

Township of Pohatcong

Farmland Preservation Plan



Adopted by the Land Use Board on February 10, 2015

Prepared by Heyer Gruel & Associates
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Appendix

 Preserved Farms to Date

 Targeted Farms

 Right to Farm Ordinance

 Small Solar Energy System Ordinance

 County Ranking Sheet

I. Agricultural Land Base

Location and Size of Agriculture Land

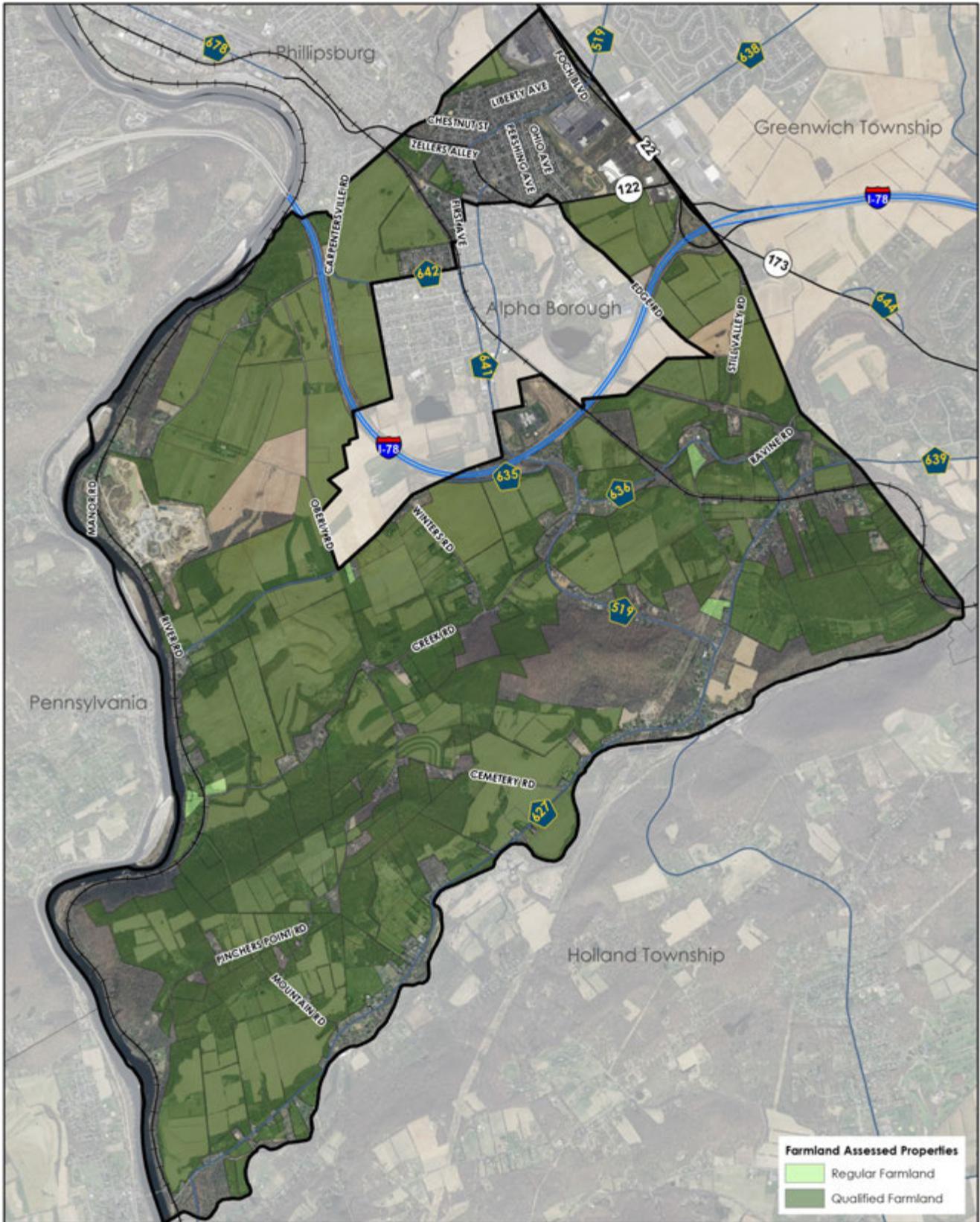
Pohatcong Township, located in the southern part of Warren County, is home to some of the County's most productive field crop areas. These areas fall within the broad plains associated with the Musconetcong and Delaware River Valleys, as well as the smaller Pohatcong Creek watershed. The Musconetcong River Valley encompasses the southern portion of Pohatcong Township, along with Mansfield, Washington, Franklin, and Greenwich 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 Pohatcong, Lopatcong, White and Knowlton Townships, as well as Belvidere and Phillipsburg, comprise the Delaware River Valley, which supports a second large concentration of cropland in the County.

Woodland managed farms in Pohatcong Township are found near the natural areas and ridges of the Highlands Ridgeline, which, in Warren County, incorporates a number of individual mountains. 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. The Pohatcong Ridge separates the watersheds of the Musconetcong and Pohatcong River Valleys in Pohatcong Township.

In 2013, over two-thirds of the Township (or 5,587.9 acres or 67.7%) of the Township was assessed as qualified farmland. The existing farmland map shows the location of the regular farmland and qualified farmland within the Township. The appendix contains an inventory of all existing farms in the Township.

Most of Pohatcong Township farmlands are found south of Interstate Route 78, although there are several farmlands north of Interstate Route 78, though they are few in number.

Using the New Jersey Farmland Assessment records from the 2012 Tax Year, there were 5,539 acres of total agriculture uses. Of this 5,539 acres, 60.2% (3,336 acres) were cropland harvested, 27.7% (1,537 acres) were either attached or unattached woodlands, 8.4% (467 acres) were permanent pastures, 2.9% (or 163 acres) were cropland pastured, and 0.6% (36 acres) used for equine purposes.



Existing Farmland

Source: NJGIN, NJOGIS, NJDEP, 2014 MOD IV Tax Assessment Data

Soils

Knowledge of soil types, characteristics, and their geographic distribution can inform planning and policy processes. It can also influence the smart growth and development of a community. Data on soil depth, permeability, water table and other physical properties are useful when determining the suitability of soils for foundation construction, location of septic fields, landscaping, and construction of roads, athletic fields, and parks.

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

The soil data provided in this report is provided by the Natural Resource Conservation Service (NRCS) of the United States Department of Agriculture (USDA), which started conducting national soil surveys in 1935 and continues today. The farmland classification prescribed by State Agricultural Development Committee (SADC) identifies map units as prime farmland soils, farmland soils of statewide importance, farmland soils of unique importance, or other soils that are not suitable for agriculture. Farmland classification identifies the location and extent of most suitable soils for producing food, feed, fiber, forage, and oilseed crops. This identification is useful in the management and maintenance of the resource base that supports the productive capacity of American agriculture. Pohatcong Township contains soils well suited for agricultural production, including approximately 3,861.0 acres of prime farmland, 1,440.5 acres of state wide importance soils, 4.5 acres of unique soils, and 3,195.9 acres of other soils.

The following table compares the total acreage of soil in the Township to that of the active farmland within the Township. The active farmland was derived using the NJDEP's 2007 Land Use Land Classification. 69.2% of the prime farmland soils were being used to farm in 2007.

Active Farmland			
Soil Classification	Total Acres in Township	Active Farmland (in acres)	% of Active Farmland by Soil Category
Prime Farmland Soils	3,846.8	2,673	69.4%
Statewide Importance Soils	1,440.5	893.2	62.0%
Soils of Unique Importance	4.5	1.7	37.8%
Other Soils	3,210.1	333.2	10.3%
Total	8,501.9	3,901.1	45.9%

Source: USDA, NRCS WSS, NJDEP LULC 2007. Acreages calculated in GIS and does not include water/lakes as a category

SADC Prime Farmland Soil

Prime farmland, as defined by the U.S. Department of Agriculture, is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is available for these uses. It could be cultivated land, pastureland,

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

The criteria for prime farmland designation include: an adequate and dependable supply of moisture from precipitation or irrigation, a favorable temperature and growing season, acceptable acidity or alkalinity, an acceptable salt and sodium content, and few or no rocks. The water supply is dependable and of adequate quality. Prime farmland is permeable to water and air. It is not excessively erodible or saturated with water for long periods, and it either is not frequently flooded during the growing season or is protected from flooding. Slope ranges from 0 to 8%.

According to the NRCS, some areas of prime farmland may require measures that overcome a hazard or limitation, such as flooding, wetness, and drought. Onsite evaluation is needed to determine whether or not the hazard or limitation has been overcome by corrective measures.

In Pohatcong Township, the following SADC Prime Farmland Soils are found:

Soil Description	Acreage	Percentage
Annandale Gravelly Loam (3-8% slopes)	318.0	8.3%
Bartley Loam (0-3% slopes)	38.1	1.0%
Bartley Loam (3-8% slopes)	259.4	6.7%
Delaware Fine Sandy Loam (0-3% slopes)	265.1	6.9%
Delaware Fine Sandy Loam (3-8% slopes)	108.4	2.8%
Hazen-Hoosic Complex (0 to 3% slopes)	300.3	7.8%
Hazen-Hoosic Complex (3-8% slopes)	140.8	3.7%
Washington Silt Loam (0-3% slopes)	24.4	0.6%
Washington Silt Loam (3-8% slopes)	2,392.4	62.2%
Total	3,846.8	100.0%

Source: United States Department of Agriculture Natural Resource Conservation Service Web Soil Survey, acreages calculated in GIS

Unique Soils

Unique soils are soils other than prime farmland soils that are used for the production of specific high value food and fiber crops. It has the special combination of soil quality, location, growing season, and moisture supply needed to economically produce sustained high quality and/or high yields of a specific crop when treated and managed according to acceptable farming methods. Examples of such crops are citrus, tree nuts, olives, cranberries, and other fruits and vegetables. Nearness to markets is an additional consideration. Unique farmland is not based on national criteria. It commonly is in areas where there is a special microclimate, such as the wine country in California. Pohatcong Township has one type of Unique Soils, Catden Mucky Peat, which only makes up 4.5 acres.

SADC Soils of Statewide Importance

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

In Pohatcong Township, the following SADC Soils of Statewide Importance are found:

Soil Description	Acreage	Percentage
Annandale Gravelly Loam (8-15% slopes)	563.3	39.1%
Hazen-Hoosic Complex (8-15% slopes)	36.4	2.5%
Washington Silt Loam (8-15% slopes)	840.7	58.4%
Total	1,440.5	100.0%

Source: United States Department of Agriculture Natural Resource Conservation Service Web Soil Survey, acreages calculated in GIS

Soils of Local Importance

Soils of local importance include those soils that are not prime or of statewide importance and are used for the production of high value food, fiber or horticultural crops. In some local areas, certain farmlands are not identified as having national or statewide importance. Where appropriate, these lands are identified by the local agency or agencies concerned as important to local agricultural production. These may also include tracts of land that have been designated for agriculture by local ordinance. At this time, there are no soils of local importance located within Warren County.

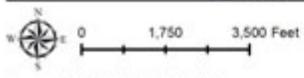
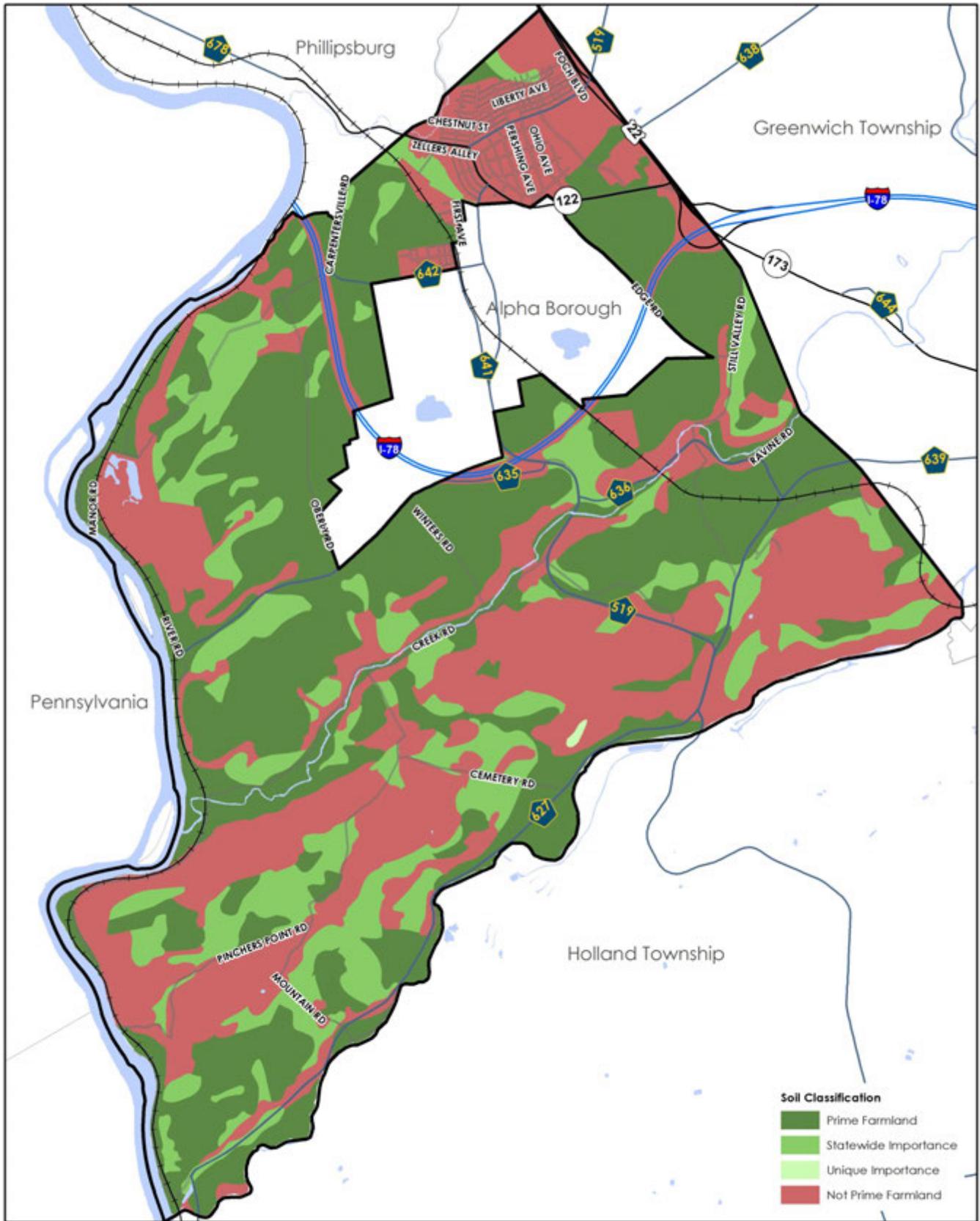
Not Prime Farmland Soils

Not Prime Farmland Soils include those soils that are not prime farmland, of statewide importance, unique, or of local importance. These soils lack the physical and chemical which allow for agricultural crops to thrive. By comparing the Land Use Land Cover map to the Soils map, these soils are the forested and urban areas.

The following table shows the SADC Soils of Not Prime Farmland:

Soil Description	Acreage	Percentage
Annandale loam (0-25% slopes)	473.7	14.8%
Califon Loam (0-15% slopes)	163.9	5.1%
Cokesbury Loam (0-8% slopes)	50.3	1.6%
Farmington-Rock Outcrop Complex (0-15% slopes)	22.5	0.7%
Farmington-Wassaic-Rock Outcrop Complex (0-8% slopes)	20.9	0.7%
Fredon-Halsey Complex (0-3% slopes)	42.4	1.3%
Gladstone Loam (3-15% slopes)	55.3	1.7%
Hoosic-Otisville Complex (25-60% slopes)	8.1	0.3%
Parker Gravelly Sandy Loam (15-25% slopes)	207.7	6.5%
Parker -Rock Outcrop Complex (25-65% slopes)	712.3	22.2%
Pits, Sand and Gravel	168.9	5.3%
Quarries	37.7	1.2%
Rock Outcrop-Farmington-Galway Complex (8-35% slopes)	574.2	17.90%
Udorthents (0-8% slopes)	85.1	2.7%
Udorthents-Urban Land Complex (0-8% slopes)	290.1	9.0%
Urban Land- Hazen-Hoosic Complex (0-8% slopes)	132.2	4.1%
Urban land-Washington Complex (3-15% slopes)	164.8	5.1%
Total	3,210.1	100.0%

Source: United States Department of Agriculture Natural Resource Conservation Service Web Soil Survey, acreages calculated in GIS



Source: NJGIN, NJOGIS, NJDEP, NRCS, SSURGO, Web of Soils

Soils

Watersheds and Hydrology

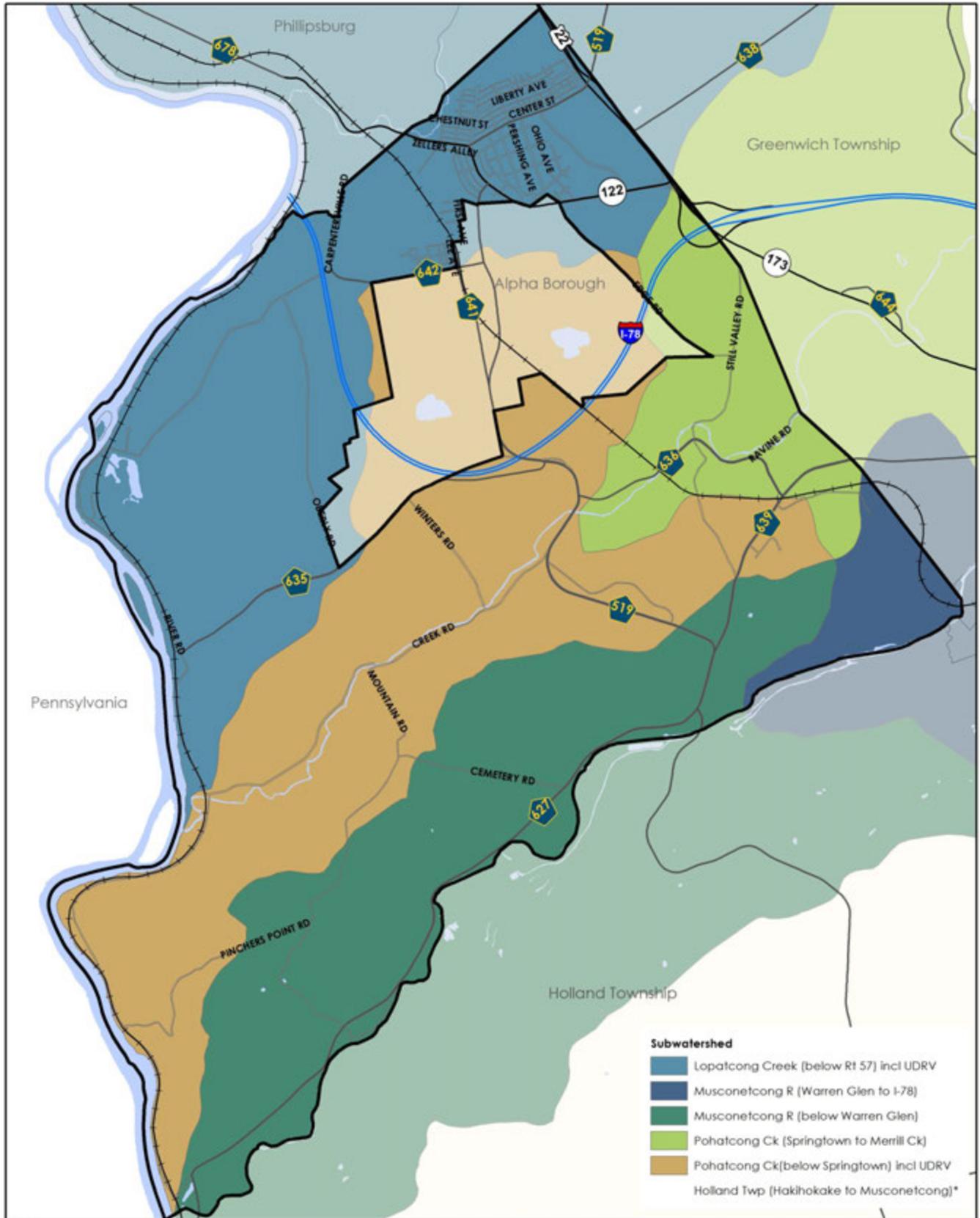
A watershed is an area that drains into a common waterway such as a stream, lake, estuary, wetland, or, ultimately, the ocean. The watershed includes both the waterway itself and the entire land area that drains into it. Geographic features such as hills and slopes separate distinct watershed systems. Watershed Management Areas (WMAs) are the regulatory units of the NJDEP's Division of Watershed Management for categorizing, managing and protecting watersheds throughout the State. Pohatcong is located in the Upper Delaware Watershed Management Area (WMA 01).

There are six (6) sub watersheds within the Township; Lopatcong Creek (below Rt 57), Pohatcong Creek (Springtown to Merrill Creek), Pohatcong Creek (below Springtown), Musconetcong River (Warren Glenn to I-78), Musconetcong River (below Warren Glen), and Holland Township (Hakihokake to Musconetcong). The table below details each of the subwatersheds acreage and net water availability, which is discussed in the next section:

HUC 14 Subwatershed	Subwatershed Name	Net Water Availability (MGD)	Impaired Water Quality	Acreage	Percentage
02040105120020	Lopatcong Creek (below Rt 57) incl UDRV	0.392305	Impaired	2,706.8	30.9%
02040105140060	Pohatcong Ck (Springtown to Merrill Ck)	0.037542	Impaired	868.6	9.9%
02040105140070	Pohatcong Ck (below Springtown) incl UDRV	-0.246551	Impaired	2,866.5	32.7%
02040105160060	Musconetcong R (Warren Glen to I-78)	-0.1654	Moderate	299.5	3.4%
02040105160070	Musconetcong R (below Warren Glen)	-0.983445	Impaired	2,030.0	23.1%
02040105170010	Holland Twp (Hakihokake to Musconetcong)	-0.001995	Impaired	0.4	0.0%
Total	-	-	-	8,771.8	100.0%

Source: Township of Pohatcong Highlands Environmental Resource Inventory 2013

As shown in the chart above, the Holland Twp (Hakihokake to Musconetcong) subwatershed only consists of 0.4 acres of the Township. This subwatershed is found at the most southern point of the Township at the intersection of the Delaware River, Pohatcong Township and Holland Township. Due to the size and location of the subwatershed, it is not shown on the subwatershed maps.



*Refer to text
 0 1,750 3,500 Feet
 Source: NJGIN, NJOGS, NJDEP, NJDOT, NJ Highlands Council

Subwatersheds

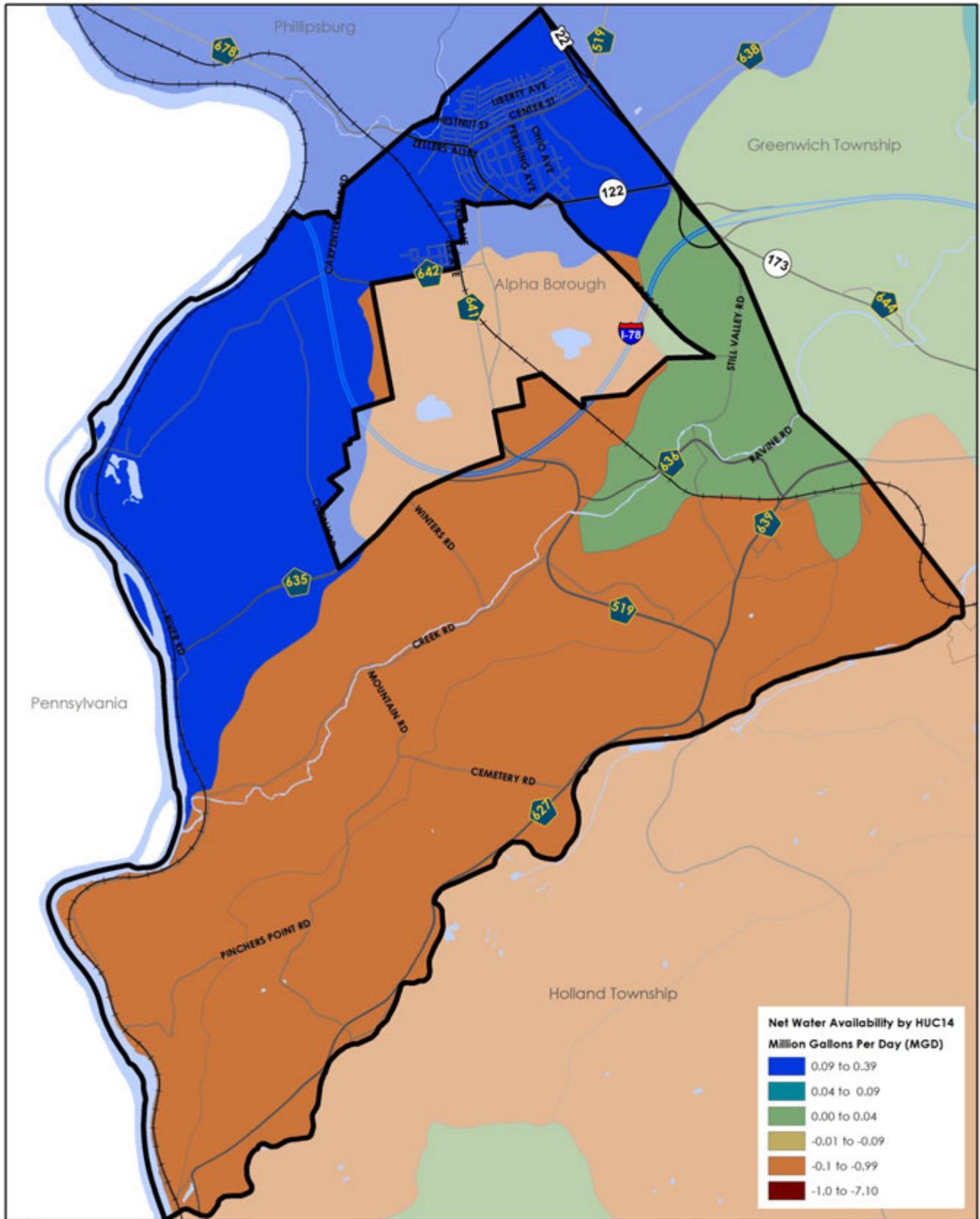
Number of Irrigated Acres and Available Water Sources

Irrigation is a technique used by farmers to create viable agricultural land in areas previously unsuited for intensive crop production. Irrigation transports water to crops to increase yield, keeps crops cool under excessive heat conditions, and to prevent freezing. This technique is most commonly used in the western half of the Country where drought and unfavorable farmland are found. According to the 2012 New Jersey Farmland Assessment data, this practice is found on seven (7) acres within the Township; Four (4) of these acres irrigated for fruit production and the remaining three (3) acres are ornamental irrigated acres.

The Net Water Availability data is taken from the Township's 2013 Environmental Resource Inventory. The Plan outlines information regarding the capacity and availability of ground and surface water resources within Pohatcong. To identify areas of sufficient water capacity for future development, the Plan calculates net water availability, converting the ground water capacity into a capacity by netting out those resources necessary for ecosystem health and the maintenance of safe yields of potable water. Over half of the Township (5,196.1 acres or 59.3%) has a negative net water capacity between -0.983 mgd to -0.002 mgd.

