Profile. April 13, 2007.
- ⁵ New Jersey Farmland Assessment 2004, Tax Year 2005 – County Summary, County=Warren.
- ⁶ Four Sisters Winery at Matarazzo Farms. <http://foursisterswinery.com/>. Accessed July 8, 2007.
- ⁷ Alba Vineyard, <http://www.albavineyard.com/>. Accessed September, 16, 2007
- ⁸ Warren County Farmer’s Fair. <http://www.warrencountymfarmersfair.org/>. Accessed July 8, 2007.
- ⁹ New Jersey Farm Bureau, <http://www.njfb.org/>. Accessed September 16, 2007.
- ¹⁰ Personal Communication with Peter Furey, New Jersey Farm Bureau. June 18, 2007.
- ¹¹ Personal communication with Steve Komar, Rutgers Cooperative Extension of Sussex County. May 30, 2007.
- ¹² Personal communication with Kent Hardmeyer, United States Department of Agriculture, Natural Resources Conservation Services. May 15, 2007.
- ¹³ Report of the Agriculture Transition Policy Group, Final Report, January 10, 2006. <http://www.state.nj.us/governor/home/pdf/agriculture.pdf>. Accessed March 11, 2007.
- ¹⁴ The Daily Record, Hackettstown: A Day in the Life - April 16, 2002. <http://www.dailyrecord.com/news/dayinthelife/hackettstown/bidders.htm>. Accessed July 8, 2007.
- ¹⁵ Washington Borough Business Improvement District. <http://www.washingtonbid.org/>. Accessed July 8, 2007.
- ¹⁶ United States Department of Agriculture, National Agricultural Library, Alternative Farming Systems Information Center, Community Supported Agriculture. <http://www.nal.usda.gov/afsic/pubs/csa/csa.shtml>. Accessed June 30, 2007.
- ¹⁷ Food Shed Alliance. <http://www.foodshedalliance.org/Foodshed%20WebPages/Foodshed%20Pages/whatweareabout.htm>. Accessed June 30, 2007.
- ¹⁸ Buy Fresh, Buy Local. <http://www.buyfreshnj.org/WebPages/OurCampaign.htm>. Accessed June 30, 2007.
- ¹⁹ New Jersey Department of Agriculture, Roadside Markets, Pick Your Own Farms and Community Farmers Markets, <http://www.state.nj.us/jerseyfresh/searches/index.html>. Accessed May 28, 2007.

²⁰ New Jersey Christmas Tree Growers Association, 2006 Choose & Cut Christmas Tree Guide, <http://www.njchristmastrees.org/>. Accessed May 28, 2007.

²¹ New Jersey Department of Agriculture, New Jersey Equine Advisory Board; 2006 Directory of Equine Facilities.

²² New Jersey Department of Agriculture, Agricultural Development Services. <http://www.state.nj.us/agriculture/divisions/md/prog/agricultureconomic.html#top>. Accessed July 8, 2007.

²³ New Jersey Department of Agriculture, Sustainable Agriculture Research and Education (SARE). <http://www.state.nj.us/agriculture/grants/sare.html>. Accessed May 20, 2007.

²⁴ Northeast Sustainable Agriculture Research and Education. http://www.uvm.edu/~nesare/what_is.html. Accessed July 8, 2007.

²⁵ Agricultural Marketing Resource Center, Mission and Goals. <http://www.agmrc.org/agmrc/About+mission++goals.htm>. Accessed May 20, 2007.

CHAPTER 7: NATURAL RESOURCE CONSERVATION



Preservation of farmland is the cornerstone of the New Jersey Department of Agriculture’s (NJDA) *Agricultural Smart Growth Plan* and the Farmland Preservation Program. However, there is more to farmland preservation than retirement of development rights or outright purchase of farms. One of the cornerstones to a successful, long term Farmland Preservation Program is the conservation of natural resources on farms, without which the long term sustainability and viability of New Jersey’s preserved farmland would be in doubt.

Natural Resource Protection Agencies

There are numerous entities, both public and private, which administer, fund, and provide technical guidance for Warren County farmers relative to natural resource conservation. These entities are in place to assist farmers with natural resource conservation issues, and should be called upon by farmers for appropriate assistance.

Natural Resource Conservation Service

An important partner in support of natural resource conservation for the agricultural community is the United States Department of Agriculture (USDA)’s Natural Resources Conservation Service (NRCS). The NRCS “*provides assistance to private land owners (including farmers) in the conservation and management of their soil, water, and other natural resources. Local, state, and federal agencies and policymakers also rely on (its) expertise*”. The NRCS provides technical assistance suited to the natural resource issues that are specific to a farmer’s needs, with ample opportunity for cost shares and financial incentives. (*Information For Farmers*)¹

The local NRCS office serving Sussex, Warren, and Morris Counties is located at 101 Bilby Road, Suite 1H in Hackettstown. Warren County farmers may utilize this local NRCS office for assistance. NRCS will also reach out directly to landowners if they know of a farmer who is in need of technical assistance, or can use the guidance of the NRCS staff. The local NRCS office also helps to prepare Conservation Plans for Warren County Farmers. These Conservation Plans nearly always include strategies to conserve soil and water, but may also include conservation practices for flora, fauna and clean air. If all five elements are included, they are referred to as Resource Management Plans. (*Kent Hardmeyer and/or Ron Phelps*)²

Within one year of selling their development easement, owners of preserved farms are required to enter into a Conservation Plan. The Plans are also required to apply for natural resource conservation program grants such as the Wildlife Habitat Incentive Program (WHIP) and Environmental Quality Incentive Program (EQIP). The local NRCS office administers these conservation program grants, which offer financial incentives to support conservation projects, including stream riparian buffers and wildlife habitat. Administration of these grant programs includes field visits to prepare the Conservation Plans, preparation of grant program contracts, assistance with installation of contract conservation practices, and inspection of farms to verify that contract conservation practices are implemented and maintained. It should be noted that the Warren County Soil Conservation District gives final approval on all Conservation Plans and program contracts (*Kent Hardmeyer and/or Ron Phelps*), and the USDA, Farm Service Agency (FSA) assists NRCS in administration of an additional natural resource conservation program entitled Conservation Reserve Enhancement Program (CREP). (*Ken Bingham*)³

Discussions with the local NRCS office indicate the following strategies would strengthen natural resource conservation efforts for Warren County farms:

- The federal government needs to replenish funding for natural resource conservation grant programs via the proposed 2007 Farm Bill. Currently, all funds are depleted.
- As previously stated, owners of preserved farms are required to enter into a Conservation Plan within one year of selling their development easement. However, enforcement of this requirement is inconsistent. 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.

(*Kent Hardmeyer and/or Ron Phelps*)

The phone number for the local NRCS office is (908) 852-2576, and the District Conservationist is Ronald Phelps. He can also be reached at ron.phelps@nj.usda.gov. (*New Jersey*)⁴ Mr. Phelps and his staff (listed below) can be contacted by Warren County Farmers for assistance, and more information on the availability of NRCS programs in the county.

- Kent Hardmeyer - Resource Conservationist, Highlands Planning Specialist
- Madeline Dean - Program Assistant
- Jim Kleindienst - Civil Engineering Technician
- Jill Koehler - Natural Resource Specialist, Grazing Lands
- Jim Wick - Resource Conservationist

An additional resource for Warren County farmers is the “Field Office Technical Guide” (Guide), which is published by NRCS. It contains technical information about the development and implementation of soil, water, air, flora, and fauna resource conservation practices, and is used to develop Conservation Plans. Each state has its own Guide, which lists and discusses conservation practices particular to a state. These conservation practices

improve water and soil quality, improve plant condition, and in some instances can improve air quality. Conservation practices discussed in the Guide that are pertinent for Warren County include:

- Riparian Buffers, including necessary buffer widths and plant species;
- No till and minimum till practices;
- Prescribed grazing and pasture rotation;
- Nutrient management, including manure and fertilizers; and,
- Animal waste disposal.

(Kent Hardmeyer and/or Ron Phelps)

Warren County Soil Conservation District

Another partner in the conservation of agricultural resources is the New Jersey Department of Agriculture, Division of Agricultural and Natural Resources. Among its responsibilities, the Division implements the natural resource conservation programs, administered by the State Soil Conservation Committee (SSCC). These programs “*provide engineering services and regulatory guidance to soil conservation districts, homeowners, engineers, planners, and virtually all development activities. The Division provides technical standards applicable to construction and mining sites regulated by the Soil Erosion and Sediment Control Act program ...*” *(Agricultural and Natural Resources)*⁵

The SSCC coordinates and supports the work of the state’s 15 local soil conservation districts (SCD), one of which is the Warren County SCD. The Warren County SCD is charged with reviewing and approving natural resource conservation and assistance program grants, implementing 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. *(Agricultural and Natural Resources)*

The Warren County SCD office is located at 224 West Stiger Street in Hackettstown. Warren County Farmers may approach this local SCD office with a Request for Assistance (RFA), to apply for funds from natural resource conservation grant programs such as WHIP and 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 grant program contract, as previously described. The Warren County SCD is involved in review of conservation plans and grant program contracts, and must give final approval to both. *(Kent Hardmeyer and/or Ron Phelps)*

The phone number for the Warren County SCD office is (908) 852-2579, and the District Manager is Dave Schaaf. He can also be reached at dsscd@verizon.net. Mr. Schaaf and his staff (listed below) can be contacted by Warren County farmers for assistance. *(New Jersey)*

Mary Baldwin - Erosion and Sediment Control Program Coordinator

Mike Fee - District Forester
Cathie LaBar - Inspector
Helene Timbrooke - Administrative Assistant

Rutgers Cooperative Extension of Warren County

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

Relative to natural resource conservation, the RCE of Warren County offers the Agriculture and Natural Resource Management program. This education program provides “*non-biased, research-based educational programs and services for both homeowners and commercial producers. Services offered by extension personnel include soil testing, insect identification, plant disease diagnosis, and pest management recommendations for agricultural operations*”, as well as “*educational publications covering a wide range of agricultural topics*”. Staff members offer programs that are, among other things, designed to “*reduce environmental impact.*” (*Agricultural Experiment Station*)⁶ An example of this service is helping to prepare animal waste management plans, so as to reduce impacts to watersheds.

The RCE of Warren County is located in the Warren County Administration Building, Suite 102, 165 County Route 519 South in White Township (mailing address of Belvidere). Extension agents include Bill Tietjen, specializing in plant pathology for ornamentals, Christmas trees, fruits, vegetables, and greenhouse nurseries. Extension agent Everett Chamberlain specializes in field crops and livestock. (*Bill Tietjen*)⁷ They may be contacted with any questions or concerns, or for information on education programs or services. Mr. Tietjen can be contacted via e-mail at tietjen@njaes.rutgers.edu and Mr. Chamberlain at chamberlain@rce.rutgers.edu. Both can be contacted via phone at 908-475-6503.

The SSCC, NRCS, Warren County SCD, and Rutgers Cooperative Extension (RCE) of Warren County, are part of the New Jersey Conservation Partnership. This partnership of agencies strives to further soil and natural resource conservation efforts. (*Agricultural and Natural Resources*)

New Jersey Department of Environmental Protection

The New Jersey Department of Environmental Protection’s (NJDEP), Division of Parks and Forestry, oversees the “Private Lands Management Program”. The aim of this program is to foster wise stewardship and management of the state’s 270,000 acres of private woodlands currently under Farmland Assessment. (*Division of Parks and Forestry*)⁸ Many properties in Warren County that are farmland assessed include extensive woodland tracts. Such tracts were added as “farm products” in the 1970’s. These woodland tracts, which

must be utilized by the farmer as a sustainable “product”, require Woodland Management Plans (WMPs) to receive reduced local property taxes accorded properties in the farmland tax assessment program. (*Jim Barresi*)⁹

The NJDEP's Division of Parks and Forestry, Bureau of Forest Management (BFM), reviews applications for WMPs, which are prepared for farmers by private consultants. Once a WMP is in place, a “Woodland Data Form” must be submitted yearly to certify that the WMP is being complied with. However, the NJDEP, BFM, also inspects each site once every three years to verify compliance with WMP conditions. (*Jim Barresi*) Since reduced local property taxes are often critical in keeping active agricultural lands economically viable, the NJDEP is an important partner for Warren County’s farmland preservation efforts.

Non-appurtenant woodlands are woodland acreage on a farm over and above total farmed acreage (tilled and pasture). So, 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). Non-appurtenant woodlands require a WMP. In Warren County in 2006 there were 27,195 acres of non-appurtenant (or unattached) woodland acres in farmland assessment, down from 2004 when there were 28,429 acres. (*Jim Barresi*) Both these figures are down from the peak of 28,757 acres in 2002. In 1990 there were 19,961 non-appurtenant acres in farmland assessment. (*Warren County Agricultural Profile*)¹⁰ Appurtenant woodlands are woodland acreage on a farm, less than or equal to, farmed acreage. So, in the preceding example, 50 of the 125 woodland acres would be appurtenant. Appurtenant woodland acres do not require a WMP. (*Jim Barresi*) In 2004 there were 15,012 acres of appurtenant (or attached) woodlands in farmland assessment, such total having decreased from 19,229 acres in 1990. (*Warren County Agricultural Profile*)

The New Jersey Department of Environmental Protection’s Nongame and Endangered Species Program also administers the Landowner Incentive Program (LIP). LIP works to improve habitat, habitat management, and habitat protection for threatened and endangered species on private lands, some of which are agricultural lands. Project durations must be for a minimum of five years, and the property owner contributes a minimum 25 % cost share. Some grain farmers have expressed concern over the use of LIP. This is because it not only provides habitat for threatened and endangered species, but also for such nuisance wildlife as deer and turkey, which are known to cause severe loss to farm products including corn.

In Warren County there are a total of 1010 acres enrolled in LIP on 16 farms. Of this, 620 acres are planted in warm season grasses, while on the remaining 390 acres delayed mowing is utilized to satisfy LIP habitat requirements. LIP has been in existence for three years, and funding for the program is competitive due to available funds not being equal to funding requests.

(*Kim Korth, New Jersey Department of Environmental Protection, Non-game Endangered Species Program*)¹¹

USDA, Forest Service's Forest Stewardship Program

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

In Warren County, as of 2007 there are 4,275 acres of farmland on 73 different properties enrolled in the Forest Stewardship program. This has steadily increased since 2003, when there were 3,198 acres on 59 properties. (*Jim Haase, New Jersey Department of Environmental Protection, New Jersey Forest Service*)¹²

Private non-profit groups and private citizens

Agriculture needs not only the broad support of state, county, and local governments to help preserve agriculture resources, but also the help of private non-profit groups and citizens. Indeed, without their support, government programs and support for agriculture would fall short of what is needed to protect the natural resource base of the agricultural landscape. These groups and citizens spend countless hours providing and sharing their expertise, as well as raising and contributing money. They are invaluable in assisting with all phases of farmland preservation for Warren County, including natural resource conservation and stewardship.

The Warren County 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 non-profit organizations also contribute to the permanent protection of farmland. These groups include the Morris Land Conservancy, the Nature Conservancy, New Jersey Audubon Society, New Jersey Conservation Foundation, Ridge and Valley Conservancy, and the Musconetcong Watershed Association.

The Warren County agriculture community, via the County Agriculture Development Board (CADB) and County Freeholders, can work with non-profit organizations and private citizens in a coordinated fashion to further the farmland preservation program in

Warren County. Warren County has partnered with the Ridge and Valley Conservancy on several farmland preservation projects, and is working with Morris Land Conservancy on the completion of several additional farmland projects.

Resource Protection Programs and Funding

2002 and 2007 Farm Bills

The Farm Security and Rural Investment Act of 2002 (2002 Farm Bill) is landmark legislation, with much of its focus on conservation funding and environmental issues. Conservation provisions are designed to assist farmers in being good stewards of the land through grants and technical assistance. Voluntary programs relevant to New Jersey, and Warren County, include 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). (*Conservation Programs*)¹³ These programs, administered by the local NRCS office in Hackettstown and the Warren County Soil Conservation District, are discussed in this section.

The proposed 2007 Farm Bill would authorize approximately \$7.8 billion nationally to protect natural resources through conservation programs similar to those mentioned above. However, as proposed, the bill may consolidate most or all of these programs into one program, tentatively titled The Environmental Quality Incentives Program. In addition, the acreage limit on the Wetlands Reserve Program would be increase nationally from 2.3 to 3.5 million acres. (*Fact Sheet*)¹⁴

The Mid-Atlantic region, of which New Jersey is part, is generally underserved by federal farm programs, including the 2002 Farm Bill. The Northeast/Mid-Atlantic region receives on average less than two cents in commodity payments for every dollar in farm sales, in stark contrast to over fifteen cents in some Midwest and Western states. With smaller than average farms, lower profit margins, varied crops, and development pressure, New Jersey has unique farm and food policy needs, which do not match other, larger agricultural states who receive the bulk of commodity payments. (*American Farmland Trust*)¹⁵ However, the commodity payment system may change in the proposed 2007 Farm Bill from price supports to revenue support, with a revenue insurance system if projected revenues for farm(s) are not met. Revenue support with an insurance system may well have a positive effect for Warren County Farmers, since it would help specialty crops and niche markets receive their fair share of commodity payments. (*Jim Baird*)¹⁶

The 2007 Farm, Nutrition, and Community Investment Act (Farm Bill) has been introduced in the U.S. Congress, and was passed by the House of Representatives in early August, 2007. The Senate version of the Bill will be taken up in September, 2007. As authorization for the 2002 Farm Bill will expire on September 30, 2007, it is likely that the 2007 Farm Bill will be signed into law before then. If signed into law, the resulting farm

and food policy promises to strengthen New Jersey's agriculture and ensure fresh, healthy food supplies while better protecting the environment. Some highlights of this proposed legislation, as it relates to natural resource conservation, include:

- Expanding working lands conservation programs and an improved farmland protection program;
- Increasing focus on energy efficiency and on-farm renewable energy production; and,
- Increasing access for the region's producers by providing a minimum base allocation of conservation funding for every state.
(*American Farmland Trust*)

The following is a synopsis of the natural resource conservation programs funded by the 2002 Farm Bill. They are implemented by NRCS and the Warren County SCD, and also to a minor degree the Farm Service Agency, which is also part of USDA. These programs are the backbone of natural resource conservation efforts in Warren County.

Conservation Reserve Enhancement Program (CREP) and Conservation Reserve Program (CRP)

Through CREP and CRP, agricultural producers voluntarily retire land to protect environmentally sensitive areas, decrease soil erosion, provide and restore wildlife habitat, and protect ground and surface water. (*NRCS Conservation Programs*)¹⁷ Examples of conservation practices include riparian buffers and filter strips for water quality, and contour buffer strips to reduce soil erosion. With incentive payments for farmers to fully implement a CREP contract, payment for this program may be fully funded by NRCS and NJDA. (*Ken Bingham*) Statewide, CREP was most recently funded with \$100 million for the 2004 to 2007 timeframe, and has been used successfully in Warren County. It is used mostly along streams and rivers, to protect water resources. (*Kent Hardmeyer and/or Ron Phelps*)

It is important to note that though funded with \$100 million since 2004, it is reported that only \$12 million of this has been spent, and the remaining \$88 million will revert back to the federal government if not spent by the end of 2007 (such spending is unlikely). There may be numerous reasons for this sub-optimal use of CREP and CRP funding. However, one of the main reasons is due to requirements of other USDA farm land payment programs that require a minimum number of acres in active agricultural production to receive USDA payments. CREP and CRP acres do not count towards these "base acres", and therefore farmers may be reluctant to enter in CREP or CRP since they may lose funding for the agriculture production programs. (*John Parke, New Jersey Audubon Society*)¹⁸

Conservation Innovation Grant program (CIG)

The aim of the CIG program is to stimulate the development and adoption of conservation approaches and technologies which are innovative, in conjunction with agricultural production. Funds are awarded as competitive 50-50 match grants to non-governmental organizations, tribes, or individuals. *(NRCS Conservation Programs)* CIG is a component of EQIP, and its grants are generally funded through EQIP (see below). *(Kent Hardmeyer and/or Ron Phelps)*

In neighboring Sussex County, the Green Township operation, AG Choice, LLC compost facility has a CIG grant. Ag Choice is the first NJDEP approved compost facility permitted to collect and receive agricultural waste, such as animal and stall waste, spoiled haylage, and silage, and then compost it for off-farm use. Ag Choice composts agricultural waste into high quality organic, humified compost, which can be safely reintroduced into the environment. *(AG Choice)*¹⁹ Warren county farmers may use AG Choice, LLC as a model for local CIG Grants.

Environmental Quality Incentive Program (EQIP)

EQIP is a conservation program in which farmers receive financial and technical assistance with structural and management conservation practices that address soil, water, and grazing land concerns. *(NRCS Conservation Programs)* EQIP is the most popular and widely used conservation program in Warren County, and is the most well funded of all the programs, receiving approximately \$4 million statewide on an annual basis. In Warren County, between 2005 and 2007 there are 4,494 contracted acres, with 38 active contracts. *(Janice Reid)*²⁰

Recently, emphasis in the county has been put on approving grants to replace old, polluting diesel engines, with cleaner burning diesel engines for farm equipment. *(Kent Hardmeyer and/or Ron Phelps)* Nationally, the proposed 2007 Farm Bill would raise authorized EQIP funding to \$1 Billion. *(Jim Baird)*

Farm and Ranch Land Protection Program (FRPP)

FRPP provides up to 50% matching funds to purchase development rights and conservation easements to keep farm and ranchland in agricultural use. The USDA partners with state, tribal, or local governments, and non-governmental organizations. *(NRCS Conservation Programs)* Farmers accepting funds through this program must adhere to strict impervious surface limitations. In New Jersey, this program receives approximately \$500 thousand to \$1 million annually, most of which goes to the State Agriculture Development Committee or private conservation groups. *(Kent Hardmeyer and/or Ron Phelps)* Nationally, the proposed 2007 Farm Bill would raise authorized FRPP funding to \$300 million. *(Jim Baird)*

Grassland Reserve Program (GRP)

GRP was a program which offered landowners the opportunity to protect, restore, and enhance grasslands on their property, which play a vital role in protecting water quality and providing wildlife habitat. This program was coordinated through several federal agencies (*NRCS Conservation Programs*), but has recently become inactive in Warren County. (*Kent Hardmeyer and/or Ron Phelps*) The proposed 2007 Farm Bill would provide only minimal funding for GRP. (*Jim Baird*)

Wetlands Reserve Program (WRP)

WRP offers farmers payments for restoring and protecting wetlands on their property that had been previously drained for agricultural use. Wetlands help reduce flooding, filter pollutants from water, provide critical wildlife habitat, and protect open space. (*NRCS Conservation Programs*) Payment by NRCS is based upon appraised agricultural land value. With appraised values from \$100 to \$2000 per acre, many farmers are not willing to create wetlands on otherwise productive agricultural lands. As a result, the WRP is not widely used in Warren County. (*Tim Dunne*)²¹

Wildlife Habitat Incentives Program (WHIP)

WHIP provides technical and financial assistance for creating, enhancing and maintaining wildlife habitat. The State Technical Committee for WHIP in New Jersey awards project contracts for designated wildlife habitat categories such as for migratory and declining wildlife species, and for pollinators that benefit agriculture. Since its inception in 1998, WHIP has been a popular program for non-federal landowners interested in wildlife habitat management in New Jersey. This is second only to EQIP in use for Warren County, with 102 contracted acres and nine active contracts since 2005. (*Janice Reid*)

SADC Soil and Water Conservation Grants

The New Jersey Department of Agriculture, State Agriculture Development Committee (SADC) has in the past provided grants to farms that are permanently preserved, or are enrolled in the eight year preservation program, with priority for preserved farms. (*Dave Schaaf*)²² Cost share grant funding for fiscal year 2008 has been approved. The purpose of the grants and program is to provide funding for soil and water conservation practices.

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 agri-chemical handling facilities), the impoundment, storage and management of water for agricultural purposes (diversions; water impoundment reservoirs; irrigation systems; and, drainage systems), and management of land to achieve maximum agricultural productivity (land shaping or grading). (*Soil and Water Conservation Grants*)²³

These grants fund soil and water conservation projects approved by the Warren County Soil Conservation District (District), with the program administered by both the District and the local NRCS office in Hackettstown. Both the District and the local NRCS office also provide technical assistance for eight year program projects. Once the District deems the conservation project necessary and feasible, applications are forwarded to the N.J. State Soil Conservation Committee, which recommends projects to the SADC for funding approvals. (*Soil and Water Conservation Grants*) Traditionally 50% of the costs of approved soil and water conservation projects are paid with grant funds, but up to 75% has also been approved in the past. (*Dave Schaaf*)

Water Resources

The Importance of the Water Resource

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

- Minimizing the use of synthetic chemicals such as fertilizers, herbicides, pesticides, and fungicides so as to lessen impacts to groundwater;
- Providing riparian buffers along watercourses, so as to protect streams from the aforementioned synthetic chemicals;
- When possible, practicing organic farming methods;
- Practicing appropriate timing of chemical application, so as to minimize its use; and,
- Practicing water conservation techniques, such as drip irrigation and water reuse for certain types of farming where feasible, such as smaller scale vegetable and fruit operations. Some of these agricultural type operations are found in the Great Meadows area of Independence Township.

