COMPREHENSIVE FARMLAND PRESERVATION PLAN ELEMENT

TOWNSHIP OF HOWELL MONMOUTH COUNTY, NEW JERSEY

Howell Township Planning Board

Adopted on June 2, 2011

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INTRODUCTION

This Comprehensive Farmland Preservation Plan for the Township of Howell has been prepared in accordance to the guidelines set forth by the State Agriculture Development Committee (SADC). These guidelines supplement the rules promulgated in N.J.A.C. 2:76-17A, update the previous planning standards and incorporate recommendations from the 2006 edition of the *Agricultural Smart Growth Plan for New Jersey*, the Planning Incentive Grant Statute (N.J.S.A. 4:1C-43) and the NJ Department of Agriculture Guidelines for Plan Endorsement under the State Development and Redevelopment Plan.

In 2005 the Township of Howell adopted its previous Farmland Preservation Plan, an element of the Master Plan. One of the factors providing an impetus for this update is the need to comply with the State Agriculture Development Committee's requirements for the new Municipal Planning Incentive Grant Program. Pursuant to the SADC guidelines, the plan includes a number of components that address the township's agricultural land base, its agricultural industry, land use planning, an overview of the Farmland Preservation Program, the future of farmland preservation in the township, economic development, natural resource conservation and agricultural industry sustainability, retention and promotion of preserving farm land.

I. HOWELL'S AGRICULTURAL LAND BASE

The Township of Howell is located in the southernmost portion of Monmouth County and borders on Ocean County. The township's geography is diverse, containing woodlands, rolling fields, various pockets of wetlands and a large coastal floodplain area. The township has waterbodies traversing its farms and residential communities. These water bodies include the Manasquan Reservoir, the northern branch of the Metedeconk River, sections of the Manasquan River, and various small streams such as Swamp Brook, Marsh Bog Brook, Mingamahone Brook, Squankum Brook, Stack Brook, and Bear Swamp Brook. The township is essentially a suburban and rural community and has experienced rapid growth over the last several decades. Although the predominant land use in Howell is residential, the municipality accommodates a range of other land uses of an agricultural, commercial, and industrial nature. Howell's housing stock is mainly single-family residential, nevertheless the town contains some higher density multi-family residential units. Interstate 195 and State Highway Route 33 traverse the township in an east-west direction and provide regional access to Trenton, the Garden State Parkway and the New Jersey Turnpike. State Highway Route 9 and State Highway Route 34 traverse the township in a north-south direction and provide good local access to municipalities in Middlesex County, Monmouth County and Ocean County.

A. LOCATION AND SIZE OF AGRICULTURAL LAND BASE

According to 2007 data obtained from Howell Township's Tax Assessor's Office, there are a total of 395 farmland-assessed lots in the municipality. These lots comprise approximately 5264 acres of farmland, as depicted in **Figure 1, Farm Properties Map**. Howell Township contains within its borders 61 square miles or 39,040 acres; therefore, the farmland assessed properties account for approximately 15.3 percent of the municipality.

The 2002 NDEP Land Use/Land Cover data indicates that there are 4731 acres of land in active agricultural production. Forested lands, that may be farmland assessed,

are not counted as agricultural lands. Cropland and pastureland make up the largest share of the actively farmed lands in Howell.

Type of Agricultural Land	Acreage
Agricultural Wetlands (Modified)	1196
Confined Feeding Operations	31
Cropland and Pastureland	2388
Orchards/Vineyards/Nurseries/Horticultural Areas	201
Other Agriculture	915
Total	4731

Table 1a Active Agricultural Lands in Howell Township

Source: 2002 NJ DEP Land Use Land Cover GIS layer

B. DISTRIBUTION OF SOIL TYPES AND THEIR CHARACTERISTICS

According to the 1999 NJDEP Geologic Map of New Jersey, Howell Township lies entirely within the Coastal Plain physiographic province of the state. The Coastal Plain consists of unconsolidated sediments, which range in age from Cretaceous to Miocene (13.5 to 5.3 million years old), dip toward the coast and extend beneath the Atlantic Ocean to the edge of the Continental Shelf. The Coastal Plain sediments consist of layers of sand, silt and clay deposited alternately in deltaic and marine environments as sea level fluctuated during Cretaceous and Tertiary time. These layers of sediment outcrop in irregular bands that trend northeast to southwest. Wide areas of the Coastal Plain are covered by a thin veneer of Late Tertiary and Quaternary sand and gravel deposited by rivers. The topography of the Coastal Plain generally is flat to very gently undulating. Slope of the land is a critical factor in agricultural productivity. Steep slopes are prone to erosion, while little to no slopes contains poor drainage. Soil productivity is of utmost importance as soils with the ideal physical and chemical properties are necessary for producing food, feed, forage, fiber and row crops. Such soils have good moisture-holding capacity, permeability, natural fertility, level land and chemical composition. Aquifers are geological formations that contain significant quantities of saturated permeable materials such as porous soil or rock formations, which enables water to percolate from the surface. Aquifers yield water to wells and springs. Protection of the water quality of the aquifer is of prime importance to maintain an adequate potable water supply in the region. Howell Township contains an outcrop area of the Kirkwood-Cohansey and Vincentown aquifers.

There are a wide variety of major soil types found throughout Howell that lend to the viability of the township's farmland properties. Brief descriptions of each of the

above mentioned soil types, based on the *Monmouth County Soil Survey*, are presented below.

Adelphia series (Adn) consists of moderately well drained and somewhat poorly drained soils on the uplands. These soils formed in acid, loamy, Coastal Plain sediments that are, by volume, 10 to 40 percent glauconite. The slope ranges from 0 to 5 percent.

Atsion sands (Ats) are a nearly level, poorly drained soil found in depressional areas and on broad flats. The surface and subsurface layers are made up of sand, while the subsoil is comprised of loamy sand and sand. Permeability of the Atsion soil is moderately rapid or rapid in the subsoil and rapid in the substratum. The available water capacity is low. The apparent seasonal high water table is between the surface and a depth of 1 foot from November to June and is a major limitation for crop growth and development. Runoff is very slow and erosion is a slight hazard. While the Atsion sand is suited to specialty crops such as blueberries, which require drainage and land smoothing, it is not suited to commercial woodland production because of high potential pitch pine production.

Collington soils (Cok and Cop) are nearly level to strongly sloping and well drained. They are found on divides and side slopes. The surface layer is sandy loam and loam and the subsoil are made up of sandy loam and sandy clay loam. Collington soils are agriculturally viable and tend to be used for common field crops, hay, sod, vegetables and pasture. Horse farms are also prevalent.

Downer soils (Doc) are nearly level to strongly sloping and well drained. They are located on divides and side slopes. The surface layer is comprised of sand and sandy loam and the subsoil is comprised of sandy loam. Most Downer soil areas are used for common field crops, hay, sod and vegetables and some areas are used for pasture. Horse farms are also commonly found on Downer soils.

Elkton loam (Eka) soils series consists of poorly drained soils on upland flats. These soils are formed in acid, clayey Coastal Plain sediments. Slopes range from 0 to 2 percent.

Evesboro soils (Eve series) are gently sloping to steep and excessively drained. They are found on divides and side slopes. The surface layer and the subsoil are comprised of sand. This soil series, not generally good for farming, is typically wooded.

Fallsington series consists of excessively drained soils on the uplands. These soils are formed in acid, loamy, Coastal Plain sediments. Slope ranges between 0 to 2 percent.

Freehold soils (Frf, Frk and Frr) are nearly level to moderately steep and well drained. They are found on divides and side slopes. The surface layer is comprised of loamy sand, sandy loam and loam, while the subsoil is sandy loam and sandy clay loam. This soil series is agriculturally viable and is used for common field crops, hay, sod, vegetables and sometimes pasture. Horse farms are prevalent in areas containing Freehold soils. Hammonton series consists of moderately well drained or somewhat poorly drained soils on uplands. These soils formed in acid, loamy, Coastal Plain sediments. Slope ranges from 0 to 5 percent.

Holmdel soils (Hoc) are nearly level, gently sloping, moderately well drained and somewhat poorly drained. They are found in depressions and on low divides. The surface layer is made up of sandy loam and the subsoil is made up of sandy loam and sandy clay loam. The Holmdel soil series is used for common field crops, hay, sod, vegetables, horse farms and sometimes pasture.

Humaquepts (Humt) are frequently flooded soils that are somewhat poorly drained to very poorly drained. They are located in flood plains along perennial and intermittent streams. The surface layer and the subsoil are stratified sandy loam, loam and silt loam. Humaquepts are generally wooded areas that are poorly suited to most uses because of the seasonal high water table and flooding. A few areas along some of the wider flood plains are used for pasture.

Keyport soils (Kem) are nearly level to moderately steep and moderately well drained. They are found in depressions and on side slopes. The surface layer is made up of sandy loam and the subsoil is comprised of silty clay loam. Some of the soils that formed the Keyport series were formed in pyritic materials and thus have pyritic clay that may be exposed during excavations. Pyritic clay does not support vegetation. Generally, Keyport soils are used for community development, are wooded or are used as orchards, for general farming or for irrigated truck crops.

The Klej series consists of moderately well drained or somewhat poorly drained soils on uplands. These soils are formed in acid, sandy, Coastal Plain sediments. Slope ranges from 0 to 5 percent.

Lakehurst soils (Lak) are nearly level and moderately well drained and somewhat poorly drained. They are found in depressions and on low divides. The surface layer is sand and the subsoil is loamy sand and sand. Lakehurst soils are wooded and are poorly suited to farming. If farming takes place, irrigation is necessary and droughts are a concern.

Lakewood soils (Las) are nearly level to moderately sloping and are excessively drained. They are found on divides and side slopes and have surface and subsurface layers comprised of sand. Lakewood soils are poorly suited to general farming practices and are either wooded or farmed with irrigation amenities. Some areas are used for pasture but the possibility of droughts is a limitation.

Manahawkin muck (Mak) soils are very poorly drained and are located in wide depressions and on broad flats on lowlands. The upper layers are muck and the substratum is comprised of loamy sand and sand. Most Manahawkin areas are wooded and are not suited to most uses because of the seasonal high water table and flooding. A few areas are used for pasture.

The Pemberton series consists of moderately well drained and somewhat poorly drained soils on uplands. These soils are formed in acid, loamy Coastal Plain sediments that are as much as 30 percent glauconite by volume. Slope ranges from 0 to 5 percent.

Phalanx soils (Phb) are deep and well drained. They exist on side slopes and have a surface layer comprised of loamy sand. The subsoil is made up of loamy sand and sandy loam. Phalanx soils are found in areas that are wooded or used for community development and sometimes found in areas used for pasture, general farming and irrigated truck crops.

The Pits series consists of sand and gravel pits.

Sassafras soils (Sac) are nearly level to steep and well drained. They are located on divides and side slopes. The surface layer is a mix of sandy loam, gravelly sandy loam and loam while the subsoil is sandy loam and sandy clay loam. Sassafras soils are found in areas used for common field crops, hay, sod, vegetables, horse farms and pasture.

Shrewsbury soils (Shr) are nearly level and poorly drained. They are found on broad flats and in depressions and drainage ways. The surface layer is comprised of sandy loam and the subsoil is comprised of sandy loam and sandy clay loam. These soils are generally used for common field crops, hay, sod, orchards and nursery stock. Some areas are used for pasture and some are woodland.

Tinton soils (Thg and Thh) are deep and well drained. They are found on divides and side slopes. The surface layer is loamy sand more than 20 inches thick and the subsoil is sandy clay loam. Tinton soils are primarily used for woodland and community development and secondarily used for pasture, general farming and irrigated truck crops.

Urban land soils (Uda) consist of areas that are covered by industrial, commercial and residential development. These soils may have been cut or graded and make up most fill material used to support buildings.

Woodstown soils (Woe) are nearly level and gently sloping and moderately well drained. They are located in depressions, in swales and on low divides. The surface layer is sandy loam and loam and the subsoil contain sandy loam and sandy clay loam. Horse farms are prevalent in Woodstown soil areas. Other uses include common field crops, hey, sod and vegetables. Some areas are used for pasture.

Prime farmland soils such as Adelphia loam, Downer series, Freehold series, Hammonton series, Holmdel series, Keyport series, Sassafras and Woodstown series are among the prime farmland soils prevalent in the northwestern section of the township. According to the U.S. Department of Agriculture, prime farmland soils are best suited for producing food, feed, forage, fiber and oilseed crops. Prime farmland soils produce the highest yield and require minimum amount of energy and economic resources and farming it results in the least damage to the environment.

Farmland soils of statewide importance include soils with a land capability of Class II and Class III that do not meet the criteria as prime farmland soils. However, these soils are nearly prime farmland soils and economically produce high yields of crops when treated and managed with acceptable farming methods. Some may produce yields as high as prime farmland soils, if conditions are favorable. Typical farmland soils of statewide importance include the Collington, Downer, Elkton, Fallingston, Freehold, Hammonton, Keyport, Klej, Pemberton, Sassafras, Shrewsbury, Tinton and the Woodstown soil series.

Farmland soils of local importance include those soils that are not prime or statewide importance soils and are used for the production of high value food, fiber or horticulture crops. Howell Township does not contain any soils of local importance.

Unique farmland soils are similar to local farmland soils. However, these soils can only support specialized crops only. Unique soils within the township include Atsion and the Manahawkin Muck soil series.

The Howell Township Conservation Plan Element of 2005 compared the land cover mapping with the agricultural soil mapping to conclude that the majority of the prime and statewide important soils in the township continue to be used for agriculture. The soils described above are shown on Figure 3, Targeted Farms Soils Map and Figure 9, Farmland Soils Within Agriculture Land Use. Table 1b below summarizes the acreage for the farmland soil classifications within Howell Township.

Table 1b: Howell Township Soil Classification				
Soil Classification Acres				
Prime Farmland	4,086			
Statewide Importance	9,238			
Unique Importance	8,437			
Total	21,761			

Source: USDA-NRCS Soils GIS Layer

Prime farmland, statewide importance and unique importance soils account for 56% (21,761 acres) of the soil within Howell Township.

As might be expected, prime farmland soils, soils of state importance, and unique soils comprise the majority of the 4,206 acres of active agricultural land within the township. Table 1c depicts the soil classifications that are located within active agricultural areas. The northern portion of Howell, particularly the northwest section, contains the most favorable soils in the township.

Table 1c: Soil Classifications within Areas of Active Agriculture				
Soil Classification Acres				
Prime Farmland	1126			
Statewide Importance	1502			
Statewide Importance if Drained	121			
Unique	349			
Other	1108			
Total	4206			

Sources: USDA-NRCS Soils GIS Layer and 2007 NJDEP Land Use/Land Cover GIS Data

C. NUMBER OF IRRIGATED ACRES AND AVAILABLE WATER RESOURCES

The NJ Farm Bureau considers water supply for agricultural lands to be one of its top issues. Most Howell Township farmers rely to some extent on precipitation, which is an average of 44 inches a year in New Jersey, to nourish crops during the growing season. Additionally, they depend on both surface and groundwater for their water supply. Some of the municipality's less intensive farm operations rely solely on precipitation and a property's residential water supply. Several farms in Howell Township utilize some type of an irrigation system.

The NJ DEP's Bureau of Water Allocation requires farmers to obtain water use registration or certification papers to withdraw large quantities of surface water or groundwater. If an applicant has the capacity to divert and/or withdraw 100,000 gallons per day, a water use registration would be required. The withdrawal of more than 100,000 gallons per day will require a water use certification and is valid for a total of five years. Forms for the registration and certification can be obtained through the NJDEP Bureau of Water Allocation.

Based on information that was supplied by the NJDEP Bureau of Water Allocation, there are two farms that have the required certification and registration: Reid Sod Farm and Twin Pond Farm. It is becoming very difficult to obtain water withdrawal use certifications due to the competition from other land uses and extensive environmental regulations. This is now a concern for farmers within the Township of Howell.

Table 2 compares the irrigated acres in Howell with Monmouth County for the years 1983 to 2007 as per the New Jersey Farmland Assessment data.

Table 2									
Irrigated Acres Per NJ Farmland Assessment Data									
	Field Fruit Ornamental Vegetable Tota								
Location	Crops								
Year 2007									
Howell Township	13	1	39	12	65				
Monmouth County	282	101	785	281	1449				
Year 2004									
Howell Township	5	0	39	12	56				
Monmouth County	32	55	978	217	1282				
Year 2000									
Howell Township	11	1	31	12	55				
Monmouth County	93	90	1033	286	1502				
Year 1991			·	·					
Howell Township	Howell Township 10 1 144 1 156								
Monmouth County	314	37	1353	186	1890				
Year 1983/1984 (used different reporting method than subsequent years)									
Howell Township	n/a	n/a	n/a	n/a	570				
Monmouth County	n/a	n/a	n/a	n/a	6168				

Source: NJ Farmland Assessment data

For the last two decades Howell farmers have reported only a modest number of irrigated acres on their Farmland Assessment forms. Since the 1983 reporting period, there has been a marked drop off in Howell's irrigated acreage. This reduction can be attributed partly to changes in reporting methodology. Yet irrigation within the entire county also dropped significantly during the 1983 to 1991 period and continued to decrease between 1991 and 2004. Conversion of farmland to other land uses most likely played a role in this decline. Interestingly, the county's irrigated acres rose from 2004 to 2007. A changing mix of agricultural operations and weather conditions probably influenced these fluctuations.

The NJ Farmland Assessment information appears to under-report irrigated acres within Howell. The township's Farmers Advisory Committee estimates that Howell farms actually exceed 500 irrigated acres. This total includes several vegetable farms, sod farms and nurseries that are heavily dependent on irrigation resources. Tellingly, the 2002 US Census of Agriculture reported 228 irrigated farms in Monmouth County that comprise 5409 acres. In contrast, the Farmland Assessment data from 2004 lists 1282 irrigated acres within the county.

The Township of Howell is located in two Watershed Management Areas (WMAs): Watershed Management Areas 12 and 13. WMA 12 extends from Perth Amboy to

Point Pleasant Beach and is comprised of an assemblage of coastal subwatersheds, all or a portion of which fall into 56 municipalities in the Raritan Bay and Atlantic Coastal drainage basins. WMA 12 includes the Manasquan River and its tributaries. Although the majority of impacted municipalities are in Monmouth County, several lie within the boundaries of Middlesex and Ocean Counties. WMA 13, the Barnegat Bay Watershed, includes tributaries such as the Metedeconk that drain the central Atlantic drainage of New Jersey. The Barnegat Bay Watershed is a 660 square mile area encompassing most of Ocean County, as well as parts of Monmouth County.

As noted above, a number of Howell farms require some type of irrigation system. As described in the *Monmouth County Farmland Preservation Plan* adopted in April of 2008, there are a number of ways to irrigate a farm. Surface water from the local watershed can be collected and stored in a pond and then used to supply agricultural water needs. This method is often used for irrigation during periods of lower than normal precipitation. If the area to be irrigated is near a stream, it may be possible to withdraw water without building a pond. Groundwater is also a source of irrigation water. It may be removed by drilling a well and installing a pump, a potentially expensive proposition. On properties with a high water table, a farmer may be able to tap groundwater to create a pond without having to drill.

Farmers can obtain assistance with irrigation and water quality enhancement projects through the United States Department of Agriculture-Natural Resource Conservation Service (USDA-NRCS). The NRCS prepares conservation plans for both preserved and non-preserved farm owners. These plans may identify water use needs and delivery systems as well as conservation practices. The NRCS and its sister agency, the Farm Service Agency, can help landowners obtain cost-share grants to implement these plans.

D. FARMLAND ASSESSMENT AND CENSUS OF AGRICULTURE STATISTICS AND TRENDS

Out of the 53 municipalities in Monmouth County, only 12 municipalities have significant farmland remaining. Howell Township was ranked number three among the top ten agricultural municipalities in Monmouth County in 2004. According to NJ Farmland Assessment data (accessed in 2007), there are a total of 395 farmland-assessed lots in Howell Township that comprise approximately 5264 acres of farmland (excluding farm houses and other nonagricultural sections of the lots). The farmland represents 13.5% of the township's total of 39,040 acres. This compares to a total of 1,978 farmland-assessed properties in Monmouth County for the same year comprising of approximately 53,160 acres. Therefore, the number of farms in Howell Township account for about 20 percent of the farms in Monmouth County. On the other hand, the farm acreage in Howell Township accounts for about 10 percent of the farms tend to be small.

As per the 2002 U.S. Census of Agriculture, the average size of a farm unit in Monmouth County was 53 acres whereas the median size was 15 acres. These numbers dropped in the 2007 census to 47 acres and 11 acres. As per the data

obtained from the Howell Township Tax Assessor, the average size of a farm in Howell Township is 15 acres while the median size is 9.9 acres.

Tables 3a, 3b, 4, 5, and 6 show the composition and acreage of agricultural land over time as reported in NJ Farmland Assessment forms during select years from 1983-2007.