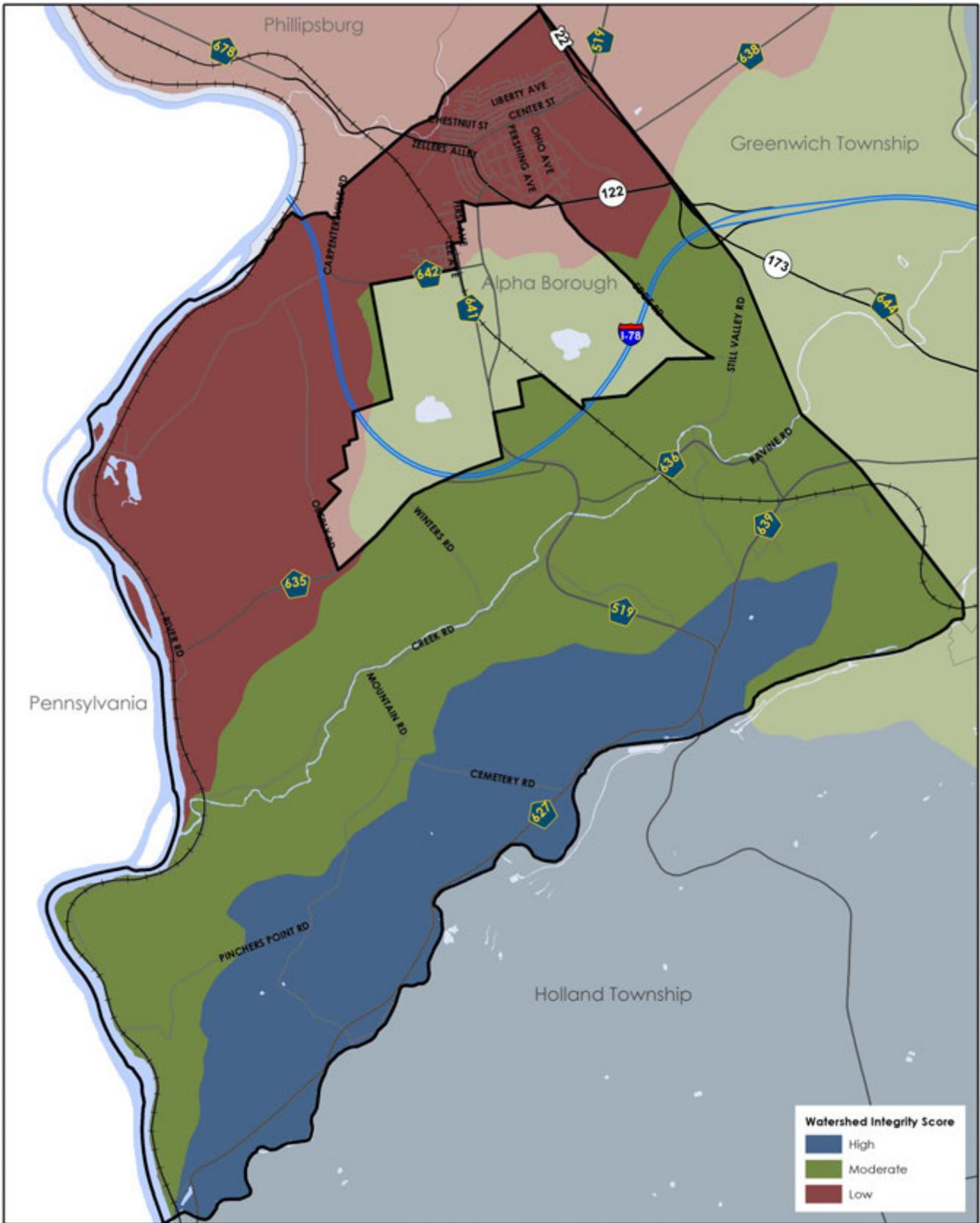
The US Geological Survey National Water Quality Assessment study found that a negative relationship between developed land use and aquatic habitat integrity exists. Therefore, the Watershed Integrity Map rates each subwatershed on a scale from High to Low. The scores evaluate the degree of impairment caused by the percent of developed lands, while habitat quality and forest cover percent can help to improve the watershed score. In addition, the watershed score will also be higher if rare, threatened and endangered species are protected. As shown in the Watershed Integrity Map, nearly half (46.0% or 4,034.5 acres) of the Township has a moderate watershed integrity score. The eastern subwatersheds have a high watershed integrity score. Almost a third of the Township (30.9% or 2,706.8 acres) has a low watershed integrity score; the Lopatcong Creek (below Rt 57) has a low watershed integrity score.

The Prime Groundwater Recharge Areas map shows the prime ground water recharge areas, determined by the Highlands Council, that most efficiently provide 40% or more of the total recharge volume for each of the 6 subwatersheds in Pohatcong Township.



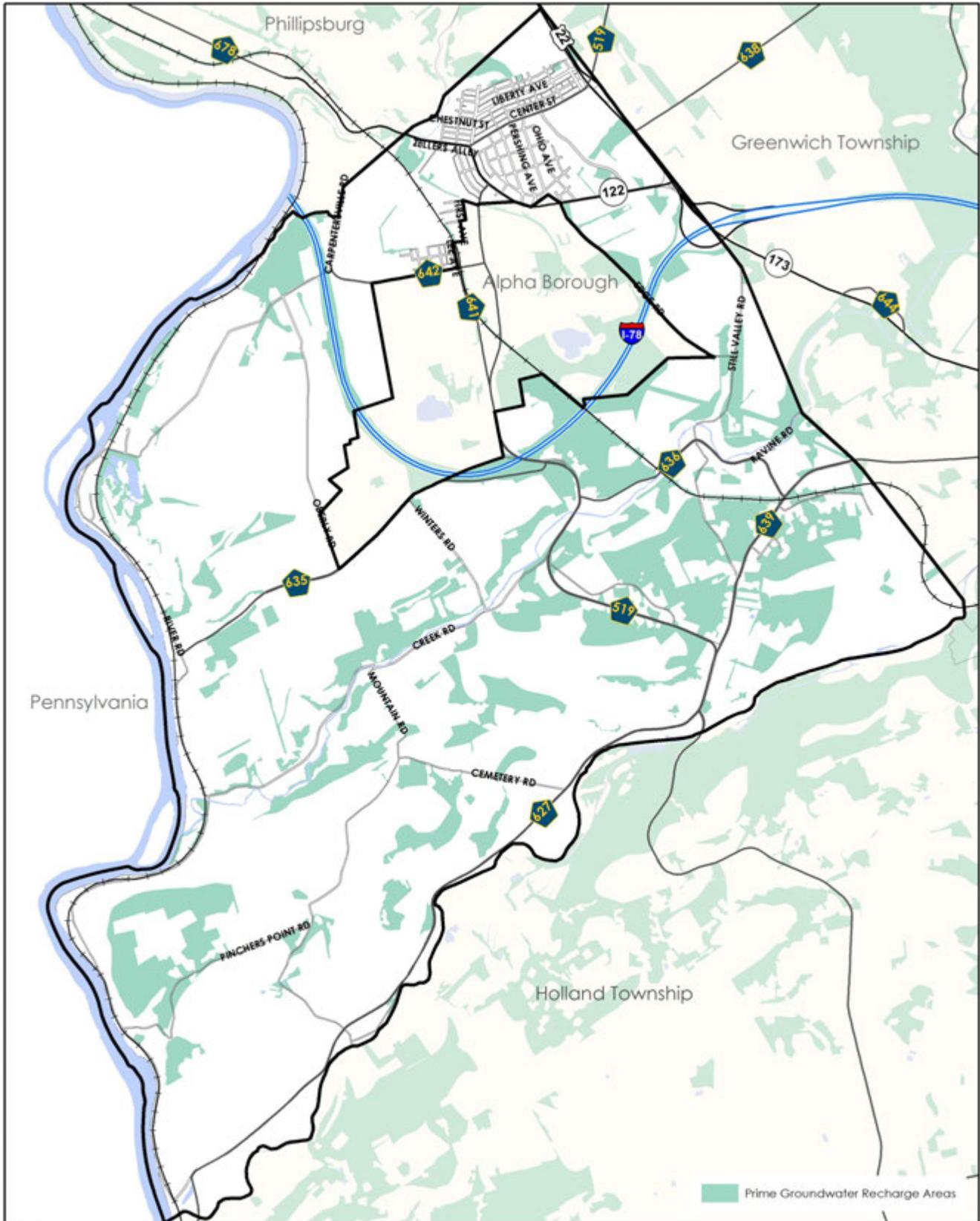
Source: NJGIN, NJOGS, NJDEP, NJDOT, NJ Highlands Council

Net Water Availability



Watershed Integrity

Source: NJGIN, NJOGIS, NJDEP, NJDOT, NJ Highlands Council

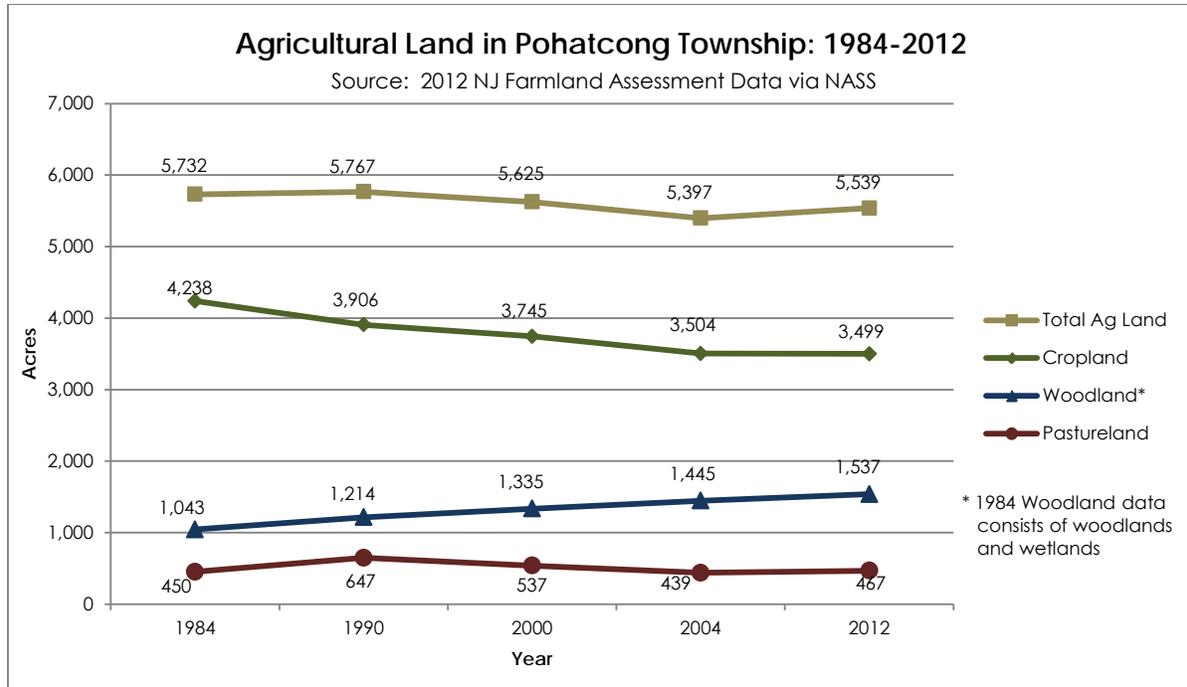


0 1,750 3,500 Feet
Source: NJGIN, NJOGS, NJDEP, NJDOT,
NJ Highlands Council

Prime Groundwater Recharge Areas

Statistics and Trends

The Township's total agricultural land has remained consistent over the past 30 years; peaking at 5,767 acres in 1990, and decreased to 5,397 acres in 2004. Since 2004, the total land has remained the same, increasing by only 2 acres. Cropland has been consistently decreasing each year; in 1984, cropland peaked at 4,238 acres and in 2012 decreased to 3,499 acres. Woodland acreage has increased by 323 acres since 1990. Pastureland in the Township peaked in 1990 at 647 acres, and decreased to 439 acres in 2004. Since 2004, pastureland increased slightly to 467 acres.



Agricultural Land in Pohatcong Township										
Year	Cropland		Pastureland		Woodland*		Equine		Total Ag land	
	Acres	Annual %	Acres	Annual %	Acres	Annual %	Acres	Annual %	Acres	% Change
1984	4,238	73.9%	450	7.9%	1,043	18.2%	-	-	5,732	-
1990	3,906	67.7%	647	11.2%	1,214	21.1%	-	-	5,767	0.6%
2000	3,745	66.6%	537	9.5%	1,335	23.7%	8	0.1%	5,625	-2.5%
2004	3,504	64.9%	439	8.1%	1,445	26.8%	9	0.2%	5,397	-4.1%
2012	3,499	63.2%	467	8.4%	1,537	27.7%	36	0.6%	5,539	2.6%

Source: 2004 Pohatcong Township Farmland Preservation Plan, 2012 Farmland Assessment Report via NASS-USDA
 *1984 Woodland data consists of woodlands and wetlands

The chart above shows the agricultural land in the Township by type, acreage and percentage for the years 1984, 1990, 2000, 2004 and 2012. The table reiterates that cropland has been progressively decreasing; in 1984, cropland made up 73.9% of the total agricultural land in the

Township and in 2012, only made up 63.2% of the total land. However, woodland acreage has increased each year since 1984; in 1984, woodland acreage made up only 18.2% of the total agricultural land, and by 2012, made up 27.7%.

Although no data is available on the Township level, the number of farms in Warren County has decreased drastically since 2007. Between the years 2002 and 2007, the number of farms increased by 9.5%. However, the number of farms has decreased significantly between 2007 and 2012, by 15.97%, or 149 farms. The table below shows the number of farms within Warren County over the past thirty years.

Number of Warren County Farms		
Year	Number	Percent Change
1982	608	-
1987	666	2.60%
1992	684	14.70%
1997	802	1.50%
2002	814	12.80%
2007	933	9.50%
2012	784	-15.97%

Source: Census of Agriculture

Contrary to the number of farms, the average farm size in the County has increased between 2007 and 2012. Prior to 2007, the average farm size had been decreasing from 144 acres in 1982, to 80 acres in 2007. In 2012 the average size increased in 92 acres.

Warren County Average Farm Size		
Year	Acres	Percent Change
1982	144	-
1987	132	-8.30%
1992	128	-3.00%
1997	105	-18.00%
2002	96	-8.60%
2007	80	-16.70%
2012	92	15.0%

Source: Census of Agriculture

The median farm size decreased from 37 acres in 1997 to 22 acres in 2007. In 2012, the median farm size increased slightly to 24 acres. Prior to 2012, the trend appeared to be that larger farms were dissolving to form several smaller farms within the same space. Due to this recent increase in the median farm size and taking into account the drastic decrease of the number of farms in

Warren County, it appears that some the smaller farms could be deserting their farming practices.

Between 2002 and 2007, a significant increase occurred in the number of farms consisting of 1 to 49 acres while the larger farms, between 500 to 1,999 acres, decreased drastically by 22.2%. In 2012, the smaller farms between 1-49 acres decreased by over a fifth (512 farms or 20.4%). Additionally, larger farms between 50-1,999 acres also decreased by 10.7%; 10 farms between 500-1,999 acres have been lost between 1992 and 2012.

Warren County Farms by Farm Size						
Year	1-49 acres		50-499 acres		500-1,999 acres	
	Number	Percent Change	Number	Percent Change	Number	Percent Change
1987	283	-	353	-	30	-
1992	336	18.7%	313	-11.3%	35	16.7%
1997	456	35.7%	311	-0.6%	35	0.0%
2002	519	13.8%	259	-16.7%	36	2.9%
2007	643	23.9%	262	1.2%	28	-22.2%
2012	512	-20.4%	247	-5.7%	25	-10.7%

Source: Census of Agriculture

II. Agricultural Industry—Overview

Agricultural characteristics in Pohatcong Township have changed since the Township was first settled in the early part of the 19th Century. Then, predominant land use in the now-agricultural area of the Township was silvaculture. This southern portion of Pohatcong Township was extensively lumbered to provide lumber for the paper manufacturing plants that arose in Riegelsville, Hughesville, and Warren Glen. There are still several large lots used for silvaculture.

Eventually, the cleared land was used to support fruit orchards. Pohatcong orchards produced peaches, predominantly, but other produce as well. The first machine-woven peach basket was developed by the Rapp Family in Pohatcong Township in the early part of the 20th Century.

Over time, dairy farms replaced most of the orchards. Dairy activities, and growing corn and other grains to support dairy activities, were the predominant agricultural activities in Pohatcong Township until about 30 years ago. Since then, Pohatcong agricultural activities have migrated from dairy to livestock, mostly beef steer. Corn, soy bean and other grain production continues. Pohatcong has also seen an increase in agricultural lands used for vineyards.

Trends in Market Value of Agricultural Products

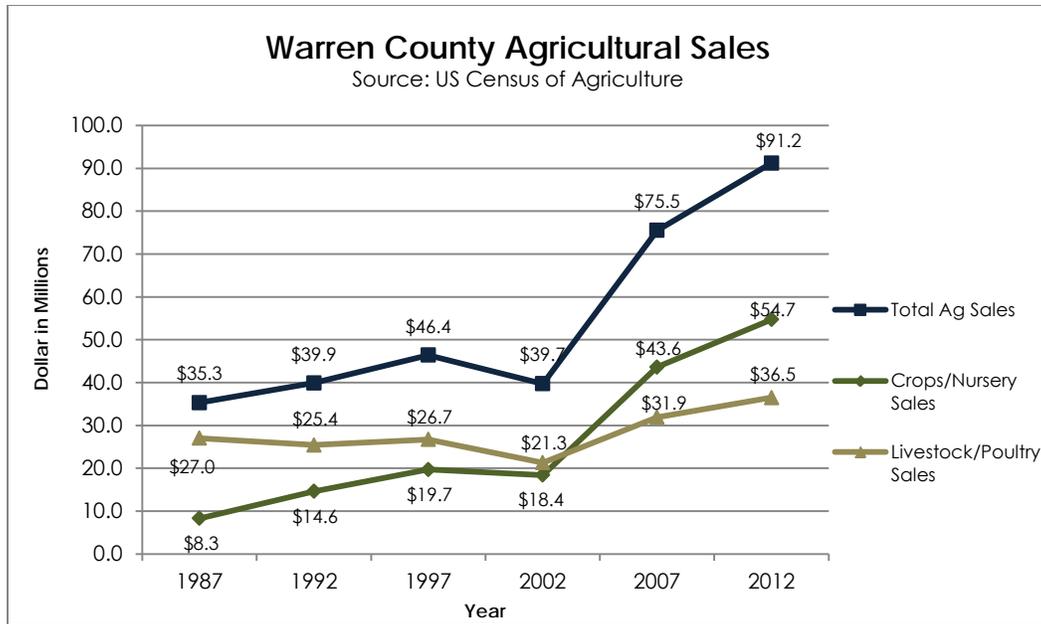
Trends in the market value of agricultural products are only available at the County level. The following table shows the total value of the goods produced by farms within Warren County.

Market Value of Products Sold in Warren County		
Year	Total	Average Per Farm
1982	\$29,205,000	\$48,035
1987	\$35,267,000	\$52,954
1992	\$39,929,000	\$58,375
1997	\$46,005,000	\$63,021
2002	\$39,701,000	\$48,772
2007	\$75,477,000	\$80,897
2012	\$91,205,000	\$116,333

Source: U.S. Census of Agriculture

In 2012, crop sales accounted for \$54,662,000 (59.9%) of the total market value, and livestock sales made up the remaining \$36,543,000 (40.1%). Sales between 2002 and 2012 more than doubled (increasing by approximately 240%) during the 10 year period.

The following chart gives a visual representation of agricultural sales in Warren County as a total and in the categories of livestock and poultry sales and crops/nursery sales. Crops and nursery sales surpassed livestock and poultry sales in 2007. The chart also depicts a sharp increase of total sales between 2002 through 2012.



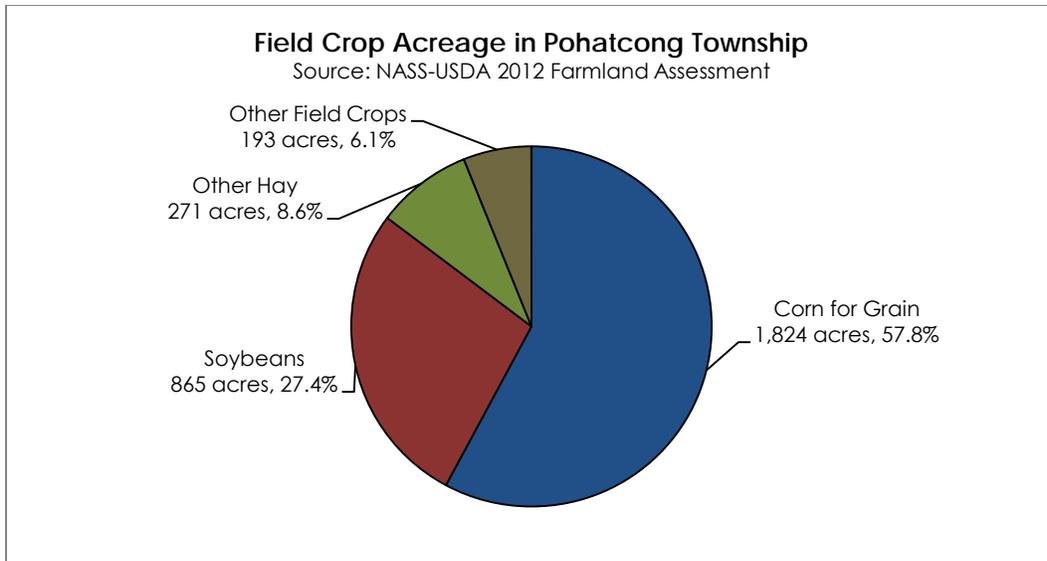
Crop/Production Trends

Field Crops—Township Trends

Pohatcong Township primarily produces corn and soybeans as field crops. Corn for grain makes up more than half (57.8%) of the total acreage of field crop land. The Township's corn for grain acreage is the third highest acreage in the County; Franklin Township utilized 3,307 acres, Harmony Township utilized 2,110 acres, and Pohatcong utilized 1,824 acres for corn for grain. Soybeans occupy over a quarter (27.4%) of the field crop land. The Township had the highest acreage of soybeans in Warren County in 2012.

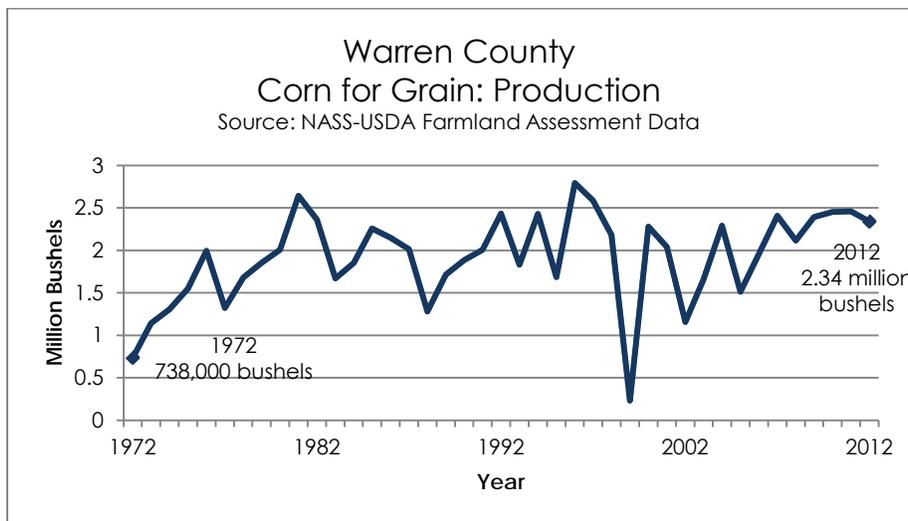
Acreage of Field Crops within Pohatcong Township		
Crop	Acreage	Percentage
Corn (for grain)	1,824	57.8%
Corn (for silage)	62	2.0%
Hay Alfalfa	58	1.8%
Other Hay	271	8.6%
Oats (for grain)	20	0.6%
Rye (for grain)	20	0.6%
Soybeans	865	27.4%
Wheat	33	1.0%
Total	3,153	100.0%

Source: NASS-USDA Farmland Assessment Data for 2012



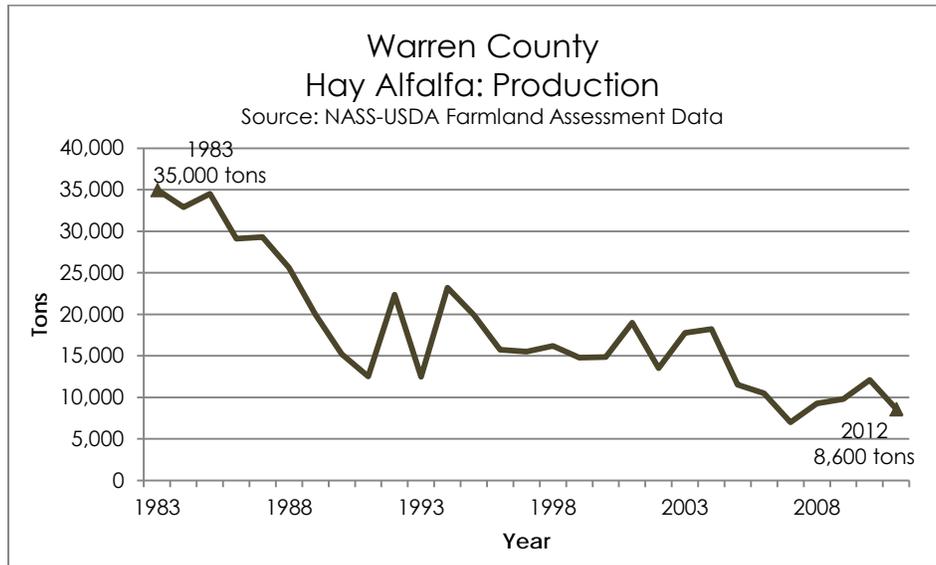
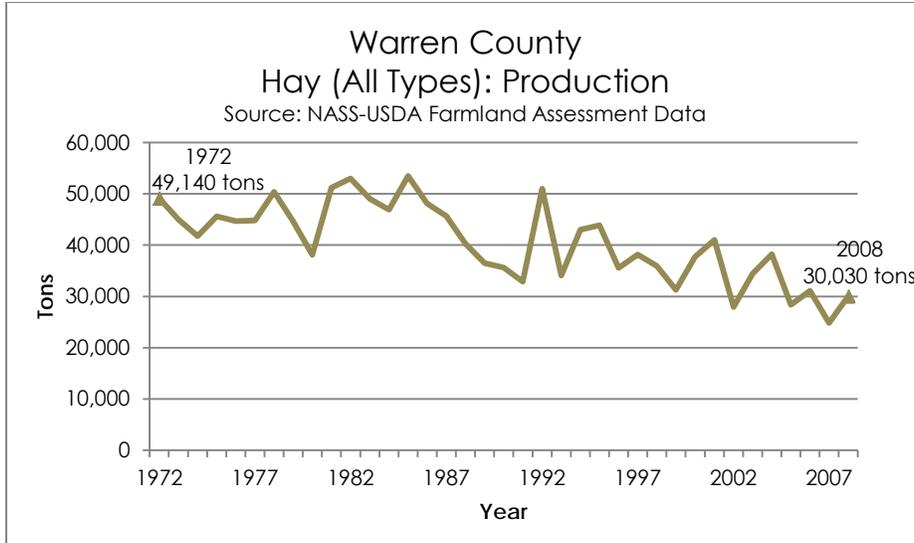
Field Crops—County Trends

The production of corn for grain in Warren County has fluctuated drastically over the past 30 years. In 1972, only 738,000 bushels of corn were produced. Corn for grain peaked in 1996 at 2.8 million bushels, before a drastic decline occurred in 1999, when only 231,000 bushels were grown. Since 2000, corn for grain production has increased and decreased rapidly. In 2012, 2.34 million bushels were collected within the County.