In any case, the necessity of clean and plentiful water, and its precariousness, is clearly stated in the *2005 Warren County Strategic Growth Plan*. The Plan indicates that “Groundwater and surface water quality in Warren County is generally good. Groundwater accounts for all drinking water in the county. While groundwater quality is good, there are some areas identified for actual or potential well contamination.” (*Warren County Planning Department*)²⁴ Some potential contamination sources are pesticides, which are used in agriculture and at private residences, and underground storage tanks for various substances such as gasoline and diesel fuel. Underground storage tanks are sometimes used on farms as fuel sources for equipment. (*Warren County Planning Department*)

In addition, the *1999 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.” (*Warren County Open Space Plan*)²⁵

The *State Development and Redevelopment Plan* also discusses the importance of the water resource. The Plan indicates that Warren County’s farmland is found in areas mapped as Rural Planning Area, Rural Environmentally Sensitive Planning Area or Environmentally Sensitive Planning Area. The Plan’s goals include support for maintenance and improvement of the agricultural industry’s economic viability. The goal of the Rural Planning Area for agriculture is to “guide development to ensure the viability of agriculture and the retention of farmland in agricultural areas; encourage farmland retention and minimize conflicts between agricultural practices and the location of Centers; ensure the availability of adequate water resources and large, contiguous tracts of land with minimal land-use conflicts ...” (*New Jersey State Development and Redevelopment Plan*)²⁶

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

Finally, emphasis is also given to the importance of the water resource, via the New Jersey Department of Agriculture which “ ... is working with Rutgers Cooperative Extension, the Natural Resources Conservation Services, the United States Geological Survey, the New Jersey Department of Environmental Protection and the farm community to assess the water needs of agriculture and to assist in the development of essential rules, policies and guidelines to ensure an adequate water supply to meet the current and future needs of the agricultural industry.” (*2006 Agricultural Smart Growth Plan*)²⁷

Physical Features and Water Aquifer Supply Characteristics

Warren County is located within two Physiographic Provinces of New Jersey. These are the New Jersey Highlands Physiographic Province, and Valley and Ridge Physiographic Province. As discussed on the Warren County Environmental Commission’s website:

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

“The New Jersey Highlands is underlain by granitic and metamorphic rocks, known collectively as crystalline rocks. Geologic structures and weathering affect

the occurrence of ground water in these Proterozoic rocks. The primary porosity, or intergranular space, of the crystalline bedrock is limited, due to their tight, interlocking texture. Therefore, the hydrogeologic (water-bearing) characteristics of these rocks are controlled by their secondary porosity, that is, openings created by weathering and fracturing.”

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

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

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

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

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

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

“As with the rocks of the Highlands, geologic structures have a profound influence on ground-water occurrence and movement in the Paleozoic rocks. All of these rocks have been folded and faulted; and the older, Cambrian and Ordovician rocks

were deformed during both the Taconic and Alleghanian mountain-building episodes.”

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

“The primary--or intergranular--porosity and permeability of the Paleozoic rocks is minimal, owing to compaction and cementation during formation of the rock units and to other rock-forming processes associated with later mountain building. As a result, the hydrologic properties of these sedimentary rocks are controlled by the number, size, and interconnection of fractures. Fractures that hold ground water in these rocks consist mainly of planar openings (including partings between layers or strata), joints caused by the stress of folding and faulting, and other structural defects. In the carbonate rocks, such as limestones, these fractures are enlarged by the dissolving action, or solutioning, of ground water.” (Aquifers of Warren County)²⁸

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

*“Prime farmland by conventional standards is in short supply in Warren County. The physical nature of the county consists of valleys and ridges oriented roughly northeast to southwest. Sandstone and quartzite dominate the Kittatinny Mountains to the northwest and alternating ridges underlain by shale and sandstone, and valleys underlain by limestone can be found to the southeast. A terminal moraine left by the Wisconsin Glacier occupies much of the center of the county. To the southwest from the moraine can be found an area of broad topped ridges underlain by granitic gneiss and valleys underlain by deeply weathered limestone.” (Warren County Agriculture Development Board)
(Long Range Plan)²⁹*

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

Water Conservation Strategies

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

The State Agriculture Development Committee, through its *Agricultural Smart Growth Plan*, encourages farmers to:

“... work to accelerate the use of efficient water conservation technologies, such as drip irrigation. Identify and promote new and efficient methods to conduct water distribution on farms, utilizing farm ponds and water reuse options.” (2006 *Agricultural Smart Growth Plan*)

The dominant crops in Warren County are corn, nursery and greenhouses, and hay. Corn and hay rely on rain and some groundwater for water needs, and as such, water conservation strategies per se are difficult to implement. With the more water intensive nursery and greenhouse, and produce farming, it is possible to implement conservation strategies such as drip irrigation, water reuse, or watering crops in the cooler parts of the day. However, since vegetable, fruit, and nursery agriculture are minor (in acreage) to corn and hay, the positive effects of water conservation efforts for the county are minimized. This is evidenced by the fact that the amount of irrigated farmland in Warren County is relatively small. In 2002, 3,339 acres were irrigated on 98 farms, or approximately 4% of the farmland. There has been very little public concern expressed regarding future availability of groundwater for irrigation.

However, water intensive agriculture and processes may become more prevalent in the future. This is suggested by the fact that irrigated acres in the county has more than tripled from 1992 to 2002, from 1,006 acres to 3,339 acres. This is partly attributable to an increase in nursery and vegetable farms, and also the fact that 2002 was a drought year, with some agriculture operations using additional water resources. Therefore, water conservation strategies may become more important, and should be maximized where possible.

Waste Management and Recycling

Management of livestock waste has important implications for the quality of ground and surface waters. Unchecked, or poorly managed, these wastes can cause serious water quality problems by the introduction of unwanted microorganisms into natural systems. Poor management of animal waste can also cause disease among farm animals. Proper animal waste management is not only required, but is environmentally responsible, as is recycling of farm by-products whenever feasible.

Waste Management in Warren County

Discussion with the local NRCS office in Hackettstown and the Warren County Land Preservation Department, indicate the following regarding animal and crop waste management in Warren County:

- Many farmers have “Nutrient Management Plans” to manage the manure generated on their farms. (*Kent Hardmeyer and/or Ron Phelps*)
- Horse waste on farms can be a problem. This is due in part to the relatively small land area of horse farms, making the manure more difficult to effectively and safely distribute on fields. This can spread diseases from the horse manure. Warren County is aware that more needs to be done to control this problem. (*Kent Hardmeyer and/or Ron Phelps*)
- Relative to disease, cattle manure is not as serious a problem as horse manure. This is due in part to the relatively large land area of dairy farms, making it easier to safely and effectively distribute the manure on fields. This helps to control the spread of disease. (*Kent Hardmeyer and/or Ron Phelps*)
- At present there is no initiative at the county level to better manage animal waste. The agricultural community of Warren County may attempt to initiate better livestock waste management. (*Bob Resker*)³⁰
- Ag Choice LLC in Green Township, Sussex County is operated by Jay and Jill Fisher. Ag Choice picks up and accepts and then composts horse waste. It is then available as bulk pickup, is sold to landscapers, garden centers, or is bagged and sold at retail outlets. This type of operation not only helps control the problem of horse waste on farms, but is also a good revenue source for the Fishers. Warren County Farmers can review the Ag Choice operation to ascertain if similar operations might be beneficial to them. The Ag Choice website is <http://www.ag-choice.com/>.

Concentrated Animal Feeding Operations & Animal Feed Operations

Concentrated Animal Feeding Operations (CAFO) are defined at N.J.A.C. 7:14A-2.13 (New Jersey Pollutant Discharge Elimination System (NJPDDES)) as (*New Jersey Discharger*)³¹:

- Operations with more than 1,000 slaughter or feeder cattle, 700 dairy cattle, 2,500 swine, 500 horses or other animal populations. In Warren County, the only operation to fit into this category is the Ise Poultry Farm in Franklin Township, which has a CAFO permit (*Everett Chamberlain*)³²; or,
- Operations with more than 300 slaughter or feeder cattle, 200 dairy cattle, 750 swine, 150 horses or other animal populations, and which discharge pollutants directly to state waterways either through manmade devices or as a result of water passing through the facility or having direct contact with confined animals.

A number of Warren county farms do fit into this latter category, and are required to have waste management plans to ensure that animal wastes are properly managed. In addition, any livestock operation receiving EQIP funds must have a waste management plan.

Concentrated Animal Feeding Operations (CAFOs) and Animal Feeding Operations (AFOs) have the potential to, or do cause, water pollution through the collection of large amounts of animal waste in relatively small areas. Mismanagement of the animal waste has the potential to cause large amounts of soil and groundwater contamination via introduction of the bacteria, fecal coliform, a known contaminant from animal farming operations. The state's agricultural community bears a responsibility to help protect and restore natural resources for which they are the stewards.

The New Jersey Department of Environmental Protection (NJDEP) has outlined a statewide strategy to manage and regulate these operations. The strategy calls for NJDEP to administer CAFO permits and NJDA to administer the appropriate measures for AFOs. (*2006 Agricultural Smart Growth Plan*) The permits and measures require development and implementation of comprehensive waste management plans, utilizing "animal waste standards", proposed by NJDA for adoption in late 2007, or early 2008. (*Monique Purcell*)³³ The strategy emphasizes the use of cost-effective voluntary measures, limiting the need for permits. (*2006 Agricultural Smart Growth Plan*)

NJDEP Division of Water Quality - Concentrated Animal Feeding Operations

To protect the quality of surface and groundwater in and around animal farming operations, the NJDEP has adopted a general permit for managing and regulating Concentrated Animal Feeding Operations (CAFOs). The permit is administered through the New Jersey Pollutant Discharge Elimination System (NJPDES) regulations at N.J.A.C. 7:14A-2.13, under authority of the Water Pollution Control Act. In general, the permits require CAFOs to comply with the federal effluent limitation guidelines that prohibit discharge to state waters. (*New Jersey Discharger*)

The New Jersey Department of Agriculture, State Soil Conservation Committee, Natural Resources Conservation Service and New Jersey Soil Conservation Districts have partnered with NJDEP to implement the general permit as part of a statewide strategy to control pollution from CAFOs. (*New Jersey Discharger*)

Recycling

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

However, the expanding nursery and greenhouse business in the County does offer some recycling opportunities for such items as nursery film, and potting and pesticide containers. Neighboring Sussex County's Municipal Utilities Authority (MUA) is currently working

with the NJDA to develop a program for recycling nursery film in the county. The source for recycling materials would be plastic film coverings for greenhouses, which have to be replaced often, and shrink wrap used to wrap supplies while shipping or storing. If the program is successful, potting and pesticide containers may be added at a later date. The Sussex County MUA is hoping to establish the program by the end of 2007. As a natural resource conservation measure, the Warren County agriculture community may attempt to develop a similar recycling initiative, or approach the Sussex County MUA to potentially partner with them on their recycling initiative.

Energy Conservation

Energy conservation makes economic sense for Warren County agriculture businesses. The less energy a farmer uses, the less money spent on energy, and the more money that can be invested elsewhere, or realized as profit. However, energy conservation and the use of alternate technologies also make environmental sense. They help keep the air, water and soil clean, and minimize or eliminate further pollution to these critical agricultural resources. Also, with the impending threat of global warming due to excessive carbon dioxide emissions into the atmosphere, energy conservation and the use of alternate energy sources can help to slow this warming trend.

In its 2006 “*Agricultural Smart Growth Plan*”, the New Jersey Department of Agriculture emphasizes the importance of energy conservation and alternative energy use. The Plan indicates that it is important to:

“Promote the use of innovative technologies, recycling, energy conservation and renewable energy systems on New Jersey’s farms” and to “Promote, provide technical assistance for and inform the agricultural community about new and existing energy conservation and renewable energy programs by promoting the financial and environmental benefits of implementing these programs.” Also, the NJDA indicates that *“Through (these) numerous efforts coordinated between the state and federal levels, New Jersey’s agricultural community is proving itself to be an important player in protecting our state’s natural resources. Clearly, there is more work to be done, and the agricultural community has shown initiative in pursuing alternative energy sources, such as solar, wind and bio-gas in running farm operations, and by being a leader in the pursuit of ethanol and bio-diesel fuel markets.”* (2006 *Agricultural Smart Growth Plan*)

The SADC does not have a formal policy for the use of wind and solar energy on commercial farms. However, discussions with the SADC indicate:

- SADC is supportive of solar and wind energy use on commercial farms as long as the main purpose of the produced energy is for use on the farm. This does not preclude the sale of excess energy production back to the power grid; and,
- Installation of solar panels, wind turbines and other appurtenant equipment must not negatively impact production of the agricultural land, and agricultural land must not be taken out of production.

(Steve Bruder)³⁴

At present, there is only minimal effort to initiate energy conservation at the county level. The EQIP natural resource conservation program pays for some energy production programs, such as the aforementioned replacement of older, dirty polluting diesel engines, with newer, more efficient, cleaner burning engines. EQIP also pays rebates to farmers for the use of bio-diesel, and is also used to rebate farmers who have installed solar panels. (*Kent Hardmeyer and/or Ron Phelps*) The preserved Gene Makarevich farm in Knowlton Township has installed solar panels. (*Bob Resker*) Energy conservation and renewable energy is one area that the Warren CADB and the county agricultural community can explore to assist farmers in saving money, and subsequently provide ecological benefit.

Solar Energy

Solar energy can be harnessed via the installation of solar panels. This harnessed or stored energy can then be used to create electricity and provide heat. If excess electricity is generated, it can be sold back to the electric grid for a profit. The overall use of solar panels has greatly increased in New Jersey. (*Agriculture and Green Energy*)³⁵ EQIP does provide some funding for solar panels, and farmers interested in using this alternate energy source can contact the local NRCS office in Hackettstown for more information.

Other programs available to help agricultural producers take advantage of this technology include U.S. Department of Energy, “Solar Energy Technology Program”, <http://www1.eere.energy.gov/solar/> and the “Solar Energy for New Jersey Agriculture” work and information sheet at <http://www.state.nj.us/agriculture/pdf/solarenergyguide.pdf>. Solar energy is one of the fastest growing sectors in the alternative energy market, and Warren County farmers can take advantage of this money and energy saving technology.

Wind Energy

The power of a strong wind can be captured by turbines or windmills, turning such power into electricity. Expanding and evolving technology is making this option more attractive to farmers as a way to cut energy costs. 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. (*2006 Agricultural Smart Growth Plan*) One possible roadblock to use of wind turbines is that few, if any, municipal ordinances allow the use of wind turbines. If this is indeed the case, then the Warren County CADB can work with the county planning department, and local towns, to study and approve wind turbines as an allowed use.

Ethanol

Ethanol is a renewable fuel “made by distilling the starch and sugar in a variety of plants.” (*Agriculture and Green Energy*) It can then be blended into gasoline as an “oxygenate”,

reducing air pollution. Its use also reduces dependence on foreign oil, and the harmful environmental effects of oil drilling. Also, unlike the gasoline additive MTBE, ethanol will not contaminate groundwater. (*Agriculture and Green Energy*) Corn, the dominant field crop in Warren County (along with hay), could position Warren County farmers to financially capitalize on the spreading movement towards ethanol-blended fuels. More study would need to be done on whether this would be profitable for county farmers, and how it would affect other local agriculture industries (for instance, how it would affect the dairy industry's supply of, and price for, feed corn).

Bio-diesel

Petroleum diesel is an emitter of sulfur emissions, a major air pollutant. Bio-diesel, made from the oils of soybeans, is an alternative to petroleum diesel. This organic fuel can be blended and used in diesel engines without modification. The result is a significant reduction of the harmful fumes produced by pure petroleum diesel. (*Agriculture and Green Energy*) As of 2004, there were 5,768 acres of soybeans that were farmland assessed. Bio-diesel may be a potential viable market for the County's soybean farmers.

Renewable Energy Grant Programs

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

New Jersey Clean Energy Program: Administered by the New Jersey Board of Public Utilities, this program provides financial incentives to install clean energy systems, including fuel cells, solar energy, small wind and sustainable biomass equipment. Financial incentives are in the form of rebates, grants and loans. Additional information is at www.njcep.com/.

Renewable Energy Systems and Energy Efficiency Improvements Program: As part of the 2002 Farm Bill, this program "funds grants and loan guarantees to agricultural producers for assistance with purchasing renewable energy systems and making energy efficiency improvements". Final rules for loans and grants were adopted by the U.S. Department of Agriculture in July 2005. The proposed 2007 Farm Bill would continue this funding. Additional information can be found at www.rurdev.usda.gov/rbs/farmland/index.html.

Biomass Research and Development Initiative Grants: The United States Departments of Agriculture and Energy support development of biomass energy. Grants are available for research, development and demonstrations on bio-based products, bio-energy, bio-fuels, bio-power and additional related processes. In the recent past, grants have focused on development and demonstration projects that lead to greater commercialization. Additional information is available at:

<http://www.state.nj.us/agriculture/news/hottopics/topics060222.html>.

(*Agriculture and Green Energy*)

¹ United States Department of Agriculture, Natural Resources Conservation Service, Information For Farmers. <http://www.nj.nrcs.usda.gov/farmers.html>. Accessed April 9, 2007.

² Personal communication with Kent Hardmeyer and/or Ron Phelps, United States Department of Agriculture, Natural Resources Conservation Service, May 15 and 16, 2007. June 6, 2007.

³ Personal Communication with Ken Bingham, United States Department of Agriculture, Farm Service Agency. June 11, 2007.

⁴ United States Department of Agriculture, Natural Resources Conservation Service, New Jersey. <http://www.nj.nrcs.usda.gov/>. Accessed March 26, 2007.

⁵ New Jersey Department of Agriculture, Agricultural and Natural Resources. <http://www.state.nj.us/agriculture/divisions/anr/>. Accessed April 10, 2007.

⁶ New Jersey Agricultural Experiment Station, Rutgers Cooperative Extension of Warren County. <http://njaes.rutgers.edu/county/quickinfo.asp?Warren>. Accessed April 15, 2007.

⁷ Personal Communication with Bill Tietjen, Rutgers Cooperative Extension of Warren County. May 30, 2007.

⁸ New Jersey Department of Environmental Protection, Division of Parks and Forestry, Private Lands Management Program. http://www.nj.gov/dep/parksandforests/forest/njfs_private_lands_mgt.html. Accessed April 13, 2007.

⁹ Personal Communication with Jim Barresi, Assistant Director, New Jersey Department of Environmental Protection, Division of Parks and Forestry. June 12, 2007.

¹⁰ New Jersey Department of Agriculture, State Agriculture Development Committee, Warren County Agricultural Profile, April 13, 2007.

¹¹ Personal communication with Kim Korth, New Jersey Department of Environmental Protection, Non-game Endangered Species Program. July 24, 2007.

¹² Personal communication with Jim Haase, New Jersey Department of Environmental Protection, New Jersey Forest Service. July 20, 2007.

¹³ United States Department of Agriculture, Conservation Programs Offered In New Jersey, Programs Available in 2006. ftp://ftp-fc.sc.egov.usda.gov/NJ/programs/Conservation_Programs_Offered_in_New_Jersey.pdf. Accessed April 13, 2007.

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CHAPTER 8: AGRICULTURAL INDUSTRY SUSTAINABILITY, RETENTION AND PROMOTION



Existing Agricultural Industry Support

Right to Farm

To ensure farmers have the ability to practice accepted agricultural operations, the Right to Farm Act (RFA) was enacted by the State Legislature in 1983 and amended in 1998. The Act provides “protection of commercial farm operations from nuisance action, where recognized methods and techniques of agricultural production are applied, while, at the same time, acknowledging the need to provide a proper balance among the varied and conflicting interests of all lawful activities in New Jersey.” (*SADC Right to Farm Program*)¹ Another critical piece of legislation to support agriculture was the 1983 Agriculture Retention and Development Act. This Act created the State Agriculture Development Committee (SADC), and eighteen County Agriculture Development Boards (CADB’s). Both the SADC and CADB implement the RFA on the State and local levels. (*New Jersey’s Great Northwest Skylands*)²

The SADC works to maximize protection for commercial farmers under the RFA by developing Agricultural Management Practices, 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. In order 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; comply with agricultural management practices recommended by the SADC or site specific agricultural management practices; must not be a direct threat to public health and safety; and, must be located in an area where agriculture was a permitted use under municipal zoning ordinances as of December 31, 1997, or thereafter; or, must have been an operating farm as of December 31, 1997. (*Eligibility Criteria for RTF Act Protection*)³

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 falls within the parameters established by the RFA for

right to farm protection. Once the complaint is returned to the Warren CADB from the SADC, additional fact finding and technical review occurs and the issue is given a public, quasi-judicial hearing at the county level. After all information has been considered, the Warren CADB will make a determination as to whether the agricultural activity is protected by the RFA or whether changes to the operation will be required. If the issue is not resolved by the Warren CADB determination, either party in the dispute may take the matter for a subsequent appeal and determination to the New Jersey Office of Administrative Law. (*Resolving Agricultural-Related Conflicts*)⁴

Municipalities can and should limit the number of right to farm complaints and encourage farming as an industry by:

- Adopting comprehensive right to farm ordinances as outlined by the SADC.
- Making agriculture a permitted use in all appropriate zones.
- Requiring notification of homeowners purchasing a home in a new subdivision that active agriculture occurs on adjacent property.

Fourteen of the twenty two municipalities in Warren County have established a Right to Farm Ordinance. The following Table lists municipalities within Warren County that have Right to Farm ordinances, along with summary information on the ordinance. The model ordinance, as developed by the State Agriculture Development Committee, is included in the *Appendix. (Model)*⁵

Right to Farm Ordinances are a necessary item if a municipality, or property owner, wishes to enter into the farmland preservation program. Therefore, all municipalities within Warren County with commercial farms are encouraged to adopt a Right to Farm Ordinance, and to update their existing ordinances to be consistent with the SADC model ordinance.

Municipal Right to Farm Ordinances

<i>Township</i>	<i>Code#</i>	<i>RTFO</i>
Allamuchy Township	77-1 to 77-4	The right to farm is recognized as a right of the farmer so as to pursue his livelihood. Some agricultural activities covered by this right to farm protection include use of large irrigation pumps, use of large tractors and customary farm equipment, and grazing of animals. Farming operations may be conducted on holidays, Sundays and weekdays, in the evening and during the day. Intensive livestock operations are subject to other county, state and federal law.

<i>Township</i>	<i>Code#</i>	<i>RTFO</i>
Blairstown Township	153-1 to 153-6, and 19-607	The right to farm is recognized as a natural right. Six items are given right to farm protection such as use of farm equipment and methods, farming on Sundays, holidays, weekends, in the evening and during the day. Notice must be given to all real estate buyers in agriculture zones of right to farm protections.
Franklin Township	15	The right to farm is recognized as a right of the farmer so as to pursue his livelihood. Some agricultural activities covered by this right to farm protection include fertilizing and spraying, use of large tractors and customary farm equipment, and grazing of animals. Farming operations may be conducted on holidays, Sundays and weekdays, in the evening and during the day.
Frelinghuysen Township	15-1.1 to 15-1.4	The right to farm is recognized as a right of the farmer so as to pursue his livelihood. These rights include use of irrigation pumps and equipment, use of large tractors and customary farming equipment, and grazing of animals. The right to conduct agricultural operations on Sundays and holidays, or in the evening, is also included.
Greenwich Township	16-20.4 to 16-20.5	Property owners in new subdivisions must be given notice of right to farm protections. The right to conduct agricultural operations on Sundays and holidays, or in the evening, is also included.
Harmony Township	165-20.1	The right to farm is recognized as a right of the farmer so as to pursue his livelihood. These rights include use of irrigation pumps and equipment, use of large tractors and customary farming equipment, and grazing of animals. The right to conduct agricultural operations on Sundays and holidays, or in the evening, is also included. Intensive livestock operations are subject to other county, state and federal law. The ordinance also recognizes use of necessary farm laborers.

<i>Township</i>	<i>Code#</i>	<i>RTFO</i>
Hope Township	20-29	13 agricultural activities are protected, including use of irrigation pumps and equipment, on-site distribution of organic agricultural wastes, use of farming equipment, use of farm labor, processing and packaging of farm output, and grazing of animals. The right to conduct agricultural operations on Sundays and holidays, or in the evening, is also included.
Independence Township	97-1 to 97-4	The right to farm is recognized as a right of the farmer so as to pursue his livelihood. Recognized agricultural activities include use of irrigation pumps and equipment, spraying and fertilizing, and grazing of animals. The right to conduct agricultural operations on Sundays and holidays, or in the evening, is also included.
Knowlton Township	97-13	The right to farm is recognized as a right of the farmer so as to pursue his livelihood. 11 agricultural activities are recognized, including use of irrigation pumps and equipment, use and housing of farm laborers, grazing of animals, and marketing of produce on site. The right to conduct agricultural operations on Sundays and holidays, or in the evening, is also included.
Liberty Township	2000	Nine agricultural activities are recognized as a “natural right”, including processing and packaging of farm output, operation of farm markets, on-site distribution of organic agricultural wastes, and control of pests. Farming is exempt from time operation restrictions.
Mansfield Township	2000-8	Nine agricultural activities are recognized as a “natural right”, including on-site distribution of organic agricultural wastes, processing and packaging of farm output, farm based recreational and educational activities, and control of pests and predators. Farming is exempt from time operation restrictions.
Pohatcong Township	285-31	The right to farm is recognized as a right of the farmer so as to pursue his livelihood. Eight agricultural activities are recognized, including use of irrigation pumps and equipment, use of necessary farm labor, construction of fences, and grazing of animals. The right to conduct agricultural operations on Sundays and holidays, or in the evening, is also included.

<i>Township</i>	<i>Code#</i>	<i>RTFO</i>
Washington Township	99-14	Grants the right to engage in agriculture, and presumes it does not constitute a public or private nuisance. Real estate purchasers in agriculture zones must be notified of the Right to Farm Ordinance.
White Township	65-1 to 65-6	Grants the right to engage in agriculture, and presumes it does not constitute a public or private nuisance. The right to conduct agricultural operations on Sundays and holidays, or in the evening, is also included. Property owners in new subdivisions must be given notice of right to farm protections.

Farmland Assessment

The Farmland Assessment program is a tax incentive which reduces property taxes on active commercial farmed land, thereby assisting farmers with a critical financial aspect in helping to keep land in farms. This tax incentive is made possible by the Farmland Assessment Act of 1964, N.J.S.A. 54:4-23.1 et seq.

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;
- 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;
- Gross sales of products from the land must average at least \$500 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 \$.50 per acre for any acreage over five. Dependent on the agricultural or horticultural products being produced, the farmer can also offer clear evidence of anticipated yearly gross sales, payments, or fees within a reasonable period of time; and,
- The property owner must represent that the land will continue in agricultural or horticultural use to the end of the tax year.
*(New Jersey’s Farmland Assessment Act)*⁶

The Farmland Assessment program does not, however, apply to farm structures, such as barns and storage facilities. It has been proposed that additional tax incentives which encourage farmers to maintain their buildings in good working order as part of active farm operations, and which do not financially penalize them for renovating or replacing old or unsafe structures, are necessary. Maintained buildings are not only critical to the farmer

but also add to farm “aesthetics” for the larger community, helping to support Agritourism, an element of agricultural sustainability in Warren County.