Table 3a: Howell Township Agricultural Land in Acresas Per 2007 NJ Farmland Assessment Data					
Agricultural UseHowell TownshipPercent					
Cropland Harvested	2164	41.1%			
Cropland Pastured	186	3.5%			
Permanent Pasture	915	17.4%			
Subtotal	3265	62.0%			
Unattached Woodland	814	15.5%			
Attached Woodland	947	18.0%			
Equine Acres	238	4.5%			
Total	5264	100%			

Source: 2007 NJ Farmland Assessment data

Table 3b: Howell Township Agricultural Land in Acresas Per 2004 NJ Farmland Assessment Data					
Agricultural UseHowell TownshipPercent					
Cropland Harvested	2,605	40.3%			
Cropland Pastured	203	3.1%			
Permanent Pasture	1161	18.0%			
Subtotal	3,969	61.4%			
Unattached Woodland	1334	20.6%			
Attached Woodland	915	14.2%			
Equine Acres	245	3.8%			
Total	6463	100%			

Source: 2004 NJ Farmland Assessment data

In the year 2004, as indicated in Table 3b, the harvested and pastured cropland accounted for 43% of Howell's farmland whereas unattached and attached woodland accounted for 35% percent of the farmland area in the township. Permanent pasture accounted for about 18 percent of the farmland area whereas equine acres covered 3.8%. It appears that in 2004 Howell had 3,969 acres in production, accounting for 61.4% of the township's farmland. Based on the data from Tables 3a and 3b, there was a significant decrease in agricultural land between 2004 and 2007. Not surprisingly, this corresponded to a period of rapid development within the township.

Table 4: Howell Township Agricultural Land in Acresas Per 2000 NJ Farmland Assessment Data						
Agricultural Use Howell Township Percent						
Cropland Harvested	3,225	48.6%				
Cropland Pastured	156	2.4%				
Permanent Pasture	1,067	16.1%				
Subtotal	4,448	67.0%				
Unattached Woodland	868	13.1%				
Attached Woodland	1,110	16.7%				
Equine Acres	211	3.2%				
Total	6,637	100%				

Source: 2000 NJ Farmland Assessment data

In the year 2000, as indicated in Table 4, harvested and pastured cropland accounted for more than half the farmland in the township (50.9%), whereas unattached and attached woodland accounted for 29.8 percent of the farmland area in the township. Permanent pasture made up about 16.1 percent of the farmland area whereas equine acres were reported to be only 3.2 percent of the farmland area. It appears that land in the active agricultural use for 2000 totaled 4,448 acres and accounted for 67.0% of the township's farmland.

Table 5: Howell Township Agricultural Land in Acres asPer 1990 NJ Farmland Assessment Data						
Agricultural Use Howell Township Percent						
Cropland Harvested	3,396	59.6%				
Cropland Pastured	160	2.7%				
Permanent Pasture	865	14.5%				
Subtotal	4,421					
Unattached Woodland	665	11.1%				
Attached Woodland	886	14.8%				
Total	5,971	100%				

Source: NJ Farmland Assessment 1990 data

In the year 1990, as indicated in Table 5, the harvested, pastured cropland and permanent pasture accounted for almost three quarters of the farmland in the township (74%), whereas woodlands accounted for 26 percent of the farmland area. 1983 had a similar subtotal of tilled land with woodlands and wetlands comprising 26% of the total acreage.

Table 6: Howell Township Agricultural Land in Acres as Per 1983 NJFarmland Assessment Data							
Agricultural UseHowell TownshipPercent							
Cropland Harvested	3,690	54.3%					
Cropland Pastured	452	6.6%					
Permanent Pasture	896	13.2%					
Subtotal	5,011						
Woodland/Wetlands	1,763	25.9%					
Total	6801*	100%					

Source: NJ Farmland Assessment 1983/4 data

*There appears to be a math error in the total acreage reported in the state's 1983/1984 table

Table 7: Howell Township Total Agricultural Land in Acres as Per the NJ Total Farmland Assessment Data						
Agricultural Use	Year 1983-84	Year 1990	Year 2000	Year 2004	Year 2007	Percent Decline (1983-2007)
Total	6801	5971	6,637	6463	5264	22.6%

Source: NJ Farmland Assessment data for 1983,1990, 2000, 2004, 2007

As depicted in Table 7, there has been an overall decline in the acreage of agricultural land in Howell. In 1983 the Township of Howell contained 6801 acres of agricultural land, which declined by 23% percent to 5,264 acres of agricultural land in 2007 (5657 with associated residential acreage). In Howell's case, the decline was not steady. Overall acres farmed dipped in 1990, rose in 2000 and then decreased again in the subsequent reporting periods.

II. AN OVERVIEW OF MONMOUTH COUNTY AND HOWELL TOWNSHIP'S AGRICULTURAL INDUSTRY

Howell Township's agricultural heritage is typical of Monmouth County. As stated in the Monmouth County Farmland Preservation Plan, the county's early economy was based on subsistence farming. The farm operations included but not limited to grain, hay, and nonperishable livestock items. Following the Civil War, the production of perishables, including milk, eggs, fruits, and vegetables became more prominent. According to the Howell Township Environmental Resource Inventory, in the 1920s and 1930s a large wave of Jewish New Yorkers moved to Howell with help from the Jewish Agricultural Society. This organization encouraged émigrés to operate poultry farms. At the local poultry

industry's peak in the 1930s, Monmouth County was the leading egg producer in the nation.

According to the United States Census of Agriculture, Monmouth County had 139,465 acres of farmland in 1954. By 2007, this total had declined 68% to 44,130 acres, a loss of 92,267 acres of farmland. Despite losing a significant amount of farmland acreage, the county's agricultural community remains an important part of the local economy.

Trends in Market Value of Agricultural Products Sold

Among other New Jersey counties in 2007, Monmouth County ranked fourth in the state in the number of farms, third in the market value of agricultural products sold, and eighth in farmland acreage. Monmouth County also had the highest number of certified nurseries and the second-highest acreage of nursery stock among all New Jersey counties, with 6,170 acres of nursery stock outdoors and over two million square feet under glass protection. Farmland in Howell Township saw similar declines over the last 50 years and by 2004 the Township contained 5698 acres of farmland, or 5% of farms within Monmouth County.

Although municipal level data is not available, county trends related to agricultural industry composition is illustrative. According to the 2002 Census of Agriculture, of \$81 million of agricultural products sold in the county each year, the vast majority is tied to the nursery, greenhouse, floriculture and sod industry (73%). Vegetables, melons and potatoes account for 11% of the sales in the county, and horses for 7% of the market value. Updated figures for the 2007 Census of Agriculture show total sales of Monmouth County agricultural products at \$105 million, \$80 million of which are attributable to crops including nursery and greenhouse. Livestock sales account for the remaining \$25 million in sales.

Table 8: Market Value of Agricultural Products Sold in Monmouth County							
Census Year	Market Value	Average Per Farm					
1987	\$56,598,000	\$67,378					
1992	\$50,945,000	\$59,935					
1997	\$68,841,000	\$70,461					
2002	\$81,551,000	\$91,425					
2007	\$105,413,000	\$113,104					

Source: US Census of Agriculture

Apart from a dip in 1992, possibly due to an economic recession in the early 1990s, the market value of agricultural products sold in Monmouth County rose 86% from 1987 to 2007. This value increase parallels the US Bureau of Labor Statistics CPI-U rate of inflation of 82.5% for the same period (CPI-U is the Consumer Price Index for All Urban Wage Earners). Current prices for local products reflect these trends. For example, the price of Grade "A" tomatoes is \$32 a crate and hay prices have increased to \$5-6 a bale.

In 1988 comprehensive report on the state equine industry (New Jersey Department of Agriculture, 1988) noted that "Monmouth County has to be considered the foundation county of the New Jersey equine industry. Monmouth County ranks first in every equine-related category except one (number of equine not related to the racing industry)". According to the 2002 Census of Agriculture, Monmouth County ranked first in the state in terms of both the total horse and pony inventory and the number of horses and ponies sold.

Despite national and statewide prominence in numerous agricultural categories, several sectors of Monmouth's farming industry have shown a marked decline in the last few decades. In 1959, Monmouth County had 510 poultry farms and 58 dairy farms compared to 21 poultry farms and 1 dairy in 1997 and 8 poultry farms and no dairies in 2002. The last dairy in the county ceased operation in 2000. Competition from other areas, low commodity prices, and high production costs have all contributed to the decline.

Also, vegetable production has shown a marked decline due to the loss of major food processing plants in New Jersey. The acreage of farmland devoted to vegetable production for processing has gone to field crop production, ornamental plant nurseries, sod or horse farms or has been sold to developers. Vegetable production for the fresh market has shown a slower decline due to strong local markets for fresh produce (New York and Philadelphia), direct marketing to supermarkets and farm stands, and at pick-your-own vegetable operations. Recently, vegetable farmers have included specialty crops such as herbs, oriental and other ethnic vegetables, pumpkin and field flowers to meet the growing demand from consumers. The farmers' response to changes in the marketplace has contributed to the overall economic health of the agricultural industry in Monmouth County (Richard Obal, 1997).

Historically, Howell Township's economic base had relied on lumber production in the southern half of the Township and agriculture in the northern half of the Township. Agriculture remained a strong industry in Howell during the 20th Century. Cranberries and blueberries were important local crops while poultry and eggs were major farm products. Howell has diverse agriculture from small horse farms to egg production to sod farms and more traditional crop based agriculture.

Crop and Production Trends Over the Last 20 Years

Table 9 compares the top categories of agricultural production in Howell Township from 1984 to 2007. Consistent with the overall rate of decline of agricultural land in the township, the total acreage of field crops dropped substantially during this time period. Nursery, horticultural and sod acreage has declined more slowly. These operations sell plant material directly to consumers at garden centers and farm markets or may sell directly to landscapers. The market for vegetables has suffered somewhat in the last couple of decades with the loss of major food processing plants in New Jersey although interest in fresh, local produce has sustained some Howell vegetable growers and attracted new farmers. Laying chickens saw a huge increase from 1984 to 1990 and has remained steady since. This increase may correspond to improved automation of facilities such as Puglisi Egg Farm in Howell Township. Interestingly, head of equine in Howell increased between 1984 and 2004, dropping slightly in 2007. This probably reflects a transition of other types

Table 9: Agricultural Production in Howell Township Over Time									
Type of Production	2007	2004	2000	1990	1984				
Field Crops (acres)	1,101	1,343	1,963	1,729	2,545				
Nursery (acres)	610	781	786	1,026	926				
Vegetables (acres)	332	218	427	313	449				
Laying Chickens (#)	151,173	141,716	156,598	156,776	30,570				
Equine Livestock (head)	1,129	1,214	1,075	775	680				
Timber (board feet)	165	4,000	12,500	4,125	1,965				

of farming operations to equine uses. Overall, trends for the production categories listed are similar to those in Monmouth County as a whole.

Source: NJ Farmland Assessment data

Support Services Within Market Region

Howell's agricultural economy relies on a network of internal and external service providers. Farm owners within Howell Township have begun to incorporate different kinds of services into the use of their farms, specifically including a trend towards the establishment of farm stands. The equine industry is very important within the township. A number of horse farms or stables provide breeding and training facilities as well as riding and boarding arrangements. The remaining agricultural lands are devoted to the growing of commercial fruits and vegetables. Nursery and horticultural operations are present within the township, and most farmers sell plant material directly to the consumers at garden centers and farm markets or may sell directly to landscapers.

Local and regional commercial vendors and professionals supplement the services provided directly by Howell Township's farms. Stores such as Farmer's Brokerage and Supply (FB&S), located in Upper Freehold, sell seed, hardware, parts for tillage equipment, chemicals and fertilizers, etc. Farm supplies are obtained from stores such as Agway, Crop Product Services in Allentown, Plant Food Inc., etc. The equine industry has its own network of suppliers that grow and sell hay and feed, and offer veterinary services. Hay, feed and horse food is obtained from suppliers found within Monmouth County such as Monmouth Feed, located on Route 547/Squankum Road in Farmingdale, The Hungry Puppy, located on Route 33 East in Howell and Hemlock Hill Farm on Phalanx Road in Colts Neck. Large animal veterinarians can be found in Colts Neck, Millstone and Upper Freehold. Farriers and sheep shearers all can be hired within the region.

For additional information on where to obtain support services and market agricultural products, Rutgers Cooperative Extension of Salem County sponsors an excellent Internetbased resource directory titled "Green Pages: An Agricultural Resource Guide".

The web address is http://salem.rutgers.edu/greenpages/index.html

The guide provides contact information for service providers in such categories as Certified Public Accountants, Construction and Feeds and markets such as produce and livestock auctions.

III. LAND USE PLANNING CONTEXT

Howell's agricultural land base and agricultural industry fit within a larger land use planning context. This chapter will examine the State Plan, the Municipal Master Plan, zoning, overall land use patterns and trends, existing and proposed infrastructure, and various planning techniques.

A. STATE DEVELOPMENT AND REDEVELOPMENT PLAN

The *New Jersey State Development and Redevelopment Plan* (SDRP) was first adopted in 1992 and later updated and revised in March 2001. The SDRP sets forth a vision and a plan for the future of New Jersey. To help realize this vision, the SDRP identifies goals and strategies that are intended to guide public policy decisions. The SDRP continues to strongly support the preservation of agriculture in the State. In fact the promotion and preservation of agriculture in the State is a major goal of the SDRP and is supplemented by 23 separate statewide agricultural policies to be used by state, county and local agencies in their planning and decision-making processes.

The SDRP designates land areas within New Jersey into one of five planning areas. Within the SDRP, Planning Areas serve a pivotal role by setting forth policy objectives that guide the application of the plan's statewide policies within each area and serve to achieve the goals of the State Planning Act. A Planning Area is a large mass of land with tracts that share certain characteristics, such as population density or natural features.

In addition, Planning Areas guide local planning and decisions on the location and size of Centers and Cores within Planning Areas and protect or enhance the environs of these Centers, primarily in Planning Areas 3 through 5. The Planning Areas are listed below.

- PA 1 Metropolitan Planning Area
- PA 2 Suburban Planning Area
- PA 3 Fringe Planning Area
- PA 4 Rural Planning Area and
- PA 4B Rural / Environmentally Sensitive Planning Area
- PA 5 Environmentally Sensitive Planning Area and
- PA 5B Environmentally Sensitive/Barrier Islands Planning Area

Characteristics that define Planning Areas include population density, infrastructure, road systems, land area, adjacent land areas, soils and natural environmental features. Farmland can be located in any Planning Area but a majority of the state's agricultural lands, including 94 percent of all preserved farmland in the state are

found in the PA4 and PA 4B areas. According to the 2001 SDRP Map, the following Planning Areas are located in Howell Township:

- PA2, which is located to the southern, southwestern and western portion of the township
- PA3, which is located in a small portion to the northern and southern portion of the township
- PA4B, which is located in the central portion of Howell and traverses the eastern and western boundaries of the township.
- PA5, which is located to the northern and southern portions of the township.

In addition, there is a section in the central portion of the township, designated as Parks and Natural Areas. This area extends up to the eastern boundary. According to the SDRP these areas are not like Planning Areas where the objectives for land use, housing and economic development can be applied. Rather, these lands represent public investment specifically for resource preservation and the provision of recreational opportunities. In Howell Township these areas encompass parks such as Manasquan Reservoir, Howell Park, and Allaire State Park.

In addition to the State Planning Areas the Office of Smart Growth has designated five types of Centers where growth should occur. Centers are areas of intense development that are hubs for commercial, industrial, residential and government uses. The types of designated Centers include hamlets (smallest), villages, towns, regional centers, and urban centers (largest). There are no Centers located within the Township of Howell.

Municipal Plan Endorsement is a voluntary review process designed to ensure the coordination of state, county and municipal planning efforts in achieving the goals and policies of the State Planning Act. A center designation can be achieved by plan endorsement. The State Development and Redevelopment Plan is the blueprint for achieving these goals and provide the template for coordination. The endorsement process expands upon the requirements of the Municipal Land Use Law (MLUL) and incorporates the planning initiatives of the State agencies. It is through Plan Endorsement that local, county and state governments may work together to develop coordinated capital investment and planning decision-making mechanisms that are consistent with the State Plan and with each other.

Upon Endorsement of a municipal plan, municipalities are entitled to financial and technical incentives that will assist them to make their endorsed plans a reality. These incentives are based on the actual endorsed and may include enhanced scoring for grant funding, low-interest loans, tax credits, prioritized technical assistance, and coordinated regulatory review among the State agencies to identify additional incentives for municipalities to complete the process.

Currently Howell Township does not contain any of the above mentioned center designations where the Office of Smart Growth encourages development. A map of the State Plan can be found in Figure 8 of this report.

B. SPECIAL RESOURCES AREAS

Howell contains significant farmland and has many unique and valuable natural resources. However, no areas of the township fall within any state or federal special resource areas such as the Highlands, Pinelands or CAFRA zone.

C. TOWNSHIP MASTER PLAN AND COUNTY MASTER PLAN

The Township of Howell Master Plan was adopted in 1994 and an updated Land Use Plan was adopted in 2004. Soon after the adoption of the Land Use Plan, the township encountered some factors, which were not considered while adopting the Plan in 2004 such as the provision of age-restricted housing in terms of its need and potential methods of providing the same and the court decision which invalidated ordinances adopted in 2001, which rezoned areas of North Howell to Agricultural Rural Estate 6 (ARE-6). An amendment to this 2004 Land Use Plan was prepared and adopted in 2006. The 2006 adopted Land Use Plan was amended and re-adopted on November 19, 2007. Additionally, the Open Space and Recreation Element was adopted in 2001 and amended in 2003; the Farmland Preservation Plan Element and the Stormwater Management Plan were adopted in 2005; and the Housing Element and Fair Share Plan were prepared and adopted in 2006 and amended and re-adopted in 2008.

The 2007 Land Use Plan Element aims to promote the goals and objectives of Howell Township through the incorporation of local policies and strategies in accordance to the State Development and Redevelopment Plan and the Western Monmouth Development Plan. It seeks to conserve natural resources, protect the environment; provide infrastructure in advance of, or concurrent with new development; provide adequate public services at reasonable cost; provide affordable housing consistent with COAH requirements; and preserve and enhance historic sites, open space and recreational lands. More specifically for agriculture the following goals and objectives were identified:

- To encourage the preservation of agriculture through proactive planning where there are suitable conditions for the continued operation and maintenance of agricultural uses.
- To preserve a large contiguous land base to assure that agriculture remains a viable, permanent land use.
- To coordinate agricultural preservation activities with the State Agriculture Development Committee, Monmouth County Agriculture Development Board and open space preservation activities in the township.
- To continue to seek the expansion and preservation of Agricultural Development Areas.
- To recognize agriculture as a significant economic industry in the community and to encourage economic opportunities in this industry.
- To provide financial incentives, financing mechanisms and enhanced opportunities for agricultural businesses that assist in maintaining agriculture as a viable economic activity.

• To encourage compatibility between agricultural operations and neighboring nonagricultural development through the right-to-farm ordinance.

The 2005 version of Howell's Farmland Preservation Plan Element strives to preserve the township's agricultural heritage. The overall goal identified in this plan is to preserve to the maximum extent practical, Howell's agricultural industry and to promote farmland preservation. To realize this goal, the 2005 plan articulates the following policies:

- To designate a farmland preservation district in Howell Township.
- To participate in county, state and local preservation programs to assure maximum efficiency and coordination.
- To remove, wherever possible, impediments to agricultural retention.
- To avoid measures, that would accelerate loss of agricultural land. Zoning in agricultural areas should be principally low density residential. Infrastructure extensions through or to agricultural areas should be discouraged.
- To coordinate farmland preservation with other forms of open space protection to maximize the public benefit of such programs.
- To utilize farmland preservation with other forms of open space protection to maximize the public benefit of such programs.
- To utilize farmland preservation as a community development tool by providing agricultural "environs" around population centers.
- To recognize that agriculture is a diverse and evolving industry, which should be accommodated.

This update of Howell's Farmland Preservation Plan will continue to promote and implement the above-listed goals. However, Chapter 5 presents some modifications and additions.

The Farmland Preservation Plan Element of the Master Plan mentions that the 1999 Open Space Plan recommended the creation of a Farmland Preservation District to include areas that contained the township's greatest concentration of prime agricultural soils and active farms. By creation of this district the agricultural industry would have the most likely chance of long-term preservation. A copy of the Township of Howell's zoning map can be found in Figure 10 of this report.

In comparison, the County of Monmouth had several iterations of its Master Plan over the years. The following excerpt from the 2008 *Monmouth County Farmland Preservation Plan* details the history and current status of the county Master Plan:

History

"The preservation of farmland, and the agricultural component of the County's economy, has been a long-standing goal of the Monmouth County Planning Board. *The General Development Plan 1969-1985* contained a land use plan for the County that proposed urban development in three main areas of the County: The Garden State Parkway corridor; the Route 9 corridor; and a greater-Trenton metropolitan area near Allentown. The land use plan also identified certain areas of the County that

were more suitable for agriculture, open space, and low-density development. These areas of the County were more suitable for agriculture, open space, and low-density development. These areas were located in central Monmouth between the Route 9 and Garden State Parkway growth corridors and in western Monmouth."

The Monmouth County Growth Management Guide (GMG), adopted a guide in 1982, designated Growth Areas and Limited Growth Areas on its Growth Management Guide Map. The GMG identified two Growth Areas based on four planning and development criteria: the presence of existing or planned infrastructure; proximity to existing major population and employment centers; proximity to established urban centers; and public transportation service. As in the General Development Plan, the growth areas generally followed the Route 9 and Garden State Parkway corridors. The County Plan delineated two Limited Growth Areas based on the following criteria: absence of infrastructure; presence of significant areas of environmentally sensitive or special use lands, and lack of public transportation. The Central Limited Growth Area roughly includes those areas with tributaries leading to the Swimming River Reservoir and the Manasquan River Reservoir. The Western Limited Growth Area is generally located west of the Route 9 Growth Corridor and was designated due to the presence of prime agricultural soils and Agriculture/Conservation Areas that generally coincide with the Limited Growth Areas consisting primarily of farmlands and woodlands. Main objectives of the guide include the preservation of prime agricultural land and the maintenance and expansion of the agricultural potential of the county. The guide proposed a regional approach to farmland preservation through a coordinated effort with municipalities, other regional agencies and the state."