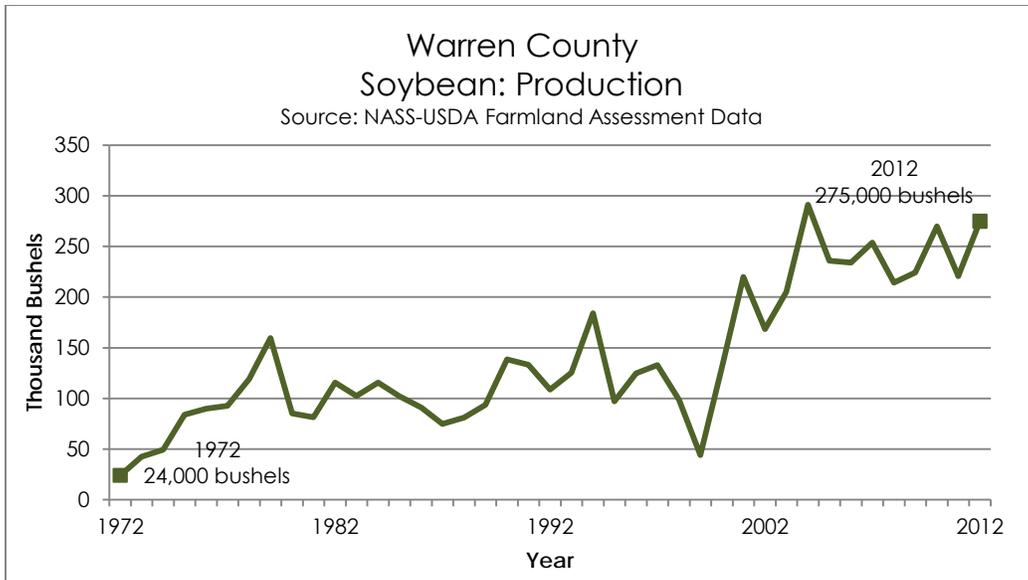


Hay production within Warren County has been decreasing for the past 20 years. Production peaked in 1985 at 53,500 tons, and has fluctuated since, mostly in a decreasing trend. 2008 was the last year hay of all types was recorded by the National Agricultural Statistics Service (NASS).

Interestingly, hay alfalfa continued to be recorded, although hay alfalfa has also decreased significantly since 1983. In 2012, hay alfalfa was merely 8,600 tons, which is a decrease of -75.4% from that in 1983.

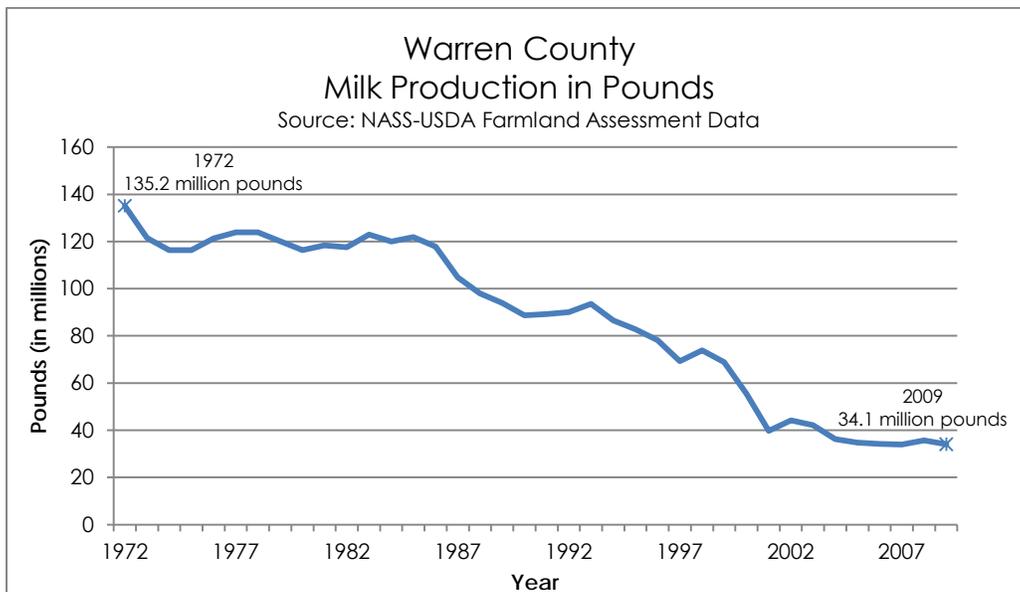


Soybean production in Warren County has been fairly successful. Although it only occupies 9.8% of the total agricultural land base, soybean production has been increasing since 1972. Soybean production peaked in 2004 at 291,000 bushels, and while it fluctuated over the years, reaching a low in 214,000 bushels in 2008, production has increased to 275,000 bushels in 2012.



Dairy Industry

The dairy industry within the County has declined significantly since the 1970's. In 1972, 135.2 million pounds of milk were produced. By 2009, only 34.1 million pounds of milk were produced resulting in a -75% decrease from 1972. Milk production in the County also reached its lowest record in 2009.



The number of dairy cattle within the Township follows the same trend of milk production within the County; in 2012, there were zero (0) dairy cattle in the Township.

Livestock and Poultry

Prior to 2007, the largest agriculture sector in the County was poultry and livestock sales. However, in 2007, crops and nursery sales surpassed poultry and livestock sales, and continue to rapidly increase. Since 2007, poultry and livestock sales continue to increase, but not at the same rate as crops and nursery sales. As mentioned previously, poultry and livestock sales grew to \$36.5 million. Of this \$36.5 million, \$249,000 was due to horse, ponies, mules, burros and donkey sales. Another \$327,000 were from sheep, goats, wool, mohair and sheep milk. Cattle and calves sales contributed \$1.03 million to the total. Other animals and other animal sales made up \$130,000. The 2012 Agriculture Census did not release sales from eggs and poultry, milk from cows, hogs and pigs, or aquaculture.

According to the 2012 New Jersey Farmland Assessment data, Pohatcong Township had 235 beef cattle, 24 sheep, 25 ducks, 78 goats, 37 meat chickens, 191 egg chickens, 2 turkeys, and 623 other livestock. Other livestock can consist of alpacas, bison, llamas, rabbits, deer and elk in captivity, in addition to a number of bird species.

Support Services within Market Region

Support services for the local agricultural industry have mostly disappeared. This is due primarily to the economics required to keep and maintain a support service. As an example, there were a number of dealers located in Warren County who supplied milking equipment such as storage tanks (milk coolers), glass milk lines, compressors and other equipment necessary to maintain a mechanized milking operation on a dairy farm. As the number of milking herds declined, so did the dealers and now they're nonexistent in the County. These services are now provided by dealers located in Pennsylvania. Disposable supplies, which were once delivered on a regular basis, are now delivered via UPS or FedEx after being ordered off the internet.

At one time the County boasted no less than fifteen tractor and farm equipment dealers. Today there is one dealer left but most of the inventory is for smaller "farmette" type operations. There are only a couple machinery and tractor repair businesses, thus operators end up hauling their tractors a considerable distance for repairs if they are unable to fix the equipment themselves by ordering the parts over the phone or internet.

There are several agricultural businesses which service Warren County and its municipalities. Services in the County include construction, large animal veterinarians, seed and feed suppliers and financial services. The Rutgers Cooperative Extension of Salem County compiled a list of service providers throughout the State in 2011. The list below contains the service providers found within Warren County.

LIVESTOCK HAULERS

Craig Ackerman Livestock Hauling
Phone: (201) 317-8623

CUSTOM SLAUGHTER HOUSE

Louie Chiu Slaughterhouse
40 Montana Road
New Village, NJ 08886
Phone: (908) 859-6635
Buyer: No
Description: Slaughters beef. No sheep or goats.

FINANCIAL SERVICES

First Hope Bank
1301 Hope Bridgeville Road
Hope, NJ 07844
Phone: (609) 459-4121
www.firsthope.com

First Pioneer Farm Credit, ACA
North Jersey Division
9 County Road 618
Lebanon, NJ 08833-3028
Phone: (908) 782-5011
NJ: 1-800-787-FARM (3276)
www.firstpioneer.com

FSA: Warren-Morris-Sussex Counties
Hackettstown Commerce Park
101 Bilby Road, Bldg. 1-H
Hackettstown, NJ 07840
Phone: (908) 852-2576
Fax: (908) 852-4666

ANIMAL REMOVER

Day & Nite Animal Recovery Svc
Bartley Rd.
Long Valley, NJ 07853
(908) 876-3341

CONSTRUCTION

Tim Terry
Washington, NJ 07882
Phone: (908) 689-6934
Description: Paves alleyways, arena and stall footings, run-in sheds, drainage work, finish grading

Morton Buildings, Inc.
PO Box 126
Phillipsburg, NJ 08865-0126
Phone: (908) 454-7905
<http://www.mortonbuildings.com>

EQUIPMENT (New, Used, Parts, Service)

Warren County Service Center, Inc.
228 Route 94
Columbia, NJ 07832
Phone: (908) 362-6916
Description: New Equipment for the Home Owner and Small Farmer. John Deere parts and service.

Smith Tractor & Equipment, Inc
15 Hillcrest Avenue
Washington, NJ 07882
Phone: (908) 689-7900
www.smithtractorandequipment.com

FERTILIZERS, LIME, CHEMICALS, SUPPLIES

Growmark FS, Inc
PO Box 116
Bloomsbury, NJ 08804
Phone: (908) 479-4500 or (800) 248-4649

SEED SUPPLIERS

Penwell Mills, LLC
448 Penwell Road
Port Murray, NJ 07865
Phone: (908) 689-3725 or (800) 273-5201
Purina Gold Dealer, 10 & 12% Horse Feed made fresh on Premises, Horse & Farm Supplies. Horse, Cattle, Pig, Sheep, Chicken, Dog, Cat, Rabbit Feeds available. Wild Bird Seed/Sunflower Seeds. Lime & Fertilizers too!

Garden State Heirloom Seed Society
P.O. Box 15
Valley Rd.
Delaware, NJ 07833
www.historyyoucaneat.org

LARGE ANIMAL VETERINARIANS

Dr. Grodkiewicz
 Washington Animal Hospital
 Washington, NJ 07882
 Phone: (908) 689-3267

Dr. Frey
 Alpha Veterinary Care
 Alpha, NJ 08865
 Phone: (908) 454-8384

Dr. Wasser
 Brass Castle Animal Hospital
 Washington, NJ
 Phone: (908) 689-0773

Cokesbury Equine
 Andie Butler, D.V.M.
 177 Old Cokesbury Rd.
 Lebanon, NJ 08833
 Phone: (908) 236-8097

Brockbrader, Nordstrom & Ellis
 Tranquility Large Animal Vet
 Andover, NJ
 Phone: (908) 852-1300

Dr. Wessel & Zaccheo
 Warren Animal Hospital
 Phillipsburg, NJ
 Phone: (908) 859-0702

HOOF TRIMMERS AND FARRIERS

Lehigh Valley Farrier Service
 Phillipsburg
 Phillipsburg, Warren County, NJ 08865
 Phone: (732) 744-0122
 anglotrake@yahoo.com
*Lehigh Valley Farrier Service, Serving New Jersey
 and eastern PA.*

Doug Craig
 Chester, NJ
 Phone: (908) 879-2793

FEEDS

Harmony Dale Farms
 166 Brainards Rd
 Phillipsburg, NJ 08865
 Phone: (908) 859-2616
 Phone: (908) 859-4275

Tomer Ernest J Trucking Inc
 3109 Belvidere Road
 Phillipsburg, NJ 08865-9584
 Phone: (908) 475-2578
Description: Brewers Grain

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

North Warren Farm & Home Supply
 Blairstown, NJ 07825
 Phone: (908) 362-6117

Penwell Mills Feed
 448 Penwell Rd
 Port Murray, NJ 07865
 Phone: (908) 689-3725
Description: variety of livestock feed

New Village Farms
 11 Stewartsville Road
 Stewartsville, NJ 08886
 Phone: (908) 859-3381

Hoffmans Supply
 35E Mill Road
 Long Valley, NJ 07853-3193
 Phone: (908) 876-3111

K & D's Feed and Tack Emporium
 324 State Route 24
 Chester, NJ 07930-2631
 Phone: (609) 654-4312

Tickner's Inc.
 90 Main St.
 Hackettstown, NJ 07840
 Phone: (908) 852-470

Other Agricultural Related Industries

Farms using niche services have been increasing due to the trends and shifts of consumer buying. Farmers markets, pick-your-own, local farm stands and organic products are gaining popularity among the public.

A prime example of agritourism is the 7-day Warren County Farmers' Fair held annually at the County fairgrounds in Harmony Township. The Fair highlights the past and present agricultural heritage of Warren County, in addition to serving as a "prime example of advertising and the importance and permanence of agriculture in the County," according to the 2008 Warren County Comprehensive Farmland Preservation Plan.

Farmers Markets

Although Pohatcong does not have its own farmers market, there are three within Warren County, according to the New Jersey Department of Agriculture Jersey Fresh program. While all three are seasonal (opening in June and closing in October), they provide the farmers with a place to sell products directly to the consumer. The following is a list with the contact information for Farmers Markets in Warren County:

- **Blairstown Farmers Market**
Route 521 next to Agway across from the Blairstown Elementary School in Blairstown
Phone: (908) 362-7967/ Kendrya Close
info@foodshedalliance.org
www.NJLocalfood.com
- **Moore Street Farmers Market**
Between Main & Washington at gazebo in Hackettstown
Phone: (908) 850-5004/ Jim Sheldon or Wend Stanton
director@hackettstownbid.com

Pick-Your-Own

Pick-your-own farm stands are another way to attract customers, allowing the farmers to receive a maximum profit. According to the Jersey Fresh website, Pohatcong does not have any pick-your-own farm stands. However, there are approximately 21 pick-your-own farms throughout Warren County.

Equine Industry

According to the 2012 farmland tax assessment data, there are 84 horses (by head count) in the Township with 36 acres associated to equine purposes; 35 acres are used for boarding purposes, while 1 acre is used for rehabilitation. Pohatcong Township is home to the Mylestone Equine Rescue (MER), located at 227 Still Valley Road. MER is a 21+ acre farm dedicated to rescuing and rehabilitating abused and neglected horses and finding the horses new loving homes. MER also educates the public about these horses' sufferings and the plight of unwanted horses by providing information on their website.

While MER is the only equine facility located in the Township, there are six (6) additional equine facilities found throughout Warren County.

Organic

Organic farms are becoming more popular due to the consumers interest in what they eat. Warren County has 22 organic farms occupying 260 acres in 2007 (US Ag Census). These niche farms generated a total of \$564,000 in sales as of 2007, according to the US Agricultural Census. 18 farms encompassing 141 acres harvested organic crops, 9 farms occupying 107 acres had organic pastureland, and 7 farms using 84 acres were being converted to organic production.

The 2012 Agricultural Census counted organic farming operations differently from the 2007 Agricultural Census. According to the 2012 Organic Agriculture standards, there were only two (2) farms in Warren County that were a part of the USDA National Organic Program- organic production exempt from certification. The 2012 Census did not provide acreage of land, nor did it provide the type of agricultural use.

Wineries

The practice of viniculture is another growing practice of agriculture in New Jersey. Local wineries often offer wine tasting, tours of the winery fields and provide direct business with their consumers. Some wineries use sustainable practices, which include using little to no water (dry farming), composting, and energy use (solar panels). Some wineries also provide protective habitat for native species of birds, plants and wildlife. There are several wineries in the Township including Villa Milagro Vineyards, Alba Vineyard and Winery and Mountain Road Vineyards,

III. Land Use Planning Context

State Development and Redevelopment Plan Planning Areas & Designated Centers

The State Planning Commission adopted the New Jersey State Development and Redevelopment Plan (SDRP) on March 1, 2001. The SDRP contains a number of goals and objectives regarding the future development and redevelopment in New Jersey. The primary objective of the SDRP is to guide future development to areas where infrastructure is available. New growth and development should be located in “centers”, which are “compact” forms of development, rather than in “sprawl” development. The overall goal of the SDRP is to promote development and redevelopment that will consume less land, deplete fewer natural resources and use the State’s infrastructure more efficiently.

The SDRP also contains a goal of preserving the agricultural industry and retention of farmland in New Jersey through “*coordinating planning and innovative land conservation techniques to protect agriculture viability while accommodating beneficial development and economic growth necessary to enhance agricultural vitality and by educating residents of the benefits and special needs of agriculture.*” The plan sets a policy that farmland retention be given priority in lands defined in the State Plan as Rural Planning Areas followed by Environmentally Sensitive Planning Areas. Nearly half (45.0%) of the Township is classified as Rural/Environmentally Sensitive Planning Area. Over a quarter (26.1%) is classified as rural, 15.1% classified as Environmentally Sensitive and 4.3% classified as Parks and Natural Areas due to New Jersey Department of Environmental Protection ownership. The remaining 9.4% are classified as Metropolitan and Suburban Planning Areas; this area is found in the northern portion of the Township between Alpha Borough, Phillipsburg, Lopatcong Township and Greenwich Township.

State Development and Redevelopment Plan Districts		
Planning Area	Area in Pohatcong Township (Acres)	Percentage of Township
Metropolitan	556.6	6.5%
Suburban	251.1	2.9%
Rural	2,237.3	26.1%
Rural/Environmentally Sensitive	3,855.0	45.0%
Environmentally Sensitive	1,290.4	15.1%
Parks & Natural Areas	368.5	4.3%
Total	8,558.9	100.0%

Source: 2001 State Development and Redevelopment Plan, acreages calculated using GIS

Metropolitan Planning Areas

The SDRP sets the following goals for the Metropolitan Planning Area:

- Provide for much of the state's future redevelopment;
- Revitalize cities and towns;
- Promote growth in compact forms;
- Stabilize older suburbs;
- Redesign areas of sprawl; and

- Protect the character of existing stable communities.

The plan proposes to a set of policies that can be used to guide the application of the State Plan's Statewide Policies in this Planning Area, in addition to a number of activities in which municipal, county, regional and state agencies can implement which include strengthening or establishing regional planning consortiums, creating/updating an inventory of the condition and capacity of infrastructure components, establishing programs such as "Special Improvement Districts" in support of needed improvements to downtown business communities, and the development a strategic acquisition plan for open space and farmland to support appropriate design of development and redevelopment.

The Township has 556.6 acres or 6.5% of the total Township land in the Metropolitan Planning Area.

Suburban Planning Area

The intention of the Suburban Planning Area in the SDRP is to:

- Provide much of the state's future development;
- Promote growth in Centers and other compact forms;
- Protect the character of existing stable communities;
- Protect natural resources;
- Redesign areas of sprawl; and
- Revitalize cities and towns.

The plan continues to states the Suburban Planning Area is "the key area for accommodating market forces and demand for development." In addition, activities such as identifying a number of Centers on a regional basis to absorb a significant share of the area's growth, supporting needed improvements for downtown business communities, and performing build-out analyses to determine opportunities and impacts of future development under existing zoning should be considered and implemented.

There is approximately 251.1 acres or 2.9% of the total Township land in the Suburban Planning Area within the Township, which is found surrounding the Metropolitan Planning Area in the northern tip of the Township, north of Interstate 78.

Rural Planning Areas

According to the SDRP, the intention of the Rural Planning Area is to:

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

The State Plan recommends "protecting the rural character of the area by encouraging a pattern of development that promotes a stronger rural community in the future while meeting

the immediate needs of rural residents, and by identifying and preserving farmland and other open lands. The Plan also promotes policies that can protect and enhance the rural economy and agricultural industry, thereby maintaining a rural environment.”

There are approximately 2,237.3 acres or 26.1% of the Township in the Rural Planning Area.

Rural Environmentally Sensitive Planning Areas

The Rural Environmentally Sensitive Planning Area has one or more environmentally sensitive features. The intentions of this planning area are the same as those mentioned previously in the Rural Planning Area, and that is to:

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

The objectives of the Rural Environmentally Sensitive Areas are those of the Environmentally Sensitive Planning Area.

The State Plan provides for “the protection of critical natural resources and for the maintenance of the balance between ecological systems and beneficial growth. The ecological systems of the Environmentally Sensitive Planning Area should be protected by carefully linking the location, character and magnitude of the development of the capacity of the natural and built environment to support new growth and development on a long-term sustainable resource basis. Large contiguous areas of undisturbed habitat should be maintained to protect sensitive natural resources and systems. Any new development that takes place in the Environmentally Sensitive Planning Area should capitalize on the inherent efficiencies of compact development patterns found in existing Centers.” Moreover, the SDRP states that, Rural Planning Areas need strong Centers and that Centers should attract private investment that otherwise might not occur.

There are approximately 3,855.0 acres or 45.0% of the total Township land in the Rural Environmentally Sensitive Planning Area.

Environmentally Sensitive Planning Areas

According to the SDRP, the Environmentally Sensitive Area contains large contiguous land areas with valuable ecosystems, geological features and wildlife habitats and that future environmental and economic integrity of the State rests in the protection of these irreplaceable resources.

This planning area is vulnerable to damage of many sorts from new development in the Environs, including fragmentation of landscapes, degradation of aquifers and potable water, habitat destruction, extinction of plant and animal species and destruction of other irreplaceable resources, which are vital for the preservation of the ecological integrity of New Jersey’s natural

resources. Perhaps most important, because the environs in the Environmentally Sensitive Planning Area are more sensitive to disturbance than the Environs in other Planning Areas, new development has the potential to destroy the very characteristics that define the area.

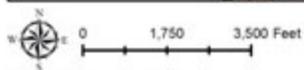
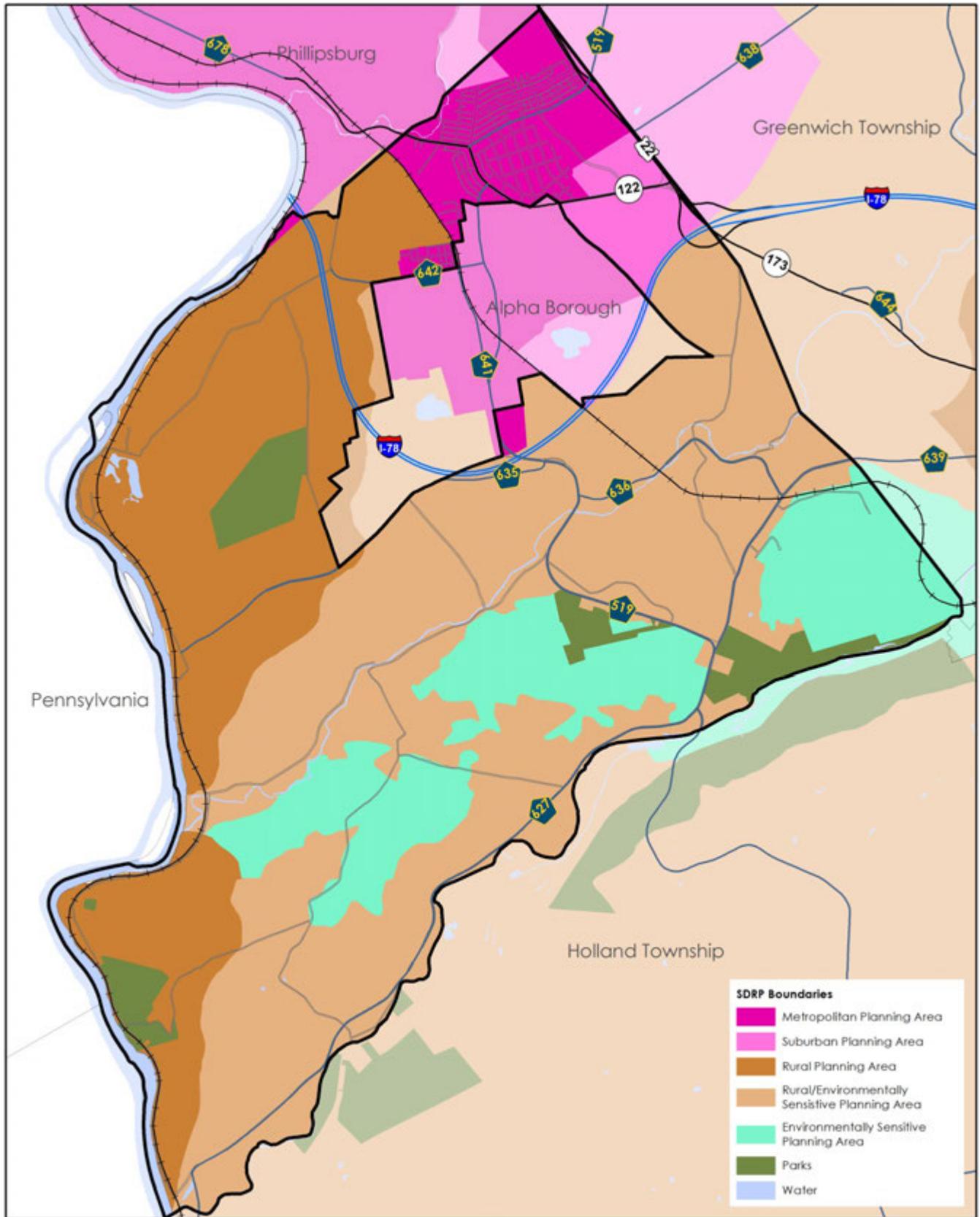
According to the SDRP, the intention of the Environmentally Sensitive Planning Area is to:

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

The State Plan indicates that large contiguous areas of undisturbed habitat should be maintained to protect sensitive natural resources and systems. Moreover, new development in this area should capitalize on the inherent efficiencies of compact development patterns found in existing Centers. Benefits associated with center focused development include the preservation of: open space, farmland and natural resources and to preserve or improve community character, increase opportunities for reasonably priced housing and strengths beneficial economic development opportunities.

SDRP is very specific in its intention for the Environmentally Sensitive Planning Area; "new development should be guided into Centers to preserve open space, farmland and natural resources and to preserve or improve community character, increase opportunities for reasonably priced housing and strengthen beneficial economic development opportunities."

There is approximately 1,290.3 acres or 15.1% of the total Township land in the Environmentally Sensitive Planning Area.



Source: NJGIN, NJOGIS, NJDEP, 2014 MOD IV Tax Assessment Data

2001 NJ State Development and Redevelopment Plan

New Jersey Highlands Water Protection and Planning Act

The SDRP identifies some areas in New Jersey as Special Resource Areas. These areas are defined as an area or region with unique characteristics or resources of statewide importance that are essential to the sustained well-being and function of its own region and other regions or systems—environmental, economic, and social—and to the quality of life for future generations. Identified Special Resource Areas included portions of the Highlands.

The Legislature and Governor passed the NJ Highlands Water Protection and Planning Act (Highlands Act) in 2004. The goal of this legislation is to preserve open space and protect diverse natural resources in a 1,300 square mile area in northern New Jersey known as the Highlands region, including water resources that supply drinking water to nearly 50% of the State. The Highlands Act establishes the Highlands Preservation Area and the Highlands Planning Area in the Highlands region.

The Highlands Act also has a Regional Master Plan, also known as the RMP, which establishes guidelines to protect, preserve and enhance natural resources of the region such as water and open space. The RMP also serves to reduce incompatible development in the Highlands Preservation Areas and promote sustainable growth, redevelopment, consistent with the SDRP, in the Highlands Planning Areas of the region. The RMP was adopted in July of 2008.

The Highlands Act designates 88 municipalities in New Jersey in seven different counties as constituting the Highlands Region. Communities in Bergen, Hunterdon, Morris, Passaic, Somerset, Sussex, and Warren Counties are all including in the Highlands Region. This region encompasses about 850,000 acres or 1,300 square miles and is divided into two separate areas. The interior area within the region is the “preservation area” or the Core and is roughly half of the region. The remaining area of the region is the “planning area”. The preservation area has the most stringent controls on development and the strongest water quality protections in the region.