Warren County is 364 square miles, or 229,035 acres (total does not include 3,940 acres of water, and 194 acres of unconsolidated shore). Of this, 110,599 acres (or 48.3 percent of the County) are under farmland assessment. General trends indicate:

- An upward trend in overall farmland assessed acreage since 1983, though much of the increase is not in actual farmed acres, but rather in woodlands that are part of farmland assessed acres;
- Harvested cropland was 49,033 acres in 1983, which steadily increased until 2001 to 50,117 acres, but has since decreased to 47,689 acres in 2004;
- Pastured cropland was at 5,865 acres in 1983, decreasing to 4,968 acres in 2002, but since then increasing to 5,170 acres in 2004;
- Permanent pasture acreage decreased from the 1983 to 2003 time period, from 13,513 acres to 12,001 acres, before increasing to 13,887 acres in 2004;
- Equine acreage has had an overall increase since it was first measured in 2000, from 403 acres to 412 acres in 2004. However, from 2001 to 2003 equine acreage had been less than 350 acres;
- The total county acreage (for active agricultural use, woodlands and equine) in farmland assessment mirrors these overall upward trends. In 1983 there were 100,213 acres, while in 2004 there were 110,599 acres, a nearly 10 percent increase of farmland assessed acreage. Though, as previously stated, much of the increase was due to woodland acres; and,
- Overall active agricultural acreage in farmland assessment decreased from 68,411 acres in 1983 to 66,746 acres in 2004.
(*Warren County Agricultural Profile*)⁷

It is important to sustain and expand tax incentives such as Farmland Assessment to keep land in farms, and to encourage the development or extension of other tax incentives for the agricultural industry. By making agriculture more profitable and viable, tax incentives will help to ensure a steady, permanent source of agricultural lands for the county’s farmland preservation efforts.

Additional Strategies to Sustain, Retain, and Promote Agriculture in Warren County

Regulatory Flexibility

Municipalities play a key role in the preservation of farming as an industry. In municipalities with a sizable acreage of assessed farmland, zoning powers can be utilized to require buffers between agriculture and other uses to minimize conflict. The Right to Farm Ordinances are an active example of municipalities’ support for agriculture. Such actions create an atmosphere favorable to agriculture, its economics and profitability.

The viability of farming in New Jersey is impacted by many issues, including government regulation, development pressures, and the economics of the marketplace. While land preservation is vital for maintaining a sufficient land base suitable for farming, sustaining Warren County's strong agricultural base requires support on many fronts, one of which is flexibility in government regulation. (*Agricultural Smart Growth Plan 2006*)⁸ It is essential that the Warren CADB, Land Use Preservation Office, Board of Agriculture, County Freeholders, Soil Conservation District, Natural Resource Conservation Service, Rutgers Cooperative Extension of Warren County, municipal planning and zoning boards, chambers of commerce, private farm preservation groups, and other interested entities and individuals, work together to present a united front in issues regarding government regulation and permits as they relate to agriculture. The 2006 *Agricultural Smart Growth Plan* for New Jersey identified the following as important relative to regulatory flexibility and priority, and which the aforementioned entities must work to ensure proper advantage for agriculture in Warren County:

- *Positive and supportive public policy:* This includes legal protection (right to farm), priority in decisions on taxation (farmland assessment), regulation exemptions, and financial incentives (planning incentive grants). These need to be strengthened and modified if, and when, necessary;
- *Exemptions:* State, county, and municipal regulations must be responsive to the needs of farmers. Minor changes to, or exemptions from, certain local and state regulations, rules, and ordinances help to buffer agricultural operations from burdensome costs, creating a farmer-friendly environment. Pertinent examples are the strong Right to Farm Ordinances in fourteen of the twenty two municipalities within the county. At a state level, the Department of Environmental Protection's "Freshwater Wetlands Protection Act Rules" (N.J.A.C. 7:7A-et. seq.) and the "Flood Hazard Area Control Act Rules" (N.J.A.C. 7:13) grant exemptions, permits by rule, or general permits for agricultural activities. In addition, for the Department of Environmental Protection's "Highlands Water Protection and Planning Act Rules" (N.J.A.C. 7:38), exemptions are allowed for activities conducted in accordance with an approved Woodland Management Plan issued pursuant to the Farmland Assessment Act. The Warren County agriculture community must work to ensure that exemptions are adequate and reasonable;
- *Flexibility:* State agencies such as the Department of Environmental Protection, Department of Transportation, Department of Community Affairs, Department of Labor, and New Jersey Commerce Commission, should consider the NJDA Agricultural Smart Growth Plan when making important decisions regarding existing and proposed infrastructure, developing and amending regulations and programs, and protecting environmental and historical resources. These agencies should coordinate with NJDA to ensure that regulations, programs, etc. are attuned to the needs of Warren County farmers;
- *Agriculture-Friendly Zoning:* This refers to a comprehensive land use practice that coordinates zoning and land use policy in a proactive way. The desired result is that it encourages agribusiness, while at the same time reducing the incidence of farmer-homeowner nuisance issues. In other words, it seeks to harmonize

potentially conflicting land use policies. This strategy would be done mostly at the local and county levels.

(Agricultural Smart Growth Plan 2006)

Farm Labor

An adequate labor supply is integral to harvesting vegetables, fruits, and berries. Measured in farmed acreage, Warren County has a relatively small industry for these products compared with field crops such as corn and hay, and also dairy, goat, sheep, and nursery products. 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. *(Kent Hardmeyer)*⁹ Fruits, berries, and vegetables occupy approximately 95% less land in Warren County than field crops and nursery products. As of 2004, 2,398 acres were devoted to fruits, berries, and vegetables, while 46,324 acres were devoted to field crops and nursery products. *(Warren County Agricultural Profile)* Much of the fruit, berry, and vegetable growing is concentrated in the Great Meadows Area, a fertile valley area of a former glacial lake. The Great Meadows' fertile soils and adequate water supply make it more amenable to fruit and vegetable farming. *(Bob Resker)*¹⁰ The limited amount of farm labor in Warren County generally lives on the farm where they work. *(Kent Hardmeyer)* Since the overall acreage devoted to labor intensive farming is minimized in the county, farm labor housing, a large issue in counties with high farm labor populations is, for the most part, not of high concern in Warren County.

The U.S. Census of Agriculture reports that hired farm labor costs in New Jersey totaled \$115.2 million in 1992 and rose to \$142.9 million in 1997, representing 26.7 % and 27.8 % of total farm production costs respectively, a rise of 1.1%. In Warren County hired farm labor costs for 1992 were \$6.7 million, which decreased in 1997 to \$6 million, representing 18.1% and 14.9% of total farm production costs respectively, a decrease of 3.2% (more recent county figures are not available). *(U.S. Census of Agriculture)*¹¹ Rising farm labor costs in Warren County are not currently impacting agriculture sustainability. However, as this trend may change over time, a brief discussion of the topic is warranted.

Hired farm workers continue to be one of the most economically disadvantaged groups in the United States due to low wages, seasonal employment, and limited participation in the non-farm labor market. Therefore, as an important statewide resource to the agricultural industry, the New Jersey Department of Labor recommends that more must be done to ensure a well-trained, educated farm labor workforce, that has adequate living and working conditions, and is trained in worker safety. *(Agricultural Smart Growth Plan 2006)*

The New Jersey Department of Labor recommends the following:

- Work with the U.S. Department of Agriculture's Rural Development program to reexamine program criteria to enable New Jersey's rural communities to qualify for more programs. The current focus of the program, such as rural area infrastructure, is not applicable to Warren County (and New Jersey).

- Link neighborhood revitalization efforts with housing opportunities for farm workers and, where appropriate, establish on-site housing, to ensure a safe and stable workforce.
- Develop and promote comprehensive and ongoing training opportunities for farm workers.
- Work with the New Jersey Department of Labor, Rutgers Cooperative Extension and others to provide farm safety training.
- Join other agricultural stakeholders in supporting ongoing efforts at the federal level to streamline and modernize the immigration process.

(Agricultural Smart Growth Plan 2006)

In January 2006, the “Agriculture Transition Policy Group” (Group), composed of government and agriculture industry representatives, submitted a report to then Governor-elect Jon Corzine, with recommendations to keep agriculture strong and viable in the Garden State. The Group reported many serious problems facing New Jersey farm employers. Two of these are the impacts of the new state minimum wage (now \$7.15 per hour), and the ever looming issue before the U.S. Congress regarding immigration and undocumented workers. The Group reports that the sponsor of the minimum wage legislation (name not provided) has promised to “re-visit the issue for agriculture to find some off-sets that will protect farm viability and keep the industry at a competitive level.” *(Report of the Agriculture Transition Policy Group)*¹²

The New Jersey Department of Agriculture has specified the identification and posting of new markets as a specific strategy in its 2007 *Economic Development Strategies* report. This effort is a necessary outgrowth of the report’s finding that due to the State’s high labor rates (in addition to high land values and property taxes) production costs in New Jersey are higher than in most other areas. With commodity prices based on national production costs, yields and demand, it is less profitable to produce commodity items in New Jersey than elsewhere. *(Economic Development Strategies)*¹³

Finally, agriculture labor education and training funding may be available through the New Jersey Department of Labor and Workforce Development programs. These programs can help to assist in upgrading the skills and productivity of the agricultural workforce. *(Training)*¹⁴ Some of the programs which may be applicable include Customized Training Initiative, Basic Skills Program, and Occupational Safety and Health Training Program.

Agriculture Labor Training and Farmer Education

To sustain a modern, diverse and stable food and agricultural industry, education and progressive, ongoing training for workers will promote a more efficient and productive business environment. This includes programs covering “farmer risk management education, labor education including worker safety, agricultural leadership training, secondary school and college agricultural education.” *(Agricultural Smart Growth Plan 2006)*

One educational link for Warren County agricultural land owners and operators is to collaborate with the Rutgers Cooperative Extension (RCE) of Warren County (associated with the School of Environmental and Biological Sciences [formerly Cook College], Rutgers University). The size of the farm to which RCE lends assistance can vary greatly, from small one to five acre farms, to farms consisting of many hundreds of acres. During the growing season, RCE of Warren County provides one on one, on-site consultations with farmers to assist with control of insect infestations and plant diseases for fruits, vegetables, greenhouse nurseries and ornamentals, and also for field crops. Similar farm animal consultation is provided on a year round basis. During these one-on-one consultations, technical scientific research is relayed to the farmer in a useful and applicable manner. During the growing season, RCE of Warren County also conducts “twilight meetings” for fruits and vegetables at local farms, to discuss a wide range of issues relative to these agricultural products. In August of every year a twilight meeting is held locally to discuss sustainable horticulture. *(Bill Tietjen)*¹⁵

In the winter months, regional and local classes are conducted by RCE of Warren and Hunterdon Counties on a diverse set of agriculture topics. Two classes of special significance are conducted with the North Jersey Vegetable and Fruit Growers Association. A class on vegetable growing is conducted at the Snyder Farm in Pittstown, Hunterdon County, while a similar class on fruit growing is held at the Warren Grange in Franklin Township, Warren County. *(Bill Tietjen)*

RCE of Warren County also provides practical assistance to farmers. Examples are assistance in obtaining pesticide application licenses (necessary to buy and apply pesticides), and also to obtain water certification and registration permits from the New Jersey Department of Environmental Protection, for groundwater and/or surface water allocations. Finally, the RCE of Warren County performs applied research on area farms to further knowledge on a wide range of issues pertaining to agricultural plants and animals. Results of any research are used to advise local farmers on an as needed basis. *(Bill Tietjen)* All of the aforementioned available programs and assistance offer an individual farm operator the opportunity to gain the latest information on numerous and pertinent agriculture topics, which are important to agricultural sustainability.

Discussions with Warren County Community College indicate that at present agriculture education courses are not offered at the College. However, the College would be willing to explore the possibility of setting up college level or continuing education course(s) if requested to do so by the Warren County Agriculture Development Board, or the wider agriculture community. *(Lisa Summins)*¹⁶ The Warren County Agriculture Development Board can inquire among Warren County farmers, and also coordinate with CADB’s from neighboring counties, on the interest level for agricultural college and continuing education courses. If enough interest is found, the CADB can contact Warren County Community College to discuss agriculture education opportunities that may be developed.

Through its Division of Agriculture and Natural Resources’, Natural Resource Conservation Program, the New Jersey Department of Agriculture offers technical, financial, and regulatory assistance, and provides educational outreach to landowners

throughout the state. The Department also offers, in conjunction with the U.S. Department of Agriculture, farm risk management and crop insurance education programs to assist farmers in understanding what assistance is available to reduce agricultural risks. (*Agricultural Smart Growth Plan 2006*)

Finally, as a form of “education”, government agencies at the federal, state and county level can provide continuous outreach information to farmers, and survey for farmer education needs, to ensure farmers take full advantage of all federal and state loan, grant, education, and technical assistance programs. This is especially important since these programs are meant to aide the farming business to thrive and survive. Due to the complexity and vast array of the programs, they may be unknown to many farmers.

Youth Farmer Education Programs

Due to the aging farmer population in Warren County (50.3 years in 1982, as compared to 55.8 years in 2002) (*Warren County Agricultural Profile*) the next generation of the county’s farmers needs to become interested in and exposed to the business of agriculture, and be prepared to enter the industry. Educational programs in agriculture offered as an optional and viable opportunity for the youth of Warren County will assist those who are interested in pursuing such careers. Creating new opportunities via secondary and post secondary education programs in Agriculture, Food and Natural Resources will reassure students that opportunities exist for them in Warren County. (*Agricultural Smart Growth Plan 2006*)

The National Future Farmers of America (FFA) Organization “operates under a Federal Charter granted by the 81st Congress of the United States, and is an integral part of public instruction in agriculture.” (*National FFA Organization*)¹⁷ The National FFA Organization was founded in 1928, and currently has 7,242 chapters and nearly 500,000 members. (*National FFA Organization*) Through the local FFA and New Jersey Department of Agriculture’s Office of Agriculture, Food and Natural Resource Education, Warren County offers youth agriculture education at Belvidere High School for Agriculture Business Management and Horticulture; at Hackettstown Regional High School for Floriculture and Floristry, and Operation and Management of Horticulture; at North Warren Regional High School for Horticulture; at Phillipsburg High School for Agriculture Business Management, Horticulture, and Landscaping & Groundskeeping; and, at Warren Hills Regional High School for Horticulture. (*Office of Agriculture*)¹⁸ These same high schools also have local FFA chapters. Robin McLean is the local FFA representative and can be contacted at 1-877-243-3332 for further information.

Youth agriculture education classes or programs are not offered at any elementary schools within the County, but are an opportunity to cultivate young people’s interest in the field of agriculture.

The national Agriculture in the Classroom program helps K-12 students become aware of the importance of agriculture. 4-H is an informal, practical educational program for youth, which assists young people interested in farm animals through livestock projects. The New

Jersey Agricultural Society's Agriculture Leadership Program provides young professionals in agriculture with leadership development skills and opportunities. (*Agricultural Smart Growth Plan 2006*)

In addition, the New Jersey Department of Agriculture offers an "Agricultural Education" program. This is "a systematic program of instruction available to students desiring to learn about the science, business, and technology of plant and animal production and/or about the environmental and natural resources systems. A complete Agricultural Education program is composed of three components: class/lab instruction, supervised agricultural experience (SAE), and FFA, which provide a well-rounded and practical approach to student learning." (*Agricultural Education*)¹⁹

Public outreach

Over the last 50 years, New Jersey has transformed away from a largely rural and agricultural landscape, to a more urban and suburban landscape. However, farming remains strong and viable in many portions of the state, especially within Warren County. If the county's remaining agricultural areas are to survive and prosper, the non-farming public needs to be aware of the continuing financial, cultural, scenic and agricultural contributions made by Warren County.

Methods to expand public outreach efforts in Warren County are through increased signage, events, and opportunities for "on the ground" solicitation of farming operations including pick-your-own operations and local farm stands. Public outreach efforts can also be regionally coordinated. A good example of such regional coordination is a brochure entitled "Enjoy Four Seasons of Agriculture in the New Jersey Skylands". This brochure lists names, addresses, and telephone numbers of farms within the seven counties of Bergen, Hunterdon, Morris, Passaic, Somerset, Sussex and Warren. The brochure is available at www.njskylands.com. As competing uses impact farmers in Warren County, education, outreach and regional coordination will become more and more integral to the success of farming operations.

Management of nuisance and crop damaging wildlife

Management of nuisance and crop damaging wildlife is critical to the short and long term sustainability of Warren County's agriculture industry. Crop damage from wildlife leads to economic loss for the farmer and/or land owner, and is an extremely serious problem in Warren County, causing 75% or more crop loss in certain instances. Most damage is caused by a multitude of insects, as well as deer, bear, turkey, and other wildlife. It is important to not only control and manage damage to crops, but to also do it in a manner which causes the least amount of collateral natural resource damage (i.e. limit pesticide use to the greatest extent possible, using natural pest control). State, county, and local government units must be sensitive to the negative economic impacts caused by crop damage, and support efforts to control it through education, technical and financial assistance, and regulatory flexibility.

One key way for Warren County farmers to control damage from deer, bear, and turkey is through hunting of crop damaging animals. This hunting is allowed through depredation permits, issued by the New Jersey Department of Environmental Protection's (NJDEP) Fish and Wildlife Program. In many instances, this is the only short term solution to control crop damage by what is widely considered an excessive deer population in the County. Warren County farmers continue to work with the NJDEP and NJDA, as well as other counties and municipalities, to implement wildlife control strategies on privately and publicly owned land. (*Agricultural Smart Growth Plan 2006*)

The New Jersey Department of Agriculture's Division of Plant Industry works to safeguard New Jersey's plant resources from injurious insect and disease pests. The Division implements several programs for detection, inspection, eradication and control of insect pests, which helps to ensure that the public can enjoy high quality, pest-free agricultural products. (*Division of Plant Industry*)²⁰ In addition, "the Division oversees programs that certify plant stock for interstate and international shipments, protects forested communities from tree loss caused by the gypsy moth and Asian longhorned beetle, inspects honeybees for harmful bee diseases and pests, regulates the quality of plant seeds, and produces and releases beneficial insects to reduce crop and environmental damage, and decrease dependence on chemical pesticides." (*Division of Plant Industry*) Protection of forest resources is important to Warren County farmers who harvest wood as part of Woodland Management Plans on their farmland assessed properties.

One important example of the Division of Plant Industry's work is in control of the gypsy moth. The gypsy moth is considered the most destructive defoliation forest insect pest in New Jersey. The Division's Gypsy Moth Suppression Program is a voluntary cooperative program involving local governments, county and state agencies, as well as the USDA Forest Service. The Division promotes an integrated pest management approach, which "encourages natural controls to reduce gypsy moth feeding and subsequent tree loss." (*Division of Plant Industry*)²¹ However, aerial spray treatments of *Bacillus thuringiensis*, are utilized when gypsy moth cycles are at a peak and natural controls are not sufficient to control defoliation. (*Division of Plant Industry*) Warren County has not required any aerial spraying in 2007, but may require such in the future.

Agriculture vehicle movement

In recent years, as many portions of the rural New Jersey landscape have become developed with residential subdivisions and shopping malls, the sometimes conflicting lifestyles of farmers and suburban residents clash. Warren County farmers need to move heavy, slow moving agricultural equipment over local, county and sometimes state roads to access unconnected fields and barns. The county's residents also need to commute to workplaces, or drive to area destinations for shopping, town sports and social activities, at a pace much faster than the slow moving agricultural equipment. These different paces can, and do, cause conflict between Warren County's 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 equipment over roads. However, of the fourteen Warren County municipalities with Right to Farm Ordinances, only Harmony, Hope, Knowlton, and Pohatcong specifically protect the right to transport tractors and slow moving farm equipment on local roads. The remaining ten towns with Right to Farm Ordinances should consider changing their ordinances to specifically protect the movement of farm equipment on local roads.

Signage alerting fast moving cars as to the possible movement and road crossing of slow moving farm vehicles is an additional, effective tool to protect farmer (and automobile passenger) safety. Signage also informs the public at large that agriculture is an important, equal and permanent fixture of Warren County life. Where absent or inadequate, appropriate signage can be posted. Local Warren County governments may consult with farmers as to what adequate signage is, and where it should be posted.

If local non-agriculture residents are to enjoy the scenic vistas, fresh produce, clean air and limited traffic congestion that Warren County's agriculture provides, they must be more tolerant of the farming community. Local, county and state government can advertise the contributions of the farming community via public outreach at local schools and various community activities. The annual Warren County Fair, held yearly in Harmony Township, is a prime example of advertising the importance and permanence of agriculture in Warren County.

The federal government is an important partner in supporting Warren County agriculture. There are several federal programs that support, or could support, the agricultural industry in Warren County.

USDA Rural Development Program

Known as the Rural Development Program, the United States Department of Agriculture (USDA) has an extensive array of loans and grants 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. Through the program, the USDA offers technical assistance and information to agricultural cooperatives, as well as to communities for empowerment programs. With a multi-billion dollar portfolio of loans, loan guarantees, and grants, the USDA can be an effective partner to assist with agriculture sustainability. (*Rural Development*)²²

Grants and loans are available in three key areas: Rural Business-Cooperative Service, Rural Housing Service, and Rural Utilities Service. Unfortunately, many of New Jersey's rural municipalities may not qualify for many of the program's loans and grants because most are unavailable to cities with more than 50,000 residents, or municipalities with more than 10,000 residents. While the population criteria for these programs may make sense in a large portion of the country, they do not make sense for New Jersey. (*Agricultural Smart Growth Plan 2006*)

The New Jersey Department of Agriculture, State Agriculture Development Committee, and Warren County Agriculture Development Board, along with other relevant Warren County agriculture entities, can work with and lobby the USDA to reexamine program criteria to enable New Jersey's rural communities to qualify for more program dollars.

Income Averaging for Farmers

The U.S. Taxpayer Relief Act of 1997, administered by the U.S. Department of Treasury's Internal Revenue Service, 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. (*United States Department of the Treasury*)²³

In the New Jersey Legislature, New Jersey Senate Bill 1425 is presently being considered by the Senate Economic Growth Committee, while Assembly Bill 1692 is being considered by the Assembly's Agriculture and Natural Resources, and Appropriations Committees. (*Ben Kurtzman*)²⁴ These bills would provide income averaging similar to the federal program described above. The New Jersey Department of Agriculture, State Agriculture Development Committee, Warren County Freeholders, and Warren County Agriculture Development Board can work with, and encourage, the New Jersey Legislature to adopt income averaging legislation. This would greatly assist Warren County farmers, and farmers statewide, to remain economically viable.

USDA Farm Service Agriculture Program

Farming is a business which can be extremely cyclical and unpredictable, with factors, such as weather and market conditions, out of the farmer's control. As such, farmers often need assistance to make ends meet, to stay profitable, and to stay in business. Many times federal government programs are available, and Warren County farmers can take advantage of these loans as a tool in running their farm business.

The United States Department of Agriculture (USDA), Farm Service Agency (FSA) makes “... *guaranteed farm ownership and operating loans to (beginning farmers), family-size farmers and ranchers who cannot obtain commercial credit from a bank, Farm Credit System institution, or other lender*”, often due to financial setbacks from natural disasters, or whose resources are too limited to maintain profitable farming operations. FSA loans can be used for most agriculture necessities such as purchasing land, livestock, equipment, feed, seed, supplies, and also for construction of buildings, or to make farm improvements. (*Farm Service Agency*)²⁵

The FSA also makes "Direct" farm loans. These loans include supervision and credit counseling for farmers so they have a better chance for success. Under this program, farm ownership, operating, emergency and youth loans are the main types of loans available, but

there are also minority applicant and beginning farmer loans. (*Farm Service Agency*) In Warren County farm loans have been as follows:

- Fiscal year 2007 had three loans, with an average loan of \$300,000. They were used to buy farms and livestock, and to refinance debt.
- Fiscal year 2006 had four loans, with an average loan of \$140,000. They were used to buy equipment and cows, and to refinance operating debt.
- Fiscal year 2005 had seven loans, with an average loan of \$120,000. They were used to buy cows and equipment, and to refinance debt.

(*Virginia Brophy, Farm Service Agency*)²⁶

The FSA office for Warren County is located at 101 Bilby Road, Suite 1H in Hackettstown, at the same location as the NRCS office discussed in Chapter 7. The County Executive Agent is Ken Bingham, and he may be reached at (908) 852-2576, ext. 109, or at Kenneth.Bingham@nj.usda.gov for assistance. This FSA office also administers the financial aspect of the CREP program, which was discussed in *Chapter 7*.

Warren County’s Vision for Farmland Preservation

The Mission Statement of the Warren CADB:

Our mission is told in our title, “Agriculture Development Board.” We are dedicated to the preservation of farmland, farms, and farmers. To that end the CADB will actively seek to expand our base of preserved farms and provide support to our farming community.

The Goals of the Warren CADB:

Warren County has 814 farms and almost 80,000 acres of land in farming. As of June 2007, over 150 of those farms and over 15,000 acres are in farmland preservation. While this represents a significant achievement, it is the goal of the CADB, working with municipalities and the State Agriculture Development Committee to increase preserved acreage to over 20,000 by 2010.

The CADB will continue to support and develop programs to encourage economically successful farming.

The Mission and Goals Statement of the Warren CADB were approved and adopted at their August 2007 CADB meeting.

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- ¹ New Jersey Department of Agriculture. New Jersey State Agriculture Development Committee (SADC). “Right to Farm Program.” <http://www.state.nj.us/agriculture/sadc/rtfprogram.htm>. Accessed March 11, 2007.
- ² New Jersey’s Great Northwest Skylands, Farmland Preservation. <http://www.njskylands.com/fmpres.htm>. Accessed May 28, 2007.
- ³ New Jersey Department of Agriculture, State Agriculture Development Committee, Right to Farm (RTF) Program: Eligibility Criteria for RTF Act Protection <http://www.state.nj.us/agriculture/sadc/rtfcriteria.htm>. Accessed March 25, 2007.
- ⁴ New Jersey Department of Agriculture, State Agriculture Development Committee, Right to Farm Program: Resolving Agricultural-Related Conflicts <http://www.state.nj.us/agriculture/sadc/rtfconflictres.htm>. Accessed March 25, 2007.
- ⁵ New Jersey Department of Agriculture, State Agriculture Development Committee, State Agriculture Development Committee Model Right to Farm Ordinance <http://www.state.nj.us/agriculture/sadc/modelrtfordinance.pdf>. Accessed March 27, 2007.
- ⁶ New Jersey Department of Agriculture, New Jersey’s Farmland Assessment Act, An Informational Guide on Basic Requirements. July 2006.
- ⁷ New Jersey Department of Agriculture, State Agriculture Development Committee, Warren County Agricultural Profile, April 13, 2007.
- ⁸ New Jersey Department of Agriculture, Agricultural Smart Growth Plan 2006. <http://www.state.nj.us/agriculture/pdf/smartgrowthplan.pdf> Accessed March 27, 2007.
- ⁹ Personal communication with Kent Hardmeyer, United States Department of Agriculture, Natural Resources Conservation Service. May 15, 2007.
- ¹⁰ Personal communication with Bob Resker, County of Warren, Land Preservation office. May 9, 2007.
- ¹¹ United States Census of Agriculture, 1987, 1992, 1997, Ag Census. [http://agcensus.mannlib.cornell.edu/county.php?st\[\]=34&imgmap=agri_state](http://agcensus.mannlib.cornell.edu/county.php?st[]=34&imgmap=agri_state). Accessed May 26, 2007.
- ¹² Report of the Agriculture Transition Policy Group, Final Report, January 10, 2006. <http://www.state.nj.us/governor/home/pdf/agriculture.pdf>. Accessed March 11, 2007
- ¹³ New Jersey Department of Agriculture, Economic Development Strategies, January 2007.
- ¹⁴ New Jersey Department of Agriculture, Training. <http://www.state.nj.us/agriculture/grants/training.html>. Accessed April 4, 2007
- ¹⁵ Personal communication with Bill Tietjen, Rutgers Cooperative Extension of Warren County, May 30, 2007.
- ¹⁶ Personal Communication with Lisa Summins, Academic Dean, Warren County Community College. June 5, 2007.
- ¹⁷ National FFA Organization, Agricultural Science Education. <http://www.ffa.org/>. Accessed May 27, 2007.