Current Status

The *Monmouth County Growth Management Guide: Goals, Objectives and Policies,* adopted in 1995, updated, revised and reaffirmed the County's planning goals. One of the main goals of the guide is to promote and preserve the agricultural industry and to provide assistance in farmland preservation. These goals, objectives and policies are listed below:

Objective 1

1. Encourage the purchase of development rights on farmland for the purpose of maintaining working farms and agricultural lands.

Policies

- 1.1. Continue to support the County and State Farmland Preservation Programs. Encourage cooperation with private organizations such as the New Jersey or Monmouth Conservation Foundations to preserve farmlands through various innovative techniques such as using estate planning for acquisition of development rights.
- 1.2. Cooperate with other County departments such as the Monmouth County Parks System to preserve farmland and enhance open space networks.

- 1.3. Develop additional farmland preservation programs on the County and local levels.
- 1.4. Investigate and encourage other dedicated funding sources for farmland preservation.

Objective 2

2. Assist municipalities in developing and implementing innovative land use programs, which would promote farmland preservation and retain agricultural uses.

Policies

- 2.1 Encourage creative land planning and design to accommodate future growth while avoiding conflict with existing agricultural uses.
- 2.2 Encourage the establishment and operation of a Transfer of Development Rights (TDR) Program on the county or local level to promote development at higher densities in specific areas in an effort to preserve farmland or natural and cultural resources of significant importance in other areas.
- 2.3 Encourage municipalities to designate Agricultural Zones in their Master Plans.
- 2.4 Encourage municipalities to assist farmers by delineating agricultural districts.
- 2.5 Encourage cluster development, which enables the developer to reduce the lot area for each house to preserve open space and farmland through more efficient land planning.
- 2.6 Encourage municipalities to develop, adopt and enforce Right-to-farm ordinances where farming is still viable.
- 2.7 Encourage the streamlining of the permitting and licensing processes for agricultural operations.
- 2.8 Encourage development in "centers" in order to conserve agricultural lands, and promote a more compact and efficient growth.
- 2.9 Encourage the consideration of the water needs of the agricultural industry in water supply planning.
- 2.10 Encourage the use of agricultural lands in appropriate areas for the recycling and composting of non-farm generated biodegradable and organic materials.

Objective 3

3. Develop programs and practices to enhance the retention and development of an active agricultural industry.

Policies

- 3.1 Encourage the rural economy to promote beneficial economic growth that recognizes the need to diversify the rural economy and provide opportunities for off-season employment without interfering with agriculture.
- 3.2 Encourage economic development that supports agriculture as an independent industry.
- 3.3 Encourage the supply of decent, safe and reasonably priced housing that will benefit agricultural employees.
- 3.4 Encourage the support of Farmland Assessment Act.
- 3.5 Educate residents on the economic and environmental value of the agriculture industry.
- 3.6 Encourage access to capital funding sources and the provision of grant programs to assist farmers.
- 3.7 Encourage the use of best management practices to ensure the viability of farming operations while protecting natural resources.

D. CURRENT LAND USE AND TRENDS

According to data obtained from Monmouth County Online Public Record Search System¹, there are a total of 19,239 parcels within the township. Of those, 395 parcels are farmland assessed. About 16,228 parcels have been identified as residential, 2,109 parcels have been identified as vacant, 441 parcels have been classified as commercial use, and 66 have been identified as industrial. Therefore, residential use is a predominant land use in Howell Township.

Birdsall Services Group reviewed the Howell Township Master Plan, dated December 1994, the Howell Township Conservation Plan Element, dated December 19, 2005, and the 2005 Farmland Preservation Plan to cull information on the acreage of land for the years 1975, 1994 and 2004 devoted to vacant and farmland parcels. This information is incorporated in Table 10 and was compared to evaluate the change in land use.

¹ Monmouth County Online Public Record System. <u>http://oprs.co.monmouth.nj.us/oprs/index.aspx</u>; Accessed on October 30, 2007.

Type of Land Use	Acres in 1975	Change 1975-1994	Acres in 1994	Change 1994-2004	Acres in 2004
Residential	3,339	6,822	10,161	1,809	11,970
Vacant & Farmland	25,794	-11,036	14,758	-2,998	11,760
Commercial	477	671	1,148	9	1,157
Industrial	556	294	850	-271	579
Public Property	5,047	603	5,650	1,400	7,050
Parks and Open Space	2,623	1,719	4,342	-2	4,340
Other Exempt ¹	-		-		696
Rights-of-way	1,908		2,835		2,192
Total Land Area	39,744		39,744		39,744

Table 10:	Howell Townshi	n Land Use	Comparison	1989-2004
	HUWCH LUWIISH	p Lana Osc	Comparison	1/0/-2004

NOTE: The 1975 and 1994 data was obtained from the 1994 Howell Township Master Plan while the 2004 data was obtained from the Office of the Township Engineer included in the 2005 Farmland Preservation Plan Element

From Table 10 it is evident that the amount of vacant land and farms has decreased considerably over a period of 30 years. The amount of land devoted to residential uses increased substantially from 1975 to 1994. This upward incline continued from 1994 to 2004, although not as much as between the years 1975 and 1994. As more and more acres of land are converted for residential uses, less farmland and vacant land are available for preservation. As depicted in Table 10, the township has sustained a total loss of 14,034 acres of vacant and farmland in a period of 30 years, of which there has been a loss of 2,998 acres of farmland and vacant land in a period of 10 years from 1994 to 2004.

In addition to the above, Birdsall Services Group reviewed the NJDEP LU/LC data from 2002, 1995/1997 and 1986 to compare township trends. See Table 11 as well as Figures 5, 6 and 7. The NJDEP LU/LC data for 2002 indicates that the township contained 3780 acres (9.6%) of agricultural land, 12,854 acres (32.9%) of urban land within the township, while 8,726 acres (22.3%) of forest area was present and 643 acres (1.6%) of the township contained barren land. Unlike the previous analysis of active agricultural land, agricultural wetlands (modified) were counted in the wetlands category.

Based on a review of the NJDEP LU/LC data from 1995/1997, the township contained 11,421 acres of urban land, 4,285 acres of agricultural land and 9,338 acres of forest area. Thus urban land increased from 1995 to 2002 at the expense of agriculture. Trends throughout the more rural portions of the county concurred during this time.

Due to the fact that the NJ DEP used somewhat different methodology in its 1986 data layer, it is somewhat harder to evaluate trends. Additionally, the total acreage does not sync with subsequent years. A tally of GIS acreage for the 1986 NJDEP LU/LC data layer indicates that township contained 5,521 acres of agricultural land, 9,767 acres of urban land, and 8,647 acres of forest. Interestingly, the creation of the

Manasquan Reservoir between 1987 and 1989 lead to an increase in open water in Howell. Much of that land was previously covered by swampland and forest.

Table 11: Land Use Land Cover in Howell Over Time								
Land Use Type	2002 (acres)	1995/97 (acres)	1986 (acres)					
Agriculture	3,791	4,285	5,521					
Barren Land	633	504	869					
Forest	8,728	9,338	8,647					
Urban	12,784	11,421	9,767					
Water	993	1,006	223					
Wetlands	15,810	16,184	14,093					
Total	42,739	42,738	39,120					

Source: NJ DEP Land Use/Land Cover Data

E. SEWER SERVICE AREAS / PUBLIC WATER SUPPLY SERVICE AREAS

Please note that the township's wastewater management plan has not yet been adopted by the county, and the county's Wastewater Management Plan has not yet been adopted by the State. Therefore, Figure 4, Target Farms Sewer Service Area Map, incorporates the township's current Section 208 Water Quality Management Plan data to indicate the location of the Target Farms with respect to the existing and proposed sewer service areas within the municipality. The 208 Plan determines where future development can occur within the township. A portion of a targeted farm, DiGregorio, is located in the existing sewer service area. This overlap occurs in the north westerly portion of the township, which has seen the most intense development to date.

Currently, the town and county are working to adopt updated sewer service area boundaries in Howell Township. At a Wastewater Management Plan (WMP) meeting on December 8, 2009, Howell provided a map to Monmouth County officials showing the extent of sewer service area that the township wanted conveyed in the Monmouth County WMP. County and municipal officials have worked closely to update the sewer service areas based on the most current land use information and municipal planning efforts. The current draft County WMP reflects Howell Township's recommendation with some additional modifications as required by NJ DEP.

Figure 12 shows the proposed sewer service area boundaries that are in the final stages of review. Portions of several target farms are located within the updated sewer service area boundaries, yet as stated above, only a portion of one target farm

(DiGregorio) is located in a current sewer service area with access to sewer utility hook up. Those farms located in the proposed sewer service area are not currently able to access sewer utilities, and significant development of the neighboring area would be required in order for the parcel to have access to sewer service.

The township's public water supply is located within existing sewer service areas and the township does not have a current map which depicts the location of its public water lines. Most of the water is supplied by New Jersey American Water Co.. Information as to the location and type of waterlines had not been provided to the township by New Jersey American Water Co. Due to security reasons New Jersey American Water Co. keeps the location of water lines confidential.

F. OVERVIEW OF MUNICIPAL MASTER PLAN AND ZONING

As mentioned earlier, the Howell Township Master Plan is consistent with the State Plan goals and strategies. The Township Master Plan seeks to conserve natural resources, protect the environment; provide infrastructure in advance of, or concurrent with new development; provide adequate public services at reasonable cost; provide affordable housing consistent with COAH requirements; and preserve and enhance historic sites, open space and recreational lands. The Farmland Preservation Plan Element was prepared in accordance with the goal of preserving the township's agricultural heritage identified in the Master Plan and to preserve to the maximum extent practical, Howell's agricultural industry and to promote farmland preservation.

1. General Lot Size Categories

As mentioned earlier, there are a total of 19,239 parcels within the township. Of those, only 395 parcels are farmland assessed while over 16,228 parcels have been identified as residential. Out of the remaining lots, 2,109 parcels have been identified as vacant, 441 parcels have been classified as commercial use, and 66 have been identified as industrial. The residential land use plan includes 17 types of districts of varying densities and/or types of residential buildings. These 17 types of residential zones districts and the minimum lot area requirements are depicted in Table 12 below. A copy of the Township of Howell's zoning map can be found in Figure 10 of this report.

Table 12: Residential Zone Districts						
Zone District Name	Zone District Abbreviation	Minimum Lot Size and/or Tract Size Permitted				
Agricultural Rural Estate						
Agricultural Rural Estate	ARE-6	6 acres or 2 acres for cluster development.				

	ARE-4	4 acres or 1.5 acres for cluster development
	ARE-3	130,680 sq. ft. (3 acres) or 1.25 acres for cluster development
	ARE-2	87,120 sq. ft. (2 acres) or 1 acre for cluster development
	ARE-1	43,560 sq. ft. (1 acre)
Agricul	tural Rural E	state / Natural Resource
Agricultural Rural Estate / Natural Resource Protection Zone	ARE-C	1 acre if developed as per ARE-1 standards or 250 acres tract size for cluster development as per the R-3 standards with open space.
Agricultural Rural Estate / Natural Resource Wilderness Protection Zone	ARE-NRW	2 acres and 6 acres according to the applicable ARE-2 and ARE-6 standards OR 335 acres tract for cluster development with 230 contiguous acres open space, 12,500 sq. ft. lot area
Environme	entally Sensiti	ve/Low-Density Residential
Environmentally Sensitive Low-Density Residential 6 Zone	R-6	40 acres tract size with lot area 12,000 sq. ft. and density 0.65 du/gross acre
Recreational Residential Community	RRC	Lot area 10,500 sq. ft.; gross density of 0.5 du/gross acre
	Medium-Der	nsity Residential
R-2 Residential District	R-2	20,000 square feet
R-3 Residential District	R-3	15,000 square feet
	High-Densi	ity Residential
R-4 Residential District	R-4	10,000 square feet
R-50 Residential District	R-50	5,000 square feet
Planned Retirement Community	PRC	100 acres tract; 7,200 square feet (9,600 square feet corner lot);
	Mult	i-Family
R-5 Residential Age-Restricted Zone	R-5	10 acres tract; density 7 du/gross acre
Mobile Home Park	MHP	20 acres tract size
Moderate and Low-Income Housing Zone	ML-7	Minimum 20 acres tract; Maximum 100 acres/2,000 sq. ft. lots for Town homes Block 110, Lot 178: Lot area 6,000 square feet, Corner lot 9,000 square feet Block 59.01, Lots 48-50: Tract area 15 acres

The township contains 36,830 acres with a total of 23,883 lots. To further break down the size of lots, information from Monmouth County was provided and shown in the table below:

Table 13: Howell Township Existing Lot Sizes						
Total Lots	Total Lots Total Acreage					
700	21,000	>10 acres				
681	4,762	>5-10 acres				
2,651	5,919	>1-5 acres				
19,851	5,149	<1 acre				
23,883	36,830	-				

The lowest density district is the Agricultural Rural Estate ARE-6 with a minimum lot area requirement of 6 acres. This zone is located in the central portion of the township and extends to the south and southeasterly portion of the township. There are areas zoned ARE-6 located to the northern, northwestern, northeastern and southwestern portions of the township. The ARE-4 zone is concentrated in a small area to northeastern portion of the township. The ARE-3 zone is located to the northeastern, eastern and southern portions of the township. The ARE-3 zone is located in the northernmost, the central and southern portions of the township. The ARE-2 Zone is located in the northernmost, the central and southern portions of the township. The environmentally sensitive low-density R-6 zone, Agricultural Rural Natural Resource Protection Zones ARE-NRW and ARE-C are located in a small area to the southern portion of the township.

The medium density residential districts, reflecting a density of approximately 2.17 to 2.9 dwelling units per acre, include zones such as R-2 and R-3, having a minimum lot area requirement of 20,000 square feet and 15,000 square feet respectively.

The highest density residential areas, as depicted in Table 12, are zoned for lot sizes less than 15,000 square feet. In addition, there are some areas in the township zoned for multi-family uses. Figure 10 of this report shows the township's zoning areas.

2. Innovative Planning Techniques

There are a number of development regulations employed by the township to maintain agriculture as a viable industry and preserve its rural character. Howell's ordinances and zoning code can be viewed at the following link: http://www.twp.howell.nj.us/

Cluster Zoning and Lot size Averaging

Howell's Agricultural Rural Estate zone districts are intended to minimize the impacts of development in the town's more rural sections. The goal of these districts is to retain large farm tracts, large contiguous wooded areas, enhance water quality and protect habitats. All subdivision applications within the ARE-6, ARE-4 and ARE-3 zone districts must select one of four development options –

open lands subdivisions, cluster subdivisions, lot averaging option, or the farmland preservation parcels. Conventional subdivisions are permissible for minor subdivisions and in cases in which the applicant can demonstrate to the Planning Board that the objectives of the district will be enhanced by the submission of a conventional subdivision. A brief description of the four main options is listed below.

- 1) Open lands subdivisions are intended to promote the retention of large contiguous wooded tracts and large farm tracts and to promote the aggregation of smaller wooded and farm parcels by preserving 55-75 percent of the tract as "open lands." The option also encourages and promotes flexibility, economy and environmental soundness in subdivision layout and design. At least 40% of designated open lands shall be some combination of unconstrained land, or prime soils or soils of statewide importance, or prime forested area. On active farmland or those tracts with prime and statewide soils, the preservation of agricultural lands and soils take precedence.
- 2) Cluster subdivisions preserve a minimum of 65 percent of the tract area as open space. At least 40% of the open space shall be uplands. This is designed to provide useful tracts of open space with residential development by permitting a reduction in minimum lot size area in return for permanent commitment of open space. Again, the preservation of agricultural lands and soils takes precedence on actively farmed tracts. To date, there has only been one subdivision application in Howell that used the cluster option.
- 3) Lot averaging subdivisions permit the reduction in the size of some lots so that others may exceed the minimum lot area requirements. The lot averaging approach requires that majority of lots fall within a specific range of sizes in order to permit large lots to meet specific onsite conservation objectives. The preservation of agricultural lands and soils takes precedence on actively farmed tracts.
- 4) Farmland preservation parcels provide a development option to an individual that intends to remove the development rights from a majority of his or her property, typically through a government or nonprofit preservation program. The applicant may retain a small number of lots, depending on the overall tract size, for the future development of single-family detached dwellings. The resulting lots are often smaller than what would otherwise be permitted and are intended to coincide with severable exceptions in the state agricultural deeds of easement. The applicant who requests this option must comply with the following ordinance provisions:
 - a) To qualify, the farmland preservation property must consist of a lot, tract or parcel with a minimum contiguous acreage of 15 acres.
 - b) The owner of the lot, tract or parcel of land who intends to place a portion of such property into farmland preservation shall be entitled to subdivide one or more residential lots from the lot, tract or parcel. The

remainder shall be placed in farmland preservation. Use of the subdivided lot shall be limited to a detached single-family dwelling with permitted accessory uses.

c) The number of lots subdivided shall be in accordance with the following table:

Range by Acres	Permitted Lots
15 to 29.99	1
30 to 49.99	2
50 or more	3

- d) The subdivided residential lot shall meet the following zoning requirements:
 - Minimum lot area: 1 acre
 - Lot Frontage: 100 feet
 - Minimum front yard setback: 50 feet
 - Minimum rear yard setback: 40 feet
 - Minimum side yard setback: 30 feet
 - Building coverage: 10%
 - Lot coverage:15%
 - Accessory buildings: side and rear yards shall equal building height.

Subdivision applications in the ARE-2 Zone must choose one of three options detailed above: the open lands subdivision, lot averaging subdivision or farmland preservation parcel subdivision. The cluster subdivision is not available. In addition the minimum open space set aside must be 50% and 20% uplands.

Non-contiguous cluster zoning – This type of zoning permits a parcel to be preserved by transferring its development potential to a non-contiguous parcel. The New Jersey Municipal Land Use Law (MLUL) permits a "sending area" parcel to be preserved as open space or farmland, and the "receiving area" parcel is permitted to be developed at a higher density than would otherwise be permitted. This option must be implemented through a planned development or between properties otherwise under common ownership so that there is no conflict with the State TDR Act. At this time, Howell does not utilize this planning tool but is open to the possibility in the future.

Buffers

Section 188-7 of the Township of Howell Land Use Ordinance sets forth the standards for Buffer Areas between the different zone districts. Pursuant to Section 188-7 (A) of the ordinance, a four-season fifty-foot (50') wide perimeter buffer to be provided by the applicant around all major subdivisions and adjacent to active farmland shall be in addition to any land area that is required under ordinance for use as a rear yard setback area for proposed residential lots.

Furthermore, no structure, activity, storage of materials, or parking of vehicles shall be permitted in a buffer area.

3. Development Pressures and Land Value Trends in Howell Township

As mentioned earlier in Section D, "Current Land Use and Trends," in a period of 30 years between 1975 and 2004, the amount of vacant land and farms in Howell has decreased considerably. According to the 2006 *Monmouth County At-a-Glance Report*, there has been overall population growth in Monmouth County, which is reflected in Howell Township. Table 14 compares the population data for Howell Township and Monmouth County.

Table 14: Population Data for Howell Township and Monmouth County								
Location			2006 (Estimated)	2025 (Estimated)	Percent Change 2000-2025 Projection (Estimated)			
Howell Township	38,987	48,903	51,773	64,078	31%			
Monmouth County	553,124	615,301	650,036	694,189	13%			

Source: Monmouth County At-a-Glance 2006; Monmouth County Cross-Acceptance Report (2005)

As indicated in Table 14, population estimates and projections for Howell Township show an increase in population from 38,987 in 1990 to 48,903 in 2000, which represents an overall increase of 25 percent. Additionally, a projection of 64,078 is shown for 2025, which represents an estimated increase of 31 percent during 2000-2025 time period. For Monmouth County, the estimated change from 2000 to the projected population of 2025 is 13 percent while the change from 1990 to 2000 was 11 percent. Therefore, the population in Howell is estimated to increase at a much faster rate than that of Monmouth County.

Increased population is correlated to an increase in residential and commercial development. Table 15 compares the number of residential building permits authorized from 2000 to 2007, which indicates a trend towards the development of only single-family residences.

Sections 188-63 (Buffers and Screening) and 188-69 (Agriculture and Rural Estate Zones) of the Howell Township Land Development Ordinance are utilized to accommodate expansion of housing without the sacrificing of valuable farmland. Based on review of Table 15, an annual average of 164 residential building permits are authorized yearly.

Table 15: Authorized Residential Building Permits									
Type of Unit	it 2000 2001 2002 2003 2004 2005 2006 2007 Total								
Single-Family	284	77	123	199	254	250	88	37	1312
Multi-Family	0	0	0	0	0	0	0	0	0
Total Units	284	77	123	199	254	250	88	37	1312
Sources: U.S. Bureau of the Census, Manufacturing and Construction Division;									
New Jersey Departme	ent of Labor an	d Workfoi	rce Develo	opment					

According to the U.S. Bureau of the Census, Manufacturing and Construction Division, there were 88 permits issued for single-family in the year 2006, while in the year 2007, there were 37 permits issued to date for single-family units. From the above table it appears the amount of residential units built in the year 2000 was the highest with a substantial drop in 2001 and a gradual rise between the years 2002 to 2005. Again there was a substantial drop in the years 2006 and 2007.

2008 marked the beginning of the current national recession. Accordingly, real estate prices have stabilized or decreased in the region and development pressure is now considered to be very minimal within the township. Table 17 indicates per acre agricultural easement values over time in Howell Township. The first two easements in Howell were purchased for less than \$10,000 an acre. From 2003 to 2008, however, values ranged somewhat erratically with a high of \$40,000 an acre to a low of \$15,800 an acre. Although the peaking real estate market probably contributed to a number of the high values, land characteristics and zoning also influenced price. Suffice it to say that higher land values increase competition from developers and limit the number of farms that can be preserved with available grant funding.