Pohatcong Township is in both the Planning and Preservation Areas. Approximately 13.8% of the Township is in the Planning Area (the land north of Interstate 78) while the remaining 86.2% (south of I-78) is in the Preservation Area. The Highlands Planning/Preservation Area Map identifies where the Planning and Preservation Areas are located within the Township

The goal of the regional master plan with respect to the entire Highlands Region is to protect and enhance the significant values of the resources. The goals of the regional master plan with respect to the preservation area are:

- (1) Protect, restore, and enhance the quality and quantity of surface and ground waters therein;
- (2) Preserve extensive and, to the maximum extent possible, contiguous areas of land in its natural state, thereby ensuring the continuation of a Highlands environment which contains the unique and significant natural, scenic, and other resources representative of the Highlands Region;
- (3) Protect the natural, scenic and other resources of the Highlands, including but not limited to contiguous forests, wetlands, vegetation stream corridors, steep slopes, and critical habitats for fauna and flora;
- (4) Preserve farmland and historic sites and historic resources;

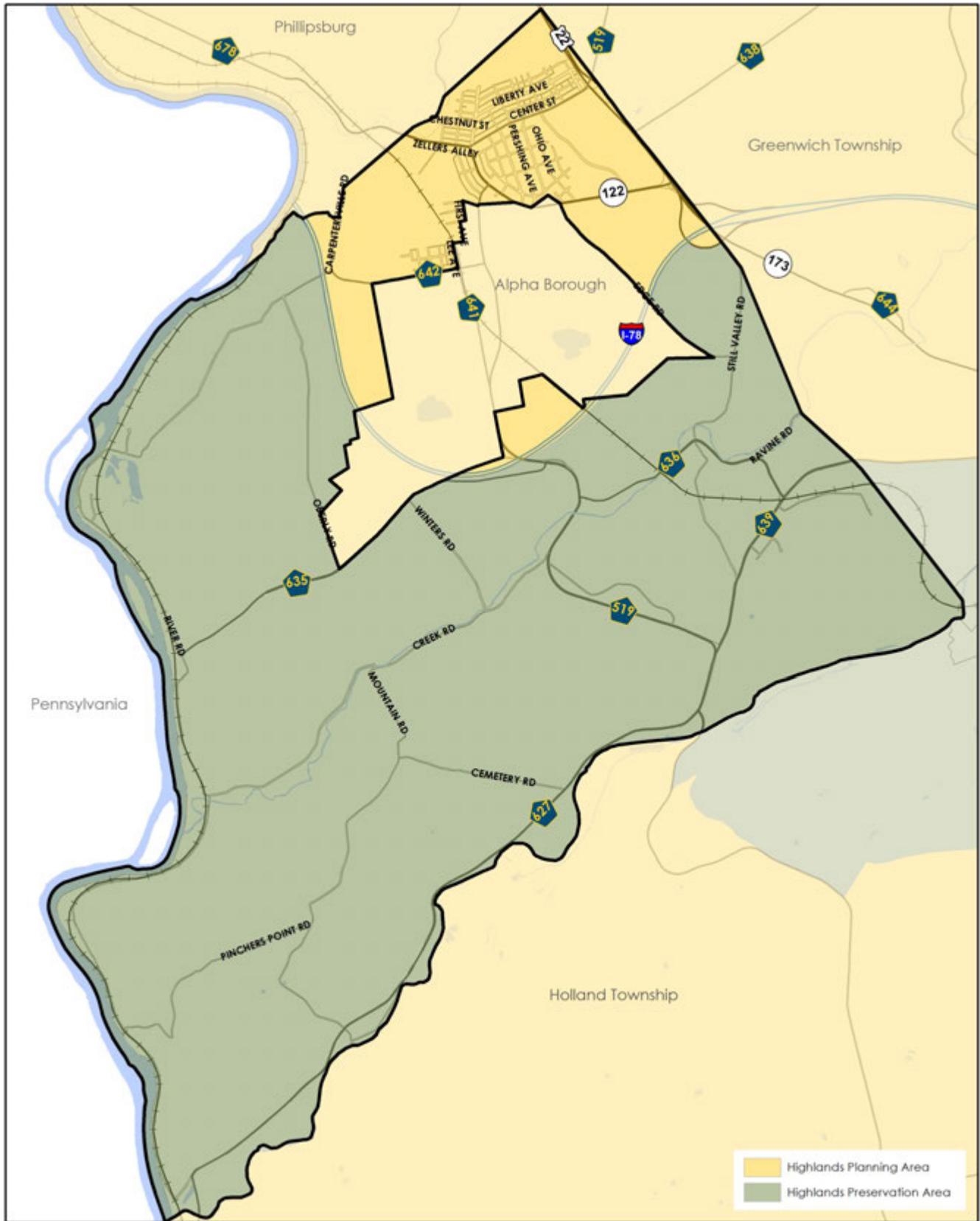
- (5) Preserve outdoor recreation opportunities, including hunting and fishing, on publicly owned lands;
- (6) Promote conservation of water resources;
- (7) Promote Brownfield remediation and redevelopment;
- (8) Promote compatible agriculture, horticultural, recreational, and cultural uses and opportunities within the framework of protecting the Highlands environment; and
- (9) Prohibit or limit to the maximum extent possible construction or development which is incompatible with preservation of this unique area.

The goals of the regional master plan with respect to the planning area are:

- (1) Protect, restore, and enhance the quality and quantity of surface and ground waters therein;
- (2) Preserve to the maximum extent possible any environmentally sensitive lands and other lands needed for recreation and conservation purposes;
- (3) Protect and maintain the essential character of the Highlands environment;
- (4) Preserve farmland and historic sites and other historic resources;
- (5) Promote the continuation and expansion of agricultural, horticultural, recreational, and cultural uses and opportunities;
- (6) Preserve outdoor recreation opportunities, including hunting and fishing, on publicly owned land;
- (7) Promote conservation of water resources;
- (8) Promote Brownfield remediation and redevelopment;
- (9) Encourage, consistent with the State Development and Redevelopment Plan and smart growth strategies and principles, appropriate patterns of compatible residential, commercial, and industrial development, redevelopment, and economic growth, in or adjacent to areas already utilized for such purposes, and discourage piecemeal, scattered, and inappropriate development, in order to accommodate local and regional growth and economic development in an orderly way while protecting the Highlands environment from the individual and cumulative adverse impacts thereof ; and
- (10) Promote a sound, balanced transportation system that is consistent with smart growth strategies and principles and which preserves mobility in the Highlands Region.

The Act further mandates that the Council shall use the regional master plan elements, including the resource assessment and the Smart Growth component, to establish a Transfer of Development Rights program for the Highlands Region that furthers the goals of the Highlands Regional Master Plan. The Transfer of Development Rights program shall be consistent with the "State Transfer of Development Rights Act".

TDR allows development rights to be separated from the land in what are called sending areas and transferred to other areas called receiving areas. The 2008 Warren County Comprehensive Farmland Preservation Plan states that Pohatcong Township and Alpha Borough are suitable to develop an inter-municipal TDR program, which normally involves some form of tax-based revenue sharing.



Highlands Planning/Preservation Areas

Source: NJGIN, NJOGS, NJDOT, NJDEP,
NJ Highlands Council

Nearly all of Pohatcong Township is in the Highland RMP's Agricultural Resource Area. This district, as defined by the 2008 RMP, "limits non-agricultural uses within the Area to those uses that support the preservation of farmland, avoid conflicts with agriculture, maintain and enhance the soils, and meet resource management and protection requirements of the RMP."

Warren County Strategic Growth Plan (revised in 2005)

The role of the Strategic Plan is to provide policy guidance for local plans, guide future investment in the transportation network, and ensure that adequate public facilities exist and to accommodate growth where it can be best coordinated. The Plan also helps to coordinate local planning activities with the New Jersey State Development and Redevelopment Plan as described below.

- Goal 1- Preserve and enhance rural character as well as agricultural, natural, environmental, historic and open space resources and provide incentives to achieve this goal.
- Goal 2- Focus growth in existing centers and provide financial incentives to local government, school districts and developers to achieve this goal.
- Goal 3- Protect and enhance water quality and quantity.
- Goal 4- Maintain and improve the existing transportation system to provide safe and efficient mobility and access.
- Goal 5- Provide safe and efficient alternative modes of transportation to reduce auto dependence.
- Goal 6- Improve public infrastructure to support existing centers.
- Goal 7- Encourage desirable development that provides local employment opportunities in existing centers.
- Goal 8- Increase educational and cultural opportunities.
- Goal 9- Promote inter-municipal, county and state cooperation.
- Goal 10- Encourage state legislation to provide localities more control over growth.
- Goal 11- Ensure that benefits and costs of plan implementation are shared equitably among all residents, landowners and businesses in Warren County.
- Goal 12- Provide a mix of housing types.

The County Strategic Growth Plan proposes that the Phillipsburg Town Center, which is identified in the NJ SDRP Plan as a Metropolitan Planning Area, require inter-municipal collaboration among adjacent municipalities to support the Center designation.

Warren County Comprehensive Farmland Preservation Plan

Adopted in April 2008, the Preservation Plan furthers the County's efforts to preserve 20,000 acres of farmland by 2010 by outlining the County's Agricultural Development Area and identifying seven Project Areas that will be the basis for future farmland preservation efforts. 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 State, County, and local roadways.
- 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

Pohatcong Township is located in the County's South Project Area. The Plan suggests Pohatcong Township and Alpha Borough coordinate to establish an inter-municipal Transfer of Development Rights Program. However, the Plan continues to point out that the Plan supports the concept of an inter-municipal/regional TDR program, however it is not a viable farmland preservation tool; municipalities need to determine if intra-municipal TDR is appropriate for them.

Current Land Use and Trends

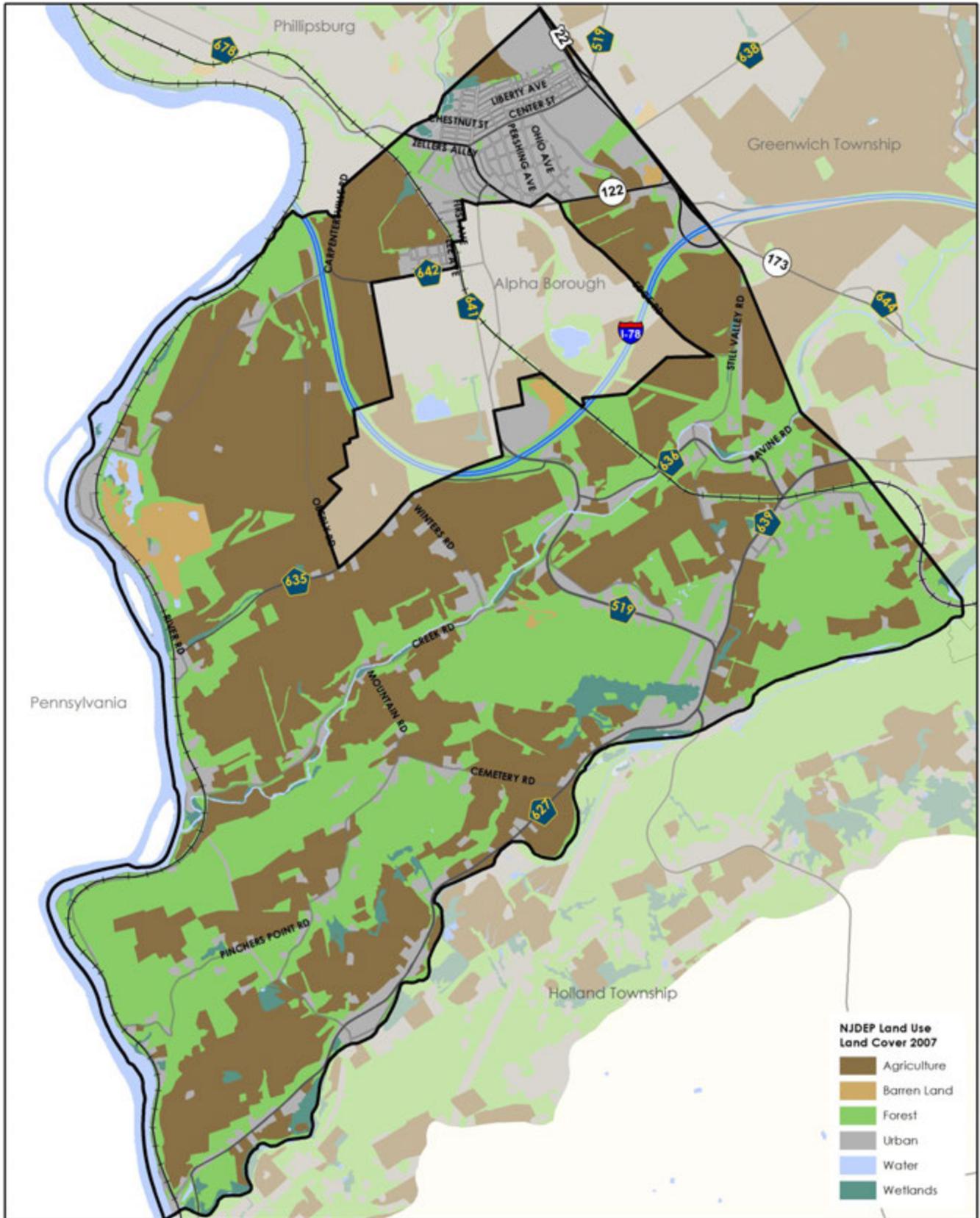
Existing Land Use

Using the 2013 Tax Assessment data, 67.8% of the Township is qualified farmland. Public Property constitutes 10.2% (838.0 acres) of the Township. Residential land occupies 10.1% (or 828.5 acres). The Existing Land Use map shows where these areas are located.

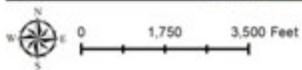
Existing Land Use		
Property Classification	Acreage	Percentage
Vacant	258.7	3.1%
Residential	828.5	10.1%
Farmland (Regular)	111.6	1.4%
Farmland (Qualified)	5,587.9	67.8%
Commercial	217.1	2.6%
Industrial	183.9	2.2%
Apartments	1.5	0.0%
Railroad Class I	104.7	1.3%
Railroad Class II	51.2	0.6%
Public School	25.5	0.3%
Other School	7.1	0.1%
Public Property	838.0	10.2%
Church & Charitable	6.7	0.1%
Cemeteries & Graveyards	0.4	0.0%
Other Exempt	16.0	0.2%
Total*	8,238.8	100.0%

*The total land area excludes rights of way.
Source: 2013 Tax Assessment Data

Residential development is most prominent in the northern portion of the Township, between Alpha Borough, Phillipsburg and Greenwich. Residential development is also found along the Delaware River, and along the County Route 627 (Riegelsville-Warren Glenn Road), County Route 639 (Warren Glen-Bloomsburg Road) and along County Route 519.



NJDEP Land Use Land Cover (2007)



Source: NJGIN, NJOGS, N.JDOT, NJDEP

The Land Use Land Cover map reinforces the above statements. Urban development is primarily seen in the northern portion of the Township and along several of the County roads. The following chart gives the acreage and percent change between the Land Use Land Cover between the years 2002 and 2007 from the New Jersey Department of Environmental Protection. Overall, Land Use Land Cover trends have remained relatively constant over the past 5 years. Barren land increased by 5.4%, while forests decreased by -1.1%.

Land Use Land Cover			
Type	2002 Acreage	2007 Acreage	Percent Change
Agriculture	3,914.8	3,902.4	-0.3%
Barren Land	128.3	135.6	5.4%
Forests	2,890.1	2,858.8	-1.1%
Urban	1,347.6	1,372.6	1.8%
Water	246.1	258.3	4.7%
Wetlands	197.2	196.3	-0.5%
Total	8,724.1	8,724.0	0.0%

Source: 2002 & 2007 NJDEP Land Use Land Cove

Population Trends

Population within the Township increased significantly between 1950 and 1960 by 39.5%. Between 1960 and 1970, the Township increased another 10.8% to its peak population of 3,856 persons. Since 1980, the Township has decreased slightly each year, by no more than 7% (which occurred between 1980 and 1990). In 2010, the Township had a population of 3,339 persons.

According to the North Jersey Transportation Authority (NJTPA) Plan 2040, the population in Pohatcong is expected to increase 9.0%. This is due to development pressures from I-78 in addition to neighboring communities, such as Phillipsburg, which are also located close to regional highways and mass transit.

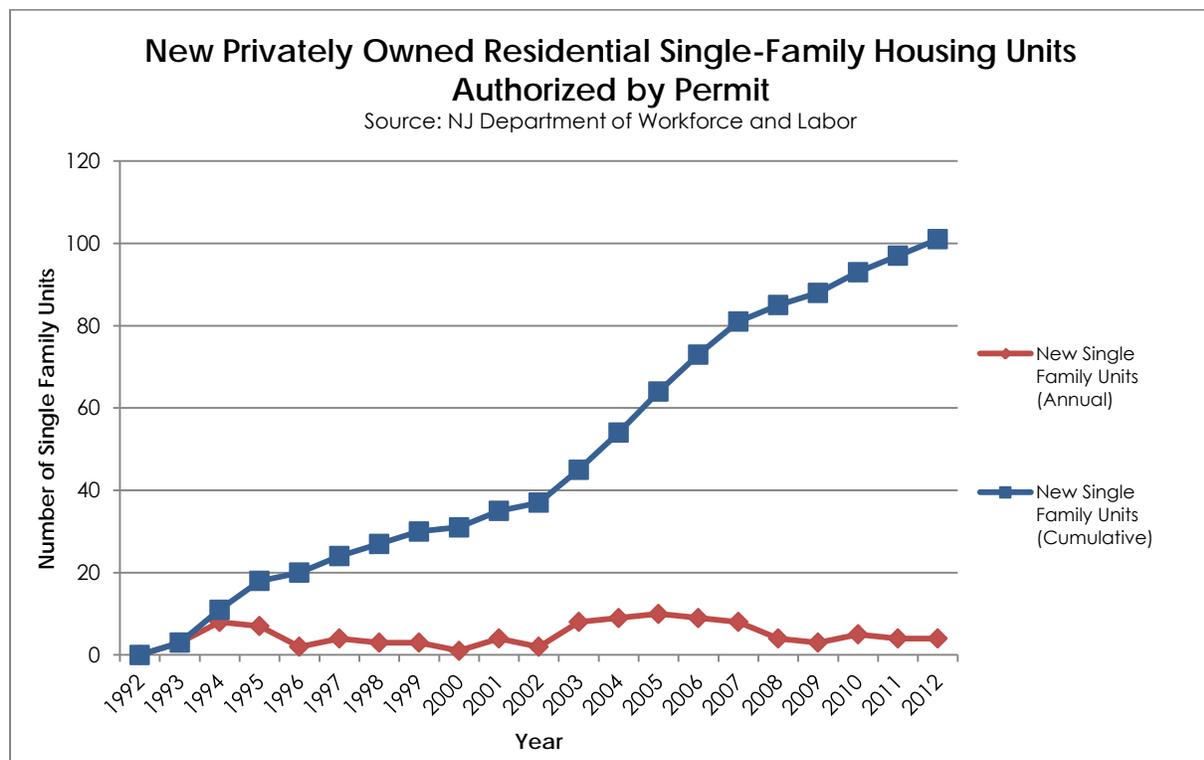
Population of Pohatcong Township		
Year	Number	Percent Change
1930	1,974	-
1940	2,029	2.8%
1950	2,540	25.2%
1960	3,543	39.5%
1970	3,924	10.8%
1980	3,856	-1.7%
1990	3,591	-6.9%
2000	3,416	-4.9%
2010	3,339	-2.3%
2040	3,640	9.0%

Source: US Census Bureau, NJTPA 2040 Plan

Building Permits

Over the past 20 years, a total of 101 new privately owned units have been authorized to be built within the Township. On average there were five (5) single-family units a year between 1992 and 2012. This contrasted to an average of only 3 units authorized to be built between 2006 and 2012. The year 2003 experienced a spike in units authorized. Between the years 2003 to 2007, 44 new single family units were authorized. It should be noted that all units authorized to be built over the past 20 years were single-family homes.

While 71 permits for new single-single family housing have been authorized since 2000, only 33 residential single or two family buildings received Certificates of Occupancy since 2000. Additionally, between 2009 and 2012, there have not been any Certificates of Occupancy issued by the Township (NJ Department of Community Affairs).



Development Pressures

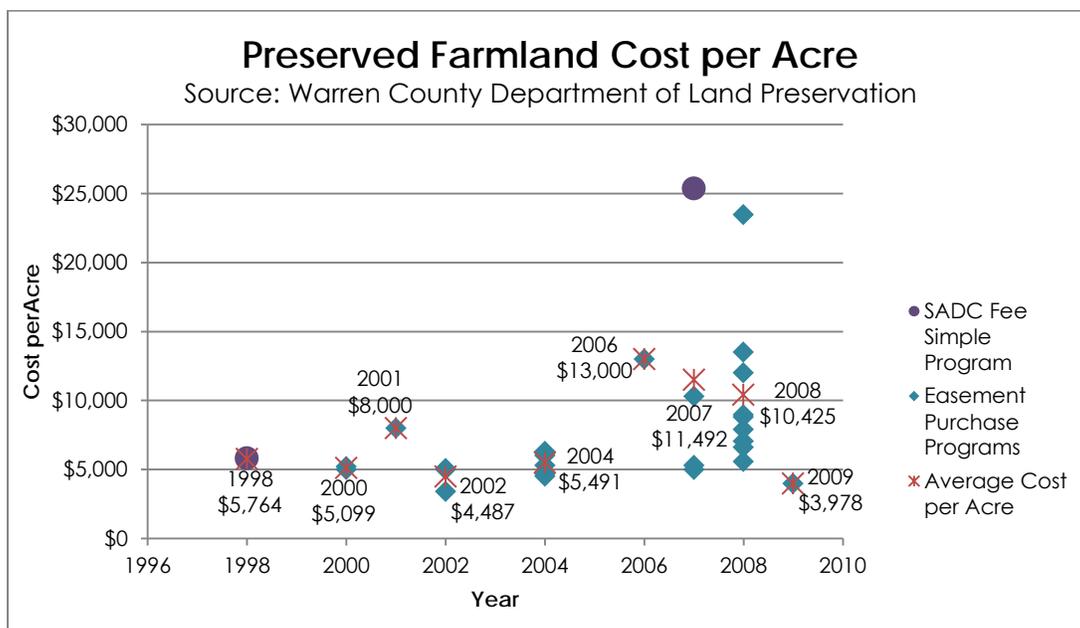
The State Plan designates portions of Phillipsburg, Pohatcong, Alpha and Greenwich as Metropolitan and Suburban Planning Areas. Because of this designation, it is likely residential development will occur within or nearby this northern area. Additionally, Interstate 78 gives opportunities for sprawl-like development to occur. Even more so, Pohatcong is within an hour and half drive to New York City.

The NJTPA completed the US Route 22 Corridor Improvement Plan in 2009, which helps to alleviate traffic and congestion within Pohatcong Township, Phillipsburg, Lopatcong Township,

Alpha Borough, and Greenwich. Route 22 runs along the northern border of Pohatcong Township and Greenwich Township. The Study states, "Route 22 splits the region, complicating north/south movement between communities on either side of the corridor. These issues combined with a constrained width, sprawling development patterns, and lack of alternate routes, present ongoing challenges to improve circulation in the region" (NJTPA Summary of Sub regional Studies FY 2008-2009). Any changes to the Route 22 corridor would affect the Township as well as increase the likelihood of development within the Township.

Land Value Trends

The cost of preserving farmland in the Township has fluctuated drastically over the past 15 years. In 1998, the cost of preserving farmland (using the SADC Fee Simple program) was \$5,794 per acre. By 2007, the value using the same program reached \$25,368 an acre. In 2000, the cost of preserving an acre by purchasing the development rights of the land was about \$5,100 per acre. In 2008, the easement purchase reached a peak of \$23,462. However, the 2008 average was much less, \$10,425 per acre, and by 2009, the cost of purchasing an easement declined to the low cost of \$3,978 per acre. It should be noted that the Average Cost per Acre shown in the chart below includes the average of all farmland preservation programs.



Public Infrastructure—Water & Sewer

According to the 2013 Township Environmental Resource Inventory, "future development within the Highlands Region at densities consistent with smart growth principles will generally require access to public water supply utilities." Pohatcong Township has 348 acres of water utility areas provided by Aqua New Jersey-Phillipsburg and about 37 acres serviced by Alpha Municipal Water Works. Pohatcong Township has domestic sewerage facilities provided by Phillipsburg STP covering approximately 345 acres. These areas are mostly found within the Planning Area of the Township (2013 Pohatcong Township ERI).

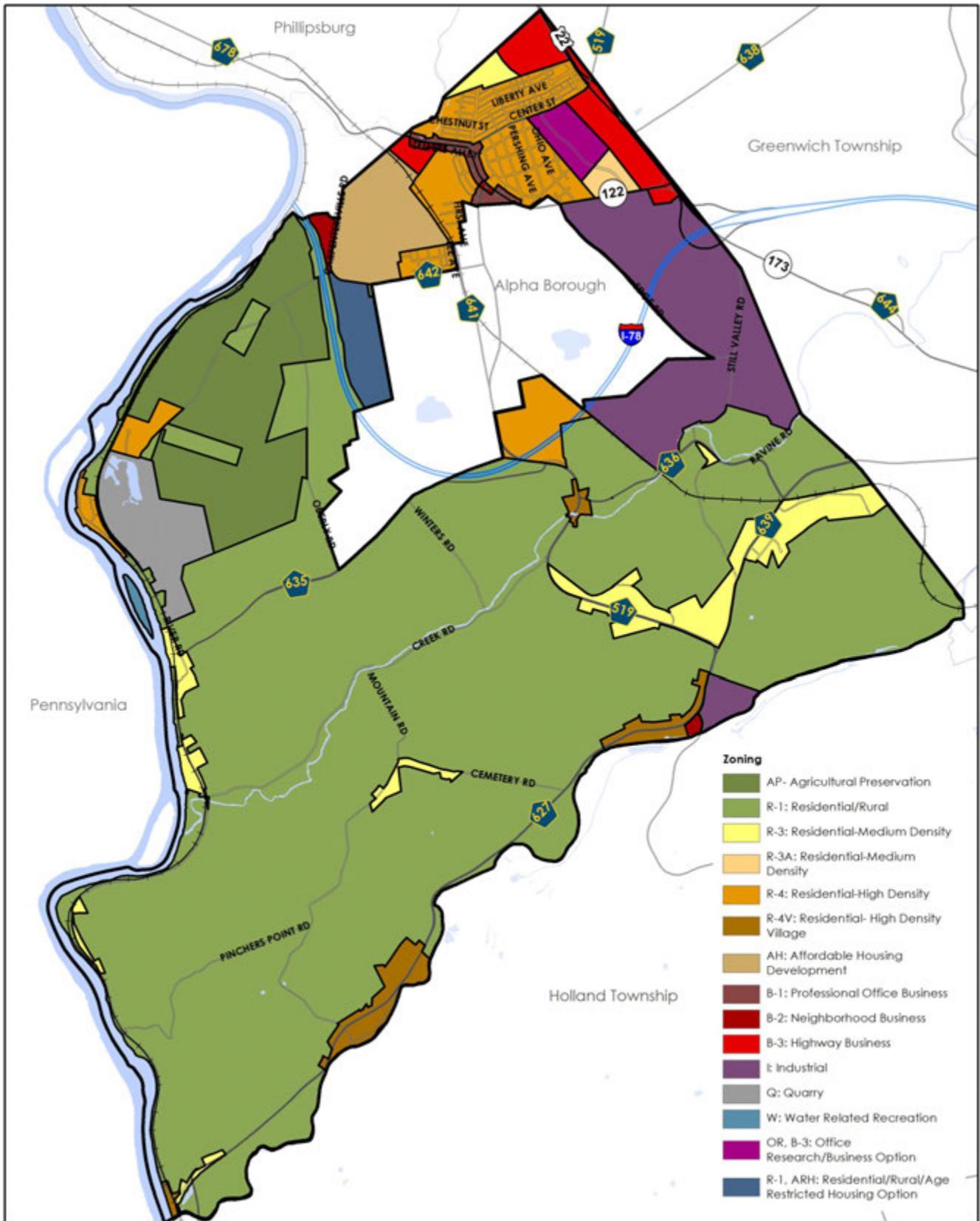
Pohatcong Township Master Plan & Zoning

The Township's 2013 Reexamination Master Plan places emphasis on preserving open spaces and agricultural lands. One of the Township's key goals is to "preserve remaining open and forested land, natural features and farms, where possible."