¹⁸ New Jersey Department of Agriculture, Office of Agriculture, Food and Natural Resource Education, 2006-2007 Directory of New Jersey Agriculture, Food & Natural Resources Education Programs and Related Organizations, <http://www.jerseyageducation.nj.gov/0607dir.pdf>. Accessed May 27, 2007.

¹⁹ New Jersey Department of Agriculture, Agricultural Education. <http://www.jerseyageducation.nj.gov/>. Accessed April 1, 2007.

²⁰ New Jersey Department of Agriculture, Division of Plant Industry, Programs. <http://www.state.nj.us/agriculture/divisions/pi/prog/>. Accessed April 1, 2007.

²¹ New Jersey Department of Agriculture, Division of Plant Industry, Gypsy Moth Suppression. <http://www.nj.gov/agriculture/divisions/pi/prog/gypsymoth.html>. Accessed April 1, 2007

²² United States Department of Agriculture, Rural Development, About Us. <http://www.rurdev.usda.gov/rd/index.html>. Accessed April 3, 2007

²³ United States Department of the Treasury, Internal Revenue Service, Farmers May Harvest Lower Taxes by Averaging Income. <http://www.irs.gov/businesses/small/article/0,,id=123985,00.html>. Accessed April 3, 2007

²⁴ American Farmland Trust, Ben Kurtzman, Legislative Specialist. e-mail communication. April 4, 2007.

²⁵ United States Department of Agriculture, Farm Service Agency, Farm Loan Programs, Background. <http://www.fsa.usda.gov/FSA/webapp?area=home&subject=fmlp&topic=landing>. Accessed April 3, 2007

²⁶ Personal Communication with Virginia Brophy, United States Department of Agriculture, Farm Service Agency. July 31, 2007.

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Bill Tietjen, Rutgers Cooperative Research and Extension of Warren County. May 30, 2007.

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MAPS

- a. Farmland Soils
- b. Farmland Map
- c. Agriculture Development Area
- d. Proposed Project Areas
- e. Farmland that meets the SADC Criteria for Agricultural Soils
- f. Farmland that meets the SADC Criteria for Tillable Land
- g. Farmland that meets SADC Criteria for both Tillable Land and Soils

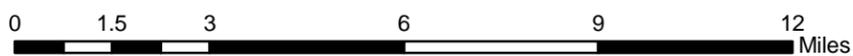
FARMLAND SOILS

Warren County, New Jersey

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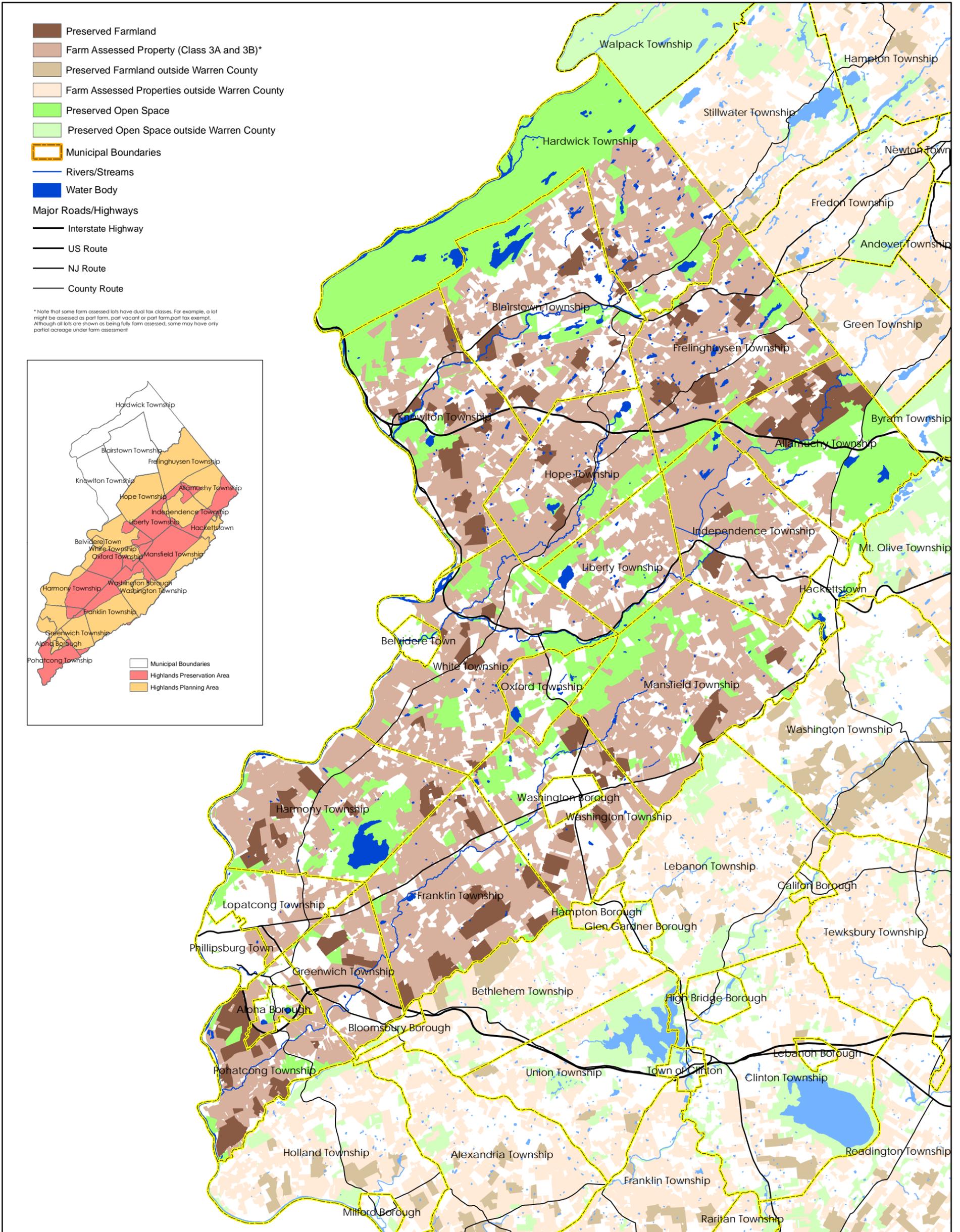
- Prime Farmland Soils
- Soils of Statewide Importance
- Soils of Unique Importance
- Municipal Boundaries



FARMLAND MAP

Warren County, New Jersey

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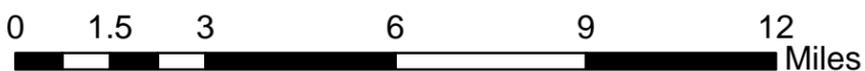


MORRIS LAND CONSERVANCY
ARESTY MAPPING CENTER
19 Boonton Ave
Boonton, NJ 07005
Map Prepared September 18, 2007

Data Sources: NJDEP, County of Warren; Office of GIS Management, County of Sussex; Office of Planning, Development & Technology, County of Morris; Division of GIS, Information Technology Management, County of Hunterdon.

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

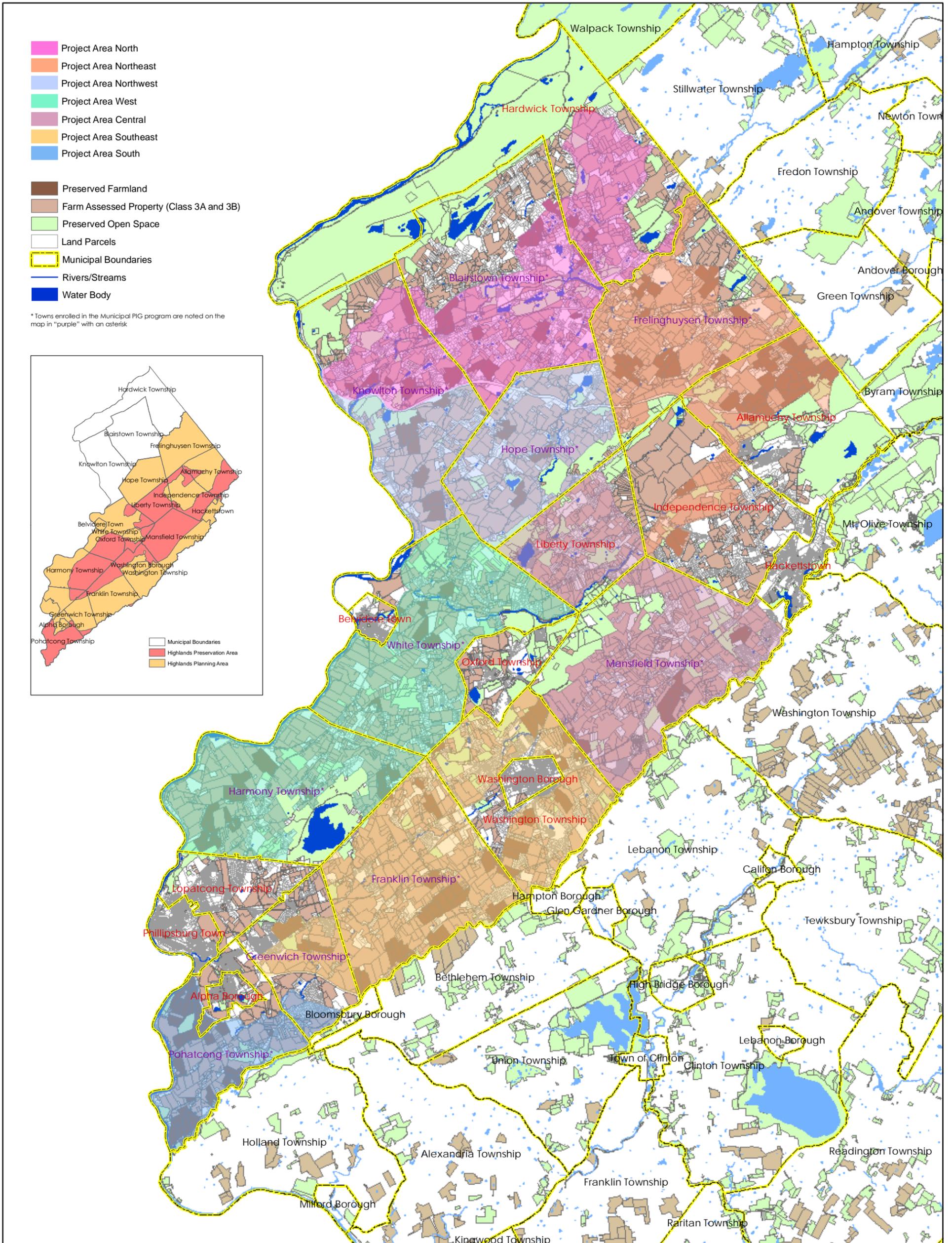
This map is to be used solely for planning purposes, and does not take the place of a survey.



Proposed Project Areas

Warren County, New Jersey

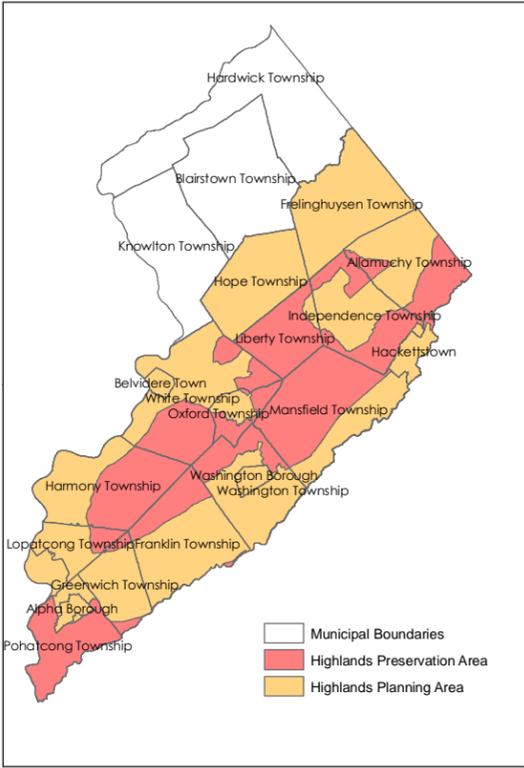
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Farmland that meets the SADC Criteria for Agricultural Soils* Warren County, New Jersey

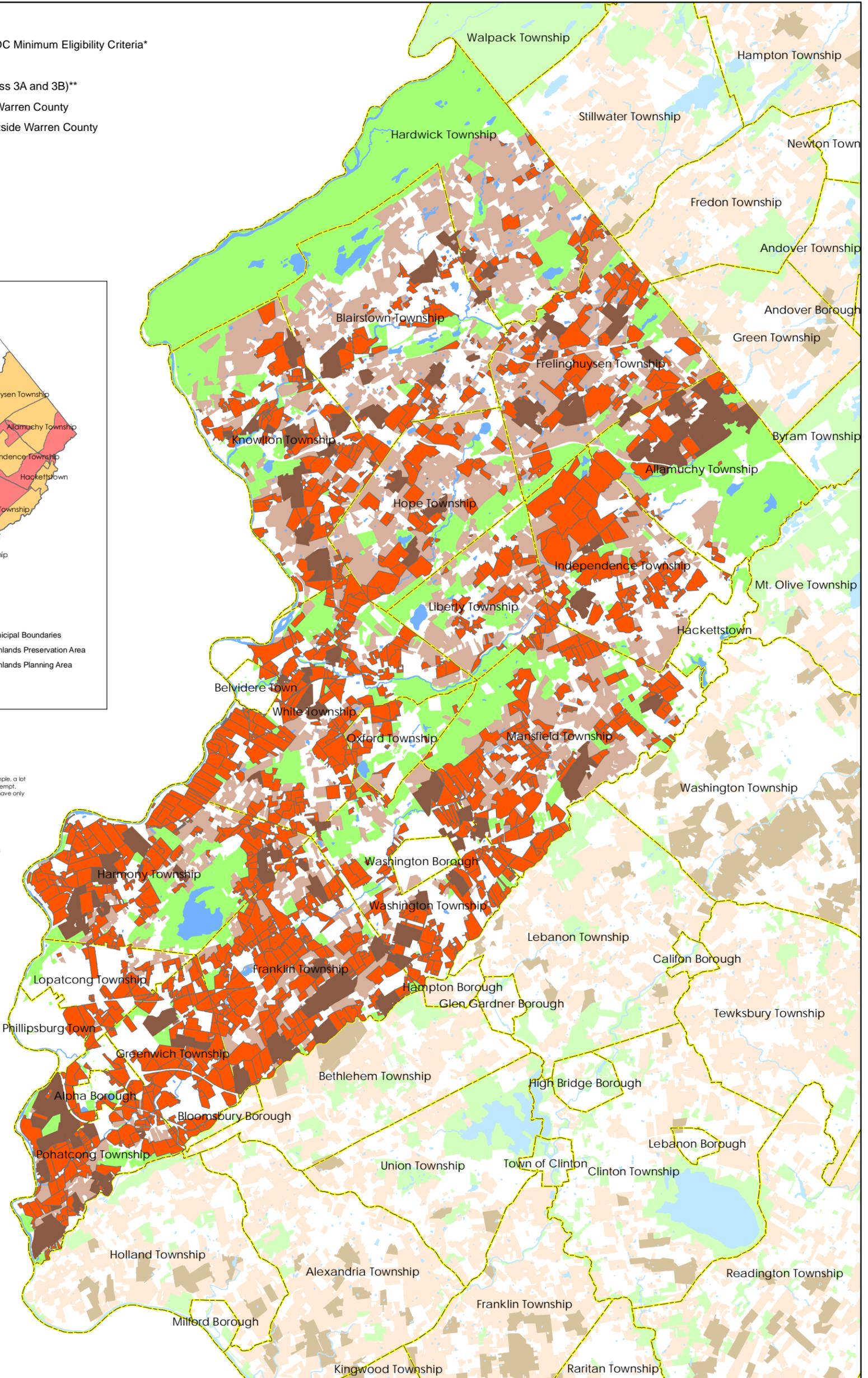
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- Farms with Soils meeting SADC Minimum Eligibility Criteria*
- Preserved Farmland
- Farm Assessed Property (Class 3A and 3B)**
- Preserved Farmland outside Warren County
- Farm Assessed Properties outside Warren County
- County Open Space
- Project Area Boundaries
- Municipal Boundaries
- Rivers/Streams
- Water Body



*Soil acreage determined using the Soil Survey as prepared by the Natural Resource Conservation Service for prime farmland soils, soils of statewide importance and soils of unique importance. Farm parcels are sorted on size based upon the State Agriculture Development Committee (SADC) Minimum Eligibility Criteria for soils.
 **Note that some farm assessed lots have dual tax classes. For example, a lot might be assessed as part farm, part vacant or part farm, part tax exempt. Although all lots are shown as being fully farm assessed, some may have only partial acreage under farm assessment.

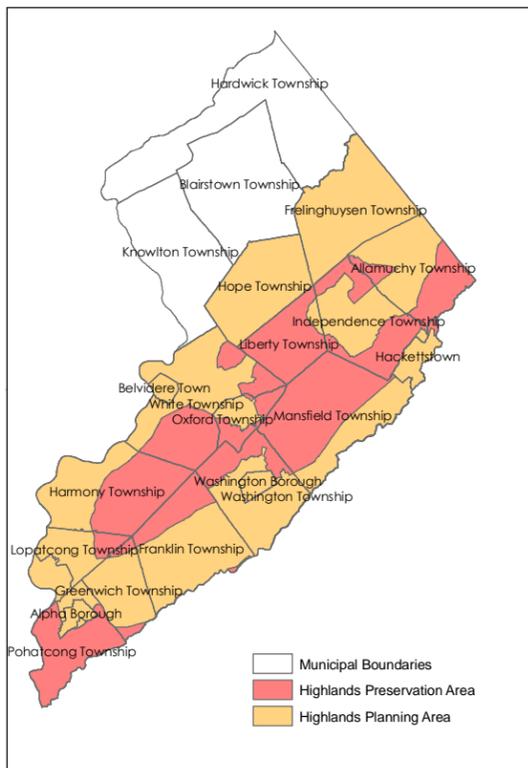
Information on this Map and Plan regarding farms with agricultural soils is a representation of the GIS data analysis and is subject to individual site review. Farm applications may be submitted that meet the SADC Minimum Eligibility Criteria that are not shown on this map. Any property included within the County's ADA it is potentially eligible for preservation.



Farmland that meets the SADC Criteria for Tillable Land* Warren County, New Jersey

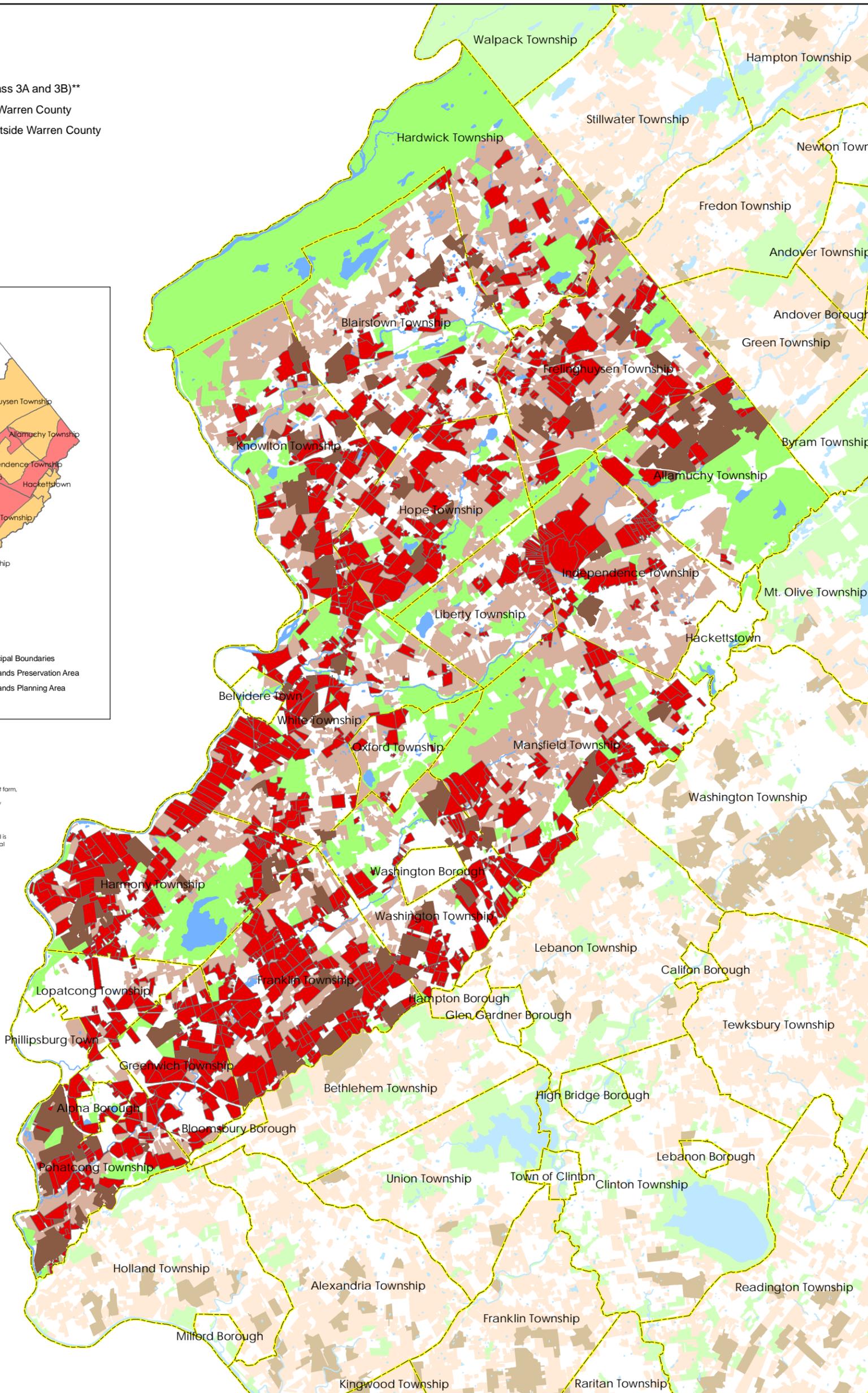
--Draft--

- Farm with tillable land*
- Preserved Farmland
- Farm Assessed Property (Class 3A and 3B)**
- Preserved Farmland outside Warren County
- Farm Assessed Properties outside Warren County
- County Open Space
- Project Area Boundaries
- Municipal Boundaries
- Rivers/Streams
- Water Body



*Tillable acreage determined using the N.J. Department of Environmental Protection 2002 Land Use/Land Cover mapping for agricultural lands. Farm parcels are sorted on size based upon the State Agriculture Development Committee (SADC) Minimum Eligibility Criteria for tillable land.
 ** Note that some farm assessed lots have dual tax classes. For example, a lot might be assessed as part farm, part vacant or part farm, part tax exempt. Although all lots are shown as being fully farm assessed, some may have only partial acreage under farm assessment.

Caveat for Map (and Plan):
 Information on this Map and Plan regarding farms with tillable land is a representation of the GIS data analysis and is subject to individual site review. Farm applications may be submitted that meet the SADC Minimum Eligibility Criteria that are not shown on this map. Any property included within the County's ADA it is potentially eligible for preservation.

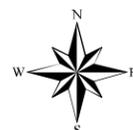
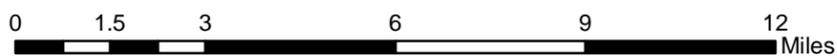


MORRIS LAND CONSERVANCY
 ARESTY MAPPING CENTER
 19 Boonton Ave
 Boonton, NJ 07005
 Map Prepared September 18, 2007

Data Sources: NDEP, USGS SRTM Survey, County of Warren, Office of GIS Management, County of Sussex, Office of Planning, Development & Technology, County of Morris, Division of GIS, Information Technology Management, County of Hunterdon.

This map was developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been verified by the NDEP and is not state authorized.

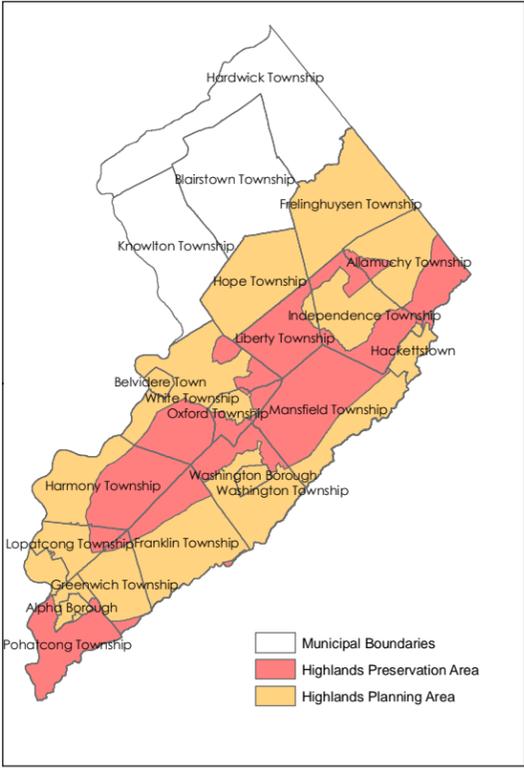
This map is to be used solely for planning purposes and does not take the place of a survey.