G. MUNICIPAL AND REGIONAL TDR OPPORTUNITIES AND IMPLEMENTATION STRATEGIES

The *Monmouth County Growth Management Guide*, encourages government entities to implement Transfer of Development Rights (TDR) strategies. TDR is a mechanism for transferring development rights from one location in a municipality or region to another. Sending areas are delineated for zones in which further development is inconsistent with local planning objectives. Landowners within sending areas may sever their development rights for payment, either by selling the rights directly to a developer or to a special TDR bank. Development rights that are purchased from the landowner or bank are directed to receiving areas. These designated areas have adequate infrastructure and minimal environmental constraints so they are able to accommodate increased density.

TDR is a market-driven system. A robust real estate market helps TDR rights/credits reach values high enough to interest sellers. In turn, a receiving area needs to be desirable and attractive enough to developers to make the extra effort and expense

worth undertaking (per conversation with Steve Bruder, March 2008). A slowdown of the real estate market would likely reduce the value of credits and deter TDR transactions (Jeffrey Donohoe Associates 2007). The real estate economy to date is at a low point, and TDRs at this time would be difficult to purchase and obtain.

Howell has not yet evaluated the feasibility of a TDR program as part of its efforts to preserve farmland. But as part of the ongoing Master Plan re-examination process, the township will explore the feasibility of a localized as well as a more regional TDR program. The State requirements for TDR studies and planning are very expensive and intensive. Were grant funding be available for a TDR feasibility study and planning work, it would facilitate Howell's ability to consider TDR as a planning tool.

However, there are other conservation methods that can be used if TDR is not an option for the township. For example, Howell's zoning ordinance has set aside provisions to support cluster development, lot size averaging and other development options in the different Agricultural Rural Estate (ARE) zones in the township. These measures serve to encourage the preservation of the agricultural industry within Howell Township. Howell is open to exploring other planning tools and density transfer mechanisms from agricultural land to areas with existing infrastructure but, unlike many other communities in the area, Howell does not have a downtown or extensive commercial zone in need of redevelopment.

IV. OVERVIEW OF HOWELL'S FARMLAND PRESERVATION PROGRAM

To plan for future farmland preservation efforts, it is helpful to identify the areas in which farmland is the preferred or dominant land use, recognize the township's accomplishments to date, and gain awareness of the available preservation options.

A. COUNTY AGRICULTURAL DEVELOPMENT AREAS

Agricultural Development Areas (ADA) serves as the focal point for the County and State's farmland preservation efforts. They are areas in which agriculture is the preferred land use. Farms must be in an ADA to be eligible for the State Agriculture Development Committee's farmland preservation programs. The State has set some minimum requirements for ADAs but each County defines its own more specific criteria and delineates its ADA on a map. According to Monmouth County guidelines, land will be considered part of a designated ADA if it meets the following requirements:

- 1. Land consists of a parcel or group of reasonably contiguous parcels with a minimum total area of 50 acres and which are currently in agricultural production or have a strong potential for future production.
- 2. Land is not already committed to non-agricultural development.
- 3. Land meets the statutory criteria for the identification of ADAs:
 - a. "Encompasses productive agricultural lands, which are currently in production or have a strong potential for future production in

agricultural is a permitted use under the current municipal zoning ordinance or in which agriculture is permitted as a non-conforming use".

- b. "Is reasonably free of suburban and conflicting commercial development".
- c. "Comprises not greater than 90 percent of the agricultural land mass of the County".
- d. "Incorporates any other characteristics deemed appropriate by the board". (See requirements 1 and 2 above)

The mapped ADAs in Howell Township total 15,934 acres. As these areas contain the majority of farmland within the township, Howell's Municipal PIG project areas were drawn to correspond to the three main county ADAs that lie in Howell. As depicted in Figure 3, Target Farms Map, the township's target farms are concentrated in the Manasquan River Reservoir West, North Central and Manasquan River South sections of Howell. Although three other ADAs also fall within Howell's borders, they do not contain any target farms at this time and were, therefore, not designated as project areas in this plan update.

B. FARMLAND PRESERVED TO DATE BY PROGRAM

According to the Monmouth County Agriculture Development Board, as of May 2, 2011, there were 13,204 acres of preserved farmland in Monmouth County. Of which, the Township of Howell possessed 625 acres. The agricultural easements in Howell Township are as follows:

Table 16: Preserved Farmland in Howell Township								
Original Owner	Block	Lot	Year	Acres	Program			
Meade, David	166	17, 21	1987	63.063	County EPP			
Keymer, Susan	178.06	8, 14, 15	2001	62.82	County EPP			
Borshowsky, Paul	3	20	2003	25.24	Direct			
Marchese, Susan	156	6	2004	9.8	County EPP			
Brocklebank, S. Wayne	176; 183	42.05; 31	2004	46.878	Municipal PIG			
Giambrone, Arthur	176	41, 42.02	2004	16.092	Municipal PIG			
Archbold, Elsie	170; 171; 44	30.03; 10.01; 9	2005	32.325	Municipal PIG			
Linney John and Lissa	175	23.04	2006	11.594	Municipal PIG			
Casale George	151	8	2006	8.961	Municipal PIG			
Peacock, Donald	224	14	2006	5.551	Municipal PIG			
Costigan, John	224	33	2006	11.137	Municipal PIG			
Sunset Stables, LLC	135	9.03, 9.04, 9.05, 9.06	2007	26.957	Municipal PIG			

Plum Tree Holding Company, LLC	151	18	2007	42.3	Municipal PIG
Cuddihy John J. Jr	138	30.01, 49	2007	43.928*	Municipal PIG
Aker/Mazza	154	5.02	2007	10.077	Municipal PIG
Schottman/Shaffery	42	59.01	2007	9.013	Municipal PIG
Okerson Farm	164	7.01, 13.01	2007	35.402	Municipal PIG
Reed, Carol	138	30	2007	15.65	Municipal PIG
T&T Realty, LLC	42	6, 15, 17, 22, 31, 37	2008	147.943	Municipal PIG
	624.7				

Source: Monmouth County Planning Board

*Another 21.301 acres of easement lies in Freehold

Cost per farm data can be found in Table 17 of this report. There are no agricultural lands that were preserved through the NJDEP Green Acres Program or other entities within the township.

The State of New Jersey's Farmland Preservation Program sponsors a number of funding programs under its auspices. Summaries of the various programs follow:

The **County Easement Purchase Program** was the mainstay of Monmouth County's Farmland Preservation Program for 20 years. It was a highly competitive program that ranked farms throughout the state on criteria such as soil quality, size, proximity to other preserved land and development potential. It enabled farmers to sell development rights to the MCADB. The program recently transitioned to the **County Planning Incentive Grant Program**.

To participate in the **County Planning Incentive Grant (PIG) Program**, Monmouth County adopted a comprehensive farmland plan in 2008 and delineated five project areas in which to focus preservation efforts. About a dozen Howell township farms are currently included in the Northern Howell-Eastern Freehold Project Area. With this easement purchase program, counties receive a base grant and then compete with their counterparts for additional funds. Farms must meet basic state eligibility requirements. Monmouth County established some additional criteria to help it prioritize applications. Farms must be at least 25 acres in size unless adjacent to an already preserved farm. Soils must score 55 or higher in the county's Land Evaluation rating system.

The SADC established the **Municipal Planning Incentive Grant Program** to provide grants to eligible municipalities to purchase agricultural easements to protect concentrations of farmland in identified project areas. The local municipality and county cover the remainder of the acquisition costs. The Municipal PIG program places an emphasis on planning for farmland preservation. To qualify for a Planning Incentive Grant, municipalities must adopt a right to farm ordinance and a farmland preservation plan element in their municipal master plan pursuant to the Municipal Land Use Law. They must also establish an Agricultural Advisory Committee. Grant recipients have to delineate project areas and develop a list of target farms.

The SADC buys agricultural easements directly from landowners through the **Direct Easement Purchase Program**. The state seeks farms that are strategically located within each county and meet or exceed the county average for size and quality score. Farms in Monmouth County need to be 39 acres or larger to qualify under current requirements. Quality scores are based on factors such as soils, tillable acres, proximity to other preserved farms and local support for agriculture.

Through the **Fee Simple Program**, the State buys a farm outright, retires the land's development rights, then auctions the property to the highest bidder. The property must continue to be farmed. The SADC has preserved farms in Holmdel, Manalapan and Upper Freehold through this program.

Nonprofit organizations have played crucial roles in farmland preservation deals in New Jersey. In some cases these organizations functioned as project managers and lead negotiators. In other cases, they served as interim landowners closing with the original property owners, selling an easement to the county and transferring the remaining rights to a conservation minded buyer. Recognizing the utility of land trusts, the SADC established a **Grants to Nonprofits Program** to offer 50% cost-share grants for farmland preservation projects.

Transfer of Development Rights – TDR is a preservation tool that is used to protect agricultural, historic and environmental resources in certain sections of a community or region with the accommodation of development in other designated locations. It's not currently used in Howell.

C. CONSISTENCY WITH SADC STRATEGIC TARGETING PROJECT

The SADC's 2003 Strategic Targeting Project was intended to help prioritize farmland preservation investments and minimize conflicts with other state initiatives.

The primary goals of the SADC's strategic targeting project are:

- To coordinate farmland preservation/agricultural retention efforts with proactive planning initiatives.
- To update and create maps to target preservation efforts.
- To coordinate with open space, recreation and historic preservation efforts.

In keeping with the SADC's goals, Howell Township participates in the Municipal Planning Incentive Grant Program and has been working to protect concentrations of farmland in identified project areas. The township, with the adoption of the Farmland Preservation Plan Element of its Open Space Plan in 2001, a Right to Farm ordinance in 1988 (later amended), and the establishment of an Agricultural Advisory Committee, was an early participant in the Municipal PIG Program. Howell Township first submitted an application for a Planning Incentive Grant for Fiscal Year 2001 funding that focused on a North Central Project Area. Howell expanded its project areas and target farms list for Fiscal Year 2005 to cover the Manasquan River Southeast and Manasquan River West project areas. This current update retains these 3 project areas but refines the target farms list to better meet the SADC's July 2007 rules.

Except for some minor overlaps, Howell's current Municipal PIG project areas and target farms do not fall within existing or proposed sewer service areas. The project areas and target farms also coincide with State Planning Areas 4 and 5, the Environmentally Sensitive and Rural Environmentally Sensitive sections of the township. Thus, the township's farmland preservation priorities align with larger regional conservation and development strategies. Two township committees help ensure this alignment.

The township has a Preservation Task Force that consists of 5 members and 4 alternates. Two members are appointed as liaisons to attend the Monmouth County Agriculture Development Board meetings that are held once every month. All meetings of are open to the public and dates are published in the *Tri-town News* and the *Asbury Park Press*. The Preservation Task Force works closely with the Monmouth County Farmland Preservation Program and Monmouth Conservation Foundation to conduct outreach to landowners, prepare applications, determine cost share funding and financial capacity. Aside from working to preserve Howell's farmland, the committee works to protect historic sites and open space. This combined mission helps the township ensure that properties to be preserved are matched to the funding program and end use that bests fit.

Howell also has a Farmers Advisory Committee with 7 members and 2 alternates. Each member farms as a vocation or avocation. Among other tasks, the Committee reviews development proposals and provides recommendations to the Township Council and other public authorities as to the impact of development and planning changes on the farming community.

D. EIGHT YEAR PROGRAMS

Landowners who meet minimum criteria can petition the county to enter their property into an eight-year preservation program, which offers various incentives and protections to landowners. There are two types of eight year programs available: municipally and non-municipally approved. As described in the SADC's fact sheet, landowners enrolled in both municipally and non-municipally approved programs receive no direct compensation for participating but are eligible to apply to the SADC for grants that fund up to 50% 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. The Reed/Terpack Farm was the only eight year program that was approved in the township and is now permanently preserved through the Municipal PIG Program.

E. COORDINATION WITH OPEN SPACE PRESERVATION INITIATIVES

Allaire State Park, Manasquan Reservoir, and Bear Swamp Natural Area comprise the majority of the township's approximately 4475 acres of open space. These holdings form the core of a maturing park and greenway network. To ensure the compatibility of existing and proposed open space with farmland resources, Howell has relied on the master plan process and interagency coordination.

Howell significantly revised the Open Space and Recreation Plan Element of the Municipal Master Plan in 2001, and last amended the document in 2004. The plan element sets forth three goals: to provide for a system of active and passive recreation; to provide for the preservation and conservation of natural resources; and to preserve to the maximum extent practical Howell's agricultural industry and promote farmland preservation. Thus, farmland preservation strategies are an essential part of the plan and are integrated with conservation and open space policies.

Aside from detailing municipal planning strategies and priorities, the plan describes initiatives such as the SADC's Planning Incentive Grant Program, New Jersey Water Supply Authority's efforts to protect the Manasquan Reservoir Watershed, the NJ DEP's Capital to Coast Greenway, and the *Monmouth County Open Space Plan*.

For example, the 2006 *Monmouth County Open Space Plan* proposes a series of greenways throughout the county. Several lie in Howell Township. The county has been actively accruing parcels and easements along the Manasquan River Greenway and Metedeconk River Greenway. The County Park System also recommends linear parks and greenways along Mingamahone Brook and other Manasquan River tributaries. In addition, the county is taking the lead on converting former railroad beds in the township to trails. One of these trails would extend the existing Edgar Felix Bikeway that currently runs from Manasquan Township through Wall.

The Edgar Felix Bikeway is also an important part of the proposed Capital to Coast Greenway which will eventually run from Manasquan Borough to Allaire State Park and the Manasquan Reservoir to the City of Trenton. Many partners, including Monmouth County Planning Board and Mercer County, are actively pursuing this project. The proposed route is shown on Figure 11.

To help coordinate internal and external projects, the Township of Howell works closely with Monmouth County, Monmouth Conservation Foundation, the New Jersey Water Supply Authority, and the NJ DEP Green Acres Program. The township is also aware of regional open space planning efforts such as NJ Conservation Foundation's Garden State Greenways project (see <u>www.gardenstategreenways.org</u>). This large-scale effort promotes and maps greenways and linkages among parks and natural areas throughout the state.

In general, the township strives to retain actively farmed lands for agricultural purposes. However, the non-tilled stream corridors associated with agricultural lands are targeted for some local and county greenway projects. To help protect the waterways of the township, Howell has preserved a number of these corridors through developer donations that were part of the subdivision approval process. Similarly, three former railroad rights of way that are targeted for conversion to trails abut some agricultural land but would not be taking land out of production. If any farmland were to be preserved as open space, where appropriate, the township would be willing to lease lands it owns in fee to farmers.

The Preservation Task Force has explored the possibility of establishing horse and bicycle trails in the township. Horse trails, in particular, would provide recreational and training opportunities that would benefit to the equine community. However, forming trail connections in Howell is difficult because many township lots were originally transmitted through old newspaper subscriptions.

Where plans for trails and open space acquisitions in proximity to agricultural uses are considered input from the Agricultural Advisory Committee will be sought to help reduce conflicts.

F. FARMLAND PRESERVATION PROGRAM FUNDING EXPENDED TO DATE BY SOURCE

As mentioned earlier, 19 farms have been preserved in Howell since 1987. A total of \$13.5 million has been spent on farmland preservation in the township. Table 17 indicates the list of farms preserved to date with their cost share breakdown. The majority of money for Howell's easements has come from the SADC's allocation of the Garden State Preservation Trust. In the past decade this percentage has typically been 60% of the total consideration. The county and municipality have shared the remaining costs, with the MCADB covering 24% of most deals and the township covering 16%. The county's contribution has come from its Capital Budget. The municipal contribution has derived from its open space trust fund. To date no federal or nonprofit funds have been used in Howell, although these are potential resources. On occasion, agricultural areas are preserved through park and open space programs. This is the case with the Price Farm which was not an ideal candidate for one of the SADC's programs due to its noncompetitive soils score and relative isolation from other municipal target farms.

Table 17: Preserved Farms in Howell Township and Their Cost Outpite Acres Price Per Table 10 and 10 an								
Original Owner	Year	Paid	Acre	Total Cost	State Cost	County Cost	Cost	
Meade, David	1987	63.03	\$6,862	\$432,735	\$212,670.50	\$220,064.50	\$0.00	
Keymer, Susan	2001	62.8	\$9,400	\$590,348	\$354,208.92	\$210,400.10	\$25,739.18	
Borshowsky, Paul	2003	25.24	\$27,024	\$682,080	\$682,080.00	\$0.00	\$0.00	
Marchese, Susan	2004	9.8	\$16,000	\$156,800	\$94,080.00	\$37,632.00	\$25,088.00	
Brocklebank, Wayne	2004	46.87	\$38,500	\$1,804,803	\$1,082,881.80	\$433,152.72	\$288,768.48	
Giambrone, Arthur	2004	16.09	\$36,500	\$587,358	\$352,414.80	\$140,965.92	\$93,977.28	
Archbold, Elsie	2005	32.217	\$34,000	\$1,095,378	\$657,226.80	\$262,890.72	\$175,260.46	
Linney, John and Lissa	2006	11.546	\$28,000	\$323,288	\$193,972.80	\$77,589.12	\$51,726.00	
Casale, George	2006	8.96	\$29,000	\$259,869	\$155,869.00	\$62,368.56	\$41,579.04	
Peacock, Donald	2006	5.55	\$24,000	\$133,224	\$79,934.40	\$44,763.26	\$8,526.34	
Costigan, John	2006	11.137	\$19,000	\$211,603	\$126,961.80	\$71,098.61	\$13,542.59	

Sunset Stables, LLC	2007	26.957	\$25,000	\$673,925	\$404,355.00	\$161,742.00	\$107,828.00
Plum Tree Holding Company, LLC	2007	42.3	\$40,000	\$1,692,000	\$1,015,200.00	\$406,080.00	\$270,720.00
Cuddihy, John J. Jr	2007	65.229 <u>*</u>	\$18,000	\$1,174,122	\$704,473.20	\$281,789.28	\$187,859.52
Aker/Mazza	2007	10.007	\$23,500	\$236,810	\$142,085.70	\$56,834.28	\$37,889.00
Schottman/Shaffery	2007	9.013	\$21,000	\$189,273	\$113,563.80	\$45,425.52	\$30,283.68
Okerson Farm	2007	35.02	\$16,500	\$635,436	\$349,489.80	\$139,795.92	\$146,150.28
Reed, Carol	2007	15.65	\$21,000	\$328,650	\$197.190.00	\$78,876.00	\$52,584.00
T&T Realty, LLC	2008	147.94	\$15,800	\$2,337,499	\$1,402,499.64	\$550,999.86	\$373,999.90
TOTALS				\$13,545,201	\$8,123,967.96	\$3,282,468.37	\$1,931,521.75

*21.301 acres of easement lie in Freehold

G. MONITORING OF PRESERVED FARMLAND

The deed of easement holder is responsible for monitoring a preserved farm on an annual basis. In the case of state-held easements such as Borshowsky, the SADC carries out this responsibility. For county-held easements such as Cuddihy and Keymer, the Monmouth County Agriculture Development Board handles the monitoring. Just before closing, the MCADB staff conducts a baseline survey to document the existing conditions and then prepares a report accompanied with photographs based upon site observations. MCADB staff then revisits the farm each year and prepares a summary report. Landowners and farm managers are contacted in advance of the visits and invited to join the staff on site. At the municipal level, the Howell Township Farmers Advisory Committee keeps an eye on preserved farmlands to ensure that farming is taking place. In addition, the Township and its agricultural advisors would notify the appropriate agency if violations were suspected from any owner of a preserved farm.

V. FUTURE FARMLAND PRESERVATION PROGRAM

The Township of Howell's Agricultural Advisory Committee and Township Council are committed to preserving as much of the municipality's agricultural land base as possible and support innovative funding mechanisms and preservation tools.

A. PRESERVATION GOALS

The Howell Township Agricultural Advisory Committee modified the original 2005 Farmland Preservation Plan goals and objectives to the following:

Goal 1: To preserve, to the maximum extent practical, Howell's agricultural industry and further enhance the promotion of farmland preservation within the township.

Objectives:

- To maintain and promote farmland preservation within the Manasquan River Reservoir South, Manasquan Reservoir West and North Central Project Areas.
- To participate in county, state, and local preservation programs to assure maximum efficiency and coordination.
- To remove, wherever possible, impediments to agricultural retention.
- To coordinate farmland preservation with other forms of open space protection to maximize the public benefit of such programs.
- To utilize farmland preservation as a community development tool.
- To connect the public to the township's agricultural heritage by promoting direct to consumer marketing.
- To accommodate a diverse and evolving agricultural industry.

B. 1, 5 AND 10 YEAR ACREAGE TARGETS

Te township has set the following preservation goals:

	Additional Acreage	Cumulative Acreage
One Year Goal	127	752
Five Year Goal	370	995
Ten Year Goal	452	1076

A total of thirteen farms have been targeted for farmland preservation through the Municipal PIG Program. In order to achieve the above mentioned goals, funding through bonding, state and county grants, and the township's Open Space Trust Fund will be required. Tight budgets, debt service obligations and other financial constraints could result in a slower pace of acquisitions than in the 2004-2007 peak of Howell's preservation activities. Rising land values over time could also hinder progress. The good news is that landowner interest in the Farmland Preservation has remained strong and the current recession has lessened competition for land from developers.