Farms are a permitted use in the Agricultural Preservation Zone (AP), Rural Residential Zone (R-1), Residential Zone (R-3 and R-3A), High Density Residential Zone (R-4), High Density Village Residential Zone (R-4V), Highway Business Zone (B-3), Industrial Zone (I), and the Quarry Zone (Q). These zones constitute 95% or 8,178.2 acres of the Township.

The Township's Agriculture Preservation Zone (AP Zone) recognizes the deed restricted farmland and grasslands in the northern portion of the Township. The only permitted uses in this zone are agricultural uses, farms, parks and passive recreation, and wireless communications towers and antennas.

The R-1 Zone contains the majority of the farms within the Township. Farms are a permitted principal use in addition to its accessory uses such as animal pens, farm stands, and housing for farm workers, and farm animal buildings as accessory uses. There are also several farms found in the Industrial Zone located north of I-78.



Existing Zoning

Source: NJGIN, NJOGS, NJDEP, NJDOT, Township of Pohatcong

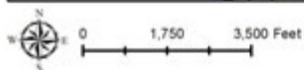
General Lot Size Categories and Distribution

Pohatcong Township has a total of 1,881 parcels according to the 2013 Tax Assessment Data. The majority of the parcels, 1,625 parcels or 86.4% of the total number of parcels, are either small (less than 1 acre) or medium (≥ 1 to ≤ 5 acres) lots. However, these lots occupy 13.2% of the total land area. Very large lots (greater than 10 acres) make up 142 parcels or 7.5% of the total number of parcels, but occupy the most land area, 6,359.6 acres or 77.2%. The General Lot Size and Distribution map shows the location of the lots according to lot size. The majority of the small lots are found in the northern portion of the Township and along the County Routes.

Parcel Distribution				
Category	Number of Parcels	Parcel Percentage	Acreage	Acreage Percentage
Small Lots (less than 1 acre)	1,279	68.0%	378.9	4.6%
Medium Lots (≥ 1 to ≤ 5 acres)	346	18.4%	709.2	8.6%
Large lots (> 5 to ≤ 10 acres)	114	6.1%	791.1	9.6%
Very large lots (greater than 10 acres)	142	7.5%	6,359.6	77.2%
Total	1,881.0	100.0%	8,238.8	100.0%

*It should be noted that 8 parcels did not have an acreage attribute listed in the tax assessment records as the tax record refers to buildings such as barns, sheds, and outdoor buildings.

Source: 2013 MOD IV Tax Assessment Data



Source: NJGIN, NJOGIS, NJDEP, NJDOT, 2013 Tax Assessment Data

General Lot Size and Distribution

Innovative Planning Techniques

The Pohatcong Township Zoning Ordinance also discusses the following planning techniques:

- Clustering

Cluster zoning provides a method of developing land that sets aside desirable open spaces, farmland, conservation area, flood plain, recreation areas and parks. Permitting the reduction of lot sizes without increasing the overall number of lots can bring about the protection to these areas. In the Township, cluster residential development can occur in the OR Zone, R-3A Zone, and the R-3 Zone.

- Lot size averaging

Lot size averaging is another method that permits subdivision of land into unequally sized lots, provided that the number of lots remains the same as would be permitted without lot averaging. The flexibility in lot size and configuration permitted with lot size averaging allows for the preservation of contiguous resources across adjacent privately owned parcels. This differs from cluster development in that cluster development results in common open space parcels. These open space parcels may be owned by a homeowners association or transferred to the municipality or a non-profit land trust. Lot size averaging is permitted in the R-1 Zone.

Buffer Requirements

The Township does not have buffer requirements in regards to agricultural uses within the Township. In fact, the Township's Right to Farm Ordinance (§1285-31) intent is to "prohibit farming from being found to be a nuisance when practiced according to customary farming practices." Because farming has existed long before the increase of residential development, the Right to Farm Ordinance allows farmers "to utilize his land and properties in such a manner as to pursue his livelihood." A copy of the Right to farm ordinance is included in the Appendix.

Transfer of Development Rights

TDR in the Highlands

The use of TDR is an important tool in achieving the Regional Master Plan's goal of protecting and enhancing the significant values of the Highlands Resources. The Highlands Council has developed the Regional Master Plan (RMP) that is as comprehensive, scientifically robust and as transparent as possible, in order to protect critical natural resources and to ensure the continued economic development opportunities in the Highlands Region. In addition to developing the Highlands TDR Program, the Highlands Act also requires the Highlands Council to:

- Identify Sending Zones and voluntary Receiving Zones; (NJSA. 13:20-13.b and c)
- Working with municipalities, identify centers designated by State Planning Commission as voluntary Receiving Zones; (NJSA. 13-20-13.f)
- Conduct a real estate analysis or model TDR ordinances (NJSA. 13:20-13.g)
- Set the initial value of a development right; (NJSA. 13:20-13.h(1)), and

- Give priority consideration to any lands that comprise a major Highlands development that would have qualified for the third exemption under the Highlands Act for the lack of a necessary State permit (NJSA. 13:20-13.h(2))

The steps taken above by the Highlands Council supports the overall program goals of TDR in the RMP. They are:

- Protection of lands that have limited or no capacity to support human development without compromising the ecological integrity of the Highlands Region, through mechanisms including a region-wide transfer of development rights program;
- Provision for compensation to landowners in the Preservation Area whose properties have limited or no capacity to support additional development and who are disproportionately burdened by the provisions of the Highlands Act through a region-wide transfer of development rights program;
- Creation of a Highlands Development Credit Bank;
- Establishment of sufficient Highlands Receiving Zones to create a positive market for Highlands Development Credits; and
- Maximization of the transfer and use of Highlands Development Credits.

One of the critical elements of the Highlands TDR program include establishing criteria for identifying sending zones where development is restricted or precluded in the Preservation or Planning Areas (Conservation Zone or Rural/Agricultural Zone with Development Restrictions) and *voluntary* receiving zones where infrastructure, low environmental constraints and base zoning are appropriate for development or redevelopment. The TDR receiving zones may be within any one of the planning areas within municipalities in the seven Highlands counties. The RMP mandates that only the parcels of land in the Protection Zone and Conservation Zone within the Preservation Area, zoned for residential use on August 9, 2004 and satisfy one (1) of the following criteria, are eligible to apply for an allocation of HDCs. The criteria are as follows:

- The parcel of land has an area of at least five (5) acres; or the area of the parcel of land is at least three (3) times the minimum lot size in effect on August 9, 2004;
- The owner voluntarily chooses not to develop a residentially-zoned, undeveloped parcel of land pursuant to one or more of the exemptions under section 28 of the Act; or
- The owner demonstrates unique and extenuating financial circumstances such as imminent bankruptcy, extraordinary medical expenses, or loss of job and inability to a secure new job within 6 months, which may only be ameliorated through an expedient sale of Highlands Development Credits.

The Highlands Act establishes a *goal* of 4% of the land area in the Planning Area as voluntary receiving zones, including redevelopment within these designated areas. It also provides enhanced planning grants to encourage a minimum residential density of 5 dwelling units per acre in voluntary TDR receiving areas. The increased residential densities are only applicable to those who adopt a TDR ordinance in compliance with the Highlands Commission.

Benefits to a municipality participating in the Voluntary TDR Receiving Zone in the Highlands are as follows:

- Charge up to \$15,000 per unit impact fee for all development within the Receiving Zones;

- Receive up to \$250,000 enhanced planning grant;
- Grants to reimburse the reasonable costs of amending municipal development regulations;
- Eligibility for legal representation as provided in Sections 13 and 22 of the Highlands Act;
- Accorded priority status for infrastructure programs;
- Ability to control design of voluntary TDR receiving area;

TDR in Pohatcong Township

As mentioned previously, the majority of Pohatcong Township is located within the Preservation Area, or sending area of TDR for the Highlands regional plan. This technique is recommended to be considered by the Township in order to protect the existing agricultural lands, the environment, and water resources within the Township. As designated by the 2001 State Development and Redevelopment Plan, the Phillipsburg-Lopatcong Metropolitan Planning Area, which includes portions of Pohatcong Township, should be considered as a sending location of development rights.

IV. Farmland Preservation Program—Overview

County Agricultural Development Areas

The Warren County Agriculture Development Board (CADB) developed the Warren County Agricultural Development Area (ADA) based upon both statutory and county criteria. An ADA is an area where the CADB has determined agriculture is the preferred use of the land and is certified by the SADC. The ADA designates land that has the potential for long-term agricultural viability. Counties must focus their preservation efforts within the borders of ADAs. This agricultural use would be the preferred, but not the exclusive, use. Overall, the ADA includes 96,547 acres of farm-assessed land in the County. The state criteria for the ADA are the following:

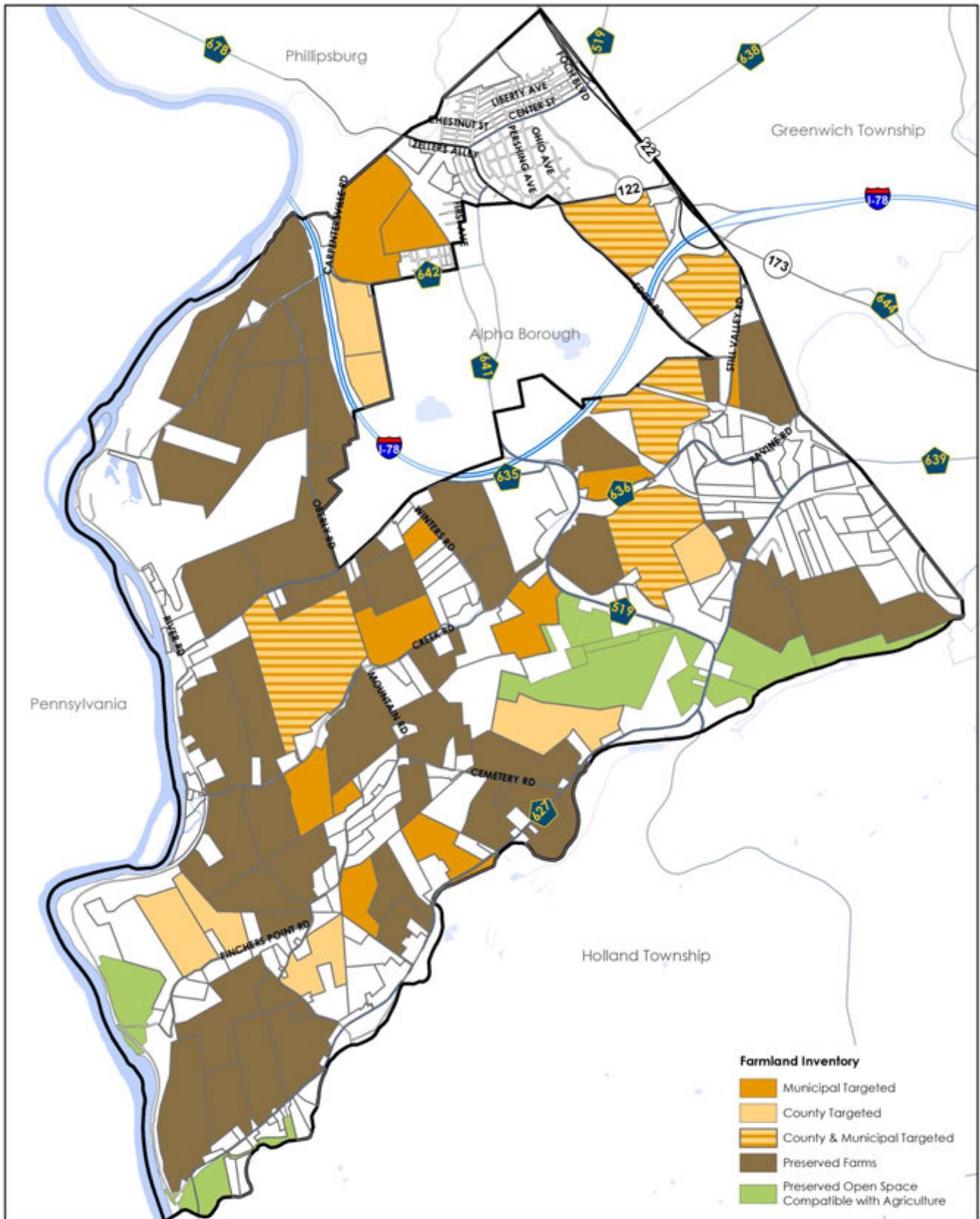
- The land must be agriculturally productive or have future production potential. Also, zoning for the land must permit agriculture or permit it as a nonconforming use.
- Suburban and/or commercial development must be reasonably non-existent in the ADA area.
- The land must comprise no greater than 90% of the agricultural land mass of the County.
- Any attributes deemed appropriate by the Board must also be incorporated.

The County supplemented the state's criteria. The County's criteria are consistent with the State's regulatory criteria for designating ADA and include the following criteria:

- Land is presently in agricultural production or has a strong potential for agricultural production or is farmland assessed through a woodland management program
- 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.

Preserved Farmland to Date

According to the Warren County Department of Land Preservation, between 1998 and 2013, 2,644 acres of farmland have been preserved at a total value of \$17,855,206. Nearly two-thirds (\$11.7 million or 65.7%) of this funding came from the State, approximately \$2.98 million or 16.7% came from County funding, 13.8% or \$2.46 million came from the Township, and 1.1% or \$200,000 from other sources. The United State Department of Agriculture grant supplied \$200,000. The Preserved and Targeted Farmland Map shows the properties which are preserved, targeted and other properties which have been preserved through the New Jersey Department of Environmental Protection, Warren County Board of Chosen Freeholders, or other non-profit groups that are compatible with agriculture. The majority of the targeted farms are found along Interstate 78. The Warren County Department of Land Preservation has compiled a list of properties to target (See Appendix).



Preserved & Targeted Farmland

Source: NJGIN, NJOGS, Warren County Department of Agriculture

New Jersey State Agricultural Development Committee

The New Jersey Farmland Preservation Program was established by the Agricultural Retention Act of 1983, and is administered by the SADC and the County Agriculture Development Boards.

State Acquisition Program

The SADC purchases development rights or farmland outright for preservation purposes under its state acquisition program using the SADC Direct Easement Purchase program or SADC Fee Simple program, respectively. Landowners can either sell the development rights to their land continuing to own and farm the land; or sell their land outright. In both cases, the land is permanently deed-restricted for agricultural use. When the SADC purchases farms outright, it resells them at public auction as permanently preserved farms.

This program seeks to preserve priority farms that are strategically located in each county. Priority farms are those that meet or exceed the county average in size and quality score. The minimum acreage requirement for qualifying as a priority farm in Warren County is 72 acres. Quality scores are determined based on a number of factors, including soil quality, proportion of tillable acres, proximity to other preserved farms and local support for agriculture. Applications for farms not meeting these criteria still will be accepted and considered for approval on a case-by-case basis. The entire process – from application to closing – can be completed in about 12 to 18 months provided there are no major complications associated with survey, title or related issues.

County Easement Purchase

Landowners sell the development rights on their farmland to their county. When landowners sell their development rights — also known as development easements — they retain ownership of their land, but agree to permanent deed restrictions that allow only agricultural use.

The State Agriculture Development Committee (SADC) provides counties with grants to fund 60-80 percent of the costs of purchasing development rights on approved farms. It generally holds one funding round per year for this program.

Farms must be in an Agricultural Development Area and be eligible for Farmland Assessment. The SADC prioritizes applications for preservation funding through a ranking system that assigns points for the following factors: percentage of high-quality soils; percentage of tillable acres; suitable boundaries and buffers, such as other nearby preserved farms and open space; the local commitment to agriculture (e.g., right to farm ordinances, financial commitment); size of the farm and agricultural density of the area; imminence of development, and prioritization by the CADB. These quality scores establish the SADC's preliminary priority list for preservation.

Grants to Non-Profits

The SADC provides grants to nonprofit organizations to fund up to 50 percent of the fee simple or development easement values on farms to ensure their permanent preservation.

Nonprofit organizations should apply to the SADC. Notice of available funds will be published in the *New Jersey Register*. Applications must be submitted within 90 days of that notice. Nonprofit groups also must publish a notice that an application has been filed and notify the municipality and county agriculture development board.

The SADC reviews and ranks applications based on the following criteria: percentage of high-quality soils; percentage of tillable acres; suitable boundaries and buffers, such as other nearby preserved farms and open space; the local commitment to agriculture (e.g., right to farm ordinances, community financial support); size of the farm; agricultural density of the area, and imminence of development.

Eight-year Farmland Preservation Program

Farmland owners agree to voluntarily restrict nonagricultural development for a period of eight years in exchange for certain benefits. There are two types of eight-year programs: municipally approved programs, which require a formal agreement among the landowner, county and municipality, and non-municipally approved programs, which require an agreement between only the landowner and county. Land must be located in an Agricultural Development Area, be eligible for Farmland Assessment and meet local and/or county program criteria.

Landowners enrolled in both municipally and non-municipally approved programs receive no direct compensation for participating but are eligible to apply to the State Agriculture Development Committee (SADC) for grants that fund up to 50 percent of the costs of approved soil and water conservation projects. Additionally, those in municipally approved programs enjoy greater protections from nuisance complaints, emergency fuel and water rationing, zoning changes and eminent domain actions.

Planning Incentive Grants (PIG)

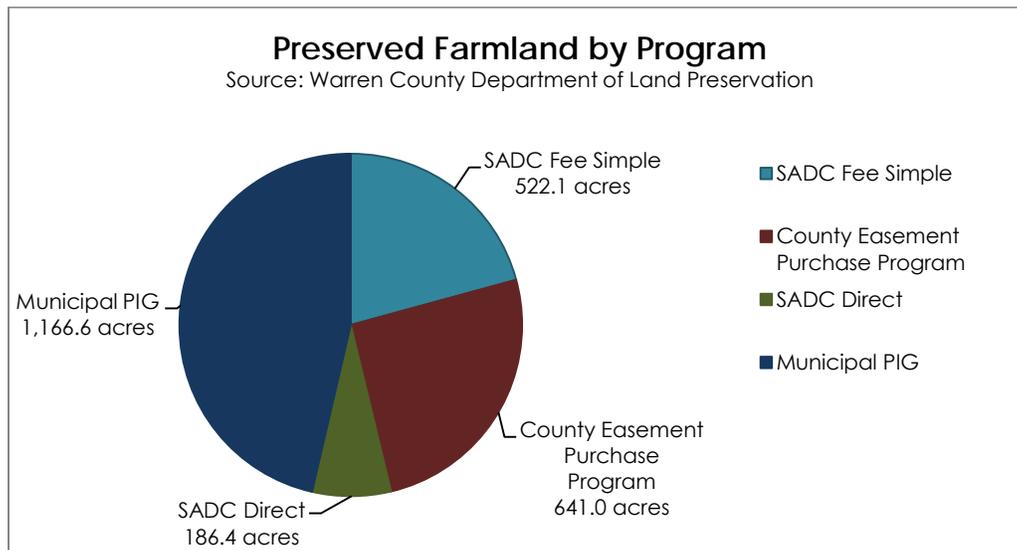
The SADC provides Planning Incentive Grants (PIG) to municipalities or counties for the purchase of development easements to permanently protect large blocks of reasonably contiguous farmland in project areas they have identified. It should be noted that the SADC has been transitioning its funding emphasis from the County Easement Purchasing Program to the County PIG Programs.

The SADC requires that any Municipality participating in the Municipal PIG Program provide the SADC with an annual list of targeted, project area farms. As part of the annual PIG application process, PIG Municipalities must identify farms for which applications may be solicited. These annual target farms must be pre-identified in order to participate in the PIG program.

Once Plan Approval has been obtained, the applicant can seek SADC approval to proceed on an individual "Application for the Sale of a Development Easement," or "Project Approval." This SADC review and approval ensures the project application meets the new minimum criteria, that exception areas and subdivision requests comply with SADC standards and that whatever appraisal anomalies may be present (easements, limited access, etc.) are understood fully prior to commencing appraisals (see NJAC 2:76-17.9 or 17A.9). This process can informally be referred to as the SADC issuing a "green light" approval because the county or municipality receives a "green light" from the SADC to proceed on appraisals.

Under the new rules, once an individual farm project receives a "green light" approval, the county/municipality then conducts the appraisals and submits those appraisals for SADC certification. Once the SADC certifies a value, an offer is made to the landowner and, if that offer is accepted, the county and/or municipality will grant the project final review/approval and request Final SADC Approval.

Farmland Preservation Funding



The chart titled "Preserved Farmland by Program" shows the comparison between preservation program and acreage. As shown, the Municipal Planned Incentive Grant Program (MUN PIG) represents 46.4% of the total acreage preserved. Additionally, the County Easement Purchase Program represents 25.5% of the acreage.

To date, the Township has spent \$2,455,406 on farmland preservation. With the exception of the Corestates/Blazing Star Realty Property, the Township has contributed funding to farms preserved only through the Municipal Planning Incentive Grant Program (Municipal PIG).

A complete inventory of the all preserved farms can be found in the Appendix.

Consistency with SADC Strategic Targeting Project

Pohatcong Township is in compliance with the SADC Strategic Targeting Project. The Strategic Targeting Project views the Prime and Statewide Soils in agricultural use outside Sewer Service Areas as the highest priority for farmland preservation investments, followed by farmland comprised of other soils outside Sewer Service Areas. The next level of priority would be extended to Prime and Statewide Soils in farm production in Future Sewer Service Areas, followed by Other Soils in active agricultural use in Future Sewer Service Areas. Pohatcong Township has targeted its farmland preservation efforts in project areas that are consistent with this priority ranking.

Coordination with Municipal and County Open Space Initiatives

Farmland preservation can often be included in larger open space preservation initiatives. It is important to note that farmland preservation is often included in open space planning and preservation programs, but it is not the same. Farmland preservation plans often have a different set of stakeholders, with a different set of goals and objectives than other open space preservation advocates. Active farmland under cultivation or pasturing is a very different land use than active or passive open space. Also, farmland has much different public access issues and farmland preservation funding comes from different funding sources. Oftentimes, however,

many of the benefits of farmland preservation are the same benefits as open space protection, such as aesthetic value, ecological function, cultural identity, ground water recharge, wildlife habitat.

That being said, it can be beneficial to compare farmland preservation and open space preservation goals and targets in tandem. The preservation of farmland and open space can be considered the preservation of "green infrastructure" and the preservation of open space alongside farmland to help prevent the negative interactions with residential development and the preservation of ground water and tillable soils.

The "Garden State Greenways" initiative is an interesting, statewide open space planning tool that incorporates active farmland into its analysis. Many of the areas identified as either "hubs" or "connectors" in its statewide analysis are the same areas identified as the three project areas of this farmland preservation plan.

Farmland Preservation Program Expended to Date by Source

Township of Pohatcong Open Space/Farmland Trust Fund

Adopted in 1999, the purpose of the Pohatcong Open Space/Farmland Trust Fund is to:

- Acquire lands/properties within the Township for open space
- Assist in the preservation of farmland within the Township wherein there is a funding necessity
- Provide funding for the payment of debt service related to appropriations in the above.

The Trust Fund relies upon an annual rate set forth by the Township Council, not to exceed \$0.05 per \$100 of ratables, for each and every taxable property within the Township. According to the Township's 2012 budget, \$173,800 was collected in 2011; 2012 estimated approximately \$172,172 to be collected. This trust fund helps to preserve both farmland and open space within the Township as deemed necessary by the Township Council.

Warren County Open Space Trust Fund

In 1993, a non-binding public referendum was passed by Warren County voters to allow an additional tax of up to 2 cents per \$100 of assessed valuation for the purpose of acquiring areas of scenic and environmental value throughout the County. Since then, the *Warren County Open Space Trust Fund* has been used to buy county and municipal parkland, protect historic features and permanently retire the development rights on prime farmland. In November 1999 and again in November 2002, county voters approved non-binding open space referendums by large margins, each time recommending an increase in the open space tax of another 2 cents per \$100 of assessed property value. In 2006, the six cents open space tax raised a total of \$6,916,000.

In 2013, this tax was reduced by about 25% from 6 cents per \$100 assessed value to 4 cents per \$100 assessed value. Previously, the trust fund collected approximately \$7 million dollars annually, and now collects approximately \$5 million annually. Of this \$5 million, about \$2.5 million or 55% of the trust fund is allocated for farmland preservation, 25% of the trust fund is allocated to Municipal and Charitable Conservancy Trust Fund Committee and the remaining 20% is allocated to the Board of Recreation Commissioners.

Monitoring of Preserved Farmland

The holder of the deed of easement is responsible for annual monitoring of preserved farms. The SADC is responsible for the monitoring of farms preserved through the Direct Easement and Fee Simple Programs, as well as any Municipal PIG preserved farms if the County is not a funding partner. The Township and AAB would notify the appropriate agency if violations were suspected.

Coordination with TDR Programs

As explained in the previous section of this Plan, Transfer of Development Rights is a tool used to preserve open space and agricultural lands (sending areas) to protect environmental resources while targeting growth in developed areas (receiving areas). At this time, the Township has not adopted a TDR program. Pohatcong Township should consider using TDR as a tool in preserving its open space and farmland as part of the Highlands Regional TDR Program.

V. Future Farmland Preservation

The types of agriculture and traditional practices utilized by agriculture in the county are changing. Farming will continue to offer opportunities for direct marketing and value-added agriculture such as fruits, vegetables, vineyards, nursery plants and tree farms in adjacent urban areas if these areas can be maintained as agricultural lands.

Private and public sector cooperation will be needed to curb activities that negatively impact agriculture in the County to ensure farming remains a viable economic activity. Just as important as remaining economically viable, the rights of the agricultural sector and individuals who chose to establish residences and/or commercial enterprises in a predominantly agricultural area must be balanced.

Areas of agricultural activity that currently exist on prime farmland which are viable due to microclimates or are concentrated in a certain geographical area, should be considered for protection. No single program or tool may achieve farmland protection goals in the County. A protection program should be in accord with the desires of the community and its landowners, the status of farming in the area, and a clear strategy on which farmlands to preserve and how to do so. Farmland preservation should be focused not simply on saving land from development, but ensuring that agriculture is a profitable venture that enhances the local economic base.

Preservation Goals

According to the 2012 New Jersey Farmland Assessment data, 5,539 acres of the Township was agricultural land, representing 65.3% of the total land area in the Township. Since 1998, 2,787.9 acres of agricultural land has been preserved.

The 2008 Farmland Preservation Plan notes the following preservation goals:

One Year Target:	1,014.8 acres
Five Year Target:	748.132 acres
Ten Year Target:	192.34 acres

These targets were compiled using acreages from existing farms.

Since 2008, the Township has preserved 652.25 acres of farmland, which is less than the total acreage planned for its 1 year acreage target.