Farmland that meets SADC Criteria for both Tillable Land and Soils* Warren County, New Jersey

--Draft--

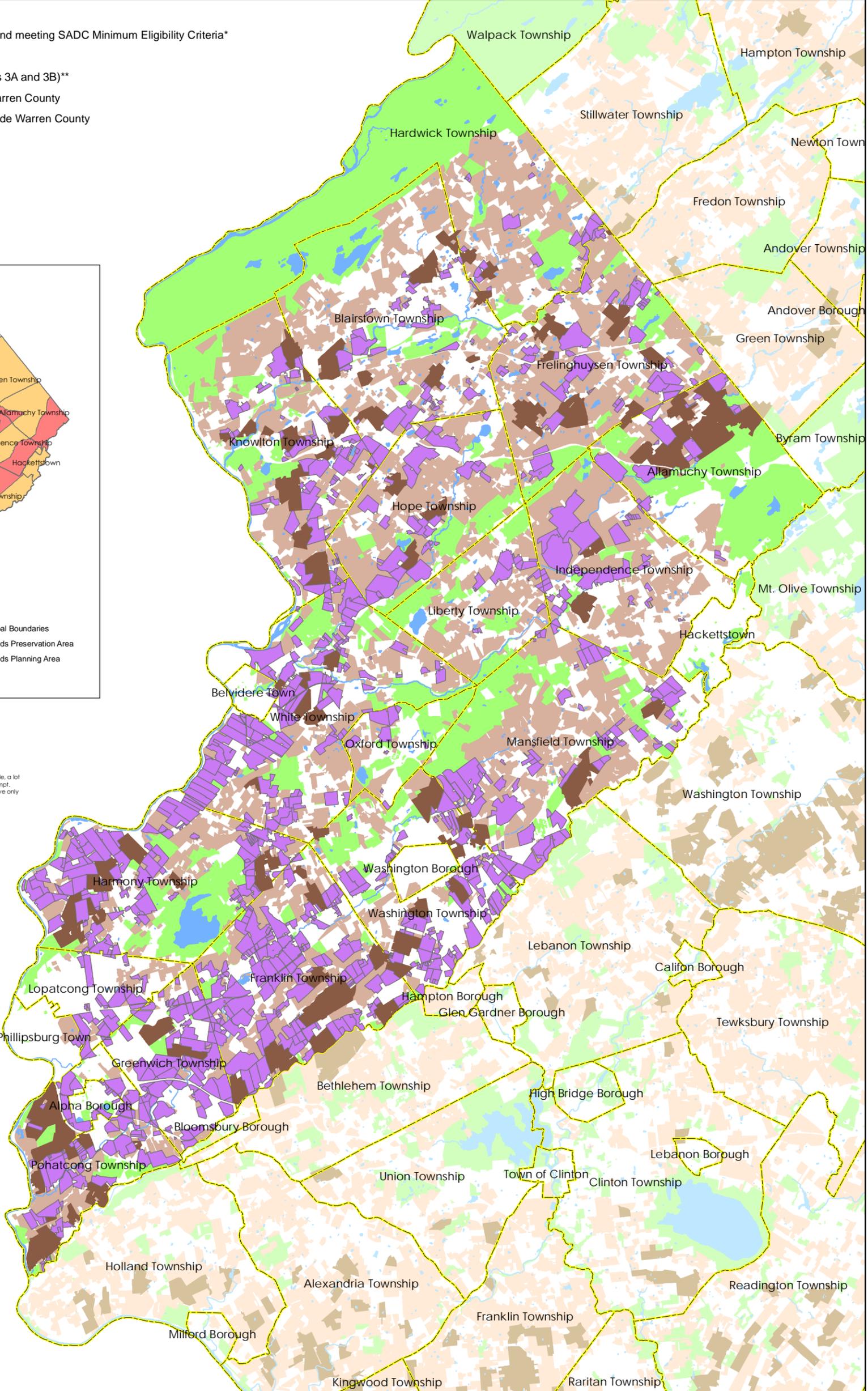
-  Farms with Soils and Tillable Land meeting SADC Minimum Eligibility Criteria*
-  Preserved Farmland
-  Farm Assessed Property (Class 3A and 3B)**
-  Preserved Farmland outside Warren County
-  Farm Assessed Properties outside Warren County
-  County Open Space
-  Project Area Boundaries
-  Municipal Boundaries
-  Rivers/Streams
-  Water Body



*Tillable acreage determined using the N.J. Department of Environmental Protection 2002 Land Use/Land Cover mapping for agricultural lands. Soil acreage determined using the Soil Survey as prepared by the Natural Resource Conservation Service for prime farmland soils; soils of statewide importance and soils of unique importance. Farm parcels are sorted on size based upon the State Agriculture Development Committee (SADC) Minimum Eligibility Criteria for tillable land and soils.

** Note that some farm assessed lots have dual tax classes. For example, a lot might be assessed as part farm, part vacant or part farm, part tax exempt. Although all lots are shown as being fully farm assessed, some may have only partial acreage under farm assessment.

Information on this Map and Plan regarding farms with tillable land and agricultural soils is a representation of the GIS data analysis and is subject to individual site review. Farm applications may be submitted that meet the SADC Minimum Eligibility Criteria that are not shown on this map. Any property included within the County's ADA it is potentially eligible for preservation.



Data Sources: NDEP, USGS/Soil Survey, County of Warren, Office of GIS Management, County of Sussex, Office of Planning, Development & Technology, County of Mercer, Division of GIS, Information Technology Management, County of Hunterdon.

This map was developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been verified by the NDEP and is not state-authorized.

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

APPENDICES

- a. Public Hearing #1 – April 19, 2007 – Invitation and Agenda
- b. Public Hearing #2 – June 21, 2007 – Notice, Invitation, Agenda
- c. Public Hearing #3 – October 18, 2007 – Notice, Invitation and Agenda *To be included in Final Plan*
- d. Warren County FY09 Minimum Score Report
- e. Warren County Ranking Criteria
- f. Directory of Warren County Farm Markets and Farm Stands, Tree Farms
- g. Equine Facilities in Warren County
- h. SADC Model Right-to-Farm Ordinance
- i. SADC Deed of Easement

April 1, 2007

The Warren County Agriculture Development Board (CADB) invites you to a meeting of municipal agricultural representatives and farmland owners to discuss the Farmland Preservation Plan for Warren County. The County is in the process of writing their Farmland Plan and looks to you for guidance and direction for the future of agriculture and agricultural preservation in the County.

While developing the Farmland Plan the CADB will be seeking information from municipal officials and farmers concerning agriculture and farmland preservation. This may include land use trends, planning and zoning issues, right-to-farm ordinances, and effectiveness of the farmland preservation program. The CADB wants the plan to complement existing programs and meet the preservation needs of the municipalities.

As part of this effort we are hosting a public meeting on **Thursday, April 19th**. The meeting will be held in the Meeting Room at the Warren County Department of Land Preservation, 500 Mt. Pisgah Avenue in Oxford, beginning at **7:00 p.m.** We look to you, or your representative, to attend this meeting and help us coordinate our planning initiatives.

Please respond to Bob Resker, Warren County Department of Land Preservation at (908) 453-3252 and let him know who will be attending this meeting with the CADB. Thank you for your assistance and we look forward to working with you on the Comprehensive Farmland Plan.

Sincerely,

Joel Schnetzer
Chairman
Warren County Agriculture Development Board

County of Warren

Farmland Preservation Plan

Public Meeting:

A Vision for Farmland Preservation in Warren County

Meeting Room
Warren County Department of Land Preservation
500 Mt. Pisgah Avenue, Oxford

Thursday, April 19, 2007
7:00 pm

Hosted by Warren County Board of Chosen Freeholders, and
the Warren County Agriculture Development Board

AGENDA

7:00 Flag Salute
Welcome and Introductions
Joel Schnetzer, Warren County Agricultural Development Board

The Farmland Preservation Plan:
What is it and why is Warren County doing it?
Barbara Heskins Davis, Morris Land Conservancy

7:15 The Farmland Preservation Program in Warren County:
A Conversation
Barbara Heskins Davis, Morris Land Conservancy

8:30 Concluding Remarks
Joel Schnetzer, County Agricultural Development Board

Why draft a Farmland Preservation Plan?

The primary purpose of developing a Farmland Preservation Plan for Warren County is to provide a vision and strategy for the preservation of our agricultural resources. This Plan will prioritize farmland for preservation based upon input from local farmland owners, residents, municipal officials, county board and committees. The Plan will conform to the updated State Agriculture Development Committee (SADC) guidelines and can be used by Warren County to apply for a Planning Incentive Grant from the SADC. The Plan is a requirement for eligibility into this Program.

The Farmland Preservation Plan will result in the protection of farmland and will include an action plan to preserve agricultural resources within the County. The Plan will recommend a systematic program of farmland preservation that will result in an efficient use of County funds and will promote partnerships with other governmental and private agencies, to protect existing regional assets. The Plan will result in the preservation of the health and integrity of existing agricultural resources and the protection of the industry of agriculture in Warren County.

Anticipated Timeline:

April 19 2007: Public Meetings #1 – Farmland Owners and Residents

June 21, 2007: Public Meeting #2: Focus on Municipal Officials

July 19, 2007: Draft Farmland Preservation Plan delivered to County

September 20, 2007: Draft Farmland Preservation Plan released to the public

October 18, 2007: *Public Meeting #3: Public Comments on the Draft Plan*

November 15, 2007: Final Farmland Preservation Plan delivered to County

December 15, 2007: SADC deadline for submittal of County Plan

For further information please contact:



Morris Land Conservancy
19 Boonton Avenue
Boonton, NJ 07005
(973) 541-1010
Fax (973) 541-1131
www.morrislandconservancy.org

Warren County
Department of Land Preservation
500 Mt. Pisgah Avenue
Oxford, NJ
(908) 453-3252

To be addressed to: Clerk/Administrator
Mayor and members of governing body
Planning Board Chair
Agriculture Advisory Committee Chair

June 1, 2007

You are cordially invited to a meeting of Warren County municipal leaders. Your participation and vision for Warren County's farmland preservation program are needed for the development of the County's Farmland Preservation Plan.

The purpose of this meeting is to gather municipal leaders together with representatives of the Warren County Agriculture Development Board so that we may better understand your views on farmland preservation in Warren County. At this meeting please share with us the areas of special interest in your community. Your comments and thoughts on the prioritization of various initiatives will also be appreciated. Additionally, we will plan to review the farmland mapping we have produced for the County thus far. Please bring along any maps, materials, or photographs that you feel may be relevant to this discussion. Your support and participation will be noted in the final draft of the Warren County Farmland Preservation Plan.

The meeting will be held on **Thursday, June 21st** at the Department of Land Preservation office at the end of Mt. Pisgah Road in Oxford, and will begin at **7:00 p.m.** Please call or email Barbara Heskens Davis at Morris Land Conservancy (bhdavis@morrislandconservancy.org), (973) 541-1010, or Bob Resker at the Warren County Department of Land Preservation (908-453-3252) with any questions. We have enclosed a meeting agenda and directions for your information. If you cannot attend, please send a representative of the municipality, such as municipal staff and agriculture advisory committee members, to represent your views.

We would like to learn more about your community's plans and ongoing efforts to protect land in Warren County; we hope that you will share with us your vision and your expertise. The Plan must represent the views of the people of Warren County and can only be developed with the input of all who participate in land conservation in the County.

It is our hope that the Warren County Farmland Preservation Plan will serve as a catalyst for communities interested in actively pursuing farmland preservation. We are excited about this opportunity and expect that a number of important preservation initiatives will be identified as a result of this effort.

The participation of local leaders is a key element in producing a comprehensive Farmland Plan that reflects County interests and will successfully guide the County of Warren in their land preservation efforts. We hope you will come and share your knowledge and enthusiasm.

Sincerely,

Warren County Board of Chosen Freeholders

Warren County Agriculture Development Board

County of Warren

Farmland Preservation Plan Public Meeting: Farmland Preservation in Warren County

Meeting Room
Warren County Department of Land Preservation
500 Mt. Pisgah Avenue, Oxford

Thursday, June 21, 2007
7:00 pm

Hosted by Warren County Board of Chosen Freeholders, and
the Warren County Agriculture Development Board

AGENDA

- 7:00 Flag Salute
Welcome and Introductions
Joel Schnetzer, Warren County Agricultural Development Board
- 7:10 Review of the Farmland Program – The Municipal Perspective
Moderator: Barbara Heskins Davis, Morris Land Conservancy
- ✓ Review of the County Farmland Planning Process
 - ✓ Review of the Proposed Project Areas
 - ✓ Issues and Needs Discussion
 - ✓ What does your community need to accomplish this vision?
 - ✓ What does your community need to accelerate its efforts?
 - ✓ How can the County help the community address those needs?
 - ✓ Wrap up: What do you want the Plan to include that has not been discussed?
- 8:30 Concluding Remarks
Joel Schnetzer, County Agricultural Development Board

Why draft a Farmland Preservation Plan?

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What are some of the numbers?

Total County Land:	229,035 acres
Preserved Farmland:	13,826 acres
Farms in the 8-Year program:	1,126 acres
Total Assessed Farmland:	113,196 acres
Preserved Open Space:	53,228 acres
Land in Farms (Ag Census):	78,042 acres
Number of Farms (Ag Census):	814
Percent of the County Assessed as Farmland:	49%
Percent of the County Preserved Open Space:	23%
Percent of the County Preserved Farmland:	6%
Percent of Farmland Assessed Land Preserved:	12%
Percent of Land in Farms Preserved (Ag Census):	18%

Anticipated Timeline:

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For further information please contact:



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19 Boonton Avenue
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Warren County
Department of Land Preservation
500 Mt. Pisgah Avenue
Oxford, NJ
(908) 453-3252

New Jersey Farmland Preservation Program
Calculated Minimum Rank Score For "Eligible Farm" Status - FY09
Farms Granted Preliminary SADC Approval Through County EP Program in FY06, FY07, FY08

Warren County FY09 Minimum Score for Eligible Farm: 38

Applicant / Owner	Net Acres	Total Score	Round
Allamuchy Twp.			
Warren Co/Van Horn Estate	102	72.41	2006A
Nevins, Iris	53	53.62	2009A
Warren Co/Van Horn Estate	102	70.99	2007A
Blairstown Twp.			
Warren Co./Pehowski, Linda M.	170	65.14	2007A
Peterson, Juanita & Tamara	10	44.62	2008A
DePietro, Ann	90	49.57	2007A
Franklin Twp.			
Bungert, Mary Lou	42	58.08	2006A
Conway, Frank H. & Helen M.	132	53.14	2008A
Sigler, Carl & Barbara #2	84	44.67	2006A
Sigler, Carl & Barbara #1	83	56.92	2008A
Riewerts, Henry	36	45.88	2008A
Petty, Jason	28	65.03	2008A
Miller, John S. & Wendy E.	49	64.12	2008A
Sigler, Earl & Alberta #2	28	58.40	2007A
Owens, Albert H.	55	51.94	2007A
Sigler, Earl & Alberta #1	50	62.37	2007A
Miller, John S. & Wendy E.	49	59.99	2006A
Freelinghuysen Twp.			
Gurba, Stephen Revocable Trust	127	53.77	2006A
Parker, Newton A.	103	41.35	2007A
Kumetz, Divina	74	48.50	2007A
Jensen, Christian J. & Renae	55	52.78	2007A
Peck, Harry B.	44	53.91	2006A
Greenwich Twp.			
Matuch, Walter & Mary Susan	53	55.53	2007A
Hardwick Twp.			
Morris Land Conservancy/Parsons	57	34.48	2007A
Harmony Twp.			
Jansen, Peter C.	76	75.37	2007A
Fisher-Bigelow, B. & Schenzlin, R.	84	44.27	2007A
Duckworth, Robert #3	25	67.23	2008A
Duckworth, Robert #2	78	85.31	2008A
Duckworth, Robert #1	70	59.24	2006A
Venner, Estate of Charles	48	66.42	2007A
Hope Twp.			
White Oak Farm Greenhouse & Nursery, LLC	47	61.13	2006A
Grochowicz, Estate of Katherine (T. & L.)	128	67.20	2007A
Hayter, Larry & Mary Ann	77	42.42	2008A

Minimum Score for Eligible Farm is determined as 70% of County Average

New Jersey Farmland Preservation Program
Calculated Minimum Rank Score For "Eligible Farm" Status - FY09
Farms Granted Preliminary SADC Approval Through County EP Program in FY06, FY07, FY08

Applicant / Owner	Net Acres	Total Score	Round
Hope Twp.			
May, Robert C & Diane L.	37	56.39	2008A
Independence Twp.			
Kasharian, John & Jean	9	44.59	2007A
McCloskey, Anne	46	43.20	2007A
Knowlton Twp.			
Fritz, Estate of Walter & Gladys	13	60.66	2007A
Demers, Doake & Smith Mary J	77	65.72	2008A
Liberty Twp.			
Prystek Farms Partnership	60	55.93	2008A
Kurnath, Albert & Jacqueline	74	40.28	2008A
Quick, Alan & Gail	51	34.37	2007A
Topoleski, Robert & Maurine	11	42.04	2007A
Mansfield Twp.			
Sams, Terry L. & Brenda C.	57	54.23	2008A
Terhune Farm Partnership, LP #3	72	66.95	2008A
Terhune Farm Partnership, LP #2	64	52.21	2008A
Terhune Farm Partnership, LP #1	77	60.93	2008A
Warren Co (Smith Estate)	161	61.51	2007A
Getto, Lawrence P.	42	57.46	2007A
Particarl, Anthony F. & Mari Ann	65	63.65	2007A
Washington Twp.			
Heath, Joseph J. & Marilyn M.	9	66.55	2007A
McFadden, Thomas & Ruth	14	47.21	2008A
Rigoletti, Martin J. & Jean A.	36	70.00	2007A
White Twp.			
Matthews, Ivan M. & Betty S.	39	54.29	2008A
Bullock, Clarence & Carol	109	50.22	2008A
Steinhardt, Joseph	51	42.09	2008A
White Twp (Crossroads Farm)	109	60.06	2008A
Steinhardt, Theresa	77	58.51	2008A
War/Pequest Development LLC	58	71.44	2008A
Matthews, Timothy I. & Lynda K.	88	40.74	2007A
County Total/Averages	59	3,820	55.60

RANKING SHEET

Applicants Name _____ Ranking Date _____
 Project Area _____
 SADC ID # _____ Previous Ranking Date _____
 POINTS AWARDED 15.04
 COUNTY RANKING _____

SOILS

Total Acres	1			
0 # Acres Prime	0.00%	X	15.00	0.00
0 # Acres Statewide	0.00%	X	10.00	0.00
0 # Acres Unique	0.00%	X	12.50	0.00
0 # Acres Local	0.00%	X	5.00	0.00

TOTAL SOILS SCORE 0.00

TILLABLE ACRES

0.00 ACRES OF CROPLAND HARVESTED	0.00%	X15	0.00
0.00 ACRES OF CROPLAND PASTURED	0.00%	X15	0.00
0.00 ACRES OF PERMANENT PASTURE	0.00%	X02	0.00

TOTAL ACRES TILLABLE BY PERCENT 0.00% 0.00

TOTAL TILLABLE ACRES SCORE 0.00

BUFFERS AND BOUNDRIES

Total linear distance of Boundries(TAX Map) 1

0 Deed restricted Farmlands	0.000%	X	20.00 =	0.00
0 Deed restricted wildlife areas	0.000%	X	18.00 =	0.00
0 8 year and/or E.P. Applications.	0.000%	X	13.00 =	0.00
0 Farmland Unrestricted	0.000%	X	6.00 =	0.00
0 Streams or Wetlands	0.000%	X	18.00 =	0.00
0 Limited Access Parks	0.000%	X	14.00 =	0.00
0 High Use Parks	0.000%	X	5.00 =	0.00
0 Military Installations	0.000%	X	14.00 =	0.00
0 Highways and Railroads	0.000%	X	10.00 =	0.00
0 Residential Developments	0.000%	X	0.00 =	0.00
0 Other	0.000%	X	0.00 =	0.00

TOTAL BDRY SCORE 0.00

LOCAL COMMITMENT

Yes=1 point No = 0 point

Is current zoning in the area 3 acres or more?	1
Does the zoning offer clustering or buffering?	0
Does the zoning offer TDR or other preservation options	0
Does the zoning offer protection from conflicts?	1
Is Agriculture a permitted use in the area?	1

TOTAL ZONING SCORE 3

No = 1 pt. Yes = 0 pt.

Is this land currently served by sewers?	1
Is this land currently served by "city water"?	1
Is this land currently served by natural gas?	1

TOTAL GROWTH INFRASTRUCTURE 3

Does the municipality have a liaison to the CADB?
 Name 1
 Has the local planning board supported Farmland Pres. 1
 Have Municipal actions shown a support for Farmland Pres.? 1
 Has the municipality approved any 8 yr. programs? 0
 Have any Easements been purchased in the Municipality? 1
 Is there currently an application before the Twp. for
 a preliminary major subdivision or is a major subdivision
 currently approved?(deduct 5% x acreage) 0

TOTAL MUNICIPAL COMMITMENT 4

Is the application constant with local and county zoning? 2 MAX 2 pts.
 Is the application constant with state and Reg. zoning? 2 MAX 2 pts.
 Does right to farm require buyer notification? 0 Max 1 pt.

Total other Commitments 4

Total local committed dollars 1
 State equalized valuation divided by 1000 1290839

INDEX 7.7469E-07

Index> 10 = 5
 Index> 7 < 10 4
 Index=5<7 3
 Index>2<5 2
 Index<2 1

TOTAL FINANCIAL COMMITMENT 1

Total acres of the Application 1
 County average Farm size 114
 Maximum points allowed 20

Total Size Score 0.04 MAX SCORE

TOTAL SOILS SCORE 0.00 MAX 15
 TOTAL TILLABLE ACRES SCORE 0.00 MAX 15
 TOTAL BDRY SCORE 0.00 MAX 20
 TOTAL ZONING SCORE 3.00 MAX 5
 TOTAL GROWTH INFRASTRUCTURE 3.00 MAX 3
 TOTAL MUNICIPAL COMMITMENT 4.00 MAX 5
 Total other Commitments 4.00 MAX 5

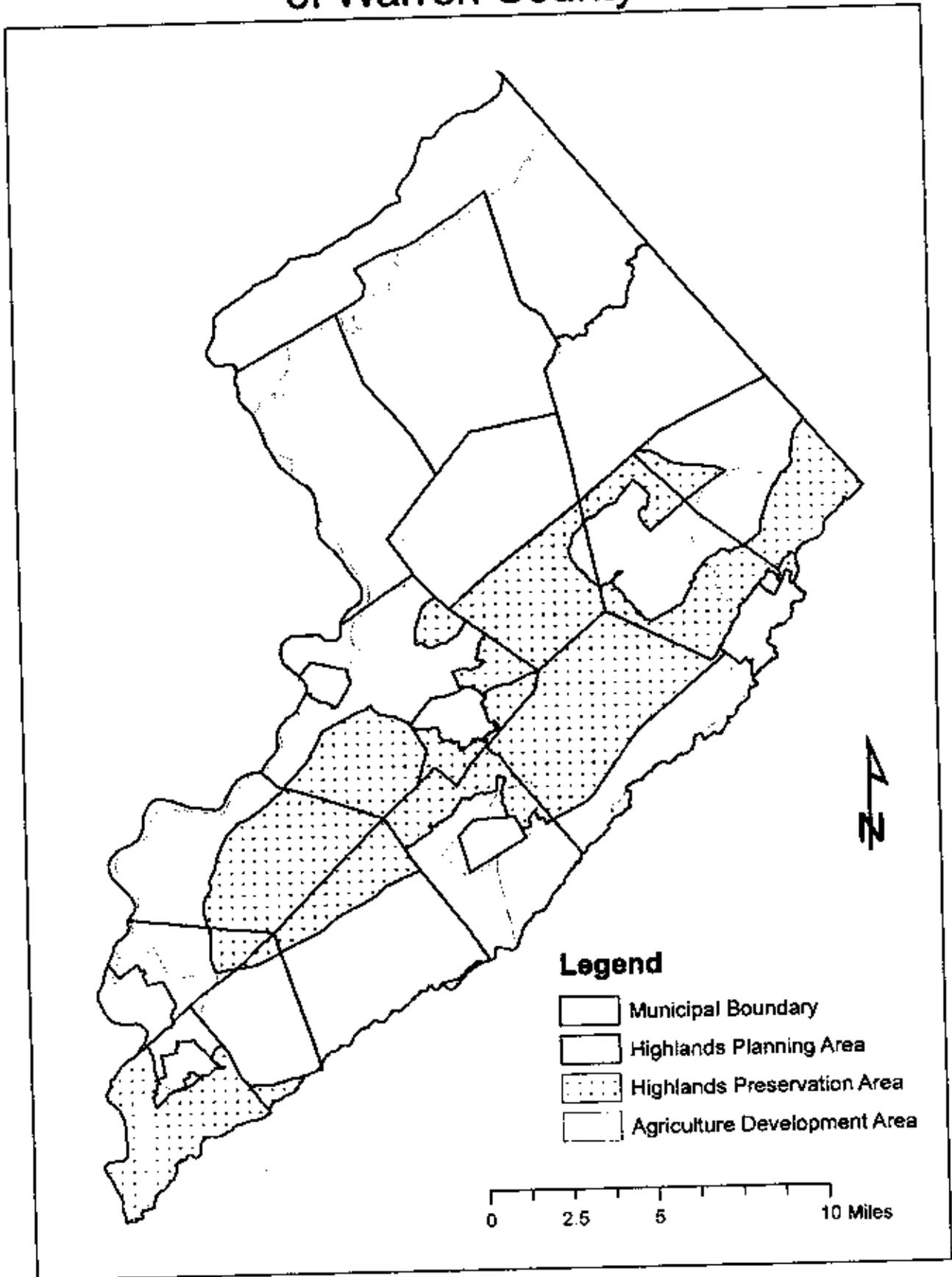
TOTAL FINANCIAL COMMITMENT
Total Size Score