There are currently 625 acres of preserved farmland in Howell. If the 10 Year acquisition goals are met, the township would have more than 1000 acres of deed-restricted agricultural land. This represents approximately 18% of the total farmland assessed land in the municipality.

C. PROJECT AREAS

The township used the County of Monmouth's ADA boundaries as a guideline for its project area boundaries. For this plan, Howell has identified three project areas that contain farms targeted for preservation under the Municipal PIG Program. A key map for the project areas can be found in Figure 2 of this report. Basic information on the three project areas is shown below in Table 18.

The North Central Project Area corresponds to Howell's very first municipal PIG application approved by the SADC in 2001. There are already 13 preserved farms in this project area and 8 more targeted.

Howell's Manasquan Reservoir West Project Area and Manasquan Reservoir South Project Area correspond to the second PIG application to be approved by the SADC in 2005. Manasquan Reservoir West contains two currently targeted farms and three preserved farms. Manasquan Reservoir South contains three preserved farms and three target farms.

Table 18: Howell Township Project Areas					
Project Area	Acres	# of Targeted Farms	Acreage of Targeted Farms		
North Central	7639	8	308		
Manasquan Reservoir South	3987	3	138		
Manasquan Reservoir West	1040	2	114		
Total	12,666	13	560		

D. MINIMUM ELIGIBILITY CRITERIA

The State Agriculture Development Committee has established the following criteria for the preservation of farmland:

- 1. For lands less than or equal to 10 acres, the land must meet the following criteria:
 - Land that produces agricultural or horticultural products of at least \$2,500 annually.
 - 75% of land that is tillable or a minimum of 5 acres; whichever is less
 - 75% of land, or a minimum of five acres, whichever is less, consists of soils that are capable of supporting agricultural or horticultural production.
 - a) Land shall not contain more than 80% soils that are classified as freshwater or modified agricultural wetlands according to the NJDEP wetland maps.

- b) The land shall not contain more than 80% soils with slopes in excess of 15% as identified by the USDA.
- 2. For lands greater than 10 acres, the land must meet the following criteria:
 - At least 50% of land, or a minimum of 25 acres, whichever is less, is tillable
 - At least 50% of the land, or a minimum of 25 acres, whichever is less, consists of soils that are capable of supporting agricultural or horticultural production
 - a) Land that is less than 25 acres in size shall not contain more than 80% soils classified as freshwater or modified agricultural wetlands according to the NJDEP wetlands mapping.
 - b) Land that is less than 25 acres in size shall not contain more than 80% soils classified as freshwater or modified agricultural wetlands according to the NJDEP wetlands mapping.

In addition to SADC farmland preservation guidelines, the Monmouth County Agriculture Development Board (MCADB) has set forth minimum eligibility requirements. Aside from meeting the minimum State eligibility requirements, farms being considered for the County PIG must be at least 25 acres in size or be adjacent to an already preserved property. A farm must also have a Land Evaluation score of at least 55. This score is based on an index (from 0 to 100) that ranks the agricultural quality of a property's soils. The index awards points for prime agricultural soils, soils of statewide importance and unique soils.

Even if a property does not meet the criteria for the County PIG, it may meet the minimum SADC standards for other programs such as Municipal Planning Incentive Grant Program and Grants to Nonprofits Program.

E. RANKING CRITERIA

To help prioritize applications, Howell relies on several criteria. Added weight is given to parcels in close proximity to already preserved farms. Larger tracts of land with high development potential are also be viewed more favorably. Farms with a high percentage of prime farmland and soils of statewide importance rank higher than farms with less desirable soils. Tillable acreage and funding availability will also come into play.

F. POLICIES RELATED TO FARMLAND PRESERVATION APPLICATIONS

A number of issues have to be considered in the application stage of the farmland preservation process and post closing. The deeds of easement give decision making authority to the CADB and SADC on matters such as new agricultural labor housing requests, division of premises requests and house replacement requests but the township often provides feedback. The township has more input when an application is being prepared for submission to the SADC.

In most cases, the township encourages landowners to have a housing opportunity associated with their farm. However, as with the Okerson farm, the Howell recognizes the value in having some parcels devoid of a home. This keeps the land in a price range more affordable to new and beginning farmers or those who already reside in the area.

The township's farmers often require agricultural labor housing to run their operations. It is up to the landowner whether or not to list a residence as an agricultural laborhousing unit in the deed of easement. The decision depends on whether or not a family member lives in the home (which is prohibited by the deed), the current use of the dwelling, and future plans for the farm. The MCADB receives about one request a year from already preserved farms wishing to erect a new agricultural labor-housing unit. In such cases, staff meets with the landowners and visits the site then the Board reviews the request, determines how it will benefit the operation, and considers the size and placement of the proposed dwelling. Once approved, paperwork is forwarded to the SADC, which must also pass a resolution in favor of the request.

House replacement requests on preserved farms also average one a year in Monmouth County. Similar to the agriculture labor housing requests, staff conducts a site visit and obtains as much information as possible from the applicants. In making its decision, the Board considers the landowners' needs and motives (for instance, sometimes the original house is no longer habitable due to fire, termites, etc.), the size and location of the new building envelope, and impact on the farming operation. The County does not have a house size restriction. If approved, the request is passed on to the SADC.

A handful of preserved farms in Monmouth County have Residential Dwelling Site Opportunities (RDSOs). These are floating housing opportunities that farms may obtain as part of their deed of easement at a density not to exceed one house per 100 acres including existing dwellings. None of the County or township RDSOs has been exercised in recent years. If the County were to receive a request it would follow the SADC's Policy P-31 regarding the exercise of an RDSO. The policy is meant to ensure that construction and use of a residential unit is for an agricultural purpose.

Farmland easement deeds allow landowners to seek permission from the MCADB and SADC for a Division of the Premises to split a preserved farm into one or more parts that can be retained or sold. The deed of easement demands that the farms resulting from the division be viable and that the division request serve an agricultural purpose. The county receives about one request a year and follows SADC's policy P-30-A. The township itself does not have a policy for dividing premises. It will weigh in on future requests on a case by case basis but most existing Howell easements are quite small and not suited for division.

The county and township do not have any formal policy on exceptions. Exceptions are areas of a farm that are specifically delineated so they will not be subject to the majority of restrictions in the deed of easement. There are two types of exceptions: severable and nonseverable. Severable exceptions may eventually be separated from the main portion of a farm through a minor subdivision. They have typically been used for future home sites and joint acquisition projects with an open space entity such as the Monmouth County Park System. Typically, the easement will include special notification language for the future owners stating that agriculture is the preferred use of the adjacent premises. A nonseverable exception is often used to delineate a future housing opportunity or to encompass an existing or proposed nonagricultural use. The area may not be moved or subdivided from the farm.

The township, like the county, considers exception requests on a case-by-case basis and works to meet the anticipated needs of the current and future landowners. Although the township and county have been neutral in the past regarding exceptions, as home offices become more popular and farmers explore compatible nonagricultural uses on their properties, nonseverable exceptions are being viewed in an increasingly positive light. At the same time, care is given to situate exceptions in locations that not only minimize impacts on the actively farmed portions of the land but also serve the logistical needs of the property. For instance, an exception intended for a future home should not be delineated in a wetlands area.

G. FUNDING PLAN

The Township of Howell has a two-cent per \$100 per assessed property value tax dedicated to fund farmland preservation, open space and passive recreational projects. The Township Council decides on the amount of allocation for each project. However, one cent of the two cents collected is allocated for farmland preservation projects only. The township collects about \$1.3 million a year for its Open Space Trust Fund. A total of \$1,396,472 was present within the Open Space Trust Fund in 2007. About \$2.1 million was in the account as of January 10, 2011. The majority of the funds are currently going to debt service but some money is available for farmland preservation projects.

To date the farmland easement purchases in Howell Township have been funded as follows:

SADC	60 percent
Monmouth County	24 percent
Howell Township	16 percent

An exception to this was the Price property on Locust Avenue, which was outside of an identified Municipal PIG project area and was acquired with a combination of Trust for Public Lands and Howell Township funds.

Based on review of the *Monmouth County Farmland Preservation Plan*, it appears the county's program primarily has relied on the Capital Budget to fund its share of easement purchases. For instance, between 1987 and June 30, 2007, the county had directed a total of \$30.5 million from its Capital Budget towards the purchase of agricultural easements. The Farmland Program's budget allocation rose dramatically in the mid 2000s to match the region's rise in land prices as well as the growth of the Municipal PIG Program, which has increased the number of farms preserved in a given year. The County set aside \$8 million of its 2007 Capital Budget for pending preservation projects. The number was similar in 2008, lower in 2009 and at zero in 2010. In addition, Monmouth County has an open space and farmland preservation tax

of 1.5 cents per \$100 of equalized valuation and generated \$18,860,694 in 2010 Most of the open space tax funds go to the Monmouth County Park System. Starting in 2006, the County designated \$1.1 million per year for the Farmland Program from the Open Space Trust Fund. Only a small portion of this account has been spent to date so Monmouth County intends to use it for a number of currently active projects.

The county utilizes two policies for determining the funding for the County Planning Incentive Grant Program and the Municipal Planning Incentive Grant Program. The State's share of the total cost of the easement determines the county and municipal share. The State's share of the total cost is the same percentage as the County's share of the remaining costs. The Municipality is responsible for the rest of the funds. For example, if the State funds 60% of the easement purchase price, the County will fund 60% of the remainder (24% of the total cost). The municipality will then fund 40% of the remainder (16% of the total cost). This 60-24-16 split is the most common in the County. The MCADB's policy was adopted before the SADC converted to its current cost share formula, which lowers the state contribution as land values rise. Those municipalities whose easement values regularly exceed \$50,000 an acre are required to pay more than 16% of an easement's total consideration.

It is important to note that if the cost of development rights dropped significantly, the program's capacity to acquire and preserve additional lands would increase.

The next policy clarifies that the County and municipality cost share on ancillary costs such as appraisals, title search and insurance, and surveys for farms preserved through the Municipal Planning Incentive Grant Program. The schedule for Municipal Planning Incentive Grant Program ancillary costs is as follows:

Municipality	25%
County	25%
State	50%

Historically, the SADC has reimbursed 50% of such costs for not only the Planning Incentive Grant Program, but also the County Easement Purchase Program. The Garden State Preservation Trust has been depleted, and the SADC will no longer reimburse counties for ancillary costs. Thus, the county is looking at revising its policy.

Only one Installment Purchase Agreement acquisition has been made within Monmouth County. An IPA was executed for the Hofling Farm that is located in Upper Freehold Township. To date, no installment purchase agreements have been used within Howell Township.

As previously discussed Howell has an open space trust fund. This fund has been used to cost share on agricultural easement acquisitions. The Township intends to maintain an adequate amount of money in this fund for the next ten years. However, due to today's economy and debt service obligations, the available trust fund amounts may decrease. Bonding is a possible alternative for the township.

	Table 19: Cost Projection Associated with 1, 5 and 10 Year Goals								
Year	Acquisition Goal (acres)	Total Projected Cost	Estimated Local Cost Share	Estimated County Cost Share	Estimated State Cost Share				
1	127	\$3,527,860	\$564,352	\$846,528	\$2,116,716				
5	370	\$8,088,860	\$1,294,112	\$1,941,168	\$4,853,316				
10	452	\$10,856,910	\$1,737,000	\$2,605,500	\$6,514,146				

As illustrated above in Table 19, the Preservation Task Force estimated costs for its cumulative 1, 5 and 10 year acquisition goals. The Task Force took current and future economic trends into account and based projections on appraisals for farms currently in the application process. The estimates incorporate most of the currently targeted farms, assuming a pace of about one farm a year. Clayton, in the North Central Project Area, is most likely to be the first farm preserved as it is already under contract. Naryshkin and Jordan in the Manasquan South Project Area are likely to be the next applications pursued. Although some of these projects may not come to fruition in the order or timeframe projected, the acquisition goals appear to be feasible for the township and its partners.

Although the costs involved with preserving these farms may seem daunting, deed restricting these areas preclude the necessity of infrastructure expansion and the costs associated with the full development of these lands. The high service demand for education, police, fire and utilities for a new residential or commercial development has been shown by the American Farmland Trust and others to have a negative fiscal impact on municipal budgets. A preserved farm, on the other hand, has low service demands and provides a surplus of tax revenues to a municipality. Therefore, the preservation of these Howell's target farms is anticipated to save the township money in the long term.

H. FARMLAND PRESERVATION PROGRAM / AGRICULTURAL ADVISORY COMMITTEE ADMINISTRATIVE RESOURCES

For routine administrative needs the Howell Township Agricultural Committee relies upon the municipal staff including, but not limited to, the Chief Financial Officer (CFO) and Council. Howell works closely with the county for its data needs. The Monmouth County Planning Board maintains a database that was developed by the County Department of Information Services. Monmouth County Conservation Foundation provides consulting services to the township. Monmouth County also has excellent Geographic Information System (GIS) resources, and the County has made this extensive centralized GIS available to its municipal partners. John Costigan, the Municipal PIG Administrator helps the township with landowner outreach, application preparation and cost-share determination for future farmland preservation applications.

I. FACTORS LIMITING FARMLAND PRESERVATION IMPLEMENTATION

As mentioned earlier, a large amount of farmland is decreasing in the township. A vast majority of farms within the township are broken up and are not contiguous. Cost of preservation and the limited funding opportunities available place constraints on the township's preservation efforts.

A primary limitation has been willingness of farmers to enter the farmland preservation program, especially if they do not agree with the final appraisal values for an easement are acceptable, and adequate funding at state, county and municipal levels is not available. Inadequate state funding has been a primary limitation to farmland preservation in Howell Township for several years.

Wetland areas impact developable unpreserved farmland within Howell Township. If development rights drop significantly in cost, the amount of preserved farms would increase. Farmland preservation is an expensive investment for Howell Township. There are some farms that cannot be preserved and will not be impacted by infrastructure. These areas are located outside of a sewer service area. High-density development would not be appropriate for these areas.

VI. <u>ECONOMIC DEVELOPMENT</u>

A. CONSISTENCY WITH THE NJ DEPARTMENT OF AGRICULTURE ECONOMIC DEVELOPMENT STRATEGIES

The New Jersey Department of Agriculture 2007 Economic Development Strategies lists 121 strategies, which are organized around sectors such as produce, horticulture, field and forage crops, dairy, livestock and poultry, organic, seafood, equine, wine and general. The document's recommendations for the produce sector are most relevant to Howell's agricultural community followed by those for ornamental horticulture, equine, livestock & poultry, organics and agritourism. For instance, Howell farmers actively promote the Jersey Fresh marketing concept. And, one of the owners of Kauffman Farm serves as President of the New Jersey Direct Marketing Association. That farm also participates in the Freehold Borough Farmers Market. There is also an expanding organics market in Howell with direct to consumer sales, a CSA and direct to restaurant sales. The strategies for the seafood, dairy and wine sectors are not directly pertinent to the township's farmers. Howell Township, along with Monmouth County and its partners, strive for consistency with this document by strengthening existing agricultural institutions and businesses, marketing local farms, conducting scientific research and anticipating agricultural trends and support needs.

B. AGRICULTURAL INDUSTRY RETENTION, EXPANSION AND RECRUITMENT STRATEGIES

There are many strategies for agricultural industry retention, expansion and recruitment. Support from government agencies and academic institutions as well as the business community help maintain a vibrant agricultural economy.

1. Institutional

Governmental agencies along with academic institutions and community groups provide support and marketing assistance to farming operations. These entities provide services such as buyer-seller matching programs, branding campaigns, and market research coordination.

Farmer Support

The State Agriculture Development Committee supports farmers and economic development through a number of programs. Its Farm Link Program is a resource and referral service. The Farm Link web site (www.state.ni.us/agriculture/sadc/farmlink.htm) lists farming opportunities available and sought such as farms for sale or lease, internships and relocation and expansion options. The SADC also provides advice on estate planning through its December 2004 publication Transferring the Family Farm: What Worked and What Didn't for 10 NJ Families.

Several organizations such as the Northeast Organic Farmers Association of New Jersey and Rutgers Cooperative Extension have sponsored courses and workshops for new and aspiring farmers. Rutgers Cooperative Extension will work with landowners interested in diversifying their crops and livestock offerings. Similarly, Farm Credit East provides loans and an array of financial services to new and established farmers.

Marketing and Public Relation Support

Several groups such as the Department of Agriculture, the New Jersey Farm Bureau and the Monmouth County Department of Economic Development and Tourism maintain programs and web sites that help market Howell's farms. The New Jersey Department of Agriculture instituted the Jersey Fresh Promotional campaign over 20 years ago to increase awareness of locally grown produce and food products. Numerous farmers and venues use the Jersey Fresh logo. In recent years the program has expanded to include the designations Jersey Bred (for horses and lambs) and Jersey Grown (for horticulture). The NJ Dept. of Agriculture also maintains a web site, www.state.nj.us/jerseyfresh/index.htm, which is a great place to locate roadside stands, community farmers markets and pick-your-own facilities. Similarly, the Monmouth County Department of Economic Development and Tourism promotes agritourism on its web site tourism.visitmonmouth.com. In addition, in July 2008 Rutgers Cooperative Extension published a booklet entitled "Jersey Fresh from the Garden State: Monmouth County Pick Your Own Farms & Roadside Markets."

Community Farmers Markets

Community farmers markets enable farmers to sell their products directly to the public. Community farmers markets enable farmers to sell their products directly to the public. These markets are usually held weekly in a pre-determined location and invite vendors and farmers to set up stalls. Most markets establish rules about what can be sold and how much product must be locally grown. Aside from fresh produce, many vendors offer value-added items such as baked goods and jams.

Howell Township does not sponsor its own community farmers market but has visited the idea. At this time, Howell farmers are not eager to participate since many of them have farm stands on their own property and do not have enough personnel to staff more than one location. Howell does have a farm market at the Southard Grange for those smaller farmers who do not depend on farming for their main source of income.

Several local farmers venture outside the township to weekly suburban and urban markets. For example, Kauffman Farm was a regular participant in the 2010 Freehold Borough Farmers' Market. With the ever-increasing number of farm markets within Monmouth County, there is ample opportunity for Howell Township farmers that are willing and able to participate in a weekly market to sell directly to consumers.

Community Supported Agriculture

Community Supported Agriculture (i.e. a CSA) presents another opportunity for Howell farmers. With a CSA, the consumer pre-pays for weekly supply of produce throughout the growing season. Merrick Farm currently operates an organic CSA that serves residents of Howell and the surrounding area. The selection of produce includes cilantro, basil, raspberries, peaches, lettuce, peppers, garlic and 35 varieties of tomatoes.

Roadside Farm Stands, Farm Markets, Specialty Markets

Roadside markets and farm stores are other ways that consumers can purchase locally grown produce, flowers and other agricultural products directly from local farmers. The township's AAC has taken an inventory of medium to large-sized roadside markets and farm stores in Howell. They are listed below:

- Forrest Farms Fairfield Road
- Twin Pond Farm Market Rt. 524
- Twin Pond Garden Center Rt. 9 North
- Skeba's Red Wagon Rt. 9 North
- Ramtown Florist Newton's Corner Road
- Kauffman Farm Squankum Yellowbrook Road
- Tilley's Farm Market Herbertsville Road

- Southard Grange Route 9 South
- Joe's Farm Market Lakewood-Farmingdale Road
- Wooly Farms Lakewood-Farmingdale Road
- Bear Creek Herberry Lakewood-Farmingdale Road
- Primitive Meadows Farm Lakewood-Farmingdale Road

It is important to note that one or more farm markets strategically located in close proximity to I-195, when combined with effective marketing could draw in a significant number of customers from seasonal traffic along I-195.

Direct Sales to Supermarkets

Several supermarket chains with stores in Monmouth County promote local produce, although the definition of "local" can be interpreted in a variety of ways such as located within the County or within 300 or plus miles.

A large barrier for providing local grown products to supermarkets is that farmers must be responsive to deliver products on their own with quantities that are large enough to meet a supermarkets needs. Twin Pond Farms and Skeba's provide local produce to Wegmans and Delicious Orchards.

Agricultural Education and Market Research Coordination

Rutgers University and its affiliated programs are the backbone of agricultural education in the State. Rutgers Cooperative Extension (RCE), which falls under the umbrella of the New Jersey Agriculture Experiment Station (NJAES), provides technical assistance and recommendations related to crops and livestock. RCE works to sustain and enhance agricultural production. The agency runs educational and research programs in all 21 NJ counties. Producers contact RCE agents for assistance with issues such as soil fertility, water quality and supply (including drought and irrigation management), integrated pest management, and crop management. Two local agricultural agents are based in the Monmouth County agricultural building on Kozloski Road in Freehold Township. They work not only with commercial agriculture, horticulture and aquaculture operations, but also with homeowners, school groups, and government agencies.

Rutgers University operates two New Jersey Agriculture Experiment Stations in Monmouth County. The Rutgers Fruit and Ornamental Research Extension Center, in Cream Ridge (Upper Freehold Township) conducts and disperses research related to the production of tree and small fruits such as apples, peaches, apricots, nectarines, brambles, and strawberries and ornamental nursery crops. Rutgers Plan Science Research and Extension Farm in Adelphia (Howell Township) support research on fine turf and athletic field turf. NJAES manages several other stations in the State. The Cream Ridge research station places a lot of emphasis on plant breeding. Research at the station focuses on increasing quality and yields, protecting plants from diseases and biological hazards, and decreasing production costs and pesticide use. Researchers work on adapting products to local climate and conditions. Locally bred fruit, for instance, is less susceptible to disease and environmental stresses, thereby reducing the need for chemical inputs. Other scientists affiliated with the center research growing medias, irrigation and fertility management practices.