Project Area Summaries

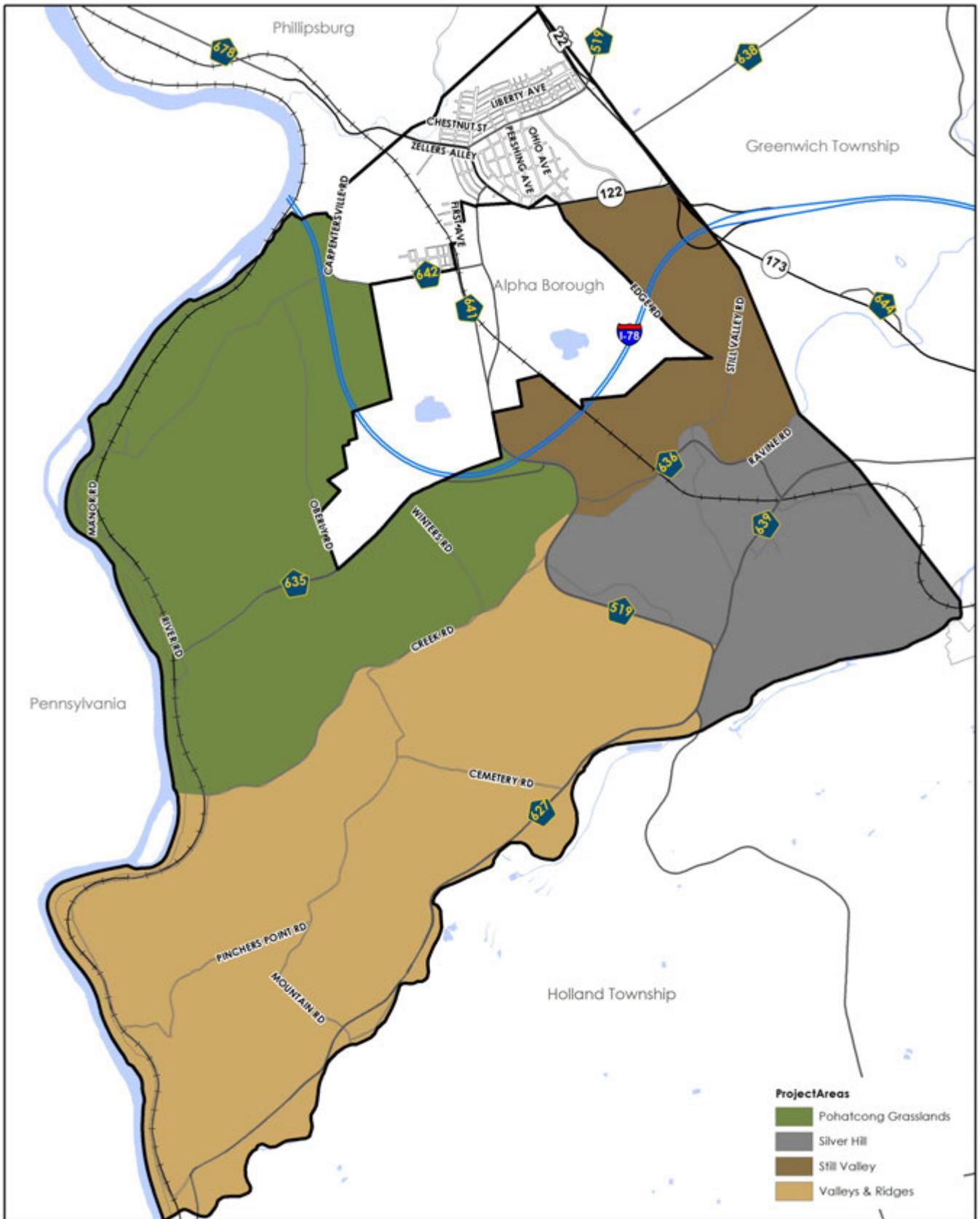
In the 2008 Farmland Preservation Plan, there were four (4) Agricultural Development Areas: the Pohatcong Grasslands ADA, Valleys and Ridge ADA, Still Valley ADA, and Silver Hill ADA. All four ADAs are included within the Warren County Agriculture Development Area South. These are the following:

The Pohatcong Grasslands ADA is located to the northwest of the Pohatcong Creek and extends to the Township's border along the Delaware River. The total agriculture area of this ADA is 1,816 acres.

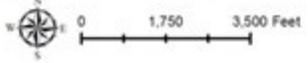
The Valleys and Ridge ADA is located to the northwest of the Musconetcong River southeast of the Pohatcong Creek. The Valleys and Ridge ADA boundaries are the Pohatcong Creek and the Musconetcong River and it includes the Pohatcong Ridge, between the creek and river. The total agriculture area of this ADA is 2,171 acres.

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. The total agriculture area of this ADA is 561 acres.

The Silver Hill ADA is located to the south of Pohatcong Creek and extends to the border of Warren and Hunterdon Counties. The total agriculture area of this ADA is 758 acres.



Project Areas



Source: NJGIN, NJOGIS, NJDEP, NJGIN, 2008 Pohatcong Farmland Preservation Plan

The following chart shows the Total, Unpreserved, and Preserved Qualified Farms (QFarms) in each of the Project Areas.

Project Area	Total QFarm Parcels		Unpreserved QFarm Parcels		Preserved QFarm Parcels	
	# of Parcels	Acreage	# of Parcels	Acreage	# of Parcels	Acreage
Pohatcong Grasslands	51	1,840.3	30	623.6	21	1,216.7
Silver Hill	35	772.5	30	477.9	5	294.6
Still Valley	20	542.3	18	455.4	2	86.9
Valley & Ridges	84	2,185.7	62	1,150.8	22	1,034.9

Source: 2013 Tax Assessment Data, NJGIN Statewide Composite Parcel Data for GIS

Municipal and County Minimum Eligibility Criteria Coordination

Pohatcong Township uses the same minimum eligibility criteria as Warren County. The following Township criteria are an excerpt from the 2008 Warren County Comprehensive Farmland Preservation Plan. These criteria are required in order to acquire state funding.

Minimum Eligibility Criteria are based upon the SADC 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

- 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.

Municipal and County Ranking Criteria Used to Prioritize Farms

Warren County Ranking Criteria

The County Agricultural Development Board (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 *Appendices* of both the Warren County and this Township Comprehensive Farmland Preservation Plans) 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

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. The ranking process and policies for the CADB and SADC are formulated through SADC ranking policy P-14E.

Utilizing the criteria in N.J.A.C. 2:76-6.16 individual applications will be ranked in order of highest to lowest statewide by the State Agriculture Development Committee. This ranking will be based on a numeric score, hereafter referred to as the "quality score" which evaluates the degree to which the purchase would encourage the survivability of the municipally approved program in productive agriculture and the degree of imminence of change of the land from productive agriculture to a nonagricultural use. The Relative Best Buy criterion will also be used as a factor to determine which applications will receive a higher funding priority. Although this policy contains the procedure for ranking project areas, the Committee will only utilize the criteria that pertains to ranking "individual" applications to determine the applicant's quality score.

The factors used to determine the degree to which the purchase would encourage the "survivability of the municipally approved program, in productive agriculture" and "degree of imminence of change of the land from productive agriculture to a nonagricultural use," will be evaluated at least 30 days prior to the Committee's certification of a development easement value.

The "relative best buy formula" to determine the applicant's formula index will be calculated at the time of the Committee's final review. The formula index will be factored with the applicant's quality score to establish the applicant's final score. The application will be ranked by the Committee from the highest to lowest to determine a funding priority subject to available funds.

The general philosophy will be to acquire development easements on "key" farms which result in a stabilization of agriculture in that project area or act as a catalyst to encourage future program participation in the project area.

Under the County ranking process, 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. At the Warren CADB meeting, all farms that have applied are evaluated and the farms will be submitted in the order of ranking until SADC funding is exhausted. At that point, eligible farms will be submitted for the "competitive" round.

It is recommended the Township use of the Warren CADB ranking sheet in evaluating future farmland for preservation; the Targeted Farms mentioned in this Plan are the farms targeted by the Warren County Department of Land Preservation. Similarly, the Township should follow the County process outlined above; after reviewing all farm applications, the farms will be submitted in the order of ranking until SADC funding is exhausted.

It should be noted that the Township can proceed without State funding on projects that do not meet these Minimum Eligibility Standards. However, The Township Farmland/Open Space Preservation Committee should work closely with the Warren CADB to review and process all applications for farmland preservation. The Farmland/Open Space Committee will follow all County and State procedures to ensure consistency.

Municipal and County Policies Related to Farmland Preservation Applications

Pohatcong Township largely follows the Warren CADB and SADC policies regarding housing opportunities, division of premises and exception areas. Below is a brief summary of the State policies for each of these issues:

Agricultural Labor Housing

Agricultural labor housing is not currently protected under the Right to Farm Act in the State of New Jersey. The New Jersey Farm Bureau Policies, adopted on November 19, 2013, encourages the SADC to include agricultural labor housing to the State's Right to Farm Policy. Agricultural labor housing applications are reviewed by the State Agricultural Development Committee and the County Agricultural Development Board. The Warren CADB supports and provides consistency with SADC policies in all cases, but also takes note of and addresses the unique conditions of each application as it is submitted.

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. This is supported by the Warren CADB.

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... The resident of the dwelling must be regularly engaged in common farm site activities on the premises" (*SADC Appraiser Handbook 2013*).

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." The Farmland/Open Space Committee for the Township and the Warren CADB support this.

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. This request must be approved in writing by both the State Agricultural Development Committee and the CADB. Pohatcong Township agrees with the concepts and policies embodied in the SADC. Pohatcong permits the subdivision of premises in accordance with SADC and Warren CADB policies.

Approval of Exceptions

Exceptions are defined by the SADC as "acres within a farm being preserved" which are "not subject to the terms of the deed of easement." When an exception is made, the landowner does not receive any compensation in the excepted area. 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." (*NJ Farmland Preservation Program Appraiser Handbook 2013*) 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." (*NJ Farmland Preservation Program Appraiser Handbook 2013*) Unlike a severable exception, a non-severable exception is "always attached to the protected farm."

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

The Warren CADB reviews requested exceptions with the applicant to determine the advisability of the need and type of exception at issue. This is evaluated on a case by case basis taking into consideration the conditions that are unique to each applicant. The Township and Warren CADB are willing to work with applicants to minimize the impact of exceptions on agricultural operations.

Funding Plan

Description of Municipal Funding Sources

Pohatcong Farmland Preservation Trust Fund

Pohatcong Township has a Farmland Preservation Trust Fund in which no more than five cents (\$0.05) per one hundred dollars (\$100) of assessed property value is contributed annually. In 2010 and 2011, the Open Space Tax reached the maximum value of \$0.05 per \$100 of assessed property. The 2013 Certified Tax Rate has the Municipal Open Space rounded rate as \$0.049. The Fund generated approximately \$180,295 at the end of 2013 and currently has a balance of \$279,386 as of May 31, 2014. It is important to note that the Open Space Trust pays annual debt. In 2013, the annual debt paid by the Open Space Trust was approximately \$156,500.

Description of County Funding Sources

Warren County Open Space Trust Fund

The Warren County Open Space Trust Fund was initially established in January 1995 and set at two cents. It was subsequently increased in 1999 and again in 2003. The Trust Fund was recently reduced about 25% from six cents to 4.5 cents per \$100 assessed value. In 2007, the six cent tax generated approximately \$7,800,000 for farmland, open space, and historic preservation, where as in 2013, the Open Space Trust Fund only collected about \$5,000,000 annually or about a 25% decrease. Of the \$5 million, approximately \$2.5 million is available for farmland preservation. This represents 55% of the trust funds after debt and administrative costs. The remaining funds are allocated to the Municipal and Charitable Trust Fund Committee (25%) and the Board of Recreation Commissioners (20%).

Financial Policies Related to Cost-Share Requirements

The SADC's "Sliding scale" is used to determine the percentage of State cost share based on the value of a proposed preservation easement. The scale caps the State's share at 80% of the Committee's certified market value of the development easement or the board and/or county's purchase price of the development easement, whichever is lower. The low end share is for land values greater than \$115,000, \$57,500 plus 10% of the value above \$115,000 can be provided. 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.

Additionally, the CADB supports donation and bargain sales and installment purchases to help leverage the limited funding. Each of these is briefly described below:

Donation and Bargain Sales

Through this mechanism, the land owner may donate all, or a portion of the development rights to the property when the easement is sold. In return, the land owner can receive significant income and estate tax benefits. However, it is recommended the land owner consult with an attorney, accountant, or a financial planner.

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. While the County and Township support the concept of installment purchase agreements, it has not been generally accepted by applicants.

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

It is recommended the Township adopt different 1, 5 and 10 year farmland preservation goals. It is suggested the Township use the current average open space tax levy of \$178,800 per year over the next 10 years to calculate the future spending plan. Additionally, the current balance of the Open Space Trust fund is \$279,386. If \$178,800 is accrued annually over the next 10 years, the Township Open Space Trust Fund will have a balance of \$2,037,386 inclusive of debt service payments by the end of 2024.

Since 2007, the average cost of preserving farmland per acre within the Township is \$7,900. This average excludes the cost per acre averages between 1998 through 2006 in addition to farms preserved through the SADC Fee Simple Program and the Frey #4 farm, which may cause error in developing future projections.

If the Township were to single-handedly preserve farmland, using the average cost per farm and the predicted 2024 Township Open Space Trust fund balance of \$2.0 million, approximately 258 acres of farmland would be preserved. However, this does not account for State and/or County funding.

Since 2007, the Township has participated in the farmland preservation process thirteen (13) times. During those thirteen (13) instances, the Township supplied 20.5% (or \$1.6 million) of the total funding. The County has participated in the farmland preservation process thirteen (13) times within the Township, providing approximately 12.3% (or \$979,000) of the total funding. The State has participated in the farmland preservation process fourteen (14) times within the Township providing an average of 67.1% (or \$7.9 million) of the funding.

Using the above data, the 1, 5, and 10 year goals can be calculated assuming that over the next 10 years, assuming the State can provide \$7.9 million (approximately 1,000 acres), the County can provide \$1.0 million (126 acres), and the Township uses the predicted balance of \$2.0 million (258 acres), in addition to the average cost per acre remaining consistent. This would give a total of \$10.9 million available towards farmland preservation, resulting in approximately 1,380 acres preserved.

It is recommended the Township adopt the following 10 year funding plan:

- One Year Target: 100 acres
- Five Year Target: 500 acres
- Ten Year Target: 1,000 acres

The Township should focus its attention on the farms that are listed as "Targeted Farms". The table below shows the targeted farms by project area in Pohatcong Township.

Pohatcong Grasslands-- Targeted Farms			
Block	Lot	Owner	Acres
93	4 & 5	EAI Investments, LLC	168.3
98	15	Hartung, Florence P/Trust	14.83
98	21	Wallace, Rober Lee & Linda K	65.83
98	23	Homa Farms	222
Total Acreage			471.0

Valley & Ridges-- Targeted Farms			
Block	Lot	Owner	Acres
110	9	Koerner, Frederick, J. III & Norene	44.0
110	20	Jabubowsky, John J.	38.9
111	3	Homa Farms	52.5
111	11	Lathrop, Mark S & Melissa J	10.0
117	13	Koerner, Frederick, J. III & Norene	5.3
109	8	Kern, Jerry W & Sandra J	61.0
Total Acreage			211.7

Still Valley-- Targeted Farms			
Block	Lot	Owner	Acres
78	1	Warren Business Park C/O Kaiserman	103.6
78	5.02	Russell & Margaret Cole	76.1
101	4	Homa, John A. & Rosemarie	28.5
101	13, 15	Chambers Roy	88.8
102	3	David Slack	9.67
Total Acreage			306.7

Silver Hill-- Targeted Farms			
Block	Lot	Owner	Acres
107	2	Mrs. Jos Moyer Sr. Estate	127.0
Total Acreage			127.0

Source: Warren County Department of Land Preservation

Administrative Resources

The Township of Pohatcong has municipal staff, consultant resources, and legal support to assist with the preservation of farmland. It is recommended the Township continue to contract

consultants who are capable of developing databases and geographic information systems data pertaining to farmland preservation.

Factors Limiting Farmland Preservation Implementation

Funding/Projected Costs

County funding and local funding will always be the most important limiting factors in the preservation of farmland in the Township. Competition for county funding is high and soils and other ranking criteria do not favor many farms within the Township. Due to recent cuts in the County Trust Fund, competition for the funds is at an even higher stake. Local funding is somewhat limited and one needs to recognize that the Township has neither a large tax base nor population. More funds will be needed as land values continue to increase. Additionally, in 2013, the Township used about 75% of its Open Space Trust allotment to pay annual debt.

Landowner Interest

A greater factor limiting preservation will be landowner interest, attitudes toward government sponsored programs, time factors associated with preserving farms, prices paid for easements, restrictive covenants in the agreements and long term funding at the State level. It is recommended the Farmland Preservation/Open Space Committee reach out to the local farmers to continue to receive support in the farmland preservation program, rather than selling the land to developers.

Cost of Community Services

Costs of Community Services (COCS) are studies that help local decision makers evaluate the fiscal impacts and contributions of existing local land uses. COCS studies are a form of fiscal impact analysis that evaluates costs versus revenues for each type of land use to understand the relationships between residential and commercial growth, agricultural land use, and their cost impacts on community services. A new house on a formerly vacant property will typically generate more total revenue than agricultural production lands; however this does not provide insight into cost impacts on community services. Agricultural production lands may generate less revenue than residential, commercial or industrial properties, but they require little public infrastructure and few services.

COCS studies conducted in Monmouth County, New Jersey by the American Farmland Trust in 1998 have shown that agricultural lands generate more public revenues than they receive back in public services. Their impact on community coffers is similar to that of other commercial and industrial land uses.

VI. Economic Development

Consistency with NJ Department of Agriculture Economic Strategies and Other Regional Plans/Initiatives

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 2011 support the promotion of Jersey products through a variety of markets and mechanisms. 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's economic development philosophy is consistent with the NJDA, encouraging farmers to seek new local, state and intra-state markets to strengthen market share. Pohatcong Township agrees with this philosophy, particularly as it relates to products and crops in which Pohatcong maintains a strategic advantage. The following is a brief discussion of some sectors of Pohatcong Township's and Warren County's agriculture industry as they relate to the 2011 "*Economics Development Strategies*" report.

Nursery, Greenhouses, Floriculture and Sod

Nursery, greenhouses, floriculture and sod are important agricultural commodities in Warren County. This agricultural sector accounted for total sales of \$91.2 million, or 59.9% of total sales in the County (2012 Agricultural Census). Whereas other 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:

- Ensure plant health
 - Continue inspections for harmful pests and disease and seeking ways to increase use of new methods of pest control
 - Inspect and certify disease-free nurseries and conduct seed certification to ensure high quality turf grass seed for sod growers
 - Encourage the NJ Agricultural Experiment Station to continue its research in identifying new strategies of agricultural products resistant to pests, diseases and new plant introductions
- Increase consumer awareness
 - Strengthen the *Jersey Grown* brand name to enable the industry to benefit from a common trademark identifying locally produced horticultural products
- Improve State and Public contract requirements
 - Continue to work with government agencies such as the National Resource Conservation Services, the Department of Transportation, and the Department of Environmental Protection to use New Jersey produced products whenever possible.

Dairy

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 2009 this quantity had fallen to 34.1 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 2007. 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. It should be noted that neither the 2007 nor the 2012 Agricultural Census will release data regarding the sale of dairy products within Warren County.

The number of dairy cattle within the Township has declined consistently since 1985, falling at a rate faster than the County. Yet, due to the Township's focus on encouraging livestock production as a market for hay production, economic development within the dairy industry remains important.

- Evaluate Legislation and Regulation
- Increase Demand for Milk
 - Support the distribution of milk and milk products as "Jersey Fresh", "Made with Premium Jersey Fresh Milk", and "Jersey Fresh Milk" and integrate the sale and promotion of Jersey Fresh dairy products at community and retail markets throughout the State
 - Promote the nutritional benefits of drinking milk at a young age in conjunction with the "Eat Right, Move More" initiative
- Ensure Quality Production and Food Safety
 - Reorganize and redefine the Garden State Dairy Alliance so that it is better able to assist in the support of the dairy industry with technical assistance and to coordinate multi-disciplinary team of state and federal partners to cooperatively address issues related to risk management, animal health, milk quality, nutrient management, bio security and dairy industry development

Field Crops

Corn for grain has historically been the dominant field crop in Warren County. In 2012 over 21,400 acres of agricultural lands in the County were tilled for corn resulting in the production of 2.34 million bushels (2012 New Jersey Farmland Assessment). In 2012, sales figures of corn were slightly over \$15.4 million (Agriculture Census). 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.

Corn production plays a large role in Pohatcong Township. In 2012, Corn for grain accounted for 57.8% of the Township's field crop acreage. Corn production and its economic development are pivotal for Pohatcong.

Hay accounts for a small but significant portion of the County's agriculture sales. In 2008, approximately 30,030 tons of hay (all types) were produced. However, these totals are only slightly higher than the lowest ever recorded for the County. In 2007, only 24,820 tons were produced. 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

Based on the 2012 Farmland Assessment, the majority of hay acres in the County were for "other hay." Within this hay production subset, the Township plays a key role as over 1,100 acres used for hay production are located within the Township. Therefore the Township is very receptive and interested in furthering the economic development policies of the County to expand markets and support livestock production to ensure large markets for the Township's hay crop.

Soybean production is another key crop in the Township. In 2012, soybean production covered 865 acres or 27.4% of the total land area, making it a key field crop within the Township.

According to the 2011 New Jersey State Agricultural Convention, the following economic strategies can be implemented and encouraged in regards to field crops:

- Ensure plant health by the implementation of the Mexican Bean Beetle parasite program, soybean rust monitoring surveys, and the release of beneficial insects to control tarnished plant bug and mile a minute weed, in addition working with the National Resource Conservation Service and the Rutgers Cooperative Extension.
- Support organic field crop production to increase value of the crops and linking growers with organic food processors, retailers, animal feed suppliers, and all other handlers
- Support plans for green energy initiative such as bio-fuel plants and related bio-fuel businesses which could elevate the price of regionally produced grain or other agricultural products.

Livestock and Poultry

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 1,402 head and 128 farms in 2012. Sales of non-dairy cattle exceeded \$1.25 million in 1997, when the number of non-dairy cattle was 5,700. The 2012 Agriculture Census notes the sale of non-dairy cattle and their products reached \$1.03 million.

Poultry, which includes egg production, meat chickens, turkeys and ducks, is another large livestock industry in Warren County. In 2012, there were 127 farms which produced any type of poultry and/or eggs in the County. These products make up \$36.5 million in sales. Hog and sheep farms constitute a relatively small sector of the Warren County agriculture landscape. In 2007, hog farm operations earned \$90,000 with 631 hogs on 34 farms. By 2012, only 38 farms remain with an inventory of 402 with 714 sold. The 2012 Agriculture Census did not release the worth of hogs and pigs. Sheep farming has exhibited an upward trend from 2002 to 2007. In 2007 there were 114 farms with 1,887 sheep and by 2012 there were 101 farms with an inventory of 2,559 sheep. Sheep, goats, wool, mohair, and milk had a value of \$327,000 in 2012 (2012 Agriculture Census).

The Township has seen its role in the above livestock categories fluctuate over the years. Yet, with the Township's focus on general harvested crops such as corn and soybeans, it is important to support the County's economic development efforts to increase potential markets for the Township's livestock and poultry production, through techniques such as:

- 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.

Additionally, the following economic strategies can be implemented and encouraged in regards to livestock and poultry practices, according to the State's 2011 Economic Development Strategies:

- Ensure animal health through the implementation of best management practices.
- Work with markets by supporting the sale and marketing of locally produced meat and eggs.
- Support youth programs such as NJ Junior Breeders' Fund loan program, and 4-H clubs throughout the State.

Equine Industry

The equine industry is a small, but growing industry. As of 2012, there were 36 acres of equine related industry with a total of 84 head. To continue to retain the Township's market and share in the County and State equine industry, horse owners can:

- Ensure health of horses by raising awareness of disease threats and animal safety
- Promote the "Jersey Bred" or "Jersey Equine" logo
- Promote the industry at shows and festivals, such as the annual Warren County Farmer's Fair
- Promote the equine industry through boarding and riding lessons

Wine Industry

The Wine Industry within New Jersey is a growing operation; according to the 2011 Economic Development Report, there were approximately 40 wineries in New Jersey with an estimated \$33 million-a-year industry. According to the 2012 Farmland Assessment data, Pohatcong had 89 acres of grapes agriculture with at least two vineyards/wineries within the Township: Villa Millagro, Alba Vineyard and Mountain Road Vineyard. To continue to retain the Township's market and share in the County and State winery/vineyard industry, owners can:

- Promote product categories to continue to support the wine industry's effort to obtain licenses to distill fruit-based spirits
- Expand retail outlets by expanding the number of eligible retail outlets and to sell wines at farmers markets
- Promote the New Jersey Wine Trails

Agritourism

Agritourism is a significant link to long term sustainability of Pohatcong's agricultural industry. According to the 2011 Agriculture Economic Development Strategies, "many residents consider agriculture a novelty and something to be explored and enjoyed." Agriculture can not only attract people from Warren County, but it can also attract visitors from other counties and even from neighboring states.

Seasonal farm stands, petting zoos, hay rides, pick-your-own, and even the Warren County Farmer's Fair helps to attract visitors. The following are a few techniques discussed by the 2011 NJ State Agricultural Convention Economic Development study:

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

Agricultural Industry Retention, Expansion and Recruitment

By providing key strategies and techniques, the NJDA 2011 "*Economic Development Strategies*" endorses as critical the expansion and strengthening of all areas of the agriculture industry. There are many mechanisms to promote the economic expansion, development, and solidification of Warren County's agricultural industry. The NJDA recommends diversifying agricultural commodities now dominated by corn, dairy, and horticulture that would buffer against any economic downswing in either the general economy or a specific sector of the County's agriculture industry. The County Farmland Preservation Plan plays a key role in outlining the regional focus on economic development for the agricultural industry. Yet, because the CADB must focus on a regional effort, its priorities are similar, but not always the same as those at the local level. The County plan outlines a number of important expansion and strengthening strategies. Those below are of particular interest and importance to the Township.

Farmers' Markets

Warren County is home to several farmers markets. A farmers' market is a producer-operated facility where fresh fruits and vegetables and other food items are offered for sale. Recently, farmers markets have become more of an experience than a typical visit to pick up fresh items. Music and entertainment are often provided. Warren County is home to the Blairstown Area Farmer's Market and the Moore Street Farmers Market.

The Blairstown Farmers Market is held every Saturday from 10 am to 2 pm between May 31st and October 25th. The market features locally grown fruits, vegetables, meat, cheese, bread, pastries, flowers, and fibers. The market also incorporates cooking demonstrations, children's activities, seasonal food celebrations, and shop local days and specials with the stores on Main Street.

The Moore Street Market, located in Hackettstown, Warren County, is open Saturdays from 10 am to 2 pm during the summer months (particularly early June through the end of September.) Fresh baked breads, fruits and vegetables, herbs, homemade pasta, flowers, hand crafted jewelry, in addition to other local vendors.

Community Supported Agriculture

Community Supported Agriculture (CSA) is an economic support mechanism whereby a community of individuals 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

The concept of community supported agriculture is a positive one for farm preservation in Pohatcong Township and Warren County. As the Township moves away from traditional crops and livestock, such farms can provide an alternative method to ensure farmland preservation. Combined with the "buy fresh, buy local" campaign, the development of such farms can become a regional amenity for growth, encouraging future residents moving with the thought of preserving the local character, encouraging local agricultural production and engaging in healthy lifestyle habits through such a program.

Livestock Cooperative Auction 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 Auction is located on Stiger Street in Hackettstown, Warren County, and is open every Tuesday from 11 am to 6 pm throughout the year. It is the only remaining livestock auction in the State, and is a staple of the Warren County agriculture industry.

Additional Resources

In addition, there are a number of resources available to farmers to promote agricultural education and market research among the farming industry in Warren County and across the State. 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 informed of the most recent farm research and techniques, which helps Warren County farmers to remain competitive.

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”.

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.

Businesses

According to the Warren County Comprehensive Farmland Preservation Plan, suppliers of products including farming equipment such as tractors and diskers, seeds, fertilizers, herbicides, fungicides, and pesticides have been disappearing 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.