1.00 MAX 5
0.04 MAX 20

TOTAL POINTS

15.04 OUT OF A MAXIMUM 93 POINTS

Agriculture Development Area of Warren County



APPENDIX F: Directory of Warren County Farm Markets and Farm Stands, Tree Farms

Vegetables, Fruit, Berries, Corn		
<i>Farm</i>	<i>Description</i>	<i>Address</i>
<i>Apgar's Cider Press, Phillipsburg</i>	Roadside Market: Apples, peaches, sour cherries Apple Varieties: Fuji, Golden Delicious, Ida Red, Jonagold, Macoun, McIntosh, Red Delicious, Winesap Also Available: In season cider, jellies, crafts, eggs, gifts	352 Harmony Brass Castle Rd., Phillipsburg Directions: 1.7 mi. off County Rt. 519 on Harmony Brass Castle Rd. (Rt. 647) in Harmony Phone: (908) 859-2988
<i>Asbury's Natural Village Farm, Asbury</i>	Open: Saturdays 10 am - 6 pm Roadside Market: Organic produce	10 Bloomsbury Road, Asbury Phone: (908) 537-2846 Web site: www.asburyfarm.org
<i>Asbury Raspberry Farm, Asbury</i>	Open: July 10 - August 8, Daily, dawn - dusk Pick Your Own: Raspberries, blueberries	211 Asbury-Broadway Rd., (Rt. 643), Asbury Directions: Rt. 78 W, Exit 7, right at exit ramp, 1/4 mi. make right onto Rt. 632, 5 miles to stopsign, make left, 1.5 miles on right Phone: (908) 689-8182
<i>Best's Fruit Farm, Hackettstown</i>	Open: Year Round, 9 AM - 6:30 PM, Weekends 9 AM - 5 PM Roadside Market: Apples; vegetable; peaches Apple Varieties: Cortland, Empire, Gala, Golden Delicious, Jonagold, Jonathan, Macoun, McIntosh, Red Delicious, Stayman/Winesap Also Available: Jersey Fresh Cooks cookbook; full bakery: donuts - pies; deli; apple pies; cider; bedding plants; mums	West Rt. 46, Hackettstown Directions: I-80 Exit 19, Rt. 517 S to Rt. 46, 1 mi. W Phone: (908) 852-3777
<i>Bohacz Farm, Allamuchy</i>	Open: In Season, 10 AM - Dusk Roadside Market: White Sweet Corn (Silver Queen), Tomatoes, Squash, Eggplant, Pumpkins Also Available: Corn Stalks	Rt. 517 & Cat Swamp Rd., Allamuchy Directions: Rt. 80 Exit 19 to Rt. 517 S, or Rt. 46 to Hackettstown, Rt. 517 N past M & M Candy Factory
<i>Brook Hollow Farm, Hainesburg</i>	Open: August - October, December for trees only Roadside Market: Apples, peaches Pick Your Own: Apples Apple Varieties: 14 varieties of apples including	52 Frog Pond Rd., Hainesburg Directions: Rt. 80 W to Exit 4, Rt. 94, 3 1/2 mi. N to Frog Pond Rd. Phone: (908) 496-4577

	McIntosh, Rome & Stayman Also Available: Cut your own Christmas trees	
<i>Country Fresh Farms, Hampton</i>	Open: April - November, Daily 9:30 am - 6 pm Roadside Market: Fruits, vegetables Pick Your Own: Pumpkins Apple Varieties: Full line of apples Also Available: Flowers, shrubs, trees, eggs, pies, crafts, mulch, top soil, mums, pumpkin patch, full line of fall accessories, straw, hay	70 W Asbury Anderson Road, Hampton Directions: From Clinton Rt. 31 N to light at A & P, at Hampton turn left onto Rt. 632, second farm on right Phone: (908) 537-9009, Fax: (908) 537-9009 Email: mjbylicki@earthlink.net
<i>Denville Farms in Warren County, Knowlton</i>	Open: May 1 - Oct. 31 Pick Your Own: Strawberries; apples; pumpkins	10 Knowlton Rd., Knowlton Phone: (908) 459-9869 Web site: www.denvillefarms.com
<i>Donaldson Farms, Hackettstown</i>	Open: April - November, Daily 8 am - 7 pm Roadside Market: Sweet corn, tomatoes, peaches, melons, asparagus, potatoes, apples, grapes, herbs Pick Your Own: Strawberries, field-grown flowers, pumpkins, gourds, ornamental corn, herbs Apple Varieties: Cortland, Jonagold, Macoun, McIntosh, Mutsu, Paula Red, Winesap Also Available: Jersey Fresh Cooks cookbook, milk, ice cream, honey, jelly dressings, pies, bread, coffee, soup	345 Allen Rd., Hackettstown Directions: Rt. 80, exit 19, Rt 31 N to Rt. 57 E or Rt. 78, exit 24, Rt. 523 N to Rt. 517 N Phone: (908) 852-9122 Web site: www.donaldsonfarms.net
<i>Four Sisters Winery at Matarazzo Farms, Belvidere</i>	Open: Year Round, 9 AM to 6 PM, Cl'd Wednesday. Jan. - Mar.	Farms Rt. 519, Belvidere Directions: From East Rt. 80 Exit 12, follow signs to Hope, Straight thru 4-way stop 5 mi. Winery/Market on Right Phone: (908) 475-3671 Web site: www.matarazzo.com
<i>Glenview Farm, Blairstown</i>	Open: October - December, Daily 11 am - 5 pm Roadside Market: Pumpkins, gourds, squash, Indian corn Pick Your Own: Pumpkins, squash, Indian corn, gourds	2 Glenview Lane, Blairstown Directions: Rt. 80 Exit 12, Rt. 521 to Rt. 94, S Rt. 94 to Mohagan Rd. (1 mi.), 4 mi. to Gaisler Rd. Right 1 mi. Phone: (908) 362-6904, Fax: (908) 362-

	Also Available: Christmas trees, wreaths, roping	6194 Web site: www.glenviewfarm.com
<i>Godlewskey Farms and Greenhouses, Great Meadows</i>	Pick Your Own: Strawberries; pumpkins; produce; herbs; flowers; bedding plants Also Available: Hanging baskets; potted flowers; Christmas trees; sod; wetland plants; trees; shrubs; ground covers; fruit trees & shrubs	196 Alphano Rd., Great Meadows Directions: Off Rt. 46 or Rt. 80, 31/2 mi. on Alphano Rd. Phone: (908) 637-4927
<i>Greenwood Farms, Washington</i>	Open: June 1 - October, Saturdays & Sundays 9am - 5 pm Roadside Market: Variety of produce Also Available: WIC and Senior FMNP checks accepted	135 Port Colden Rd, Washington Directions: Rt. 78 W to Rt. 31 N to Rt. 57 E, bear left at the fork, second left onto port Colden Rd. Phone: (908) 689-2227, Fax: (908) 689-3638
<i>H.A. Race and Son (Sam Race), Belvidere</i>	Open: June, Daily 8 am - 6 pm Pick Your Own: Strawberries	388 Hazen-Oxford Rd. (Rt. 624), Belvidere Directions: 2.5 mi west of Rt. 31 on Rt. 624 at Oxford; one mile SE of Rt. 519 at Hazen Phone: (908) 453-2374 Email: srrace@earthlink.net
<i>Hensler Farms, Belvidere</i>	Open: Daily, July - Aug., 9 AM - 6 PM Roadside Market: Sweet Corn, Peaches	446 Buckhorn Dr, Belvidere Directions: 3 mi. S of Hazen Blinker; Rt 519 S Phone: (908) 475-2151
<i>Kash Farm, Hackettstown</i>	Open: Year Round, 10 AM - 6 PM Thursday - Sunday Roadside Market: Squash (yellow, green), Lima Beans, Herbs, Eggplant, Cherry Tomatoes, Other Vegetables Pick Your Own: Eggplant, Peppers (Red, Green, Hot), Beans, Lima Beans, Squash (Acorn, Butternut, Spring, Green, Yellow, Scallop), Tomatoes (Grape, Cherry), Brussel Sprouts, Red Cabbage, Flowering Kale, Basil, Mint, Parsley (Curly, Italian), Pumpkins Also Available: Greenhouse, Petting zoo; pot belly pigs; goats Retail & Wholesale	181 Petersburg Rd., Hackettstown Directions: 3 mi NW of Hackettstown; off Rt. 46 Phone: (908) 852-0570

<p><i>Kimball's Upick, Belvidere</i></p>	<p>Pick Your Own: Hot peppers (100+ varieties); herbs; salad greens; lettuce; tomatoes; green peppers; cucumbers; zucchini; sunflowers; green beans; various other vegetables</p> <p>Assisted picking on weekends & evenings; call for alternate times</p>	<p>110 Sarepta Road, Belvidere</p> <p>Directions: Rt. 46 W, approx. 1 1/2 mi. after Rt. 519, make right on Sarepta Rd., 1 mi. N on left side</p> <p>Phone: (908) 475-4473</p> <p>Email: kimballsupick@earthlink.net</p> <p>Web site: www.kimballsupick.com</p>
<p><i>Landis End Farm, Allamuchy</i></p>	<p>Open: April - November, Daily, 9 am - 6 pm</p> <p>Roadside Market: Asparagus, blueberries, strawberries, corn, peaches, eggs, zucchini, peppers, potatoes, tomatoes, pumpkins, squash, apples</p> <p>Also Available: Hay, wreaths, jams, jellies, fall decorations</p>	<p>46 Gibbs Road, Allamuchy</p> <p>Directions: Off Rt. 517 into Allamuchy, left onto Alphano, right on Long Bridge, left on Gibbs, 3/4 miles on left</p> <p>Phone: (908) 850-1891</p>
<p><i>Longmeadow Farm, Hope</i></p>	<p>Open: Weekends Sept. & Oct., 9 am - 5 pm</p> <p>Pick Your Own: Apples (10 Varieties); pumpkins; raspberries; flowers</p> <p>Also Available: Our own honey</p>	<p>561 Blirstown Rd., (Rt. 521), Hope</p> <p>Directions: 1 mi. N of Rt. 80 at Exit 12</p> <p>Phone: (908) 459-5351</p> <p>Email: burke@accessgate.net</p>
<p><i>Mackey's Orchards, Belvidere</i></p>	<p>Open: April - Christmas Eve., 7 Days a week</p> <p>Roadside Market: Apples; peaches; pears; plums; nectarines; apricots; cherries; raspberries; tomatoes; peppers; corn; lettuce</p> <p>Pick Your Own: Apples; pumpkins</p> <p>Apple Varieties: Cortland, Empire, Fuji, Gala, Granny Smith, Golden Delicious, Jonagold, Jonathan, Macoun, McIntosh, Red Delicious, Stayman/Winesap</p> <p>Also Available: Jams; Jellies; Basket Goods and Ice Cream</p>	<p>284 CR 519, Belvidere</p> <p>Directions: 78W to 22W to 519 North appr. 10 miles. 80W to exit 12 to 519 South Approx 10 miles. Detailed directions on our website.</p> <p>Phone: (908) 475-1507, Fax: (908)475-1118</p> <p>Email: cider@fast.net</p> <p>Web site: www.mackeyorchard.com</p>
<p><i>Marshall's Farm Market, Delaware</i></p>	<p>Open: Year-round, Daily, closed Christmas Day only</p> <p>Roadside Market: Strawberries, sweet corn, tomatoes, herbs, peppers, eggplant, apples, pumpkins, squash, all other fruits & vegetables</p> <p>Pick Your Own: Strawberries</p> <p>Apple Varieties: Approximately 18 varieties of locally grown apples</p>	<p>Rt. 46, Delaware</p> <p>Phone: (908) 475-1989 or (908) 475-2661</p> <p>Email: marsfarm@earthlink.net</p>

	Also Available: Apple cider, bedding plants, fresh-cut flowers, jams, jellies, relishes, meats, baked goods, apple butter, gifts	
<i>Matarazzo Farms, Belvidere</i>	Open: Oct. 1 - 31, 9 am - 5 pm Roadside Market: Pumpkins Pick Your Own: Pumpkins Also Available: Hay rides; fall items; bakery	783 Rt. 519, Belvidere Directions: Exit 12 off I-80, 5 mi. S of Hope Phone: (908) 475-3671, Fax: (908) 475-3555 Email: matty@goes.com Web site: www.matarazzo.com
<i>Maxwell's Farm, Changewater</i>	Open: May - Oct. Roadside Market: Vegetables (spring, summer, fall) Also Available: Popcorn, Herbs, Dry Beans, Ornamental Corn, Gourds	Changewater Rd., Changewater Directions: From Rt. 31 N, Right on Asbury-Anderson Rd. (Rt. 632), approx. 2 mi., Right on Changewater Rd. (Rt. 645) Phone: (908) 689-5200 Email: Farmax@bellatlantic.net
<i>Penny Toss Farm, Washington</i>	Open: May - Oct. 31, Monday - Saturday 7 AM - 5:30 PM, Sunday 9 AM - 1 PM Roadside Market: Seasonal Produce, Home-grown Vegetables, Pumpkins, Apples Also Available: Our Own Mums, Vegetable Plants, Hanging Baskets, Annuals, Perennials, Fall Products, Landscape Supplies, Shrubs, Trees, Top Soil, Mulch, Stone, Halloween Crafts	661 Rt. 57 East, Washington Directions: Rt. 31 to Rt. 57 towards Hackettstown, 1 mi. from Rt. 31/Rt. 57 intersection, located on the right side Phone: (908) 689-4934
<i>Piazza Farms & Greenhouses, Phillipsburg</i>	Open: Daily, Apr. 1 - Oct 31, 9:30 am - 6 pm Roadside Market: Sweet corn; tomatoes; peppers; hot peppers; eggplant; cabbage; broccoli; cauliflower; beans; pumpkins Also Available: Gourds; Indian corn; geraniums; bedding plants; vegetable plants; hanging plants (spring); WIC and Senior FMNP checks accepted	71 Rt. 57, Phillipsburg Directions: I-78 to Exit 3 (alt Rt. 22 W) to Rt. 57 W 3/4 mi on Left Phone: (908) 859-3228
<i>Race Farm, Blairstown</i>	Open: Daily, Apr. 1 - Nov. 30, 9 am - 6 pm Roadside Market: Apples; pumpkins; vegetables Pick Your Own: Apples; broccoli; cabbage; pumpkins; beans (lima, snap); peppers; tomatoes; raspberries; eggplant; greens; Brussel sprouts; sunflowers Apple Varieties: Cortland; Empire; Gala; Golden	93 Belcher Rd., Blairstown Directions: I-80 Exit 12, N on Rt. 521 go 2 2 mi., left onto Union Brick Rd., follow directional signs Phone: (908) 362-8151

	<p>Delicious; Jonagold; Jonathan; Macoun; McIntosh; Red Delicious; Stayman/Winesap</p> <p>Also Available: Nursery stock; bedding plants; baked goods; pottery; WIC and Senior FMNP checks accepted</p>	<p>Web site: www.racefarm.com</p>
<p><i>Silver Lake Farm & Greenhouses, Blirstown</i></p>	<p>Open: April - October, Daily, 9 am - 6 pm</p> <p>Roadside Market: Vegetables, fruits</p> <p>Also Available: Bedding plants, perennials, cut flowers, WIC and Senior FMNP checks accepted</p>	<p>Silver Lake Farm & Greenhouses 161 Silver Lake Rd., Blirstown</p> <p>Directions: Rt. 80 W to Exit 12, right off ramp onto Rt. 521, second right onto Rt. 608, farm is 3.5 mi.</p> <p>Phone: (908) 362-8107, Fax: (908) 362-6384</p>
<p><i>Simon Griskonis, Blirstown</i></p>	<p>Open: Daily Apr. - Christmas, 12 pm - 8 pm</p> <p>Roadside Market: Variety of fruits & vegetables</p> <p>Also Available: WIC and Senior FMNP checks accepted</p>	<p>49 Belcher Rd., Blirstown</p> <p>Phone: (908) 362-5934</p>
<p><i>Skytop Farm, Port Murray</i></p>	<p>Open: Year Round</p> <p>Roadside Market: Organic Vegetables & Herbs</p> <p>Also Available: Herbal Vinegar, Free Range Turkeys</p> <p>Organic Produce. Home Delivery</p>	<p>Skytop Farm 49 Fishers Mine Rd., Port Murray</p> <p>Directions: Rt. 517 to Schooley's Mountain</p> <p>Phone: (908) 850-8216</p>
<p><i>Starbrite Farm, Hardwick</i></p>	<p>Open: Call Farm Site, Monday - Saturday, 8 AM - 6 PM</p> <p>Roadside Market: Tomatoes, Potatoes, Peppers, Eggplant, Melons, Onions, Pumpkins, Cucumbers, Squash (winter, summer), Lettuce Varieties, Oriental Greens, Cabbage, Broccoli, Arugula, Raab, Chard, Garlic, Beets, Carrots</p> <p>NOFA Certified Organic; WIC and Senior FMNP checks accepted</p>	<p>4 Old Orchard Rd., Hardwick</p> <p>Directions: Approx. 4 mi. N of Blirstown off Rt. 521</p> <p>Phone: (908) 362-7595</p>
<p><i>Stoneyfield Orchards, Belvidere</i></p>	<p>Open: Year round , Daily, 9 am - 5:30 pm</p> <p>Roadside Market: Apples, peaches, pears, plums, grapes, cherries, potatoes, tomatoes, sweet corn, strawberries</p> <p>Pick Your Own: Sour cherries, peaches, apples, pears</p> <p>Apple Varieties: Baldwin, Cortland, Empire, Fuji, Gala, Ginger Gold, Golden Delicious, Jersey Mac, Jersey Red, Jonagold, Jonathan, Macoun, McIntosh,</p>	<p>5 Orchard St., Belvidere</p> <p>Directions: From Rt. 80, Exit 12, S on Rt. 521 to Hope, Rt. 519 to Rt. 46, turn right, go west on Rt. 46 to Belvidere sign, left on Rt. 620, go S to first left (Orchard St.), on left side</p> <p>Phone: (908) 475-5209</p>

	<p>Mutsu, Northern Spy, Paula Red, Red Delicious, Rome, Stayman/Winesap & others</p> <p>Also Available: Cider, brown eggs, jelly, preserves, relishes, salad dressing, Vermont cheeses, maple syrup, WIC and Senior FMNP checks accepted</p>	
<i>Tree-Licious Orchards, Port Murray</i>	<p>Open: Weekends (Friday - Sunday), July 15 - Oct. 15, 9 am - 5 pm, by appointment</p> <p>Roadside Market: Apples - all varieties; tomatoes; peaches; pears; quince</p> <p>Pick Your Own: Sweet corn; tomatoes; peaches; plums; apples; pumpkins</p> <p>Also Available: Fresh-baked fruit pies; muffins; WIC and Senior FMNP checks accepted</p>	<p>135 Karrville Rd., Port Murray</p> <p>Directions: Rt. 80 W, Exit 26, Rt. 46 Hackettstown, Rt. 629S Port Murray (Grand Ave), Rt. 628 W, 1.5 mi. (908) 689-2906</p> <p>Phone: (908) 852-7191 (Bakery)</p> <p>Email: jkesler@hotmail.com</p>
<i>Vienna Hill Farm, Hackettstown</i>	<p>Open: September & October</p> <p>Roadside Market: Sweet corn, tomatoes, cucumbers, zucchini, squash, pumpkins, gourds, green peppers, apples, potatoes</p> <p>Also Available: Mums, corn stalks, straw, pansies, flowering kale & cabbage, eggs - available year round</p>	<p>3 Asbury Road, Hackettstown</p> <p>Directions: Independence Twp. Corner of Rt. 46 W & Asbury Rd., 2 mi. W of Center of Hackettstown</p> <p>Phone: (908) 852-3596</p>
<i>Washington Borough Farmers Market, Washington Borough</i>	<p>Open: June 22 - October 5, Fridays, 3pm - 7pm</p> <p>Community Farmers Market: Variety of fruits & vegetables</p> <p>WIC & Senior FMNP vouchers accepted by some farmers</p>	<p>Rt. 31 & Rt. 57 , Washington Borough</p> <p>Directions: Next to Mobil Station, Methodist Church parking lot</p> <p>Phone: (908) 689-4800 - Kathy Cannon</p>

Bedding Plants, Nursery, Fire Wood		
<i>Farm</i>	<i>Description</i>	<i>Address</i>
<i>Best's Fruit Farm, Hackettstown</i>	<p>Open: Year Round, 9 AM - 6:30 PM, Weekends 9 AM - 5 PM</p> <p>Roadside Market: Apples; vegetable; peaches</p> <p>Apple Varieties: Cortland, Empire, Gala, Golden Delicious, Jonagold, Jonathan, Macoun, McIntosh, Red Delicious, Stayman/Winesap</p>	<p>West Rt. 46, Hackettstown</p> <p>Directions: I-80 Exit 19, Rt. 517 S to Rt. 46, 1 mi. W</p> <p>Phone: (908) 852-3777</p>

	Also Available: Jersey Fresh Cooks cookbook; full bakery: donuts - pies; deli; apple pies; cider; bedding plants; mums	
<i>Country Fresh Farms, Hampton</i>	Open: April - November, Daily 9:30 am - 6 pm Roadside Market: Fruits, vegetables Pick Your Own: Pumpkins Apple Varieties: Full line of apples Also Available: Flowers, shrubs, trees, eggs, pies, crafts, mulch, top soil, mums, pumpkin patch, full line of fall accessories, straw, hay	70 W Asbury Anderson Road, Hampton Directions: From Clinton Rt. 31 N to light at A & P, at Hampton turn left onto Rt. 632, second farm on right Phone: (908) 537-9009, Fax: (908) 537-9009 Email: mjbylicki@earthlink.net
<i>Godlewsky Farms and Greenhouses, Great Meadows</i>	Pick Your Own: Strawberries; pumpkins; produce; herbs; flowers; bedding plants Also Available: Hanging baskets; potted flowers; Christmas trees; sod; wetland plants; trees; shrubs; ground covers; fruit trees & shrubs	196 Alphano Rd., Great Meadows Directions: Off Rt. 46 or Rt. 80, 3 1/2 mi. on Alphano Rd. Phone: (908) 637-4927
<i>Kash Farm, Hackettstown</i>	Open: Year Round, 10 AM - 6 PM Thursday - Sunday Roadside Market: Squash (yellow, green), Lima Beans, Herbs, Eggplant, Cherry Tomatoes, Other Vegetables Pick Your Own: Eggplant, Peppers (Red, Green, Hot), Beans, Lima Beans, Squash (Acorn, Butternut, Spring, Green, Yellow, Scallop), Tomatoes (Grape, Cherry), Brussel Sprouts, Red Cabbage, Flowering Kale, Basil, Mint, Parsley (Curly, Italian), Pumpkins Also Available: Greenhouse, Petting zoo; pot belly pigs; goats Retail & Wholesale	181 Petersburg Rd., Hackettstown Directions: 3 mi NW of Hackettstown; off Rt. 46 Phone: (908) 852-0570
<i>Marshall's Farm Market, Delaware</i>	Open: Year-round, Daily, closed Christmas Day only Roadside Market: Strawberries, sweet corn, tomatoes, herbs, peppers, eggplant, apples, pumpkins, squash, all other fruits & vegetables Pick Your Own: Strawberries Apple Varieties: Approximately 18 varieties	Rt. 46, Delaware Phone: (908) 475-1989 or (908) 475-2661 Email: marsfarm@earthlink.net

	<p>of locally grown apples</p> <p>Also Available: Apple cider, bedding plants, fresh-cut flowers, jams, jellies, relishes, meats, baked goods, apple butter, gifts</p>	
<i>Penny Toss Farm, Washington</i>	<p>Open: May - Oct. 31, Monday - Saturday 7 AM - 5:30 PM, Sunday 9 AM - 1 PM</p> <p>Roadside Market: Seasonal Produce, Home-grown Vegetables, Pumpkins, Apples</p> <p>Also Available: Our Own Mums, Vegetable Plants, Hanging Baskets, Annuals, Perennials, Fall Products, Landscape Supplies, Shrubs, Trees, Top Soil, Mulch, Stone, Halloween Crafts</p>	<p>661 Rt. 57 East, Washington</p> <p>Directions: Rt. 31 to Rt. 57 towards Hackettstown, 1 mi. from Rt. 31/Rt. 57 intersection, located on the right side</p> <p>Phone: (908) 689-4934</p>
<i>Piazza Farms & Greenhouses, Phillipsburg</i>	<p>Open: Daily, Apr. 1 - Oct 31, 9:30 am - 6 pm</p> <p>Roadside Market: Sweet corn; tomatoes; peppers; hot peppers; eggplant; cabbage; broccoli; cauliflower; beans; pumpkins</p> <p>Also Available: Gourds; Indian corn; geraniums; bedding plants; vegetable plants; hanging plants (spring); WIC and Senior FMNP checks accepted</p>	<p>71 Rt. 57, Phillipsburg</p> <p>Directions: I-78 to Exit 3 (alt Rt. 22 W) to Rt. 57 W 3/4 mi on Left</p> <p>Phone: (908) 859-3228</p>
<i>Race Farm, Blirstown</i>	<p>Open: Daily, Apr. 1 - Nov. 30, 9 am - 6 pm</p> <p>Roadside Market: Apples; pumpkins; vegetables</p> <p>Pick Your Own: Apples; broccoli; cabbage; pumpkins; beans (lima, snap); peppers; tomatoes; raspberries; eggplant; greens; Brussel sprouts; sunflowers</p> <p>Apple Varieties: Cortland; Empire; Gala; Golden Delicious; Jonagold; Jonathan; Macoun; McIntosh; Red Delicious; Stayman/Winesap</p> <p>Also Available: Nursery stock; bedding plants; baked goods; pottery; WIC and Senior FMNP checks accepted</p>	<p>93 Belcher Rd., Blirstown</p> <p>Directions: I-80 Exit 12, N on Rt. 521 go 2.2 mi., left onto Union Brick Rd., follow directional signs</p> <p>Phone: (908) 362-8151</p> <p>Web site: www.racefarm.com</p>
<i>Silver Lake Farm and Greenhouses, Blirstown</i>	<p>Open: April - October, Daily, 9 am - 6 pm</p> <p>Roadside Market: Vegetables, fruits</p> <p>Also Available: Bedding plants, perennials, cut flowers, WIC and Senior FMNP checks accepted</p>	<p>Silver Lake Farm & Greenhouses 161 Silver Lake Rd., Blirstown</p> <p>Directions: Rt. 80 W to Exit 12, right off ramp onto Rt. 521, second right onto Rt. 608, farm is 3.5 mi.</p> <p>Phone: (908) 362-8107, Fax: (908)</p>

		362-6384
<i>Well Sweep Herb Farm, Port Murray</i>	Open: Year Round, Monday - Saturday, 9 AM - 5 PM Available: Herb Plants, Perennials, Dried Flowers	205 Mt Bethel Rd., Port Murray