The Rutgers University educational system offers many courses and degrees related to agriculture. Rutgers School of Environmental and Biological Sciences (formerly Cook College) offers undergraduate degrees in agricultural science, animal science, and plant science among others. Cook College Office of Continuing Education offers a number of courses related to the equine, horticulture and sod industries.

A majority of farmers and the Agricultural Advisory Committee use the Rutgers University educational system to keep abreast of current and future innovative farming techniques and operations.

2. Businesses

Howell Township's agricultural operations rely on vendors from larger agricultural centers as well as online purveyors to keep themselves running. Local suppliers are also available for some specialty items and services. Section II previously detailed some of the key suppliers and support services in the region. This section will expand upon the discussion.

Hay, feed and horse food can be obtained from suppliers such as Monmouth Feed, located on Route 547; Hungry Puppy, on Route 33; and Hemlock Hill Farm in Colts Neck. A number of Howell horse farms and stables provide breeding and training facilities as well as riding and boarding arrangements. Within a driving distance, Farmer's Brokerage and Supply, located in Upper Freehold sells seed, hardware, parts for tillage equipment, chemicals and fertilizers, etc. Farm supplies can also be obtained from stores such as Agway, in New Egypt; Crop Product Services in Allentown; and Plant Food Company Inc, in Cranbury. The equine industry has its own network of suppliers that grow and sell hay and feed, and offer veterinary services.

Although Howell operates mostly direct-to-consumer businesses, there are a number of wholesale growers and processors in the community. Puglisi Egg Farm is a large production facility which sells eggs to supermarkets, farm markets and restaurants such as the Perkins chain and Golden Bell in Freehold. Merrick Farm distributes its produce to restaurants such as Langosta Lounge in Asbury Park. Opportunities exist to tap into other emerging distribution networks. For example, Zone 7 is a distribution service that connects farmers that engage in organic and sustainable farming practices with chefs. The business picks up ingredients from New Jersey and eastern Pennsylvania farms and delivers them weekly to restaurants, grocers and institutions. Howell Township encourages such entrepreneurial-minded farmers and businesspeople to develop and strengthen markets and distribution networks for local products and services.

3. Anticipated Agricultural Trends

Howell Township's agricultural trends parallel the agriculture trends within the region. New Jersey's equine racing industry is struggling, which consequently impacts hay and forage operations. In the near term there may be a shift from racehorse breeding to show horses and therapeutic riding facilities. For example, Paragon Farm was recently purchased by Celtic Charms LLC which is establishing a therapeutic riding program.

The Slow Foods movement and consumer interest in locally grown food is a welcome trend for local producers. Howell Township already sustains one CSA and several organic farms including Shangri-La and Merrick. The township anticipates more organic operations as well as the cultivation of more ethnic vegetables and niche crops due to the diverse population in Monmouth County.

Drawing upon its roots as a national center of the poultry industry, Howell Township supports Puglisi Egg Farm and Production Center. Several local farmers, such as Iceberg Farms, Star Cross Stable, and Shangri-La Farm, are tapping into the growing market for free-range chickens and eggs. Others are venturing into heirloom chickens, quail eggs, and other related commodities.

Value-added products and services are also rising trends on area farms. Shangri-La Farm serves lunch and dinner and offers classes in sustainable living, sewing, cooking and baking. Similarly, Iceberg Farms sells fruit-flavored vinegars and offers tours of its maple sugaring operation.

Farmers in Howell Township use seasonal enticements such as hayrides, pumpkin picking and Christmas tree cutting to enhance their viability. Strategically located farm markets tap into the seasonal traffic that is headed to the shore via I-195. The Southard Grange is located on Route 9, just south of the entrance to I-195, and sponsors a Saturday market. Tilley's is another farm market that is located in close proximity of the I-195 entranceway and located on Route 9. The local chamber of commerce, township committees, residents and consumers are all eager to tap into the current trend towards buying fresh local produce and agriculture-related products.

Nursery, greenhouse and sod account for approximately 73% of the agricultural products sold in Monmouth County and are similarly a significant part of Howell's agricultural economy. Currently, Howell Township contains the Reid and Rupp sod farms. In addition, the township has a number of greenhouse establishments including, but not limited to, Twin Pond, TLC, Wooley's and Ramtown Florist. Nurseries within the township include Tilly's, Julius Roehrs, Jersey Green and Landex. These commodities are strongly tied to the housing industry. Despite a slowdown in the construction of new homes since the market peak in 2006, residential and commercial facilities continue to require landscaping.

4. Agricultural Support Needs and Implementation

As described above, Howell farmers are able to take advantage of a network of local and regional agricultural suppliers and distributors. Presently, there is not a strong demand for new large-scale agricultural facilities and infrastructure. According to the AAC, the types of investments that are needed to enhance the viability of Howell's farms involve money, irrigation, agritourism, and solar energy. Although the township is committed to working with the agricultural community and entities that support it, at this time Howell does not have the financial resources to contribute to the construction of agricultural facilities and infrastructure or invest in specific agricultural economic development projects. The township is better suited to refer farmers to new and existing grant opportunities and technical resources that are available through county, state and federal agencies and private entities.

For example, Monmouth County's Department of Economic and Workforce Development has been increasing its outreach efforts to area farmers to help connect them to financing, capital improvement, employee training, and marketing resources. And through the new EQIP-Conservation Activity Plans program, farmers can receive a one-time payment to develop an Energy Management Plan for the headquarters area of their operation, including any major energy systems such as irrigation, vegetable processing, milking parlors, cooling and storage. These plans will include an evaluation of the energy efficiency of the existing equipment, and a summary of recommendations and potential savings.

Howell Township's land use regulations are tenable to farmers. As mentioned earlier in Section III of this plan, Howell Township adopted a Right to Farm ordinance in 1994, which establishes policies that foster and protect agricultural operation from unreasonable regulations and nuisance actions where recognized methods and techniques of agricultural production are used. Therefore, farming is permitted in all the zones in the township.

Farmers in Howell Township network and share knowledge and resources with their peers through organizations such as the Garden State Sheep Breeders Association, the Commercial Vegetable Growers Association, the New Jersey Nursery and Landscape Association, NJ Farm Bureau, and the Monmouth County Board of Agriculture. Howell Township has a Chamber of Commerce in which several farms such as Curry Farms and Celtic Charms are members. There is also an active grange on Route 9, Southard Grange, that promotes agricultural education, land conservation and community service.

VII. NATURAL RESOURCE CONSERVATION

Managing and conserving soil and water is key to a vital agricultural industry. Similarly waste management and energy supply are critical issues for Howell Township farmers.

A. Natural Resources Conservation Service

The United States Department of Agriculture-Natural Resources Conservation Service (NRCS) assists landowners and managers with conserving soil, water and other natural resources. The agency has a field office at the County's agricultural building on Kozloski Road in Freehold Township and offers technical and financial assistance. NRCS staff prepares conservation plans for preserved and non-preserved farm owners and then helps landowners secure funds through Farm Bill programs to implement the plans. Preserved farm owners are required by their deeds of easement to prepare a conservation plan within one year of the date of closing. The Monmouth County Agriculture Development Board and Howell's AAC refer landowners to the USDA-NRCS who customize a conservation plan for each preserved farm. Conservation plans are a written record of management decisions and conservation practices to be used on a farm. The plans are intended to help protect soil fertility and productivity, improve water quality, and attract desirable wildlife. Aside from assisting the County's farmers with the development of conservation plans, the Freehold office of NRCS has been very helpful with providing professional expertise to local farmers of Howell Township.

B. Soil Conservation District

The State Soil Conservation Committee (SSCC), a division of the New Jersey Department of Agriculture's Division of Agriculture and Natural Resources, is another important soil conservation district organization that offers services to local farmers within the Township of Howell and Monmouth County. The SSCC encourages voluntary conservation practices among farmers, ranchers and other land operators. In addition, the SSCC administers natural resource conservation programs and provides technical information on best management practices for farmers. These programs are implemented by the local Soil Conservation District. This special purpose political subdivision of the State implements natural resource conservation and assistance programs.

The role of the Soil Conservation District in Monmouth County is to conserve and manage soil and water resources in cooperation with the State Soil Conservation Committee. The Freehold Soil Conservation District advises stormwater, soil erosion and sedimentation problems that result from land disturbance activities. In addition, the Freehold SCD provides educational outreach programs to schools, residents and local farmers of Howell Township and Monmouth County.

C. Natural Resource Protection Programs

The SADC, the federal government, and the NJ DEP offer funding and technical assistance opportunities for Howell farmers. The SADC's Soil and Water Conservation Grant Program provides grants to help fund up to 50 percent of the costs of approved soil and water conservation projects on farms enrolled in permanent or eight-year

farmland preservation programs. Three Howell farms, Keymer, Giambrone and Borshowksy, have participated in the program. All three used the grant funds for irrigation wells.

The NRCS and FSA administer a number of Federal Farm Bill programs including the Agricultural Management Assistance Program (AMA), the Conservation Reserve Program (CRP), the Conservation Reserve Enhancement Program (CREP), the Conservation Security Program (CSP), Environmental Quality Incentives Program (EQIP), the Farm and Ranch Land Protection Program (FRPP), the Grasslands Reserve Program (GRP), the Wetlands Reserve Program (WRP), and the Wildlife Habitat Incentives Program (WHIP). To encourage participation in these programs, MCADB staff and the AAC regularly refer farmers to the local NRCS and FSA offices and distributes program information during annual monitoring visits of preserved farms.

The Agricultural Management Assistance Program (AMA) targets beginning farmers with limited resources. AMA concentrates on three specific concerns: water management, tree planting, and risk management. There are currently no farms within Howell Township that are enrolled in this program.

The Conservation Reserve Program (CRP) is administered through the Farm Service Agency. According to the United States Department of Agriculture's web site (<u>www.nrcs.usda.gov/programs/crp/</u>), the program "encourages farmers to convert highly erodible cropland or other environmentally sensitive acreage to vegetative cover, such as tame or native grasses, wildlife planting, trees, filter strips, or riparian buffers". Landowners enroll in either the general (a.k.a. traditional) or continuous CRP program. Each has slightly different rules. Based on information from the MCADB, there are only two traditional, 10-year CRP contracts within Monmouth County. Both protect highly erodible soils through tree plantings in the first case and grass in the second. Another continuous CRP contract, also for 10 years, protects water quality through the establishment of filter strips. There are several farms in the area that have participated in this program.

The Conservation Security Program (CSP) is a watershed-based conservation program that "rewards private landowners for their ongoing stewardship of natural resources" (<u>www.nj.nrcs.gov</u>). As funding allows, the program rotates among New Jersey's watersheds. Some funding was previously available for farms in the Raritan Basin. There are a few participants in Middlesex County but none in Monmouth and Howell Township.

CREP is a continuing section of the Conservation Reserve Program. This program utilizes four stewardship practices and offers a higher cost share than other Farm Bill Programs. The intent of this program is to reduce agricultural water runoff and water quality. Farmers are paid to remove highly erodible pastureland and cropland from production in order to reduce water runoff and enhance water quality. The ACC had indicated that eight farms had participated in this program. One (1) of the eight (8) farms participated in this program for a fourth time. EQIP is a conservation program to encourage agricultural production and environmental quality standards that are compatible with national goals. The program provides assistance to eligible applicants to carry out structural and management practices on agricultural lands. The program offers contracts with a maximum term of ten years that provide incentive payments and cost shares to farmers to execute approved practices. The ACC had indicated that eight farms had participated in this program. One of the eight farms participated in this program for a fourth time.

The Farm and Ranchland Protection Program (FRPP) provides cost share funding for the purchase of development easements. Based on information from the MCADB, nine farms in Monmouth County have been preserved with the help of FFRPP funds. Because of impervious coverage restrictions and soil standards associated with these funds, most Howell farms are not realistic candidates for this money.

The Grasslands Reserve Program (GRP) offers landowners the opportunity to protect, restore, and enhance grasslands on their property. There are no farms within Howell Township that participate in this program.

The Wetlands Reserve Program (WRP) pays farmers for restoring and protecting wetlands on their property. These wetland areas are considered marginal farmland. They may currently be farmed or used as pasture or may have been previously drained for agricultural use. The land must be restorable and suitable for wildlife.

The WHIP program is designed for non-federal landowners who wish to improve or develop fish and wildlife habitat on their property. Priority is placed on habitat for species with declining populations. The program provides monetary and technical assistance for the creation of suitable habitat for a wide range of species. The NRCS works with the landowner to create a wildlife habitat for a wide range of species. The NRCS works with the landowner to create a wildlife habitat development plan, which becomes the basis for the cost share agreement. Participation in the program requires a property owner to limit use of his or her land for a period of time. There are currently eight contracts in Monmouth County. The ACC had indicated that eight farms had participated in this program. One of the eight farms participated in this program for a fourth time.

The New Jersey DEP's Landowner Incentive Program provides technical and financial assistance to private landowners interested in conserving threatened and endangered plant and animal species on their property. Potential projects include vernal pool restoration, prescribed burns, and stream fencing. The State is particularly focused on grassland within regional priority areas and lands adjacent to Wildlife Management Areas and other permanently protected areas. This program is similar to the Federal WHIP and CREP programs. Currently, there are no local farmers within Howell Township that participate in this program.

D. Water Resources

Based on conversations with Howell Township's AAC, the protection of water resources is an ongoing problem for agriculture and farmland preservation. Agriculture is dependent on a consistent and clean water source. Typically farms contain large surface areas and a limited impermeable surface cover and reduces aquifer recharge. There are several methods that local farmers within the township can use to preserve water quality and are listed below:

- Minimize use of fertilizers, herbicides, pesticides and fungicides.
- Provide riparian buffers to prevent runoff with chemical from entering waterways.
- Water conserving techniques such as drip irrigation and reuse of water (where applicable)

The NJ Department of Agriculture's *Agricultural Smart Growth Plan* encourages farmers to use efficient water conservation technologies such as drip irrigation and reuse of water (farm ponds). Local farmers within Howell Township can obtain assistance with irrigation and water quality enhancement projects through the USDA-NRCS.

The ACC had indicated that the township has ample amounts of surface water for agricultural purposes and includes the Manasquan Watershed. Primary water uses in Howell Township include watering of vegetables, irrigation for nurseries and irrigation for sod producers. Currently the demand has not exceeded the current water supply.

Three Howell Township farmers have certified water allocations from the NJDEP. There are several water conservation practices that can be found in Howell Township including low pressure-high efficiency overhead irrigation (center pivot) and drip irrigation for nursery and vegetable production. Some of the local farmers are utilizing irrigation water programs through the NRCS.

E. Waste Management Planning

Farm waste may vary from animal byproducts to solid waste. Animal waste has the potential to impact ground and surface water quality. If poorly managed, such waste products may introduce unwanted bacteria into water supplies. To prevent these problems, many equine and livestock owners in the County work with the NRCS to develop manure management plans. Also, depending on their scale, animal-feeding operations that exceed certain livestock population thresholds are required by the State to obtain New Jersey Pollutant Discharge Elimination System (NJPDES) permits and develop animal waste management plans.

Waste management is important to Howell Township's local farmers. All local farmers aim to comply with State waste management requirements and animal waste is not an ongoing concern. Agricultural producers in Howell Township are enthusiastic supporters of recycling of agricultural waste and bi-products. These include animal waste management plans, recycling of agricultural plastics and recycling of organic waste (farm composting). A large commercial egg producer in Howell Township contains a state-of-the-art animal waste management operation. The SADC has been working to adopt an animal waste Agricultural Management Practice (AMP) under the Right-to-Farm Act. Such a document would provide guidance for managing livestock waste. If the AMP is adopted as currently proposed, more Monmouth County farms would need to prepare formal waste management plans to be eligible for right-to-farm protection.

F. Energy Conservation Planning

A small number of Monmouth County farmers have begun to tap alternative and sustainable energy sources to power their homes, buildings and irrigations pumps and there is a lot of local interest among owners of preserved and nonpreserved farms in pursuing these options. A handful of local farms have already installed solar power systems on barn roofs and in fields to make electricity, lower utility costs, and reduce pollution. The Merrick and Kauffman farms in Howell Township use solar panels for energy. Participating landowners receive a rebate from the New Jersey Clean Energy Program, an Environmental Benefit Credit, a private investments cover installation costs. Sun Farm Network, a commonly used firm based in Califon, handles the design, installation and maintenance of solar systems for its clients. Excess power is typically sold to local utility companies.

Wind power is another sustainable source of energy. A few farms in the county still maintain small wind turbines. Because of modest wind strengths, the interior of the County and Howell Township is not well suited to large-scale wind power operations. In addition to wind power, the use of bio-fuels is becoming a popular operation for local agricultural producers.

G. Outreach and Incentives

MCADB and the AAC regularly dispense information and advice to farmers of preserved and non-preserved land throughout the County and township in response to phone and email inquiries about natural resource conservation. This information encompasses literature as well as Internet addresses of various resources. Also, local farmers can access the latest farm data from an online news letter from Rutgers and the NJ Farm Bureau.

In addition, annual monitoring of preserved farms offers an opportunity for the landowner and MCADB staff to identify and discuss potential conservation issues on preserved properties. This provides an occasion to remind preserved farm owners of the various natural resource conservation programs available to them. Staff routinely distributes literature on conservation plans and federal programs such as CREP.

The NRCS's Freehold Service Center also conducts extensive outreach. Employees produce newsletters; attend Board of Agriculture meetings, forward information to the township, MCADB and the Freehold Soil Conservation District Board, set up booths at the Monmouth County Fair as well as municipal fairs. Staff members also give talks such as a recent Central New Jersey Vegetable Growers meeting and a February 2008 seminar sponsored by the Millstone Township Agriculture Advisory Committee. The AAC had indicated that the above-mentioned programs are meeting the needs of farmers/land owners and also meeting environmental objectives.

Additionally, the Howell Township Preservation Task Force has been working with the Howell Township Farmers Advisory Committee, the Howell Township Citizens Advisory Committee and the Southard Grange to reach out to the local farmers of Howell Township. The Southard Grange has started a farmers market that operates in the summer months and is located on Route 9 at the Southard Grange parking lot.

The Township Manager, Police Department, Farmland Preservation Task Force and the Howell Township Farmers Advisory Committee have developed and placed "Horse Crossing" signage at equestrian areas that are located throughout the municipality. Most owners of deed-restricted farms in Howell have erected the SADC's wood-framed, preserved farmland sign. The Farm Preservation Task Force has created a newsletter and is working with the township to include this within their website. This page will include timely postings and video productions that showcase the diversified farms that are present within the township.

The Howell Township Council has been very supportive of the farming community and of the Farmland Preservation Program. For example, the governing body is considering a plan to allow farmers to lease a 35-acre farm that was created as part of a clustered residential development. This new outreach will benefit both the farmer and the township.

VIII. AGRICULTURAL INDUSTRY SUSTAINABILITY, RETENTION AND PROMOTION

There are a number of tools and programs that help retain and promote agricultural in the township. These range from right-to-farm measures to the state's Farmland Assessment program. The municipality is also involved in education and outreach efforts to promote local agriculture.

A. EXISTING AGRICULTURAL INDUSTRY SUPPORT

Monmouth County's *Growth Management Guide* encourages municipal Right to Farm ordinance development, adoption and enforcement. As mentioned earlier, Howell Township Council adopted a Right to Farm ordinance in 1994. The right to farm ordinance mirrors the SADC model; this ordinance acknowledges the importance of farming in the community and outlines the activities permitted under this section of the land use ordinance that is inherent to farming. The ordinance goes further to grant farmer's protection from harassment surrounding the practice and activities of agriculture that is sanctioned under the ordinance. It also informs new residents that the community supports and allows farm related practices authorized within the right to farm ordinance.

Farmers in Howell also have the ability work with the Monmouth County Agriculture Development Board and SADC to resolve disputes with neighbors or the township, pursue voluntary mediation, or verify that they are engaging in generally accepted management practices. Farms such as Puglisi Egg Farm, Julius Roehrs Nursery, and Cutters Farm have obtained Site-specific Agricultural Management Practice (SSAMP) determinations from the county. In 2002 the township completed a formal wastewater management plan to help address growth infrastructure and future land planning issues. This plan concentrates development infrastructural services towards areas zoned for commercial and residential growth. Most of the farms and agriculturally zoned areas are not accessible to these growth infrastructural services.

B. FARMLAND ASSESSMENT

New Jersey's Farmland Assessment Program was established in 1964 and was designed to reduce the property tax burden for the State's farmers. According to Alison Mitchell's *Gaining Ground* it "promotes the continuation of agriculture and assists in maintaining a supply of rental land, serving a critical purpose for agriculture in the State". To be eligible for farmland assessment, a landholder must own at least 5 acres and generate at least \$500 of agriculture for the current tax year and the two prior years. The farm residence is not eligible for the lower tax rate. Approximately 55,400 acres and 2,560 tax lots are farmland assessed in Monmouth County, while Howell Township contains 5,962.7 acres and 395 farmland assessed lots. Landowners with farmland-assessed property can save thousands, if not tens of thousands, of dollars a year.

Reduced tax rates benefit the agricultural community by keeping farming costs manageable. In turn, municipalities gain by retaining a land use that demands fewer public services than other types of uses.

The AAC believes that farmland assessment is critical for future farming within Howell Township. The committee recommends that farmland assessment benefits be extended to agricultural buildings.