Local business comprise more than equipment and supply stores. Farmers need services such as banks, insurance, technical assistance, veterinary services, and legal services. The long term viability of farming in Pohatcong Township and Warren County should be preserved to ensure that such local services remain in the area. The Township and County can encourage the return of lost services in a method that will strengthen growing centers and preserve the viability of the rural environs by applying farm-focused economic development policies. Pohatcong Township is committed to encouraging such development through farmland preservation, economic development and land use policy.

With regard to regional opportunities for agri-businesses in Pohatcong Township, opportunities are likely to develop over time, as additional evolution of farming trends continue.

Based on the changing characteristics of farming in Pohatcong Township and Warren County, there are additional business needs that would assist the development of agriculture in the Township. For example, the formation and promotion of a farmer co-op that could work to bring together interested buyers and sellers of farm products would be of assistance. In addition, a program to aid farmers in marketing their products through the Internet, and providing assistance to educate farmers with raising "organic" and "pesticide-free" products, such as grass-fed beef and lamb, would be of help. Other programs, such as a promotion of agritourism through "pick-your-own" fruits and vegetable, Christmas tree farming, etc. could increase revenues for area farmers and increase tourism in Pohatcong Township.

Anticipated Agricultural Trends

According to the Agricultural Census, the number of farms in the County increased in total number from 1982 (608) to 2012 (784), while the average size has decreased during that same time period (144 acres in 1982, down to 92 acres in 2012). 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.

Agricultural Support

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."*

County 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 that 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:

- More regulatory flexibility;
- Full funding for open space; and,
- Full funding for Transfer of Development Rights, especially in the Highlands Region.

The Warren County Agriculture community recommends that the farming community 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).

Funding opportunities also exist to help promote the economic development of farming. The 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 funds are allocated to the following programs:

- *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.

- *Graduate Student Grants* These grants who are enrolled in a graduate program at an accredited college, university, or veterinary school who want to research key topics in sustainable agriculture.
- *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.
- *Agroecosystems Research Grants* These grants are for long-term research that explores the ecological interactions that are the basis of sustainable agriculture. These grants are not offered on an annual basis due to the longevity of the projects.

The New Jersey Department of Agriculture also lists various Agriculture Economic Development Services on its website, and Warren County Farmers could utilize 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

Local Support

The Township can help landowners and farmers access the latest available information through:

- a) holding periodic seminars, workshops and open houses;
- b) including information on the Township's website;
- c) developing an information packet and having it available at the Municipal Office and other public places

This would give the farmers access to information regarding farmland preservation, residents of the Township would become familiar with the farming community and would encourage the residents to buy locally.

VII. Natural Resource Conservation

Aside from their importance for crop production, agricultural lands make a significant contribution to the rural atmosphere and scenic qualities of Pohatcong Township. They also provide for aquifer recharge and offer habitat for wildlife. The agriculture in Pohatcong Township is promoted by the presence of favorable environmental conditions such as prime farming soils and water resources.

Natural Resources

Wetlands and Floodplains

Wetlands, (land which is either submerged or retains water at ground level for a portion of the year), includes marshes, swamps, and bogs. Wetland areas provide natural flood control by storing excess water and releasing it to surface waters over time. Wetlands also serve as filtration systems, removing pollutants from the water table and storing them in biomass; and they serve as ground water recharge areas. As the total wetland area decreases and their natural functions decrease over a period of years, the overall quality and quantity of the surface water flow within the watershed is altered. Often, expensive man-made utilities are required to make up for the loss of wetlands.

Floodplains are a vital part of any river or estuary ecosystem, acting as water filters and wildlife nurseries. They are important for the maintenance of water quality, providing fresh water to wetlands and backwaters while diluting salts and nutrients. Floodplains are major centers of biological life in the river and estuary ecosystem and improve the overall health of the habitat used by many species of birds, fish, and plants. They are important biologically, as they represent areas where many species reproduce and as such are important for breeding and regeneration cycles.

Steep Slopes

Disturbance to steep slopes can affect plant life and drainage patterns, increase the amount and speed of runoff and can cause erosion, soil creep, slumping (sections of soil shifting down and outward on the slope), and landslides.

Runoff carries eroded sediments to lowland areas, to wetlands, ponds, lakes and streams, where the resulting turbidity and siltation can damage or destroy aquatic life and disrupt the ability of wetlands to filter and purify water. This combination of increased runoff and siltation affects the ability of streams and wetlands to retain water, changing the pattern and rate of the water's rise and fall and causing increased flooding. Turbidity and siltation also contribute to the eutrophication process in lakes, speeding the natural aging process.

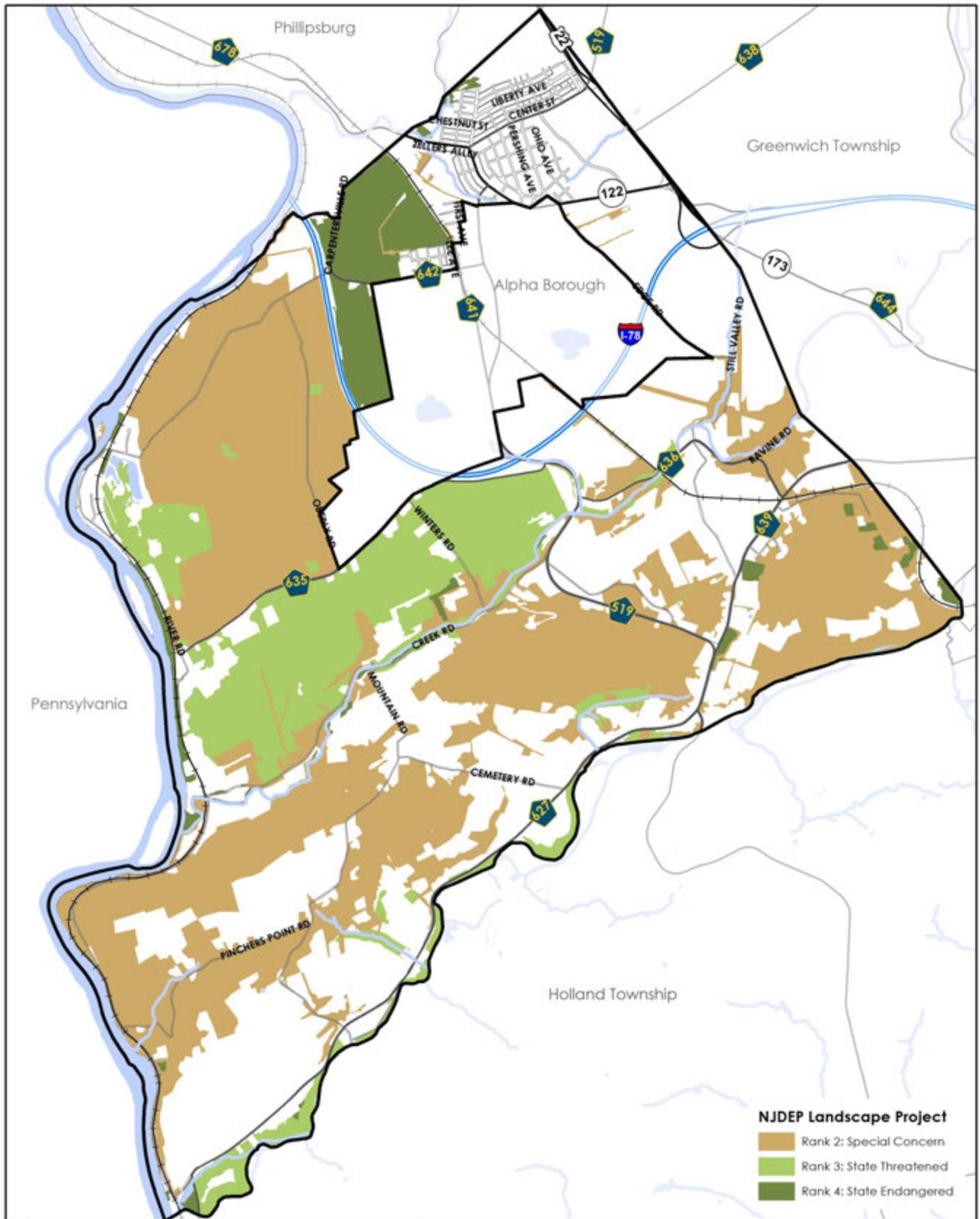
In addition to the obvious problems of runoff, erosion and landslides, altering the soils or vegetation on slopes may also reduce the percolation of water into the soil and disrupt the recharge of groundwater and aquifers. Aquifers in areas of steep bedrock, as in parts of northern New Jersey, do not contain much water.

Critical Habitat Areas

The NJDEP Endangered and Non-Game Species Program created the Landscape Project as an ecosystem level approach to identifying and protecting species habitat in the state. The program identifies critical habitat areas and ranks them by the presence or absence of priority, threatened or endangered species. The habitat areas are ranked based on the presence or absence of priority, threatened or endangered species at both the State and Federal levels. Specific habitat areas for bald eagle foraging areas, urban peregrine falcon nests, and wood turtles have further augmented the information gathered for the different habitat types.

The Landscape Project: Skylands Region map shows the location of the habitats ranked from 1 through 5, depending upon the presence or absence of species.

The State Threatened listed species which are found within the Township include the Bobolink, Brook Snaketail, Horned Lark, Longtail Salamander, Osprey, Savannah Sparrow, and Wood Turtle. The State Endangered listed species include the Bald Eagle, Bobcat, and the Upland Sandpiper. It is important farmers are aware of these species in order to develop conservation techniques and be mindful of their farming operations.



NJDEP Landscape Project

Source: NJGIN, NJOGS, NJDOT, NJDEP, Landscape Project Data v3.1

Natural Resources Conservation Partners

Natural Resources Conservation Service

An important partner in support of natural resource conservation for the agricultural community is the United States Department of Agriculture (USDA)'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.

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.

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.

The required Conservation Plans are an important part of ensuring that farming preservation practices coexist with other important natural resource preservation goals. Plans incorporating steep slopes and wetlands will ensure that the Township's current focus on natural resource protection is maintained while moving forward with farmland preservation. With the environmental preservation goals embedded in NJDEP regulations and the Highlands planning process, maintaining regional coordination between these agencies and the production of Conservation Plans will remain important.

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 ...*"

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.

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. Much like the above discussion of the NRCS, coordination between these agencies and other major regional natural resource protection bodies, such as the Highland Council, will remain important as Pohatcong Township farmers' work through the preservation process.

Natural Resource Conservation Programs

SADC Soil and Water Conservation Grants

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

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. 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.

Warren County uses their annual monitoring visits as an opportunity to encourage landowner participation in natural resource conservation programs. The Township is considering encouraging those farmers who move through the farmland preservation process to also

engage in the creation of soil and water conservation programs as applicable to further local natural resource conservation.

2014 Farm Bill Program

On February 7, 2014, the USDA enacted the 2014 Farm Bill, which offers voluntary conservation programs that “benefits both agricultural producers and the environment.” The 2014 Farm Bill is a compilation of several programs with focus on financial assistance, easements, and partnerships. The Environmental Quality Incentives Program (EQIP), Conservation Stewardship Program, and Agricultural Management Assistance Program are the three financial assistance programs; the Agricultural Conservation Easement Program and Healthy Forests Reserve Program are the two easement programs; the Regional Conservation Partnership Program is the partnership program offered under the 2014 Farm Bill. In addition to the above programs, the 2014 Farm Bill offers several other programs including Technical Service Providers, Conservation Innovation Grants, Agriculture Conservation Experienced Programs, Voluntary Public Access and Habitat Incentive Program, Emergency Watershed Protection Program, and Small Watershed Rehabilitation Program.

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. 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.

Water Resources

An adequate water supply is important to successful agriculture operations in Warren County. Watersheds play an important part in determining the source and supply characteristics of water resources. A watershed is an area that drains into a common waterway, such as a stream, lake, estuary, wetland, or, ultimately, the ocean. The watershed includes both the waterway itself and the entire land area that drains into it. Geographical features such as hills and slopes separate distinct watershed systems. Watershed Management Areas (WMAs) are the regulatory units of NJDEP’s Division of Watershed Management for categorizing, managing and protecting watersheds throughout the State. Pohatcong Township lies within the Upper Delaware Watershed Management Area (WMA 01).

Numerous small tributaries traverse the Township, including Musconetcong River, Lopatcong Creek, and Pohatcong Creek. Due to their relatively wide floodplains, freshwater wetlands are found along many of these streams. The major body of water in Pohatcong is the Delaware River. Irrigation in the Township is limited to short term use during drought conditions for the survival of crops.

The 2008 Highlands Regional Master Plan outlines information regarding the capacity and availability of ground and surface water resources within Pohatcong. To identify areas with sufficient water capacity for future development, the Plan calculates net water availability,

converting the ground water capacity into a capacity figure by netting out those resources necessary for ecosystem health and the maintenance of safe yields of potable water. The south eastern portion of the Township, is identified to have negative net water capacity (between -0.01 and -0.99 mgd). The rest of Pohatcong has an increase in net water available between 0.00 and 0.39 mgd in net water availability. Primary ground water recharge areas are located throughout the Township, with the largest concentration located to east of Alpha Borough in the vicinity of County Routes 519, 636, and 639. Additionally, watershed integrity scores range from high in the south east, to moderate, and to low in the western portion of the Township.

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 2007, 2,426 acres were irrigated on 96 farms. 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. However, since 2002, the total number of irrigated acreage has decreased to 2,426 acres. The increase between 1992 and 2002 could be 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 Planning

According to the 2012 Farmland Assessment data, there were approximately 1,300 farm animals. If there was sufficient community support, the Township could adopt an animal waste ordinance that would mandate "best farming practices" for proper storage and disposal of animal waste beyond those rules and regulations now mandated at the State and federal level. There is currently substantially more land to spread animal wastes than there are animals to produce it and thus the Township could be considered a waste deficit area. It is possible the area could develop into an animal waste management type of industry by accepting animal manures from

animal farmers in the areas that do not currently have adequate land bases to handle these manures.

The Township has a Pig and Swine Ordinance (§299) which includes hogs, swine, shoats and pigs. The ordinance describes the permitting process, the requirements needed for the permit, regulations concerning keeping of pigs, location of pig enclosures, fencing, and violations and penalties. §299-5 Regulations concerning keeping of pigs states, "All liquid waste, including water used to wash down the side walls, liquids from the sheds, barns, from the manure pit or loading area, and any water from washing trucks or other equipment shall be conducted by a suitable drain to an underground cistern and disposed of either in an approved sewage disposal field or pumped into a closed tank and spread upon the fields in such as manner and at such a time to prevent it gathering in pools or running off the land."

NJDA Animal Waste Management Rules

The NJDA has developed criteria and standards for animal waste management. All farms will have to follow the General Requirements of the rules. Operations with 8 or more Animal Units (AU) [1 AU= 1000 pounds of live animal weight] or those receiving or applying 142 or more tons of animal waste per year will be required to develop and implement a self-certified Animal Waste Management Plan. Operations with Animal Densities (ADs) greater than 1 AU per acre will be required to develop and implement a high-density Animal Waste Management Plan and have it reviewed to ensure conformance with the New Jersey Field Office Technical Guide (NJ-FOTG). Operations with 300 or more AUs, regardless of animal densities, will need to develop and implement a Comprehensive Nutrient Management Plan (CNMP) and be certified by the NJDA. Operations with 1 to 7 AUs or those receiving or applying less than 142 tons of animal waste per year, are encouraged, but not required to develop a self-certified Animal Waste Management Plan.

There are 5 General Requirements:

- 1) No agricultural animal operation shall allow animals in confined areas to have access to waters of the State unless such access is controlled in accordance with the NJDA BMP Manual.
- 2) Manure storage areas shall be located at least 100 linear feet from surface waters of the State.
- 3) The land application of animal waste shall be performed in accordance with the principles of the NJDA BMP Manual.
- 4) No livestock that have died from a reportable contagious disease or an act of bio-terrorism (nor associated animal waste) shall be disposed of without first contacting the State Veterinarian.
- 5) Any person entering a farm to conduct official business related to these rules shall follow bio-security protocol.

Energy Conservation Planning

Pohatcong Township has adopted a small solar energy systems ordinance (§285-30.1). This ordinance regulates small energy systems (110% production). In addition, this ordinance permits rooftop mounted solar arrays in all zones as long as the solar arrays do not exceed the height of

12 inches from the peak of a rooftop and four feet above the rooftop if it is flat. Additionally, the placement of the solar energy system shall not result in a total building height greater than what is permitted in the zoning district. Ground-mounted solar arrays for small solar energy systems are permitted as an accessory uses in all zones as long as the outlined requirements are met. A copy of the solar ordinance is included in the Appendix. Small wind energy systems are also a conditional use throughout the Township (according to Ordinance No. 11-06).

Outreach and Initiatives

Local assistance would likely be limited to distribution of printed materials, if made available, since there are many conservation programs being offered at the State and Federal level. Many of these programs remain in constant flux and are changed annually depending on funding and other factors. It would be foolish to expect a 5 member board of unpaid volunteers to deliver information about these complex programs. A directory listing each program, its benefits and a contact point would be useful but should be developed at the CADB level and then made available to communities. Genuine farmers are usually well versed in these programs; it is the non-farmer farmland owners who generally need to be educated. The role of the Agricultural Advisory Board should not be expanded to include education of the farming community in natural resource and conservation initiatives. The NJDA, USDA-NRCS, USDA-FSA, USDA-FAWS, and Rutgers Cooperative Extension, just to name the main players, are all vested with the responsibility to work with the farming community

Data and records indicating which farmers and landowners are participating in conservation programs is not public information because it generally contains financial and other private information that may not be made available to the public. Most farmers participate in one or more of these programs since they can be generally characterized as being incentive based.

VIII. Agricultural Industry Sustainability, Retention and Promotion

As noted in the Township's 2008 Farmland Preservation Plan, farmland preservation has remained and continues to be a priority. The goals of this Plan for farmland preservation are listed below:

- To preserve land for farm use so that agricultural businesses can thrive
- To minimize the impact of future non-farming development on important farmland
- To preserve the rural farming environment, recognizing that this environment supports a variety of other types of uses, including a growing agritourism industry
- To development a variety of preservation strategies to meet the demands of individual landowners and maximize alternatives for funding

The commitment of the Township Council, Agricultural Advisory Board and the citizens at large to sustain agriculture as a business and as a way of life in Pohatcong should be made clear in the examination of the plans and ordinances that currently exist and that are being developed through this document.

Farmland is recognized as a major contributor toward the rural character that presently exists in Pohatcong Township. The retention of farmland helps to improve aquifer recharge, provides wildlife habitat and provides scenic open space vistas. A Farmland Preservation Program in Pohatcong Township, thereby protecting farmland from developing with more intense land use, also reduces the rate of storm water runoff, reduces potential traffic generation and eliminates the costs of services that are associated with other types of development.

The preservation of Pohatcong Township's agricultural heritage has long been a goal of the Township Council as well as the residents of Pohatcong Township. Until fairly recently, actions to preserve farmland were limited to the application of lower density zoning in undeveloped areas, the identification of agriculture as a permitted use in various zones, and the adoption of a local "right-to-farm" ordinance. The major zoning districts that support agriculture are the AP (Agricultural Preservation), and the R-1 (Rural Residential) Zones.

In addition to the Right-to-Farm ordinance and the Farmland Preservation Trust Fund, the Township has been proactive in its efforts to preserve farmland.

Pohatcong Township Right-to-Farm Ordinance

The purpose of the Township's Right to Farm Ordinance (§285-31) is clearly stated, "The preservation and continuance of farming operations in the Township... will ensure a source of agricultural products for this and future generations and preserves land, a non-replenishable resource." This ordinance allows farmers the rights to the following:

- Use of irrigation pumps and equipment, aerial or ground seeding and spraying equipment, tractors and other equipment
- Use of necessary farm laborers
- Application of chemical fertilizers, insecticides and herbicides, in according with manufacturer's instructions, and the application of manure

- Grazing of animals and use of range for fowl, subject to standards and regulations for intensive fowl and livestock use
- Construction of fences for animals and livestock
- Traveling and transportation of large, slow-moving equipment over roads within the Township
- The control of vermin and pests, provided that such control is practical pursuant to applicable state fish and game laws
- The use of land for recreation purposes, e.g. snowmobiling, etc., shall be done only with permission of the farm owners. Any recreational use of the farmland which changes the underlying agricultural nature of the use shall be subject to the usual site plan review, variance applications and all permits where otherwise required

Additionally, the Township's Right to Farm ordinance also permits farming operations to occur when reasonable and necessary; practices may occur on holidays, Sundays, weekdays and at night and during the day. Noise, odors, dust and fumes that are caused by these activities are ancillary to the permitted activities. Lastly, the Ordinance states that Planning Board applicants give notice stating, "Grantee is hereby noticed that there is, or may be in the future be, farm use near the described premises from which may emanate noise, odors, dust and fumes associated with agricultural practices."

New Jersey Right to Farm Act

The State Right-to-Farm Act provides eligible, responsible farmers with protection from restrictive municipal ordinances, as well as public and private nuisance actions. It provides increased protection to those farmers who operate in accordance with agricultural management practices (AMPs) that have been adopted by the State Agricultural Development Committee (SADC). The Act gives primary jurisdiction in resolving complaints against agricultural operations to county agriculture development boards and ultimately to the SADC, if the decisions of the county boards are appealed.

New Jersey's Right-to-Farm Act is considered the strongest in the nation, yet many municipalities and others are unaware of the protections and procedures under the Act. The Right-to-Farm Act protects those farm operations that meet the definition of a "commercial farm" and meet the following criteria.

Basic Requirements for Right to Farm Eligibility

To qualify for the protections of the Right to Farm Act, a farm must meet the following eligibility criteria:

1. The farm must qualify as a commercial farm. This means an operation larger than five acres must annually engage in agricultural or horticultural production worth at least \$2,500 and be eligible for differential property taxation under Farmland Assessment. For farms smaller than five acres, the annual production requirement is a minimum of \$50,000 and the farm must satisfy eligibility requirements for farmland assessment, other than the farm-size requirement.
2. The farm (as of December 31, 1997 or thereafter) must be located in an area in which agriculture is a permitted use under the municipal zoning ordinance and is consistent

with the municipal master plan. If the commercial farm was in operation on the effective date of the 1998 amendments to the Right to Farm Act (July 2, 1998), however, this zoning ordinance/master plan requirement does not need to be met.

3. The farmer must conduct his operation, or a specific agricultural activity at issue, in compliance with the standards contained in agricultural management practices that have been promulgated by the SADC, or with generally accepted agricultural practices.
4. The operation must be in compliance with relevant state and federal statutes and rules.
5. The operation must not pose a direct threat to public health and safety.

Farms that meet the eligibility requirements listed above, may also be entitled for protection for the following activities:

1. Produce agricultural and horticultural crops, trees and forest products, livestock, poultry and other commodities as described in the Standard Industrial Classification for agriculture, forestry, fishing and trapping
2. Process and package the agricultural output of the commercial farm
3. Provide for the operation of a farm market, including the construction of building and parking areas in conformance with municipal standards
4. Replenish soil nutrients and improve soil tilth
5. Control pests, predators and diseases of plants and animals
6. Clear woodlands using open burning and other techniques, install and maintain vegetative and terrain alterations and other physical facilities for water and soil conservation and surface water control in wetland areas
7. Conduct on-site disposal of organic agricultural wastes
8. Conduct agriculture-related educational and farm-based recreational activities provided that the activities are related to marketing the agricultural or horticultural output of the commercial farm
9. Engage in the generation of power or heat from biomass, solar or wind energy within certain limits
10. Engage in any other agricultural activity as determined by the State Agriculture Development Committee and adopted by rule or regulation pursuant to the provisions of the "Administrative Procedure Act," P.L.1968, c.410 (C52:14B-1 et seq.)

When an individual or municipality is "aggrieved" by a commercial farm operation the Right-to-Farm Act requires such persons file a complaint with the applicable CADB, or directly to the SADC, prior to filing an action in court. Municipalities seeking to enforce their ordinance are therefore required to file such a complaint rather than issue a summons against the farmer. Once a complaint is filed, a public hearing is held by the CADB, or SADC to determine whether the farmer is entitled to the protections of the Act. If a finding by the CADB is questioned, it may be appealed to the SADC and, if necessary, to the New Jersey Superior Court, Appellate Division.

Farmland Assessment

The Farmland Assessment Act of 1964 permits farmland and woodland actively devoted to an agricultural or horticultural use to be assessed at its productivity value. The Act does not apply to buildings of any kind, or to the land associated with the farmhouse. Buildings and homesites on

farms are assessed like all other non-farm property. When and if the land qualified under the Act changes to a non-agricultural or non-horticultural use, it is subject to a rollback tax.

Land may be eligible for "farmland assessment" when it meets the following qualifications:

1. Applicant must own the land.
2. Owner must annually apply for Farmland Assessment on Form FA-1 with the municipal tax assessor on or before August 1 of the year immediately preceding the tax year.
3. The land must be actively devoted to agricultural and/or horticultural use for at least the 2 successive years immediately preceding the tax year for which "farmland assessment" is requested.
4. Land must consist of at least 5 contiguous acres being farmed and/or under a woodlot management plan. Land under and adjoining the farmhouse is not counted in the 5-acre minimum needed to qualify.
5. Gross sales of products from the land must average at least \$500 per year for the first 5 acres, plus an average of \$5 per acre for each acre over 5, except in the case of woodland or wetland where the income requirement is \$0.50 per acre for any acreage over 5; or there is clear evidence of anticipated yearly gross sales, payments, or fees within a reasonable period of time dependent on the agricultural or horticultural products being produced
6. Owner must represent that the land will continue in agricultural or horticultural use to the end of the tax year.

When land, which is in agricultural or horticultural use (and is being valued under the Farmland Assessment Act), is applied to a use other than agricultural or horticultural, it is subject to additional taxes, referred to as roll-back taxes, in an amount equal to the difference, if any, between the taxes paid or payable on the basis of "Farmland Assessment" and the taxes that would have been paid or payable had the land been valued, assessed and taxed as other land in the taxing district. In the case of a change in use, the roll-back taxes shall be applicable in the year in which the change took place and in such of the 2 tax years, immediately preceding, in which the land was valued, assessed and taxed under the Farmland Assessment Act.

Land shall be deemed to be in agricultural use when devoted to the production for sale of plants and animals useful to man, including but not limited to: forages and sod crops; grains and feed crops; dairy animals and dairy products; poultry and poultry products; livestock, including beef cattle, sheep, swine, horses, ponies, mules or goats, including the breeding, boarding, raising, rehabilitating, training or grazing of any or all of such animals, except that "livestock" shall not include dogs; bees and apiary products; fur animals, trees and forest products; or when devoted to and meeting the requirements and qualifications for payments or other compensation pursuant to a soil conservation program under an agreement with an agency of the federal government.

Land shall be deemed to be in horticultural use when devoted to the production for sale of fruits of all kinds, including grapes, nuts and berries; vegetables; nursery, floral ornamental and greenhouse products; or when devoted to and meeting the requirements and qualifications for payments or other compensation pursuant to a soil conservation program under an agreement with an agency of the federal government. There are additional requirements for the boarding,

training, or rehabilitation of livestock and for forestlands under a woodlot management program.

Establishment and Maintenance of a Dedicated Source of Funding for Farmland Preservation

Pohatcong Township Farmland Preservation Trust Fund

As described earlier, the Pohatcong Township Council approved Ordinance No. 99-15 which authorizes the imposition of an annual levy of up to \$0.05 per \$100.00 of assessed property valuation for the following purposes:

- To acquire lands/properties within the township for open space.
- To assist in the preservation of farmland within the Township wherein there is a funding necessity, either through matching grants for farmland preservation/acquisition or through funding for the reservation of farming privileges, and/or the acquisition of development rights as established by state law or the Warren County Board of Chosen Freeholders or their designees.
- To provide funding for the payment of debt service related to appropriations in accordance with the above.