Dairy, Meats, Hay, Farm Animals, Eggs		
<i>Farm</i>	<i>Description</i>	<i>Address</i>
<i>Apagar's Cider Press, Phillipsburg</i>	Open: Daily, 10 am - 5 pm Roadside Market: Apples, peaches, sour cherries Apple Varieties: Fuji, Golden Delicious, Ida Red, Jonagold, Macoun, McIntosh, Red Delicious, Winesap Also Available: In season cider, jellies, crafts, eggs, gifts	352 Harmony Brass Castle Rd., Phillipsburg Directions: 1.7 mi. off County Rt. 519 on Harmony Brass Castle Rd. (Rt. 647) in Harmony Phone: (908) 859-2988
<i>Country Fresh Farms, Hampton</i>	Open: April - November, Daily 9:30 am - 6 pm Roadside Market: Fruits, vegetables Pick Your Own: Pumpkins Apple Varieties: Full line of apples Also Available: Flowers, shrubs, trees, eggs, pies, crafts, mulch, top soil, mums, pumpkin patch, full line of fall accessories, straw, hay	70 W Asbury Anderson Road, Hampton Directions: From Clinton Rt. 31 N to light at A & P, at Hampton turn left onto Rt. 632, second farm on right Phone: (908) 537-9009, Fax: (908) 537-9009 Email: mjbylicki@earthlink.net
<i>Donaldson Farms, Hackettstown</i>	Open: April - November, Daily 8 am - 7 pm Roadside Market: Sweet corn, tomatoes, peaches, melons, asparagus, potatoes, apples, grapes, herbs Pick Your Own: Strawberries, field-grown flowers, pumpkins, gourds, ornamental corn, herbs Apple Varieties: Cortland, Jonagold, Macoun, McIntosh, Mutsu, Paula Red,	345 Allen Rd., Hackettstown Directions: Rt. 80, exit 19, Rt 31 N to Rt. 57 E or Rt. 78, exit 24, Rt. 523 N to Rt. 517 N Phone: (908) 852-9122 Web site: www.donaldsonfarms.net

	<p>Winesap</p> <p>Also Available: Jersey Fresh Cooks cookbook, milk, ice cream, honey, jelly dressings, pies, bread, coffee, soup</p>	
<i>Kash Farm, Hackettstown</i>	<p>Open: Year Round, 10 AM - 6 PM Thursday - Sunday</p> <p>Roadside Market: Squash (yellow, green), Lima Beans, Herbs, Eggplant, Cherry Tomatoes, Other Vegetables</p> <p>Pick Your Own: Eggplant, Peppers (Red, Green, Hot), Beans, Lima Beans, Squash (Acorn, Butternut, Spring, Green, Yellow, Scallop), Tomatoes (Grape, Cherry), Brussel Sprouts, Red Cabbage, Flowering Kale, Basil, Mint, Parsley (Curly, Italian), Pumpkins</p> <p>Also Available: Greenhouse, Petting zoo; pot belly pigs; goats</p> <p>Retail & Wholesale</p>	<p>181 Petersburg Rd., Hackettstown</p> <p>Directions: 3 mi NW of Hackettstown; off Rt. 46</p> <p>Phone: (908) 852-0570</p>
<i>Landis End Farm, Allamuchy</i>	<p>Open: April - November, Daily, 9 am - 6 pm</p> <p>Roadside Market: Asparagus, blueberries, strawberries, corn, peaches, eggs, zucchini, peppers, potatoes, tomatoes, pumpkins, squash, apples</p> <p>Also Available: Hay, wreaths, jams, jellies, fall decorations</p>	<p>46 Gibbs Road, Allamuchy</p> <p>Directions: Off Rt. 517 into Allamuchy, left onto Alphano, right on Long Bridge, left on Gibbs, 3/4 miles on left</p> <p>Phone: (908) 850-1891</p>
<i>Marshall's Farm Market, Delaware</i>	<p>Open: Year-round, Daily, closed Christmas Day only</p> <p>Roadside Market: Strawberries, sweet corn, tomatoes, herbs, peppers, eggplant, apples, pumpkins, squash, all other fruits & vegetables</p> <p>Pick Your Own: Strawberries</p> <p>Apple Varieties: Approximately 18 varieties of locally grown apples</p> <p>Also Available: Apple cider, bedding plants, fresh-cut flowers, jams, jellies, relishes, meats, baked goods, apple butter, gifts</p>	<p>Rt. 46, Delaware</p> <p>Phone: (908) 475-1989 or (908) 475-2661</p> <p>Email: marsfarm@earthlink.net</p>
<i>Piteo Poultry Farm, Hackettstown</i>	<p>Open: Year Round, 8 AM - 8 PM</p> <p>Available: Eggs</p> <p>Self Service, Retail & Wholesale, Delivery</p>	<p>RD#4, 3 Asbury Rd, Hackettstown</p> <p>Directions: Corner of Rt. 46 & Asbury Rd.</p>

		Phone: (908) 852-3596 Open: Year Round, 8 AM - 8 PM
<i>Skytop Farm, Port Murray</i>	Open: Year Round Roadside Market: Organic Vegetables & Herbs Also Available: Herbal Vinegar, Free Range Turkeys Organic Produce. Home Delivery	Skytop Farm 49 Fishers Mine Rd., Port Murray Directions: Rt. 517 to Schooley's Mountain Phone: (908) 850-8216
<i>Stoneyfield Orchards, Belvidere</i>	Open: Year round , Daily, 9 am - 5:30 pm Roadside Market: Apples, peaches, pears, plums, grapes, cherries, potatoes, tomatoes, sweet corn, strawberries Pick Your Own: Sour cherries, peaches, apples, pears Apple Varieties: Baldwin, Cortland, Empire, Fuji, Gala, Ginger Gold, Golden Delicious, Jersey Mac, Jersey Red, Jonagold, Jonathan, Macoun, McIntosh, Mutsu, Northern Spy, Paula Red, Red Delicious, Rome, Stayman/Winesap & others Also Available: Cider, brown eggs, jelly, preserves, relishes, salad dressing, Vermont cheeses, maple syrup, WIC and Senior FMNP checks accepted	5 Orchard St., Belvidere Directions: From Rt. 80, Exit 12, S on Rt. 521 to Hope, Rt. 519 to Rt. 46, turn right, go west on Rt. 46 to Belvidere sign, left on Rt. 620, go S to first left (Orchard St.), on left side Phone: (908) 475-5209
<i>Vienna Hill Farm, Hackettstown</i>	Open: September & October Roadside Market: Sweet corn, tomatoes, cucumbers, zucchini, squash, pumpkins, gourds, green peppers, apples, potatoes Also Available: Mums, corn stalks, straw, pansies, flowering kale & cabbage, eggs - available year round	3 Asbury Road, Hackettstown Directions: Independence Twp. Corner of Rt. 46 W & Asbury Rd., 2 mi. W of Center of Hackettstown Phone: (908) 852-3596

Certified Organic, Specialty Foods

<i>Farm</i>	<i>Description</i>	<i>Address</i>
<i>Asbury's Natural Village Farm, Asbury</i>	Open: Saturdays 10 am - 6 pm Roadside Market: Organic produce	10 Bloomsbury Road, Asbury Phone: (908) 537-2846

		Web site: www.asburyfarm.org
<i>Skytop Farm, Port Murray</i>	<p>Open: Year Round</p> <p>Roadside Market: Organic Vegetables & Herbs</p> <p>Also Available: Herbal Vinegar, Free Range Turkeys</p> <p>Organic Produce. Home Delivery</p>	<p>Skytop Farm 49 Fishers Mine Rd., Port Murray</p> <p>Directions: Rt. 517 to Schooley's Mountain</p> <p>Phone: (908) 850-8216</p>
<i>Starbrite Farm, Hardwick</i>	<p>Open: Call Farm Site, Monday - Saturday, 8 AM - 6 PM</p> <p>Roadside Market: Tomatoes, Potatoes, Peppers, Eggplant, Melons, Onions, Pumpkins, Cucumbers, Squash (winter, summer), Lettuce Varieties, Oriental Greens, Cabbage, Broccoli, Arugula, Raab, Chard, Garlic, Beets, Carrots</p> <p>NOFA Certified Organic; WIC and Senior FMNP checks accepted</p>	<p>4 Old Orchard Rd., Hardwick</p> <p>Directions: Approx. 4 mi. N of Blirstown off Rt. 521</p> <p>Phone: (908) 362-7595</p>

Pumpkins, Harvest, Halloween, Hayrides		
<i>Farm</i>	<i>Description</i>	<i>Address</i>
<i>Bohacz Farm, Allamuchy</i>	<p>Open: In Season, 10 AM - Dusk</p> <p>Roadside Market: White Sweet Corn (Silver Queen), Tomatoes, Squash, Eggplant, Pumpkins</p> <p>Also Available: Corn Stalks</p>	<p>Rt. 517 & Cat Swamp Rd., Allamuchy</p> <p>Directions: Rt. 80 Exit 19 to Rt. 517 S, or Rt. 46 to Hackettstown, Rt. 517 N past M & M Candy Factory</p>
<i>Country Fresh Farms, Hampton</i>	<p>Open: April - November, Daily 9:30 am - 6 pm</p> <p>Roadside Market: Fruits, vegetables</p> <p>Pick Your Own: Pumpkins</p> <p>Apple Varieties: Full line of apples</p> <p>Also Available: Flowers, shrubs, trees, eggs, pies, crafts, mulch, top soil, mums, pumpkin patch, full line of fall accessories, straw, hay</p>	<p>70 W Asbury Anderson Road, Hampton</p> <p>Directions: From Clinton Rt. 31 N to light at A & P, at Hampton turn left onto Rt. 632, second farm on right</p> <p>Phone: (908) 537-9009, Fax: (908) 537-9009</p> <p>Email: mjbylicki@earthlink.net</p>

<i>Denville Farms in Warren County, Knowlton</i>	<p>Open: May 1 - Oct. 31</p> <p>Pick Your Own: Strawberries; apples; pumpkins</p>	<p>10 Knowlton Rd., Knowlton</p> <p>Phone: (908) 459-9869</p> <p>Web site: www.denvillefarms.com</p>
<i>Donaldson Farms, Hackettstown</i>	<p>Open: April - November, Daily 8 am - 7 pm</p> <p>Roadside Market: Sweet corn, tomatoes, peaches, melons, asparagus, potatoes, apples, grapes, herbs</p> <p>Pick Your Own: Strawberries, field-grown flowers, pumpkins, gourds, ornamental corn, herbs</p> <p>Apple Varieties: Cortland, Jonagold, Macoun, McIntosh, Mutsu, Paula Red, Winesap</p> <p>Also Available: Jersey Fresh Cooks cookbook, milk, ice cream, honey, jelly dressings, pies, bread, coffee, soup</p>	<p>345 Allen Rd., Hackettstown</p> <p>Directions: Rt. 80, exit 19, Rt 31 N to Rt. 57 E or Rt. 78, exit 24, Rt. 523 N to Rt. 517 N</p> <p>Phone: (908) 852-9122</p> <p>Web site: www.donaldsonfarms.net</p>
<i>Glenview Farm, Blirstown</i>	<p>Open: October - December, Daily 11 am - 5 pm</p> <p>Roadside Market: Pumpkins, gourds, squash, Indian corn</p> <p>Pick Your Own: Pumpkins, squash, Indian corn, gourds</p> <p>Also Available: Christmas trees, wreaths, roping</p>	<p>2 Glenview Lane, Blirstown</p> <p>Directions: Rt. 80 Exit 12, Rt. 521 to Rt. 94, S Rt. 94 to Mohagan Rd. (1 mi.), 4 mi. to Gaisler Rd. Right 1 mi.</p> <p>Phone: (908) 362-6904, Fax: (908) 362-6194</p> <p>Web site: www.glenviewfarm.com</p>
<i>Godlewsky Farms and Greenhouses, Great Meadows</i>	<p>Pick Your Own: Strawberries; pumpkins; produce; herbs; flowers; bedding plants</p> <p>Also Available: Hanging baskets; potted flowers; Christmas trees; sod; wetland plants; trees; shrubs; ground covers; fruit trees & shrubs</p>	<p>Greenhouses 196 Alphano Rd., Great Meadows</p> <p>Directions: Off Rt. 46 or Rt. 80, 3 1/2 mi. on Alphano Rd.</p> <p>Phone: (908) 637-4927</p>
<i>Kash Farm, Hackettstown</i>	<p>Open: Year Round, 10 AM - 6 PM Thursday - Sunday</p> <p>Roadside Market: Squash (yellow, green), Lima Beans, Herbs, Eggplant, Cherry Tomatoes, Other Vegetables</p> <p>Pick Your Own: Eggplant, Peppers (Red, Green, Hot), Beans, Lima Beans, Squash (Acorn, Butternut, Spring, Green, Yellow, Scallop), Tomatoes (Grape, Cherry), Brussel Sprouts, Red Cabbage, Flowering Kale, Basil,</p>	<p>181 Petersburg Rd., Hackettstown</p> <p>Directions: 3 mi NW of Hackettstown; off Rt. 46</p> <p>Phone: (908) 852-0570</p>

	<p>Mint, Parsley (Curly, Italian), Pumpkins</p> <p>Also Available: Greenhouse, Petting zoo; pot belly pigs; goats</p> <p>Retail & Wholesale</p>	
<i>Landis End Farm, Allamuchy</i>	<p>Open: April - November, Daily, 9 am - 6 pm</p> <p>Roadside Market: Asparagus, blueberries, strawberries, corn, peaches, eggs, zuchinni, peppers, potatoes, tomatoes, pumpkins, squash, apples</p> <p>Also Available: Hay, wreaths, jams, jellies, fall decorations</p>	<p>46 Gibbs Road, Allamuchy</p> <p>Directions: Off Rt. 517 into Allamuchy, left onto Alphano, right on Long Bridge, left on Gibbs, 3/4 miles on left</p> <p>Phone: (908) 850-1891</p>
<i>Longmeadow Farm, Hope</i>	<p>Open: Weekends Sept. & Oct., 9 am - 5 pm</p> <p>Pick Your Own: Apples (10 Varieties); pumpkins; raspberries; flowers</p> <p>Also Available: Our own honey</p>	<p>561 Blairstown Rd., (Rt. 521), Hope</p> <p>Directions: 1 mi. N of Rt. 80 at Exit 12</p> <p>Phone: (908) 459-5351</p> <p>Email: burke@accessgate.net</p>
<i>Mackey's Orchards, Belvidere</i>	<p>Open: April - Christmas Eve., 7 Days a week</p> <p>Roadside Market: Apples; peaches; pears; plums; nectarines; apricots; cherries; raspberries; tomatoes; peppers; corn; lettuce</p> <p>Pick Your Own: Apples; pumpkins</p> <p>Apple Varieties: Cortland, Empire, Fuji, Gala, Granny Smith, Golden Delicious, Jonagold, Jonathan, Macoun, McIntosh, Red Delicious, Stayman/Winesap</p> <p>Also Available: Jams; Jellies; Basket Goods and Ice Cream</p>	<p>284 CR 519, Belvidere</p> <p>Directions: 78W to 22W to 519 North appr. 10 miles. 80W to exit 12 to 519 South Approx 10 miles. Detailed directions on our website.</p> <p>Phone: (908) 475-1507, Fax: (908)475-1118</p> <p>Email: cider@fast.net</p> <p>Web site: www.mackeyorchard.com</p>
<i>Marshall's Farm Market, Delaware</i>	<p>Open: Year-round, Daily, closed Christmas Day only</p> <p>Roadside Market: Strawberries, sweet corn, tomatoes, herbs, peppers, eggplant, apples, pumpkins, squash, all other fruits & vegetables</p> <p>Pick Your Own: Strawberries</p> <p>Apple Varieties: Approximately 18 varieties</p>	<p>Rt. 46, Delaware</p> <p>Phone: (908) 475-1989 or (908) 475-2661</p> <p>Email: marsfarm@earthlink.net</p>

	<p>of locally grown apples</p> <p>Also Available: Apple cider, bedding plants, fresh-cut flowers, jams, jellies, relishes, meats, baked goods, apple butter, gifts</p>	
<i>Matarazzo Farms, Belvidere</i>	<p>Open: Oct. 1 - 31, 9 am - 5 pm</p> <p>Roadside Market: Pumpkins</p> <p>Pick Your Own: Pumpkins</p> <p>Also Available: Hay rides; fall items; bakery</p>	<p>783 Rt. 519, Belvidere</p> <p>Directions: Exit 12 off I-80, 5 mi. S of Hope</p> <p>Phone: (908) 475-3671, Fax: (908) 475-3555</p> <p>Email: matt@goes.com</p> <p>Web site: www.matarazzo.com</p>
<i>Penny Toss Farm, Washington</i>	<p>Open: May - Oct. 31, Monday - Saturday 7 AM - 5:30 PM, Sunday 9 AM - 1 PM</p> <p>Roadside Market: Seasonal Produce, Home-grown Vegetables, Pumpkins, Apples</p> <p>Also Available: Our Own Mums, Vegetable Plants, Hanging Baskets, Annuals, Perennials, Fall Products, Landscape Supplies, Shrubs, Trees, Top Soil, Mulch, Stone, Halloween Crafts</p>	<p>661 Rt. 57 East, Washington</p> <p>Directions: Rt. 31 to Rt. 57 towards Hackettstown, 1 mi. from Rt. 31/Rt. 57 intersection, located on the right side</p> <p>Phone: (908) 689-4934</p>
<i>Piazza Farms and Greenhouses, Phillipsburg</i>	<p>Open: Daily, Apr. 1 - Oct 31, 9:30 am - 6 pm</p> <p>Roadside Market: Sweet corn; tomatoes; peppers; hot peppers; eggplant; cabbage; broccoli; cauliflower; beans; pumpkins</p> <p>Also Available: Gourds; Indian corn; geraniums; bedding plants; vegetable plants; hanging plants (spring); WIC and Senior FMNP checks accepted</p>	<p>71 Rt. 57, Phillipsburg</p> <p>Directions: I-78 to Exit 3 (alt Rt. 22 W) to Rt. 57 W 3/4 mi on Left</p> <p>Phone: (908) 859-3228</p>
<i>Race Farm, Blairstown</i>	<p>Open: Daily, Apr. 1 - Nov. 30, 9 am - 6 pm</p> <p>Roadside Market: Apples; pumpkins; vegetables</p> <p>Pick Your Own: Apples; broccoli; cabbage; pumpkins; beans (lima, snap); peppers; tomatoes; raspberries; eggplant; greens; Brussel sprouts; sunflowers</p> <p>Apple Varieties: Cortland; Empire; Gala; Golden Delicious; Jonagold; Jonathan; Macoun; McIntosh; Red Delicious; Stayman/Winesap</p>	<p>93 Belcher Rd., Blairstown</p> <p>Directions: I-80 Exit 12, N on Rt. 521 go 2.2 mi., left onto Union Brick Rd., follow directional signs</p> <p>Phone: (908) 362-8151</p> <p>Web site: www.racefarm.com</p>

	Also Available: Nursery stock; bedding plants; baked goods; pottery; WIC and Senior FMNP checks accepted	
<i>Starbrite Farm, Hardwick</i>	Open: Call Farm Site, Monday - Saturday, 8 AM - 6 PM Roadside Market: Tomatoes, Potatoes, Peppers, Eggplant, Melons, Onions, Pumpkins, Cucumbers, Squash (winter, summer), Lettuce Varieties, Oriental Greens, Cabbage, Broccoli, Arugula, Raab, Chard, Garlic, Beets, Carrots NOFA Certified Organic; WIC and Senior FMNP checks accepted	4 Old Orchard Rd., Hardwick Directions: Approx. 4 mi. N of Blirstown off Rt. 521 Phone: (908) 362-7595
<i>Tree-Licious Orchards, Port Murray</i>	Open: Weekends (Friday - Sunday), July 15 - Oct. 15, 9 am - 5 pm, by appointment Roadside Market: Apples - all varieties; tomatoes; peaches; pears; quince Pick Your Own: Sweet corn; tomatoes; peaches; plums; apples; pumpkins Also Available: Fresh-baked fruit pies; muffins; WIC and Senior FMNP checks accepted	135 Karrville Rd., Port Murray Directions: Rt. 80 W, Exit 26, Rt. 46 Hackettstown, Rt. 629S Port Murray (Grand Ave), Rt. 628 W, 1.5 mi. (908) 689-2906 Phone: (908) 852-7191 (Bakery) Email: jkesler@hotmail.com
<i>Vienna Hill Farm, Hackettstown</i>	Open: September & October Roadside Market: Sweet corn, tomatoes, cucumbers, zucchini, squash, pumpkins, gourds, green peppers, apples, potatoes Also Available: Mums, corn stalks, straw, pansies, flowering kale & cabbage, eggs - available year round	3 Asbury Road, Hackettstown Directions: Independence Twp. Corner of Rt. 46 W & Asbury Rd., 2 mi. W of Center of Hackettstown Phone: (908) 852-3596

Christmas Trees		
<i>Farm</i>	<i>Description</i>	<i>Address</i>
<i>Glenview Farm, Blirstown</i>	Open: October - December, Daily 11 am - 5 pm Roadside Market: Pumpkins, gourds, squash, Indian corn Pick Your Own: Pumpkins, squash, Indian corn, gourds Also Available: Christmas trees, wreaths,	2 Glenview Lane, Blirstown Directions: Rt. 80 Exit 12, Rt. 521 to Rt. 94, S Rt. 94 to Mohagan Rd. (1 mi.), 4 mi. to Gaisler Rd. Right 1 mi. Phone: (908) 362-6904, Fax: (908) 362-6194

	roping	Web site: www.glenviewfarm.com
<i>Green Farms, Broadway</i>	Open: 10-5 (daily), Nov. 21- Dec. 21 300 species of trees; Douglas fir	23 Beidleman Road Phone: (732) 735-7829 Directions: Rt. 31 to 57 W, 3.1 mi. to Beidleman. Turn left on Beidleman Road. Farm is 500 ft. on left.
<i>Hidden Hollow Farm, Washington</i>	Open: 10-5 (Friday, Sat, Sun), Dec. 1- Dec. 17 400 trees; species: Blue Spruce, Norway Spruce, White Spruce, Douglas-fir, Concolor Fir	18 Spring Lane Phone: (908) 689-5678 Directions: From Rt. 78 - Clinton to Washington - From Rt. 57, take Brass Castle Rd. 1 ½ mi. to Rt. 647 on left. Go 1 mi. up hill to Spring Lane on right. Follow green tree signs.
<i>Jolly Holly Christmas Tree Farm, Blirstown</i>	Open: 12-4 (Sat and Sun), Nov. 25- Dec. 17 200 trees; species: Blue Spruce, Norway Spruce, Douglas-fir, Concolor Fir	56 Maple Lane Phone: (908) 362-6327 Directions: Route 80 W, Exit 12, 521S. go to end, left 94S, right at light. Go straight up hill, turn right and bear left onto Rt. 602 (Millbrook Road). Third left turn onto Maple. Farm on left.
<i>Mt. Bethel Christmas Tree Farm, Port Murray</i>	Open: 9-dusk (Thu-Sun), Nov. 24- Dec 23. Labor Day on, tag anytime 500 trees; Blue Spruce, Norway Spruce, Douglas-fir, Concolor Fir, Canaan Fir	41 Mt. Bethel Road Phone: (908) 852-5811 Directions: Rt. 57 E - 4 mi. to light-left on Rt. 629 - 1 1/2 mi. - rt. on Rockport Rd. - 1/2 mi. - left on Mt. Bethel Rd.- 300 yds. to farm; From Hackettstown - Grand Ave./Rt. 629 off Rt. 46- 6 mi. - rt. on Mt. Bethel Rd.
<i>Perfect Christmas Tree Farm, Phillipsburg</i>	Open: 10-dark (daily), Nov. 24- Dec. 23 200 trees, Douglas-fir, Fraser Fir, Scotch Pine	999 Rt. 22 Phone: (908) 835-7840 Directions: Take Rt. I-78 or U.S. 22 West, which will split at Phillipsburg. Take 22 West 2.3 mi. on right. From Hackettstown, take

		57 West. Turn left on Rte. 519, second traffic light right, go 1.3 mi. on right.
<i>The Quick Farm, Great Meadows</i>	Open: 8-4:30 (Sat and Sun), Nov. 4- Dec. 17 500 trees; Blue Spruce, Douglas-fir, Concolor Fir, Fraser Fir	4 Morris Lane Phone: (908) 637-6426 Directions: Rt. 46 W in Great Meadows, turn rt. onto Hope Rd. (Rt. 611) at Sts. Peter & Paul Church, 3/4 mi. turn left onto Mt. Lake Rd., 1 mi. to farm on left. From Rt. 80, take Hope-Blairstown Exit 12, into Hope, turn left at light, go 1 block and turn right onto Hope/Great Meadows Rd. (Rt. 611). Go 4 mi. (past "Land of Make Believe"), turn rt. onto Mt. Lake Rd., 1 mi. to farm on left.
<i>Sunset Christmas Tree Farm, Blairstown</i>	Open: 9-4:15 (Fri, Sat, Sun), Nov. 24- Dec. 23 1,000 trees; Blue Spruce, Norway Spruce, Douglas-fir, Concolor Fir	21 Frontage Road Phone: (908) 459-4048 Directions: I-80 (Exit 12) towards Hope - 1/4 mi. - right on Foundry Rd. 1/2 mi. to end – right on Mt. Hermon Rd. 3 mi. to bridge over I-80 to an immed. right onto Frontage Rd.
<i>Wyckoff's Tree Farm, Belvidere</i>	Open: 8:30-4 (daily), Nov. 24-TBD 800 trees; Douglas-fir	249 County Route 519 Phone: (908) 475-4508 Directions: I-80, exit 12 to Rte. 521S to 519S (10 mi. from Rt. 80); I-78, exit 17 to Rte. 31N to Rt. 46W to Rt. 519S (mi. marker 39).