Other Strategies

The county and township support other strategies for retaining agricultural viability including permit streamlining, agricultural vehicle movement routes, agricultural labor housing, wildlife management and education. The township promotes the streamlining of the permitted and licensing process for agricultural operations. The Division of Motor Vehicles issues farm-use plates for farm machinery and implements to travel on public highways from one farm to another. Such vehicles must travel between daylight hours and cannot be driven more than 15 miles from the farm. Tractors and equipment that cannot move in excess of 20 miles per hour do not need to be registered with the DMV. Aside from vehicle movement, equestrian travel on roadways is of concern to the municipality. The Township Manager, Police Department, Farmland Preservation Task Force, and Farmers Advisory Committee are in the process of developing and placing "Horse Crossing" signage at all equestrian areas of the township.

Agricultural labor housing is another issue of interest to the township. The Monmouth CADB adopted a handful of SSAMP resolutions in support of agricultural labor housing on commercial farms until the Superior Court of New Jersey Appellate Division overturned the Wilkin Urbano (Star Cross Stable) SSAMP in October of 2006

due to jurisdictional concerns. The county is now pushing the state to adopt an AMP for agricultural labor housing as well as to amend its list of protected activities under the Right to Farm Act. Aside from housing, agricultural labor may benefit from increased training opportunities. Accordingly, the Monmouth County Department of Economic and Workforce Development has been seeking to connect workers with classes at Brookdale Community College and elsewhere.

Wildlife management is also important for the retention of agriculture. Crop losses to deer and other animals can be significant. The NJ Agriculture Experiment Station estimates that deer alone account for \$5-\$10 million of annual losses. Deer fencing, hunting and air cannons are all employed by Monmouth County farmers to deter crop predation.

The Monmouth County Park System plays an important role in managing deer in the County's agricultural communities. In the 2006-7 season the Park System issued 742 permits to hunt in eleven park areas including Clayton Park, the Crosswicks Creek Greenway, and Thompson Park. These lands are either adjacent to farmland or have sections leased to farmers. In all, 303 deer were harvested during the season. The Park System's primary objective is to promote forest health by harvesting deer or putting pressure on deep populations. However, an ancillary benefit is the reduction of crop predation on nearby farmland.

On the other side of the wildlife management coin, many farmers install nest boxes to attract insectivores such as purple martins. Similarly, managing farmland and adjacent areas for beneficial wildlife can promote agritourism by drawing birders and others to a particular operation.

Agricultural Education and Promotion

Preservation of the land is only a small part of the farmland preservation process. Farmland preservation must go beyond the purchase of development easements and make the effort to ensure that the agricultural industry remains not only a viable component of the local economy and township's character and lifestyle. Accordingly, the township has been involved in a number of activities designed to promote the agricultural industry in Howell.

The Howell Township Farmers Advisory Committee, the Howell Township Citizens Committee and the Southard Grange have been working to create an outreach program with local township farmers. The partners started a farmers market that operates during the summer months and is located along Route 9 at the Southard Grange parking lot.

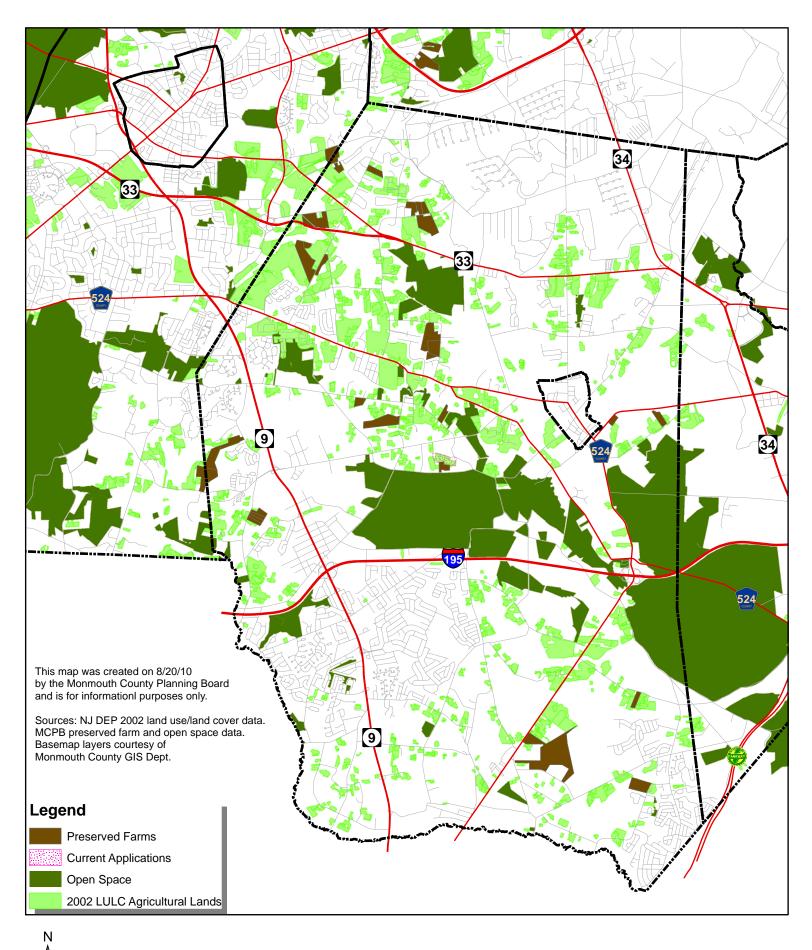
The Howell Township Farmland Preservation Task Force has developed a newsletter and is working with the township to place this information on its website. The website will include timely postings and video productions that showcase the diversified farms that are located within Howell Township. Additionally signage has been posted at all preserved farms within the township.

The Township Council has been historically supportive of the farming community and the Farmland Preservation Program. The Township Council is breaking new ground with the consideration of a new plan that will allow farmers to lease a thirty-five-acre farm that was created as part of a cluster development. This new type of outreach will benefit both the local farmer and the township.

CONCLUSION

Building on its past success, Howell Township will continue to partner with the state, county and other groups to preserve its remaining farmland. At the end of ten years, Howell hopes to have preserved over 1000 acres of productive agricultural land. Concurrently, sound land use planning and efforts to retain and enhance the local agricultural industry will help keep the farming economy in Howell strong.

Howell's Preservation Task Force, its Farmers Advisory Committee and the township's governing body are committed to preserving Howell's productive agricultural lands, the local agriculture industry, and Howell's rural heritage. The township supports innovative approaches to maintaining the sustainability and economic integrity of its farming community as well as the availability of fresh, locally grown farm products.



Farm Assessed Properties

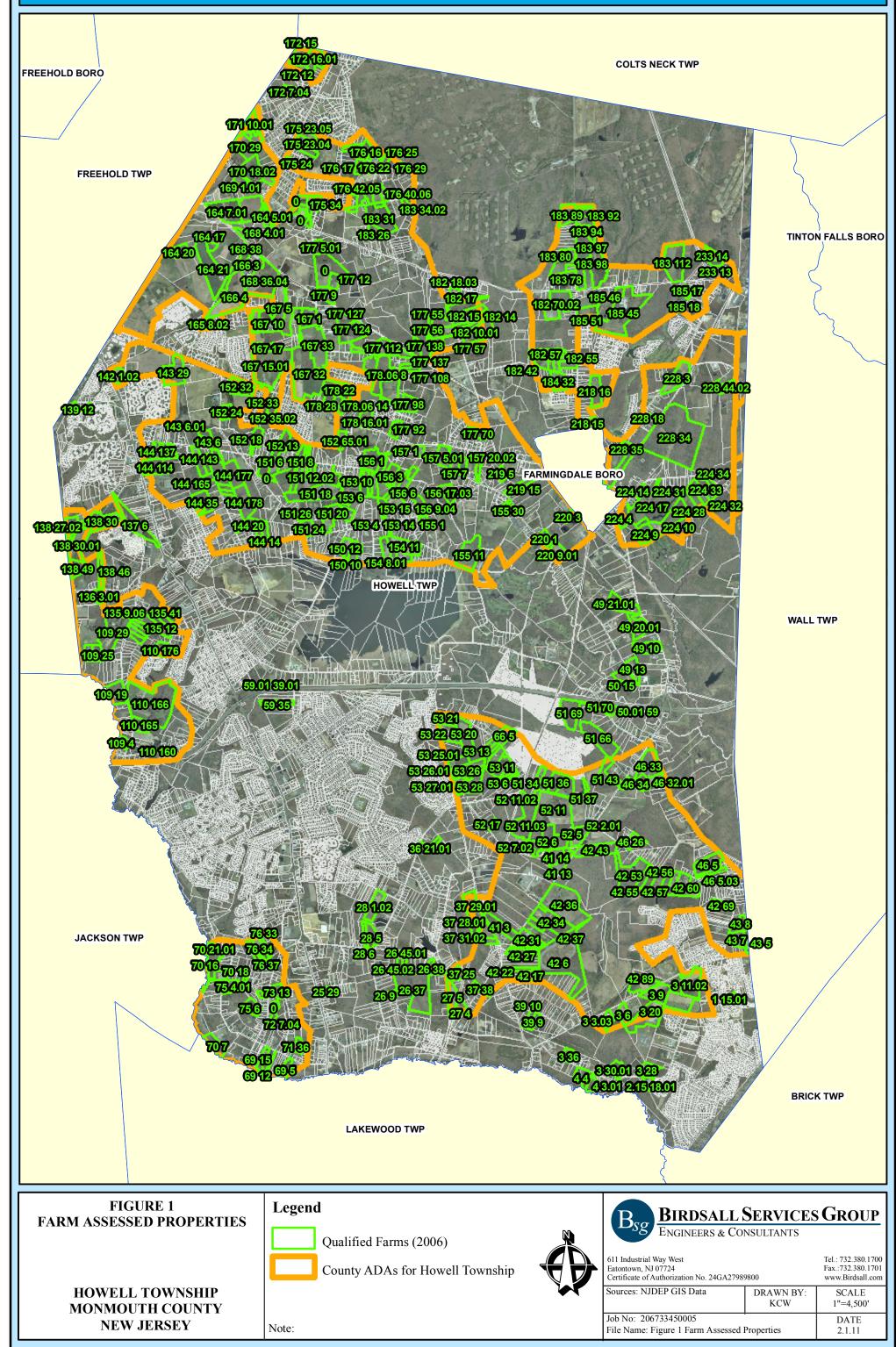
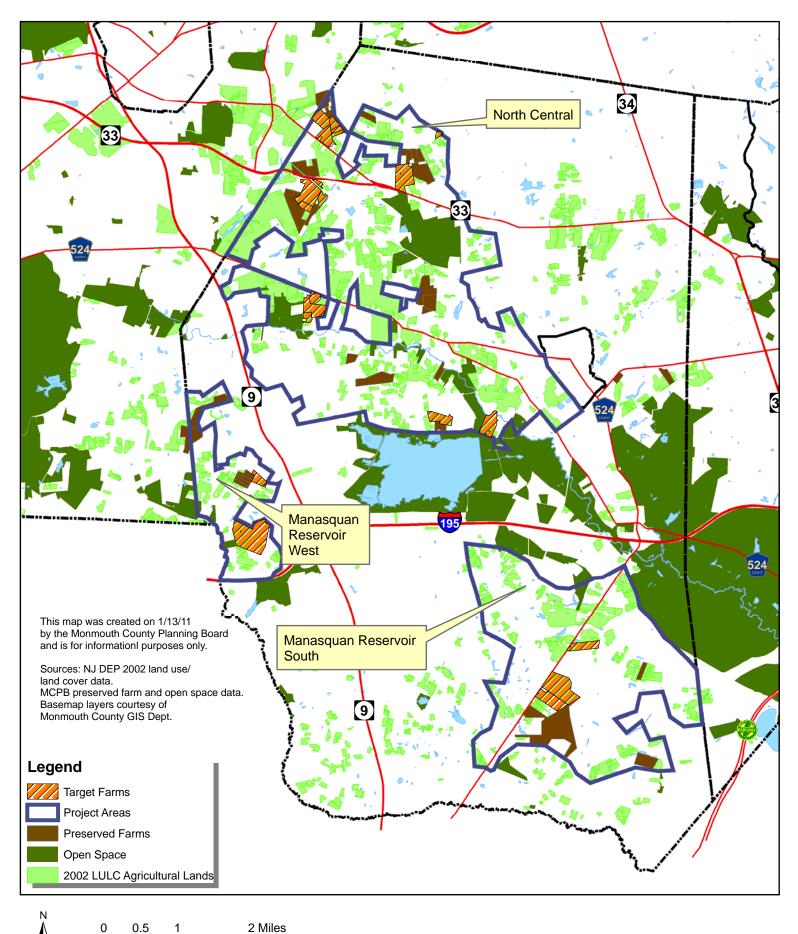
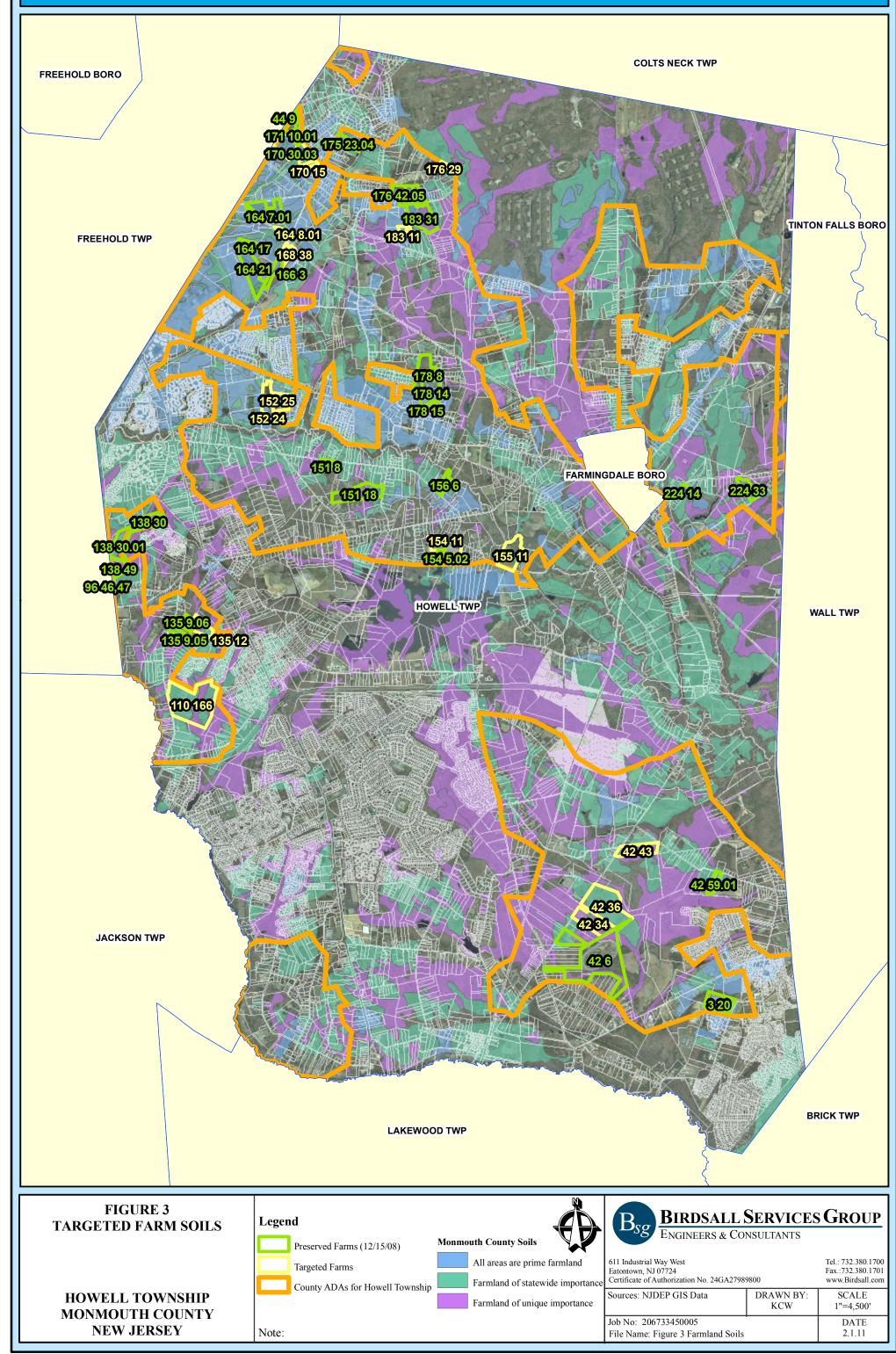