Planning Incentive Grant Program

The Pohatcong Township Committee has already made application to and been accepted into the NJSADC Planning Incentive Grant Program.

Future Efforts/Action Items

Continued Local Research

- Survey farmers and agriculture related businesses to better understand their needs.
- Review existing and planned programs for agricultural impacts (e.g. economic development plans, housing plans and tax assessments)

Economic Development

- Provide for direct markets such as farm stands and pick-your-own markets.
- Promote Agritourism
- Recognize agriculture as an important piece of the local economy and promote it through economic development plans, for example by promoting and supporting businesses that serve farmers (like food processors)

Prioritize the Acquisition of Prime Farmland

As mentioned previously, the County has created a Targeted List of farms to preserve within the Township. It is recommended the Township preserve those properties and update the list of targeted farms as needed. It is also necessary that the Township file the municipal planning incentive grant application with both the County and State on an annual basis.

Partner with State, County and Non-Profit Organizations to Educate, Promote, and Preserve Agriculture

Examples of these organizations include:

- *New Jersey Agricultural Society* - the oldest non-profit farm organization in the country. Established in 1781, its mission is to preserve and enhance agriculture, farming and related activities and businesses in New Jersey through educational, informational, and promotional programs. This membership-based organization is the sponsor of such programs as Learning through Gardening, New Jersey Agricultural Leadership Development Program, and New Jersey Farmers against Hunger.
- *NJ State Agriculture Development Committee* – State office that leads in the preservation of New Jersey's farmland and promotes innovative approaches to maintaining the viability of agriculture. The SADC administers the Farmland Preservation Program, providing grants to counties, municipalities and nonprofit groups to fund the purchase of development easements on farmland; directly purchasing farms and development easements from landowners; and offering grants to landowners in the program to fund up to 50 percent of the cost of soil and water conservation projects. It also administers the Right to Farm Program, oversees the Transfer of Development Rights Bank, and operates the Farm Link Program, which helps connect farm owners with farmers seeking access to farmland and farming opportunities.
- *Warren County Agriculture Development Board* – the group that oversees the County's farmland preservation efforts launched its farmland preservation program in August 1989 with the purchase of development rights on two farms totaling about 600 acres in Allamuchy Township. By 2013, the County had preserved over 20,500 acres of farmland.
- *Warren County Environmental Commission*- The Warren County Environmental Commission recommends that "Preservation of large blocks of contiguous farmland should be pursued first in areas of Prime Farmland, followed by areas of Soils of Statewide Importance and Unique Farmlands."
- *The Nature Conservancy of New Jersey* - protects places where plants, animals, and natural communities can survive for generations to come. They use science to identify and preserve large geographic areas of land and water defined by climate, vegetation, geology, and other natural patterns. They use creative conservation strategies that achieve lasting results by finding common ground in local communities. TNC believes in balancing human and ecological needs. They acquire land, work with conservation minded-landowners, and forge partnerships with public and private groups to protect natural areas for future generations.
- *The Ridge and Valley Conservancy* - The Ridge and Valley Conservancy was formed to protect and preserve natural areas, including woodlands, meadows, farmlands, wetlands, marshes, ponds, watercourses, and historic sites that constitute the rural character of the Kittatinny Valley and Ridge Region of New Jersey. They are dedicated to promoting the public interest in conserving open space for aesthetic, recreational, cultural, ecological, agricultural, and development uses in harmony with the natural

environment. The Conservancy may acquire important lands by purchase or donation, manage land uses for the benefit of the public, assist in stewardship for public lands and easements, and advise in environmentally sound land development for public or private use.

- *The New Jersey Conservation Foundation* - The New Jersey Conservation Foundation (NJCF) preserves land and natural resources for the benefit of all. Through acquisition and stewardship, NJCF protects strategic lands; promotes strong land use policies; and forges partnerships to achieve conservation goals. Since its inception in 1960, The New Jersey Conservation Foundation has preserved and protected tens of thousands of acres across New Jersey - either by buying land outright, receiving land from donors, or working with other groups to find creative ways to save our precious open spaces and habitats. Through land acquisition, stewardship, and partnerships with other organizations, NJCF has become the most powerful, private land conservation organization in the state of New Jersey.

Explore New Ways of Farmland Preservation through Creative Policies and Ordinances

- *Zoning and Ordinance Changes* - The Township Council has created an "AP" Agricultural Preservation Zoning District, which coincides with certain properties which are deed restricted to agricultural use through the Farmland Preservation Program. The Township Council also eliminated the R-2 zoning district and changed the majority of the parcels affected to the R-1 zoning district. This land use zoning district area was created to maintain and promote the prevailing rural agricultural character found within the Musconetcong and Pohatcong Valley areas and to safeguard the environmental attributes identified in the Township Master Plan. These areas are significant to the Townships plan's for agricultural land retention and open space preservation. The farms in both valley areas in the zone are all found in areas of prime agricultural soils. The density of the R-1 is one unit per five acres.
- *Transfer of Development Rights* - Market-based incentives include the purchase or transfer of development rights. These are strategies for compensating farmland owners for the loss of their right to develop their properties. The NJ Highlands Act and the NJ Highlands Master Plan supports designated areas within the Highlands as sending or receiving areas for development credits. The southern portion of the Township (below Interstate 78) is within the Highlands Preservation Area, making it a sending area, which will encourage the preservation of farmland.
- *Educational Measures and Voluntary Strategies* - Voluntary strategies include cluster developments and "planned-unit" developments. These are the least controversial methods of farmland preservation, but also the preserve the least amount of farmland because they don't reduce the overall number of residential units that can be constructed, and may still result in the fragmentation of productive farmland. It is crucial to the success of the farmland preservation effort that all individuals involved have the same knowledge base upon which to make decisions and take action. Finally, it must be stressed that preserving farmland is a long-term process. It is expected to take a

number of years of careful planning, public and private investment, and most importantly, landowner support for the program to be successful.

Open Space and Farmland Preservation Recommendations

Through the acquisition of land in fee simple and the purchase of development rights and conservation easements, the county and municipalities should continue to mount its aggressive campaign to preserve land from development. A high priority must be placed on preserving the County's rural character and protecting its water quality. In addition, the Township should continue to file its annual Municipal Planning Incentive Grant application with the Warren County Department of Land Preservation and the State Agricultural Development Committee to continue to receive funding.

It is recommended that a higher priority be given to acquiring land areas with the highest development potential. Typically these land areas are the flat farmlands in the County. The acquisition of farmland should take on the philosophy that the best soils, prime and statewide importance, are natural resources that should be protected in the same manner as wetlands and rare and endangered plant and animal species. To address this philosophy, the State Agriculture Development Committee adopted a priority ranking system to target land areas with prime or statewide important soils outside existing and planned sewer service areas. The Township should preserve the recommended "Targeted Farms" by the Warren County Department of Land Preservation.

Similarly, open space preservation efforts should target priority areas critical to ensuring ground and surface water quality and quantity. These areas are identified as aquifer recharge areas, and stream and river corridors. In addition, areas that serve functional recreational purposes should be preserved.

APPENDIX

Preserved Farms to Date

Targeted Farms

Right to Farm Ordinance

Small Solar Energy System Ordinance

County Ranking Sheet

Preserved Farms to Date: Pohatcong Township											
Farm	Acres	Block	Lot	Total Cost	State Cost	County Cost	Twp. Cost	Other	Cost/Acre	Yr. Purch	Program
Corestates/Blazing Star Realty	560.96	94	1	\$3,250,000.00	\$1,910,964.00	\$400,000.00	\$250,000.00	\$200,000.00	5,794	1998	SADC Fee Simple
		94	4								
		95	1								
		96	1								
		96	5								
Frey Living Trust	93.78	96	8	\$468,880.00	\$318,838.40	\$150,041.60			5,000	2000	Cty Easement Purch.
Csiszlak, John	60.80	98	11	\$315,873.27	\$212,607.01	\$103,266.26			5,198	2000	Cty Easement Purch.
			21.01								
Santini, Santino	75.38	99	2	\$602,264.00	\$319,952.75	\$282,311.25			8,000	2001	Cty Easement Purch.
Smith, Mary	188.00	109	60	\$914,048.52	\$619,602.06	294446.46			5,060	2002	Cty Easement Purch.
		110	7.04								
		118	1								
Gambino	100.00	113	25	\$500,015.00	\$500,015.00				5,000	2002	SADC Direct
Snyder	86.41	96	9	\$293,780.00	\$293,780.00				3,400	2002	SADC Direct
Horizon Associates	100.62	98	26	\$426,033.00	\$293,489.40	\$132,543.60			4,500	2004	Cty Easement Purch.
Oberly, Jack	122.40	96	2	\$755,838.53	\$488,081.96	\$267,756.57			6,175	2004	Cty Easement Purch.
		95	2.01								
Willard, Donald #1	50.39	113	20	\$317,469.60	\$204,101.21	\$56,684.20	\$56,684.19		6,300	2004	Muni PIG
			20.03								
Marchesi	18.09	111	14	\$95,877.00	\$64,219.50	\$15,828.75	\$15,828.75		5,300	2004	Muni PIG
Chelsea Forge Vintners	68.66	110	13	\$302,095.20	\$208,720.32	\$46,687.44	\$46,687.44		4,673	2004	Muni PIG
			13.04								
Willard, Donald #2	240.25	113	5	\$1,441,488.00	\$888,917.60	\$228,235.60	\$324,334.80		6,000	2004	Muni PIG
			10								
			11								
			18								
Weeks III	18.52	106	7	\$240,708.00	\$81,470.40	\$24,070.80	\$135,166.80		13,000	2006	Muni PIG
Willever	26.56	109	2	\$273,588.60	\$155,387.70	\$51,795.90	\$66,405.00		10,300	2007	Muni PIG
			2.04								
Czar # 2	66.74	109	61	\$333,720.00	\$226,929.60	\$53,395.20	\$53,395.20		5,000	2007	Muni PIG
Czar # 3	25.17	110	5	\$133,395.70	\$81,044.18	\$18,625.06	\$33,726.46		5,300	2007	Muni PIG

Preserved Farms to Date: Pohatcong Township (Continued)																																																																																																																																																																																																						
Farm	Acres	Block	Lot	Total Cost	State Cost	County Cost	Twp. Cost	Other	Cost/Acre	Yr. Purch	Program																																																																																																																																																																																											
Jayne Investment Group	89.10	102	2	2,260,419.50	2,260,419.50				25,368.00	2007	SADC Fee Simple																																																																																																																																																																																											
		101	16.01									Weeks #1	79.08	105	2	\$695,912.80	\$407,267.15	\$132,460.68	\$156,184.97		8,800	2008	Muni PIG				46	Babinsky	41.91	99	2.02	\$562,977.00	\$300,254.40	\$100,084.80	\$162,637.80		13,500	2008	Muni PIG	Frey #1	138.60	111	1	\$771,602.90	\$446,301.66	\$102,566.22	\$222,735.02		5,567	2008	Muni PIG	2	Frey #2	72.14	98	25	\$569,890.20	\$317,407.20	\$93,779.40	\$158,703.60		7,900	2008	Muni PIG	Frey #3	25.37	98	9	\$304,392.00	\$182,635.20	\$60,878.50	\$60,878.30		12,000	2008	Muni PIG	Frey #4	13.00	98	10	\$304,935.61	\$101,376.60	\$67,584.40	\$135,974.61		23,462	2008	Muni PIG	Santini, Robert & Sharon	64.17	107	27	\$570,561.89	\$337,572.90	\$111,462.75	\$121,526.24		8,958	2008	Muni PIG	Zapatka #1	50.19	111	13.03	\$331,221.00	\$188,193.75	\$71,513.63	\$71,513.63		6,600	2008	Muni PIG	Zapatka #2	49.20	111	13	\$346,424.24	\$191,883.90	\$77,270.17	\$77,270.17		7,041	2008	Muni PIG	Warren Beagle Club	118.60	105	44	\$471,794.78	\$128,089.08	\$37,952.32	\$305,753.38		3,978	2009	Muni PIG	Bowers ¹	47.91	101	3	-	-	-	-		-	2014	-	Czar Farm ²	95.92	111	6	-	-	-	-		-	2014	-	Total	2,787.91	-	-	\$17,855,206	\$11,729,522	\$2,981,242	\$2,455,406	\$200,000		-	-	¹ Bowers farm was added to the Warren County Preserved Farmland Inventory in the fall of 2014.												² As of September 2014, the Czar Farm was anticipated to close in the near future.												Source:Warren County Department of Land Preservation	
Weeks #1	79.08	105	2	\$695,912.80	\$407,267.15	\$132,460.68	\$156,184.97		8,800	2008	Muni PIG																																																																																																																																																																																											
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Frey #2	72.14	98	25	\$569,890.20	\$317,407.20	\$93,779.40	\$158,703.60		7,900	2008	Muni PIG																																																																																																																																																																																											
Frey #3	25.37	98	9	\$304,392.00	\$182,635.20	\$60,878.50	\$60,878.30		12,000	2008	Muni PIG																																																																																																																																																																																											
Frey #4	13.00	98	10	\$304,935.61	\$101,376.60	\$67,584.40	\$135,974.61		23,462	2008	Muni PIG																																																																																																																																																																																											
Santini, Robert & Sharon	64.17	107	27	\$570,561.89	\$337,572.90	\$111,462.75	\$121,526.24		8,958	2008	Muni PIG																																																																																																																																																																																											
Zapatka #1	50.19	111	13.03	\$331,221.00	\$188,193.75	\$71,513.63	\$71,513.63		6,600	2008	Muni PIG																																																																																																																																																																																											
Zapatka #2	49.20	111	13	\$346,424.24	\$191,883.90	\$77,270.17	\$77,270.17		7,041	2008	Muni PIG																																																																																																																																																																																											
Warren Beagle Club	118.60	105	44	\$471,794.78	\$128,089.08	\$37,952.32	\$305,753.38		3,978	2009	Muni PIG																																																																																																																																																																																											
Bowers ¹	47.91	101	3	-	-	-	-		-	2014	-																																																																																																																																																																																											
Czar Farm ²	95.92	111	6	-	-	-	-		-	2014	-																																																																																																																																																																																											
Total	2,787.91	-	-	\$17,855,206	\$11,729,522	\$2,981,242	\$2,455,406	\$200,000		-	-																																																																																																																																																																																											
¹ Bowers farm was added to the Warren County Preserved Farmland Inventory in the fall of 2014.																																																																																																																																																																																																						
² As of September 2014, the Czar Farm was anticipated to close in the near future.																																																																																																																																																																																																						
Source:Warren County Department of Land Preservation																																																																																																																																																																																																						

Municipal Targeted Farms				
Block	Lot	Acreage	Property Location	Owner
101	13	55.98	91 MUNICIPAL DRIVE	SANTINI, ROBERT
101	15	32.77	EDGE ROAD	SANTINI, ROBERT
101	4	28.51	MUNICIPAL DRIVE	HOMA, JOHN A. & ROSEMARIE
102	3	9.67	SPRINGTOWN RD.	SLACK, DAVID
107	2	127	230 STILL VALLEY ROAD	MOYER, MRS. JOS., SR. (ESTATE)
110	20	38.892	146 MOUNTAIN ROAD	JABUBOWSKY, JOHN J.
110	9	44	311 ROUTE 627	KOERNER, FREDERICK, J. 111 & NORENE
111	11	9.99	211 MOUNTAIN ROAD	LATHROP, MARK S & MELISSA J
111	3	52.5	CREEK RD	HOMA FARMS
117	13	5.26	HUGHESVILLE	KOERNER, FREDERICK J. 111 & NORENE
78	1	103.591	888 NEW BRUNSWICK AVENUE	WARREN BUSINESS PARK C/O KAISERMAN
78	5.02	76.152	STILL VALLEY ROAD	COLE, RUSSELL E & MARGARET
93	4	48.68	LEE AVE.	EAI INVESTMENTS, LLC
93	5	119.58	HIGH ST.	EAI INVESTMENTS, LLC
98	15	14.83	61 WINTERS ROAD	HARTUNG, FLORENCE P/TRUST
98	21	65.83	121 CREEK ROAD	WALLACE, ROBERT LEE & LINDA K
98	23	222	71 CREEK ROAD	HOMA FARMS
109	8	60.97	264 CREEK ROAD	KERN, JERRY W & SANDRA J

County Targeted Farms				
Block	Lot	Acreage	Property Location	Owner
101	13	55.98	91 MUNICIPAL DRIVE	SANTINI, ROBERT
101	15	32.77	EDGE ROAD	SANTINI, ROBERT
107	2	127	230 STILL VALLEY ROAD	MOYER, MRS. JOS., SR. (ESTATE)
107	3	40.24	240 STILL VALLEY ROAD	EHASZ, STEPHEN A. & KAREN LEE
109	55	95.01	387 ROUTE 627	CRONCE, CLIFFORD ESTATE OF
110	45	54	MOUNTAIN ROAD	SCHWARTZ, ROBERT J
111	15	35.7	95 PINCHERS POINT ROAD	YOUPA ELIZABETH
111	17	68.01	69 PINCHERS POINT ROAD	A&E REALTY ASSOCOCIATES, LLC
78	1	103.591	888 NEW BRUNSWICK AVENUE	WARREN BUSINESS PARK C/O KAISERMAN
78	5.02	76.152	STILL VALLEY ROAD	COLE, RUSSELL E & MARGARET
95	2.06	33.1	275 OBERLY ROAD	OBERLY, JACK
95	2	52	HIGH ST	OBERLY, JACK R
98	23	222	71 CREEK ROAD	HOMA FARMS

Source: Warren County Department of Land Preservation, 2008 Pohatcong Township Farmland Preservation Plan

Chapter 285. ZONING

Article IV. General Regulations

§ 285-31. Right to farm.

A. Findings.

- (1) The Planning Board of the Township of Pohatcong has found and so recommended and the Township Council hereby finds and determines that farming has existed and been carried on in the Township for hundreds of years and long before the residential development that has since been prevalent in the Township. The Planning Board further finds that residences have been located in close proximity to existing working farms that engage in spraying, the spreading of animal wastes, fertilizing and irrigation, as well as other activities which are indigenous to farming. The Planning Board has found and determined that farmers must be secure in their ability to earn a livelihood and utilize customary farming procedures and techniques.
- (2) It is hereby determined that whatever nuisance may be caused to others by these farm uses and activities is more than offset by the benefits from farming to the neighborhood, community and society in general by preservation of open space, presentation of the beauty of the countryside, production of necessary food products and preservation of clean air and water.
- (3) The preservation and continuance of farming operations in Township of Pohatcong and in the State of New Jersey will ensure a source of agricultural products for this and future generations and preserves land, a nonreplenishable resource.

B. Right to farm declared a permitted use. The right to farm lands and properties herewith zoned for that use within the Township of Pohatcong is hereby recognized to exist as a right to the farmer, his agents or assigns to utilize his land and properties in such manner as to pursue his livelihood, and is hereby declared to be a permitted use in all zones of the Township, notwithstanding specific and prohibited uses set forth elsewhere in the land use regulations of the Township of Pohatcong, subject only to the restrictions and regulations set forth in any applicable Township, county and state health codes and regulations.

C. Examples of activities. The right to farm recognizes the following activities, which are by way of example and not by way of limitation:

- (1) Use of irrigation pumps and equipment, aerial and ground seeding and spraying equipment, tractors and other equipment.
- (2) Use of necessary farm laborers.
- (3) The application of chemical fertilizers, insecticides and herbicides, in accordance with manufacturer's instructions, and the application of manure.
- (4) The grazing of animals and use of range for fowl, subject to the standards and regulations for intensive fowl and livestock use.
- (5) Construction of fences for animals and livestock.
- (6) The traveling and transportation of large, slow-moving equipment over roads within the Township.
- (7) The control of vermin and pests, provided that such control is practical pursuant to applicable state fish and game laws.
- (8) The use of land for recreation purposes, e.g., snowmobiling, etc., shall be done only with the permission of the farm owners. Any recreational use of the farmland which changes the underlying agricultural nature of the use shall be subject to the usual site plan review, variance applications and all permits

where otherwise required.

- D. Time, noise and odors. The activities set forth herein are incidental to the right to farm and, when reasonable and necessary for that particular farming activity and livestock or fowl production, and when conducted in accordance with generally accepted agricultural practices, may occur on holidays, Sundays and weekdays, at night and during the day. The noise, odors, dust and fumes that are caused by these activities are recognized and are declared ancillary to the permitted activities set forth in this section and to the right to farm.
- E. Notice of right to farm. For the purpose of giving due notice of nearby uses to proposed residents, the Planning Board shall require an applicant for a major or minor subdivision, as a condition of approval thereof, to include the following notice, both on the subdivision plat itself and in an instrument in recordable form, to provide constructive record notice to buyers of the existence of any proximate, nonresidential uses, such instrument to be approved by the Planning Board prior to the filing of the final subdivision plat or recording of any deed(s), as the case may be. Such notice shall read as follows: "Grantee is hereby noticed that there is, or may in the future be, farm use near the described premises from which may emanate noise, odors, dust and fumes associated with agricultural practices permitted under this section of the Township of Pohatcong Zoning Ordinance."
- F. Standards for farm animals. The following standards shall apply to the keeping of farm animals.

[Amended 10-2-2001 by Ord. No. 01-9]

- (1) A minimum two-acre lot is required for the keeping of one animal unit. For farms larger than two acres in area, one animal unit shall be permitted for each acre.
- (2) A minimum two-acre lot is required for the keeping of up to one dozen free-ranging fowl. An additional acre is required for each additional dozen fowl up to a total of 100 fowl. The keeping of more than 100 fowl or the erection of a poultry shed larger than 150 square feet shall be considered a commercial operation and shall require site plan approval. Poultry sheds shall conform with the size and setback requirements specified in the performance regulations for accessory uses in the zone in which they are located.
- (3) Anyone keeping fowl shall be required to provide a plan which is approved by the agricultural extension service or Soil Conservation District which addresses the disposal of waste from the fowl.
- (4) Anyone keeping pigs and swine shall be required to conform with Chapter **299**, Pigs and Swine, of the Pohatcong Township Code.
- (5) A horse farm shall be considered a commercial operation when the number of rental stalls exceeds two or if lessons, trail rides or other organized activities are provided. A commercial horse farm shall require a minimum ten-acre lot and shall require site plan approval. Adequate off-street parking shall be provided at the rate of one space for every rental stall and one horse trailer space for every two rental stalls. Driveways and parking areas need not be asphalt or concrete but shall be constructed of stone or gravel.
- (6) The storage of animal manure shall be accomplished in accordance with proper management practices as suggested by the agricultural extension service and the Soil Conservation Service.

Chapter 285. ZONING

Article IV. General Regulations

§ 285-30.1. Small solar energy systems.

[Added 5-3-2011 by Ord. No. 11-06]

- A. Purpose. The purposes of this section regulating Small solar energy systems (110% production) are as follows:
- (1) The primary purpose of a small solar energy system is to provide power for the principal use of the property whereon said system is to be located and shall not be for the generation of power for commercial purposes, although this provision shall not be interpreted to prohibit the sale of excess power generated from a small solar energy system to a supplier/provider. For the purposes of this section, the generation of power shall be limited to 110% of the average annual energy consumed for the principal use of the subject property.
 - (2) Small solar energy systems require approval from the zoning officer prior to installation. Applications for an energy system shall include information demonstrating compliance with the provisions of this section. In the event that the zoning officer does not believe the provisions of this section will be satisfied, an applicant may request a variance.
 - (3) All applications for small solar energy systems are to be submitted for site plan and/or variance and waiver review to the Planning Board or the Zoning Board, as necessary, when variance(s) and/or waiver(s) are requested.
- B. Locational priorities. Small solar energy systems shall be located in accordance with the priorities listed below.
- (1) Priority 1. Solar arrays shall be rooftop-mounted.
 - (2) Priority 2. Solar arrays shall be ground-mounted in the rear yard.
 - (3) Priority 3. Solar arrays shall be ground-mounted in the side yard.
- C. Small solar energy systems (110% production).
- (1) The site plan shall conform with the design standards in Chapter **224**, Site Improvement Standards, of the Pohatcong Township Code.
 - (2) Rooftop solar arrays for small solar energy systems are permitted as an accessory use in all zones subject to the following requirements.
 - (a) Rooftop solar arrays shall not exceed a height of 12 inches from the rooftop of a peaked roof and not exceed a height of four feet from the existing roof surface of a flat roof.
 - (b) In no event shall the placement of the solar energy system result in a total building height, including panels and mounting equipment, greater than what is permitted in the zoning district which the subject energy system is located.
 - (3) Ground-mounted solar arrays for small solar energy systems are permitted as an accessory use in all zones subject to the following requirements.
 - (a) Maximum size: no more than 10% of a lot may be devoted to a ground-mounted solar energy system; however, in no case shall a ground-mounted solar energy system exceed 2,500 square feet.
 - (b) Ground-mounted solar energy systems shall not exceed a height of 10 feet as measured from the grade plane to the highest point of the mounting equipment and/or panel(s), whichever is higher.
 - (c) Minimum setback: All ground-mounted solar energy systems shall have a distance of 20 feet from all property lines in residential zoning districts or 50 feet from any property line in commercial zoning

districts.

- (d) Ground-mounted solar energy systems shall not be permitted in any front yard.
- (e) Ground-mounted solar energy systems are permitted in the rear yard.
- (f) Ground-mounted solar energy systems are permitted in side yards, if screened from the street and adjacent properties by evergreen landscaping to create a continuous buffer.
- (g) Ground arrays shall not be located in any constrained area as defined by § 285-26H(2).
- (h) Ground arrays shall not contribute to impervious surface calculations, unless installed above an impervious surface.

(4) Design and improvement standards.

- (a) systems shall not be used for displaying any advertising except for reasonable identification of the manufacture or operator of the system. In no case shall any identification be visible from a property line.
- (b) systems shall not significantly impair a scenic vista or scenic corridor as identified in the Township's master plan or other published source.
- (c) The natural grade of the lot shall not be changed to increase the elevation of any wind turbine or solar array.
- (d) Wires, cables and transmission lines running between the device and any other structure shall be installed underground.
- (e) All ground-mounted electrical and control equipment shall be secured to prevent unauthorized access.
- (f) The design shall, to the extent reasonably possible, use materials, colors, textures, screening and landscaping that will blend the facility into the natural setting and existing environment.
- (g) Installation shall conform to the National Electric Code as adopted by the New Jersey Department of Community Affairs.
- (h) Installation is subject to all local electric company requirements for interconnection.

D. Abandonment.

- (1) Any small solar energy system which has not been in use for a period of six months shall be removed by the property owner. This removal shall occur within 60 days of the end of such six-month period. Upon removal, the site shall be cleared and restored. Any and all costs of removal shall be the sole responsibility of the property owner. In order to ensure compliance with these requirements, the owner shall provide a performance bond and/or other assurances satisfactory to the appropriate land use board and the Township Council, to cover the cost of removal of the antennas, the supporting equipment, any auxiliary structures enclosing related equipment and any other related improvements to the land which are required to be removed. The amount of the performance guaranty shall be 120% of the estimated cost of removal and shall be subject to the approval of the Township Engineer. Failure to remove an abandoned tower or antenna shall entitle the Township to remove same at the owner's expense.
- (2) When an owner of a system as defined herein has been notified to remove same and has not done so six months after receiving said notice, then the Township may remove such system and place a lien upon the property for the cost of the removal. If removed by the owner, a demolition permit shall be obtained and the facility shall be removed. Upon removal, the site shall be cleaned, restored and revegetated to blend with the existing surrounding vegetation at the time of abandonment.

RANKING SHEET

Applicants Name
 Project Area
 SADC ID #
 POINTS AWARDED 15.04
 COUNTY RANKING

Ranking Date
 Previous Ranking Date

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 consistant with local and county zoning? 2 MAX 2 pts.
 Is the application consistant 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