APPENDIX G. Equine Facilities in Warren County

<i>Farm</i>	<i>Description</i>	<i>Address</i>
But4Chance Horse Hotel & Farm, LLC	Boarding	28 Knowlton Rd Columbia, NJ 07832 Phone: (908) 459-5441
Double D Guest Ranch	Rentals	81 Mt. Hermon Rd Blairstown, NJ 07825 Phone: (908) 459-9044
North Wind Stables Ltd.	Training, Boarding, Lessons	6 Meadow Cliff Lane Hardwick, NJ 07825 Phone: (908) 362-7858
Phantom Brook Farm, LLC	Boarding, Lessons	203 Washburn Ave. Washington, NJ 07882 Phone: (908) 689-4428
Ridgecroft Farm	Breeding, Boarding	31 Sunset Lake Road Hardwick, NJ 07825 Phone: (908) 362-9028
Silver Fox Farm	Training, Boarding, Lessons	313 Union Brick Road Blairstown, NJ 07825 Phone: (908) 459-5662
Wind-D-Hill Farm	Breeding	33 Winters Road Phillipsburg, NJ 08865 Phone: (908) 454-7720

STATE AGRICULTURE DEVELOPMENT COMMITTEE
MODEL RIGHT TO FARM ORDINANCE

A. As used in this ordinance, the following words shall have the following meanings:

“Commercial farm” means:

1. A farm management unit of no less than five acres producing agricultural or horticultural products worth \$2,500 or more annually, and satisfying the eligibility criteria for differential property taxation pursuant to the Farmland Assessment Act of 1964, N.J.S.A. 54:4-23.1 et seq.; or
2. A farm management unit less than five acres, producing agricultural or horticultural products worth \$50,000 or more annually and otherwise satisfying the eligibility criteria for differential property taxation pursuant to the Farmland Assessment Act of 1964, N.J.S.A. 54:4-23.1 et seq.

“Farm management unit” means a parcel or parcels of land, whether contiguous or noncontiguous, together with agricultural or horticultural buildings, structures and facilities, producing agricultural or horticultural products, and operated as a single enterprise.

“Farm market” means a facility used for the wholesale or retail marketing of the agricultural output of a commercial farm, and products that contribute to farm income, except that if a farm market is used for retail marketing at least 51 percent of the annual gross sales of the retail farm market shall be generated from sales of agricultural output of the commercial farm, or at least 51 percent of the sales area shall be devoted to the sale of the agricultural output of the commercial farm, and except that if a retail farm market is located on land less than five acres in area, the land on which the farm market is located shall produce annually agricultural or horticultural products worth at least \$2,500.

“Pick-your-own operation” means a direct marketing alternative wherein retail or wholesale customers are invited onto a commercial farm in order to harvest agricultural, floricultural or horticultural products.

B. The right to farm is hereby recognized to exist in this [Township, Borough, City] and is hereby declared a permitted use in all zones of this [Township, Borough, City]. This right to farm includes, but not by way of limitation:

- (1) Production of agricultural and horticultural crops, trees, apiary and forest products, livestock, poultry and other commodities as described in the Standard Industrial Classification for agriculture, forestry, fishing and trapping.
- (2) Housing and employment of necessary farm laborers.

- (3) Erection of essential agricultural buildings, including those dedicated to the processing and packaging of the output of the commercial farm and ancillary to agricultural and horticultural production.
- (4) The grazing of animals and use of range for fowl.
- (5) Construction of fences.
- (6) The operation and transportation of large, slow-moving equipment over roads within the [Township, Borough, City].
- (7) Control of pests, including but not limited to insects and weeds, predators and diseases of plants and animals.
- (8) Conduction of agriculture-related educational and farm-based recreational activities provided that the activities are related to marketing the agricultural or horticultural output of the commercial farm and permission of the farm owner and lessee is obtained.
- (9) Use of any and all equipment, including but not limited to: irrigation pumps and equipment, aerial and ground seeding and spraying, tractors, harvest aides, and bird control devices.
- (10) Processing and packaging of the agricultural output of the commercial farm.
- (11) The operation of a farm market with attendant signage, including the construction of building and parking areas in conformance with [Township, Borough, City] standards.
- (12) The operation of a pick-your-own operation with attendant signage.
- (13) Replenishment of soil nutrients and improvement of soil tilth.
- (14) Clearing of woodlands using open burning and other techniques, installation and maintenance of vegetative and terrain alterations and other physical facilities for water and soil conservation and surface water control in wetland areas.
- (15) On-site disposal of organic agricultural wastes.
- (16) The application of manure and chemical fertilizers, insecticides and herbicides.
- (17) Installation of wells, ponds and other water resources for agricultural purposes such as irrigation, sanitation and marketing preparation.

Commercial farm operators may engage in any other agricultural activity as determined by the State Agriculture Development Committee and adopted by rule or regulation pursuant to the provisions of the “Administrative Procedure Act,” P.L. 1968, c.410 (C.52:14B-1 et seq.).

- C. Commercial farm operators are strongly advised to adhere to generally accepted agricultural management practices that have been:
- (a) promulgated as rules by the State Agriculture Development Committee;
 - (b) recommended as site-specific agricultural management practices by the county agriculture development board;

- (c) approved by the local soil conservation district in the form of a farm conservation plan that is prepared in conformance with the United States Department of Agriculture, Natural Resources Conservation Service (NRCS) Field Office Technical Guide (FOTG), revised April 20, 1998, as amended and supplemented; or
- (d) recommended by the Rutgers Agricultural Experiment Station.

- D. The foregoing activities must be in conformance with applicable Federal and State law.
- E. The foregoing practices and activities may occur on holidays, weekdays and weekends by day or night and shall include the attendant or incidental noise, odors, dust and fumes associated with these practices.
- F. It is hereby determined that whatever nuisance may be caused to others by these foregoing uses and activities is more than offset by the benefits of farming to the neighborhood community and society in general.
- G. Any person aggrieved by the operation of a commercial farm shall file a complaint with the applicable county agriculture development board, or the State Agriculture Development Committee in counties where no county board exists, prior to filing an action in court.
- H. To help parties resolve conflicts involving the operation of commercial farms, the State Agriculture Development Committee has also established an Agricultural Mediation Program. Mediation is a voluntary process in which a trained, impartial mediator helps disputing parties examine their mutual problems, identify and consider options, and determine if they can agree on a solution. A mediator has no decision-making authority. Successful mediation is based on the voluntary cooperation and participation of all the parties.
- I. An additional purpose of this ordinance is to promote a good neighbor policy by advising purchasers and users of property adjacent to or near commercial farms of accepted activities or practices associated with those neighboring farms. It is intended that, through mandatory disclosures, purchasers and users will better understand the impacts of living near agricultural operations and be prepared to accept attendant conditions as the natural result of living in or near land actively devoted to commercial agriculture or in an Agricultural Development Area, meaning an area identified by a county agriculture development board pursuant to the provisions of N.J.S.A.4:1C-18 and certified by the State Agriculture Development Committee.

The disclosure required by this section is set forth herein, and shall be made a part of, the following disclosure form:

REAL ESTATE TRANSFER DISCLOSURE STATEMENT

This disclosure statement concerns the real property situated in the [Township, Borough, City] of [] described as Block _____, Lot _____. This statement is a disclosure of the conditions of the above described property in compliance with Ordinance No. _____ of the [Township, Borough, City] of []. It is not a warranty of any kind by the seller(s) or any agent(s) representing any principal(s) in this transaction, and is not a substitute for any inspections or warranties the principal(s) may wish to obtain.

I.

Seller's Information

The seller discloses the following information with the knowledge that even though this is not a warranty, prospective buyers may rely on this information in deciding whether and on what terms to purchase the subject property. Seller hereby authorizes any agent(s) representing any principal(s) in this transaction to provide a copy of this statement to any person or entity in connection with any actual or anticipated sale of the property. The following are representations made by the seller(s) as required by the [Township, Borough, City] of [] and are not the representation of the agents, if any. This information is a disclosure and is not intended to be part of any contract between the buyer and seller.

The [Township, Borough, City] of [] permits the operation of generally accepted

agricultural management practices within the municipality. If the property you are purchasing is located near land actively devoted to commercial agriculture or in an Agricultural Development Area, meaning an area identified by a county agriculture development board pursuant to the provisions of N.J.S.A.4:1C-18 and certified by the State Agriculture Development Committee, you may be affected by these agricultural activities or practices. The effect of these activities or practices may include, but are not limited to: noise, odors, fumes, dust, smoke, insects, operation of machinery (including aircraft) during any 24 hour period, storage and disposal of manure and compost, and the application by spraying or otherwise of fertilizers, soil amendments, herbicides and pesticides. One or more of the effects described may occur as the result of any agricultural operation which is in conformance with existing Federal and State laws and regulations and accepted customs and standards. If you live near an agricultural area, you should strive to be sensitive to the needs of commercial farm operators, as their presence is a necessary aspect of an area with a strong rural character and a strong agricultural sector. The State Agriculture Development Committee has established a formal complaint process as well as an informal Agricultural Mediation Program to assist in the resolution of any disputes which might arise between residents of the [Township, Borough, City] of [] regarding the operations of commercial farms.

Seller certifies that the information herein is true and correct to the best of seller=s knowledge as of the date signed by the seller.

Seller _____ Date _____

Seller _____ Date _____

II.

Buyer(s) and seller(s) may wish to obtain professional advice and/or inspections of the property and to provide for appropriate provisions in a contract between buyer and seller(s) with respect to any advice/inspections/defects.

I/We acknowledge receipt of a copy of this statement.

Seller _____ Date _____ Buyer _____ Date _____

Seller _____ Date _____ Buyer _____ Date _____

Agent representing seller _____ By _____ Date _____

E3-E

DEED OF EASEMENT

STATE OF NEW JERSEY AGRICULTURE RETENTION AND DEVELOPMENT PROGRAM

This Deed is made _____, 20 _____.

BETWEEN _____, whose address is _____ and is referred to as the Grantor;

AND _____, whose address is _____ and is referred to as the Grantee and/or Board.

The Grantor, Grantor's heirs, executors, administrators, personal or legal representatives, successors and assigns grants and conveys to the Grantee a development easement and all of the nonagricultural development rights and credits on the Premises, located in the Township of _____, County of _____, described in the attached Schedule A, and, for the limited purpose of the restrictions contained in Paragraph 13(b), the tract of land described in the attached Schedule C, which schedules are incorporated by reference in this Deed of Easement, for and in consideration of the sum of _____ Dollars.

Any reference in this Deed of Easement to "Premises" refers to the property described in Schedule A, and, for the limited purpose of the restrictions contained in Paragraph 13(b), to the tract of land described in Schedule C.

The tax map reference for the Premises is:

Township of _____
Block _____, Lot _____

WHEREAS, the legislature of the State of New Jersey has declared that the development of agriculture and the retention of farmlands are important to the present and future economy of the State and the welfare of the citizens of the State; and

WHEREAS, the Grantor is the sole and exclusive owner of the Premises; and

WHEREAS, the Grantee believes that the retention and preservation of agricultural lands is beneficial to the public health, safety and welfare of the citizens of _____ County;

NOW THEREFORE, THE GRANTOR, GRANTOR'S HEIRS, EXECUTORS, ADMINISTRATORS, PERSONAL OR LEGAL REPRESENTATIVES, SUCCESSORS AND ASSIGNS PROMISES that the Premises will be owned, used and conveyed subject to, and not in violation of the following restrictions:

1. Any development of the Premises for nonagricultural purposes is expressly prohibited.

2. The Premises shall be retained for agricultural use and production in compliance with N.J.S.A. 4:1C-11 et seq., P.L. 1983, c.32, and all other rules promulgated by the State Agriculture Development Committee, (hereinafter Committee). Agricultural use shall mean the use of the Premises for common farmsite activities including, but not limited to: production, harvesting, storage, grading, packaging, processing and the wholesale and retail marketing of crops, plants, animals and other related commodities and the use and application of techniques and methods of soil preparation and management, fertilization, weed, disease and pest control, disposal of farm waste, irrigation, drainage and water management and grazing.

3. Grantor certifies that at the time of the application to sell the development easement to the Grantee and at the time of the execution of this Deed of Easement the nonagricultural uses indicated on attached Schedule (B) existed on the Premises. All other nonagricultural uses are prohibited except as expressly provided in this Deed of Easement.

Prepared by: _____

4. All nonagricultural uses, if any, existing on the Premises at the time of the landowner's application to the Grantee as set forth in Section 3 above may be continued and any structure may be restored or repaired in the event of partial destruction thereof, subject to the following:

- i. No new structures or the expansion of pre-existing structures for nonagricultural use are permitted;
- ii. No change in the pre-existing nonagricultural use is permitted;
- iii. No expansion of the pre-existing nonagricultural use is permitted; and
- iv. In the event that the Grantor abandons the pre-existing nonagricultural use, the right of the Grantor to continue the use is extinguished.

5. No sand, gravel, loam, rock, or other minerals shall be deposited on or removed from the Premises excepting only those materials required for the agricultural purpose for which the land is being used.

6. No dumping or placing of trash or waste material shall be permitted on the Premises unless expressly recommended by the Committee as an agricultural management practice.

7. No activity shall be permitted on the Premises which would be detrimental to drainage, flood control, water conservation, erosion control, or soil conservation, nor shall any other activity be permitted which would be detrimental to the continued agricultural use of the Premises.

- i. Grantor shall obtain within one year of the date of this Deed of Easement, a farm conservation plan approved by the local soil conservation district.
- ii. Grantor's long term objectives shall conform with the provisions of the farm conservation plan.

8. Grantee and Committee and their agents shall be permitted access to, and to enter upon, the Premises at all reasonable times, but solely for the purpose of inspection in order to enforce and assure compliance with the terms and conditions of this Deed of Easement. Grantee agrees to give Grantor, at least 24 hours advance notice of its intention to enter the Premises, and further, to limit such times of entry to the daylight hours on regular business days of the week.

9. Grantor may use the Premises to derive income from certain recreational activities such as hunting, fishing, cross country skiing and ecological tours, only if such activities do not interfere with the actual use of the land for agricultural production and that the activities only utilize the Premises in its existing condition. Other recreational activities from which income is derived and which alter the Premises, such as golf courses and athletic fields, are prohibited.

10. Nothing shall be construed to convey a right to the public of access to or use of the Premises except as stated in this Deed of Easement or as otherwise provided by law.

11. Nothing shall impose upon the Grantor any duty to maintain the Premises in any particular state, or condition, except as provided for in this Deed of Easement.

12. Nothing in this Deed of Easement shall be deemed to restrict the right of Grantor, to maintain all roads and trails existing upon the Premises as of the date of this Deed of Easement. Grantor shall be permitted to construct, improve or reconstruct any roadway necessary to service crops, bogs, agricultural buildings, or reservoirs as may be necessary.

13(a). At the time of this conveyance, Grantor has existing single family residential buildings on the Premises and residential buildings used for agricultural labor purposes. Grantor may use, maintain, and improve existing buildings on the Premises subject to the following conditions:

- i. Improvements to agricultural buildings shall be consistent with agricultural uses;
- ii. Improvements to residential buildings shall be consistent with agricultural or single and extended family residential uses. Improvements to residential buildings for the purpose of housing agricultural labor are permitted only if the housed agricultural labor is employed on the Premises; and
- iii. Improvements to recreational buildings shall be consistent with agricultural or recreational uses.

13(b). Grantor, their heirs, executors, administrators, personal or legal representatives, successors and assigns may use and maintain the Exception Area, as described in the attached Schedule C, conditions:

sample conditions:

- a. the Exception Area shall not be severed or subdivided from the Premises
- b. the Exception area may be severed and subdivided from the Premises
- c. the Exception Area shall be limited to one residential unit
- d. (Right to Farm Language if Exception is Non-Severable)

Grantors, grantor's heirs, executors, administrators, personal or legal representatives, successors and assigns or any person who is occupying or residing on the Exception Area as well as the heirs, executors, administrators, personal or legal representatives, successors and assigns of all such persons are hereby notified and made aware that the Exception Area is adjacent to a parcel ("Premises") permanently deed restricted under the Agriculture Retention and Development Act, N.J.S.A. 4:1C-11 et seq. Such persons occupying or residing on the Exception Area are notified and made aware that agriculture is the accepted and preferred use of the adjacent Premises and that the adjacent Premises shall continue in agricultural use as defined in Section 2 of the Deed of Easement.

- e. (Right to Farm Language if Exception is Severable)

Grantors, grantor's heirs, executors, administrators, personal or legal representatives, successors and assigns or any person to whom title to the Exception Area is transferred as well as the heirs, executors, administrators, personal or legal representatives, successors and assigns of all such persons are hereby notified and made aware that the Exception Area is adjacent to a parcel ("Premises") permanently deed restricted under the Agriculture Retention and Development Act, N.J.S.A. 4:1C-11 et seq. Such persons taking title to the Exception Area are notified and made aware that agriculture is the accepted and preferred use of the adjacent Premises and that the adjacent Premises shall continue in agricultural use as defined in Section 2 of the Deed of Easement.

14. Grantor may construct any new buildings for agricultural purposes. The construction of any new buildings for residential use, regardless of its purpose, shall be prohibited except as follows:

- i. To provide structures for housing of agricultural labor employed on the Premises but only with the approval of the Grantee and the Committee. If Grantee and the Committee grant approval for the construction of agricultural labor housing, such housing shall not be used as a residence for Grantor, Grantor's spouse, Grantor's parents, Grantor's lineal descendants, adopted or natural, Grantor's spouse's parents, Grantor's spouse's lineal descendants, adopted or natural; and
- ii. To construct a single family residential building anywhere on the Premises in order to replace any single family residential building in existence at the time of conveyance of this Deed of Easement but only with the approval of the Grantee and Committee.
- iii. _____ residual dwelling site opportunity(ies) have been allocated to the Premises pursuant to the provisions of N.J.A.C. 2:76-6.17, "Residual Dwelling Site Opportunity". The Grantor's request to exercise a residual dwelling site opportunity shall comply with the rules promulgated by the Committee in effect at the time the request is initiated.

In the event a division of the Premises occurs in compliance with deed restriction No. 15 below, the Grantor shall prepare or cause to be prepared a Corrective Deed of Easement reflecting the reallocation of the residual dwelling site opportunities to the respective divided lots. The Corrective Deed shall be recorded with the County Clerk. A copy of the recorded Corrective Deed shall be provided to the Grantee and Committee.

In the event a residual dwelling site opportunity has been approved by the Grantee, the Grantor shall prepare or cause to be prepared a Corrective Deed of Easement at the time of Grantee's approval. The Corrective Deed of Easement shall reflect the reduction of residual dwelling site opportunities allocated to the Premises. The Corrective Deed shall be recorded with the

County Clerk. A copy of the recorded Corrective Deed shall be provided to the Grantee and Committee.

(OR)

- iii. No residual dwelling site opportunities have been allocated pursuant to the provisions of N.J.A.C. 2:76-6.17. No residential buildings are permitted on the Premises except as provided in this Deed of Easement.

For the purpose of this Deed of Easement:

"Residual dwelling site opportunity" means the potential to construct a residential unit and other appurtenant structures on the Premises in accordance with N.J.A.C. 2:76-6.17.

"Residual dwelling site" means the location of the residential unit and other appurtenant structures.

"Residential unit" means the residential building to be used for single family residential housing and its appurtenant uses. The construction and use of the residential unit shall be for agricultural purposes.

"Use for agricultural purposes" as related to the exercise of a residual dwelling site opportunity and the continued use of the residential unit constructed thereto, means at least one person residing in the residential unit shall be regularly engaged in common farmsite activities on the Premises including, but not limited to: production, harvesting, storage, grading, packaging, processing and the wholesale and retail marketing of crops, plants, animals and other related commodities and the use and application of techniques and methods of soil preparation and management, fertilization, weed, disease and pest control, disposal of farm waste, irrigation, drainage, water management and grazing.

15. The land and its buildings which are affected may be sold collectively or individually for continued agricultural use as defined in Section 2 of this Deed of Easement. However, no division of the land shall be permitted without the joint approval in writing of the Grantee and the Committee. In order for the Grantor to receive approval, the Grantee and Committee must find that the division shall be for an agricultural purpose and result in agriculturally viable parcels. Division means any division of the Premises, for any purpose, subsequent to the effective date of this Deed of Easement.

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

16. In the event of any violation of the terms and conditions of this Deed of Easement, Grantee or the Committee may institute, in the name of the State of New Jersey, any proceedings to enforce these terms and conditions including the institution of suit to enjoin such violations and to require restoration of the Premises to its prior condition. Grantee or the Committee do not waive or forfeit the right to take any other legal action necessary to insure compliance with the terms, conditions, and purpose of this Deed of Easement by a prior failure to act.

17. This Deed of Easement imposes no obligation or restriction on the Grantor's use of the Premises except as specifically set forth in this Deed of Easement.

18. This Deed of Easement is binding upon the Grantor, the Grantor's heirs, executors, administrators, personal or legal representatives, successors and assigns and the Grantee; it shall be construed as a restriction running with the land and shall be binding upon any person to whom title to the Premises is transferred as well as upon the heirs, executors, administrators, personal or legal representatives, successors, and assigns of all such persons.

19. Throughout this Deed of Easement, the singular shall include the plural, and the masculine shall include the feminine, unless the text indicates otherwise.

20. The word 'Grantor' shall mean any and all persons who lawfully succeed to the rights and responsibilities of the Grantor, including but not limited to the Grantor's heirs, executors, administrators, personal or legal representatives, successors and assigns.

21. Wherever in this Deed of Easement any party shall be designated or referred to by name or general reference, such designation shall have the same effect as if the words, 'heirs, executors, administrators, personal or legal representatives, successors and assigns' have been inserted after each and every designation.

22. Grantor, Grantor's heirs, executors, administrators, personal or legal representatives, successors and assigns further transfers and conveys to Grantee all of the nonagricultural development rights and development credits appurtenant to the lands and Premises described herein. Nothing contained herein shall preclude the conveyance or retention of said rights by the Grantee as may be permitted by the laws of the State of New Jersey in the future. In the event that the law permits the conveyance of said development rights, Grantee agrees to reimburse the Committee (_____) percent of the value of the development rights as determined at the time of the subsequent conveyance.

23. That portion of the net proceeds, representing the value of the land only (and not the value of the improvements), of a condemnation award or other disposition of the Premises following termination of this Deed of Easement, as permitted pursuant to N.J.S.A. 4:1C-11 et seq., P.L. 1983, c.32, shall be distributed among the Grantor and the Grantee in shares in proportion to the fair market value of their interests in the Premises on the date of execution of this Deed of Easement. For this purpose, the Grantee's allocable share of the proceeds shall be the net proceeds multiplied by a fraction, the numerator of which is the fair market value of the development easement as certified by the Committee at the time of the initial acquisition and the denominator of which is the full fair market value of the unrestricted Premises as certified by the Committee at the time of the initial acquisition, which is identified as (/).

Furthermore, the Grantee's proceeds shall be distributed among the Grantee and the Committee in shares in proportion to their respective cost share grants on the date of execution of this Deed of Easement. The Grantee shall use its share of the proceeds in a manner consistent with the provisions of N.J.S.A. 4:1C-11 et seq., P.L. 1983, c.32.

24. No historic building or structure located on the Premises may be demolished by the grantor or any other person without the prior approval of the State Agriculture Development Committee. Historic building or structure is a building or structure that, as of the date of this Deed of Easement, has been included in the New Jersey Register of Historic Places established pursuant to N.J.S.A. 13:1B-15.128 et seq.

The Grantor signs this Deed of Easement as of the date of the top of the first page. If the Grantor is a corporation, this Deed of Easement is signed and attested to by its proper corporate officers, and its corporate seal, if any, is affixed.

_____(L.S.)

_____(L.S.)

_____(Corporate Seal)

Secretary
(For use by corporations only)

(INDIVIDUAL ACKNOWLEDGMENT)

STATE OF NEW JERSEY, COUNTY OF _____ SS.:

I CERTIFY that on _____, 20 _____,

_____ personally came before me and acknowledged under oath, to my satisfaction, this that person (or if more than one, each person):

- (a) is named in and personally signed this DEED OF EASEMENT;
- (b) signed, sealed and delivered this DEED OF EASEMENT as his or her act and deed;
- (c) made this DEED OF EASEMENT for and in consideration of mutual obligations and benefits to each party; and
- (d) the actual and true consideration paid for this instrument is \$_____.

Print name and title below signature

(CORPORATE ACKNOWLEDGMENT)

STATE OF NEW JERSEY, COUNTY OF _____ SS.:

I CERTIFY that on _____ 20 _____, the subscriber

_____, personally appeared before me, who, being by me duly sworn on his or her oath, deposes and makes proof to my satisfaction, that he or she is the Secretary of

_____, the Corporation named in the within Instrument; that _____ is the President of said Corporation; that the execution, as well as the making of this Instrument, has been duly authorized by a proper resolution of the Board of Directors of the said Corporation, that deponent well knows the corporate seal of said Corporation; and that the seal affixed to said Instrument is the proper corporate seal and was thereto affixed and said Instrument signed and delivered by said President as and for the voluntary act and deed of said Corporation, in presence of deponent, who thereupon subscribed his or her name thereto as attesting witness; and that the full and actual consideration paid to purchase a development easement as evidenced by the DEED OF EASEMENT is \$ _____ and the mutual obligations and benefits contained herein.

Sworn to and subscribed before me, the date aforesaid

Print name and title below signature

(COUNTY AGRICULTURE DEVELOPMENT BOARD)

THE UNDERSIGNED, being Chairperson of the _____ County Agriculture Development Board, hereby accepts and approves the foregoing restrictions, benefits and covenants.

ACCEPTED AND APPROVED this _____ day of _____, 20 ____.

Chairperson
_____ County Agriculture Development Board

STATE OF NEW JERSEY, COUNTY OF _____ SS.:

I CERTIFY that on _____, 20 _____,

_____ personally came before me and acknowledged under oath, to my satisfaction that this person: (a) is named in and personally signed this DEED OF EASEMENT, (b) signed, sealed and delivered this DEED OF EASEMENT as the Board's act and deed; and (c) is the Chairperson of the _____ County Agriculture Development Board.

Print name and title below signature

(STATE AGRICULTURE DEVELOPMENT COMMITTEE)

The State Agriculture Development Committee has approved the purchase of the development easement on the Premises pursuant to the Agriculture Retention and Development Act, N.J.S.A. 4:1C-11 et seq., P.L. 1983, c.32, and has authorized a grant of _____% of the purchase price of the development easement to _____ County in the amount of \$ _____.

Gregory Romano, Executive Director
State Agriculture Development Committee

Date

STATE OF NEW JERSEY, COUNTY OF _____ SS.:

I CERTIFY that on _____, 20 _____,

_____ personally came before me and acknowledged under oath, to my satisfaction, that this person:
(a) is named in and personally signed this DEED OF EASEMENT,
(b) signed, sealed and delivered this DEED OF EASEMENT as the Committee's act and deed, and
(c) is the Executive Director of the State Agriculture Development Committee.

Print name and title below signature