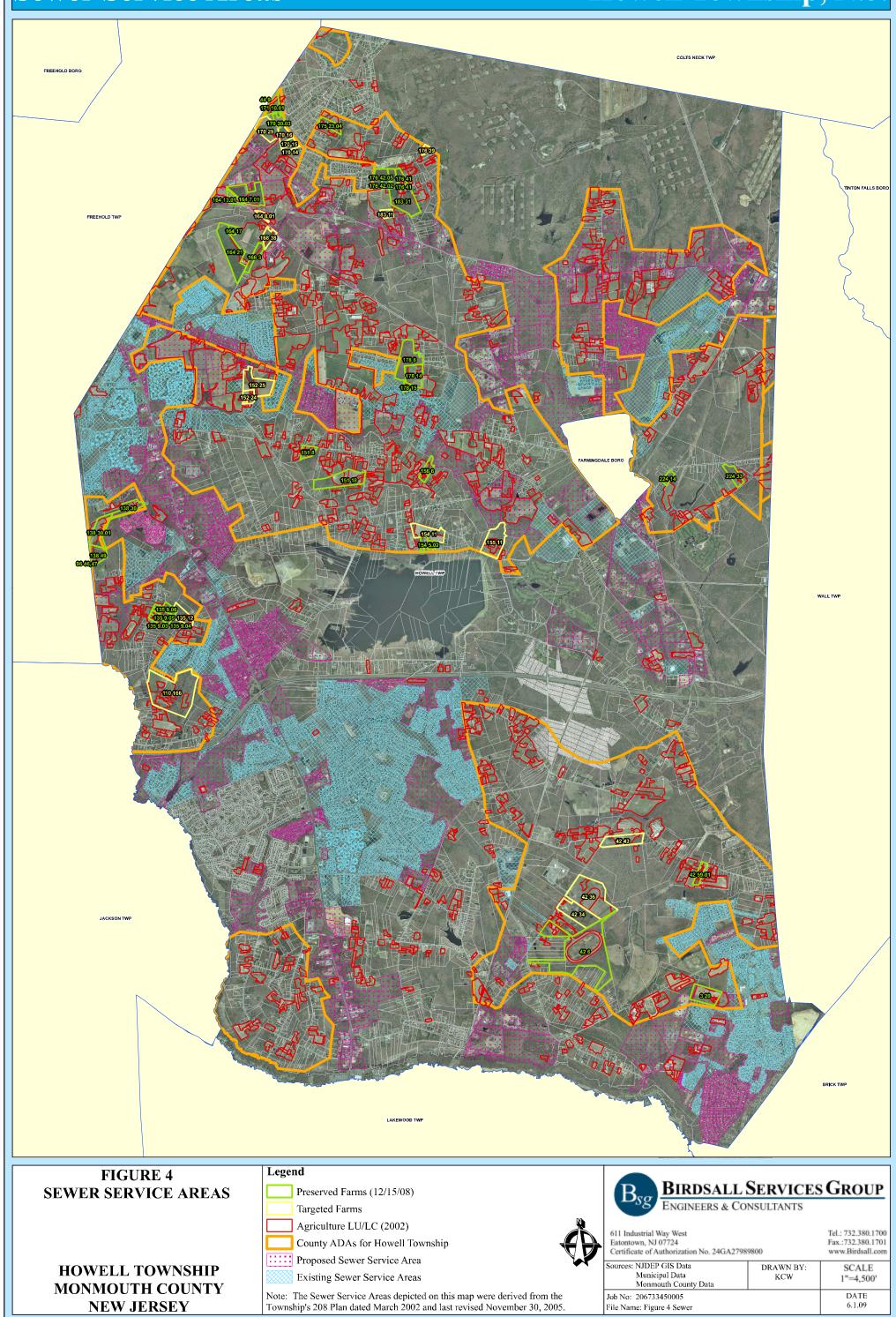
Figure 2



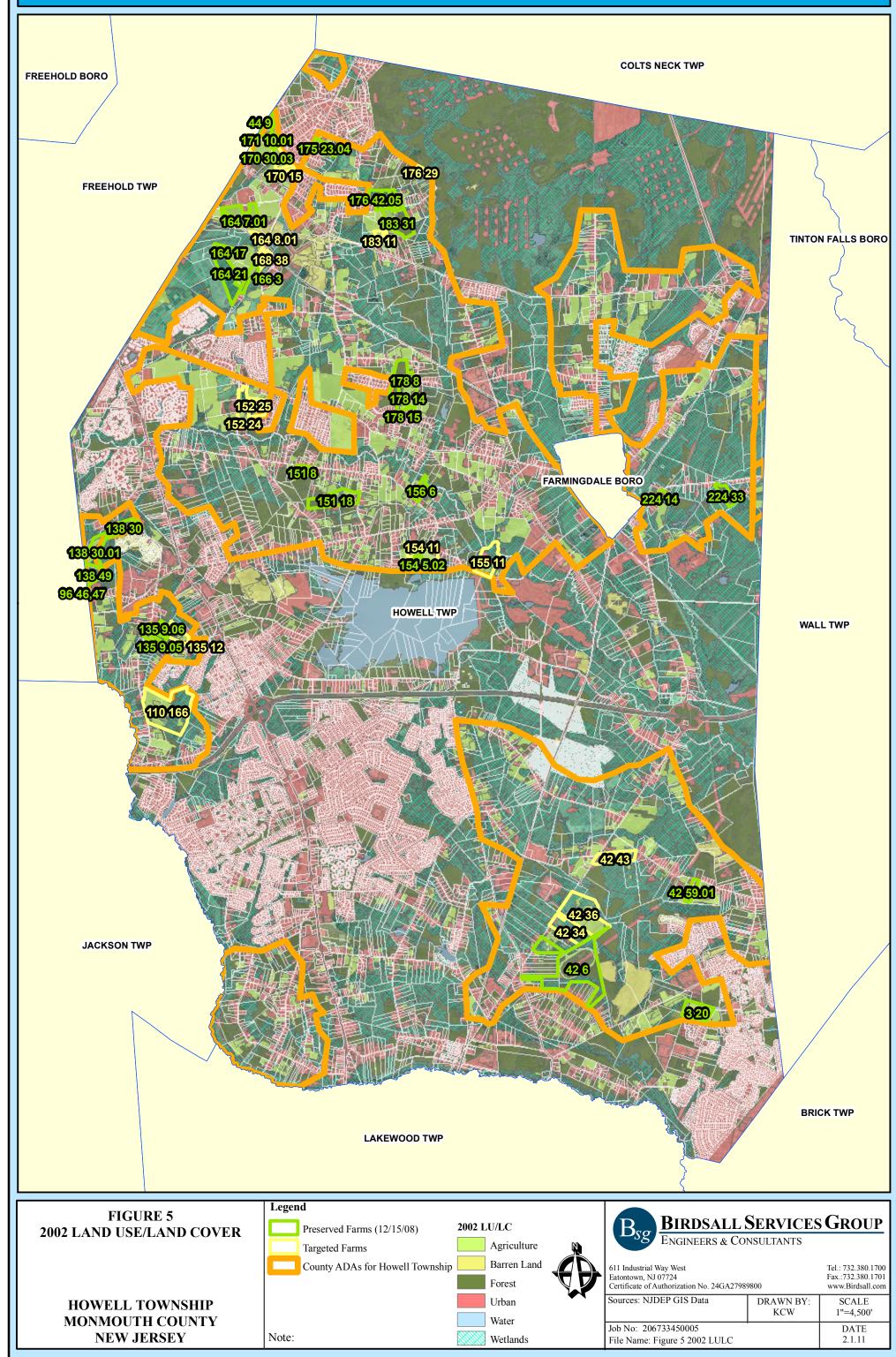
Targeted Farm Soils



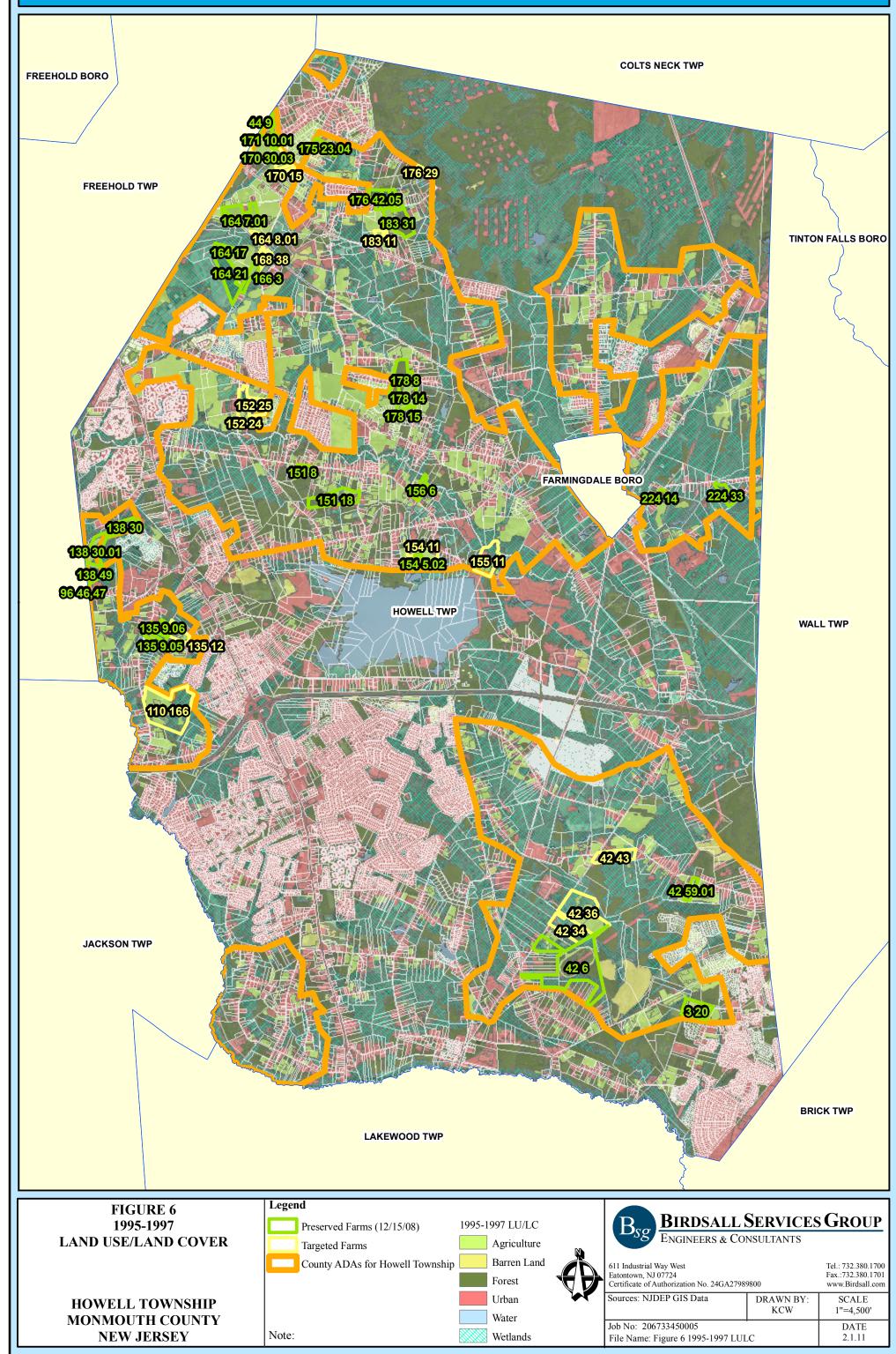
Sewer Service Areas



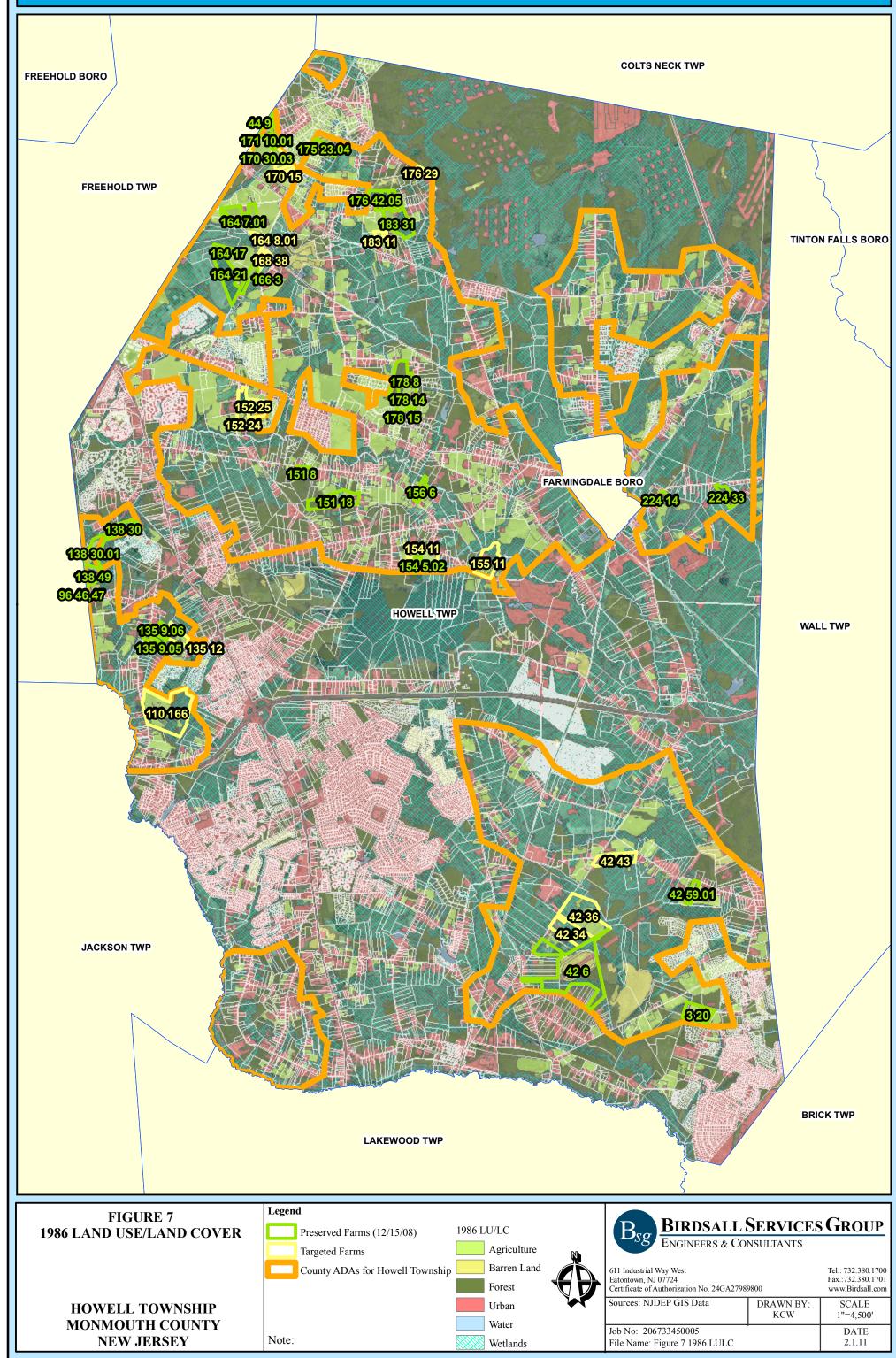
2002 Land Use/Land Cover



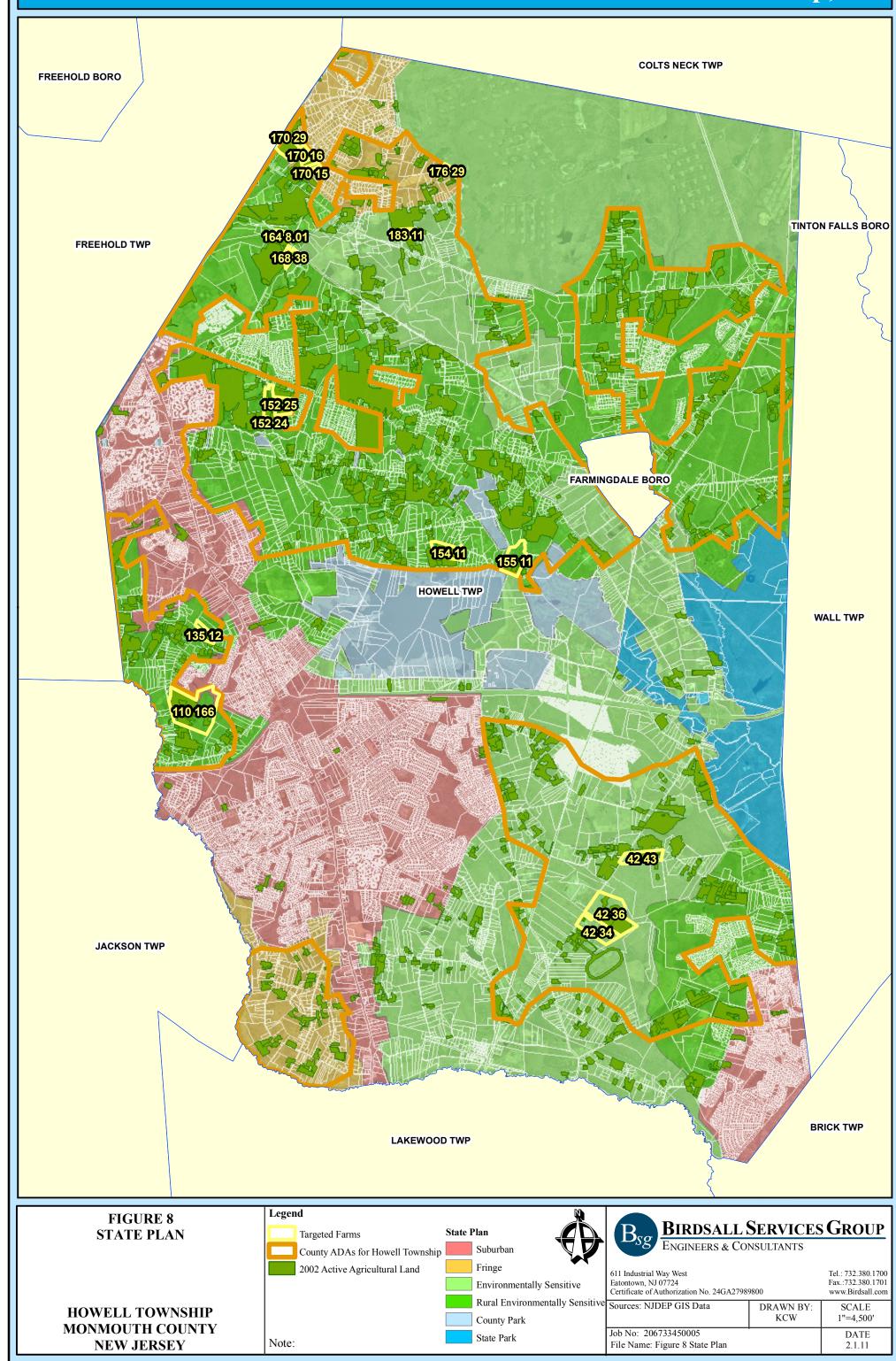
1995-1997 Land Use/Land Cover



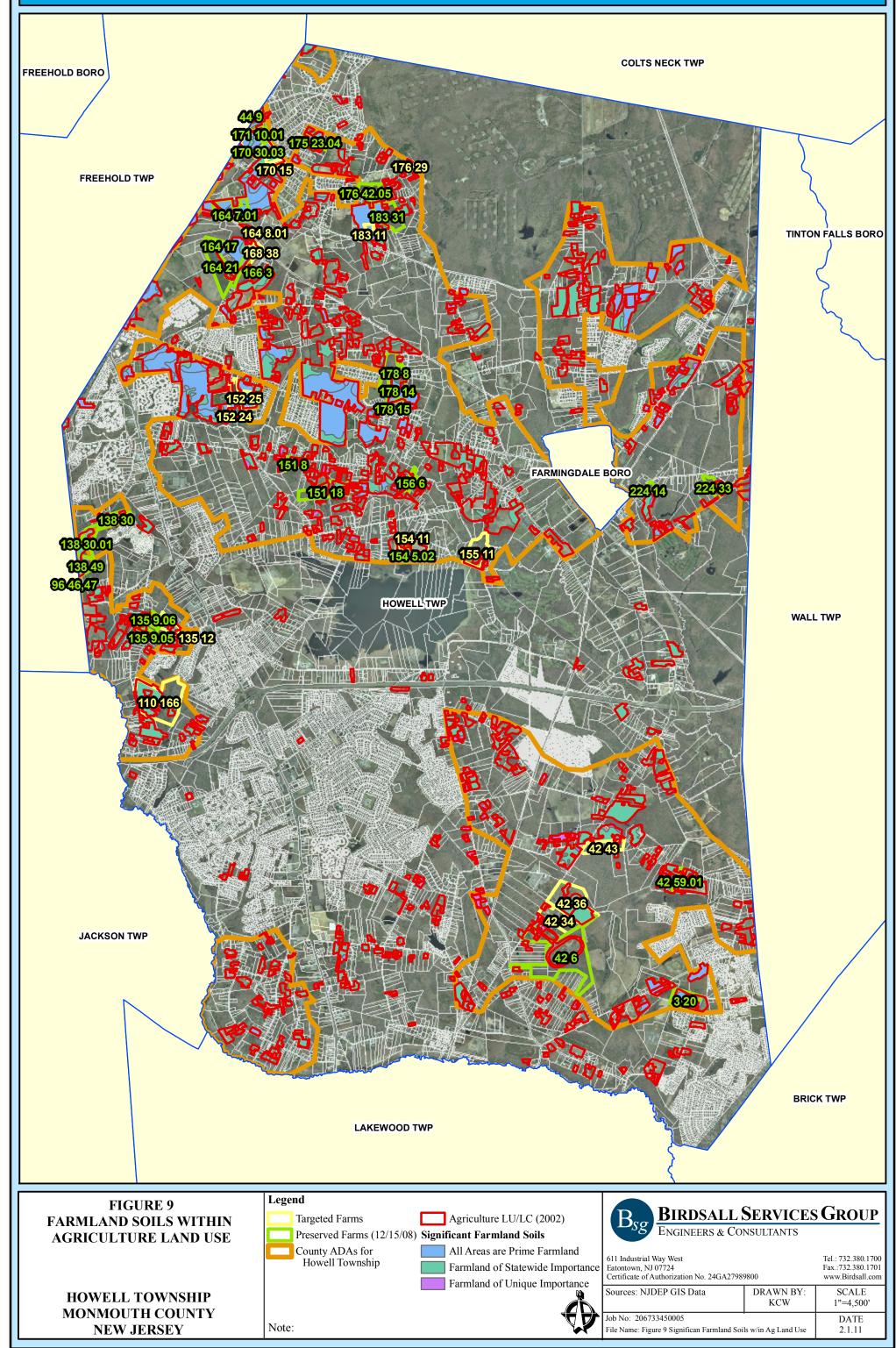
1986 Land Use/Land Cover



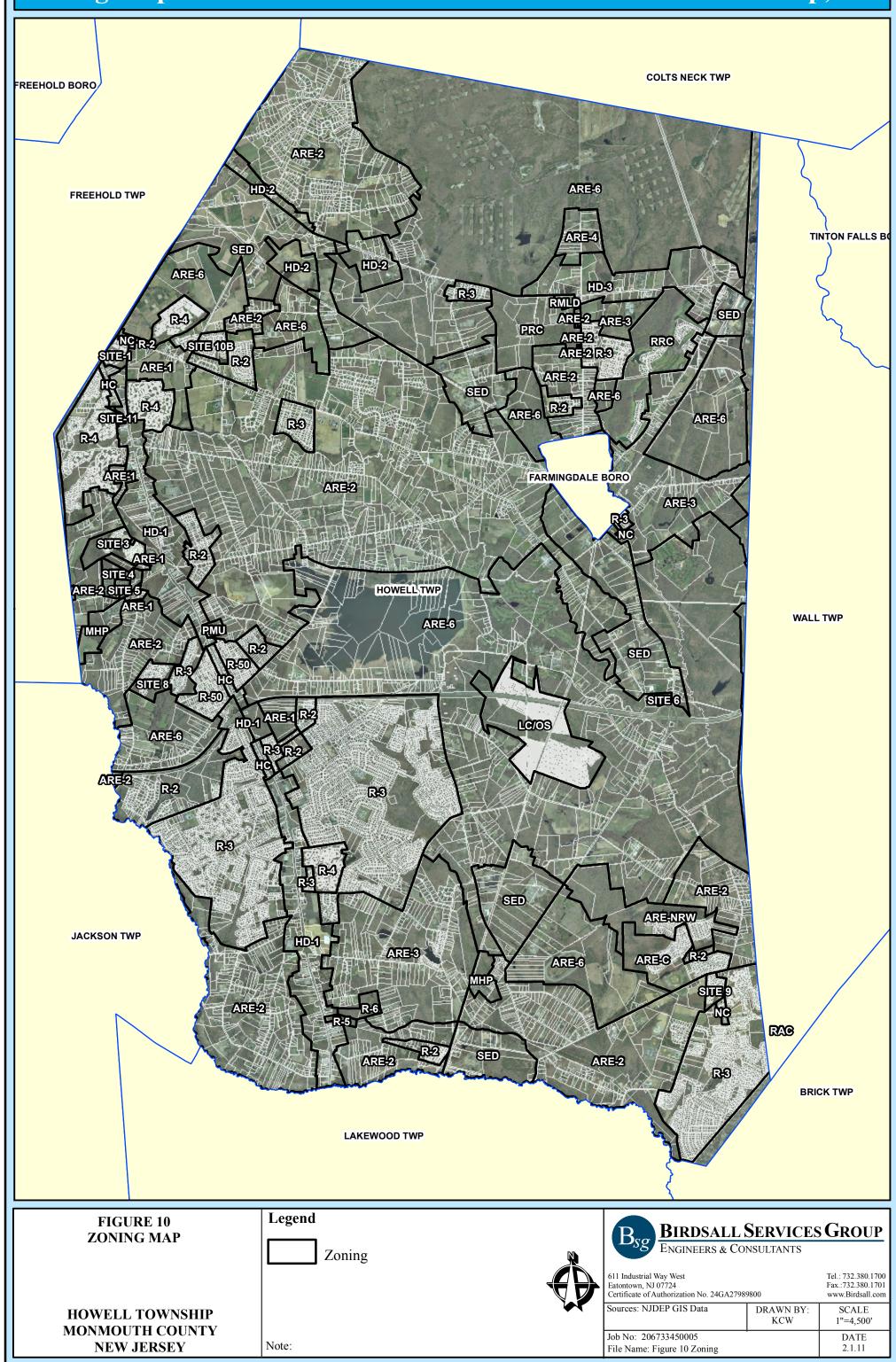
State Plan



Farmland Soils in Agricultural Land UseHowell Township, N.J.

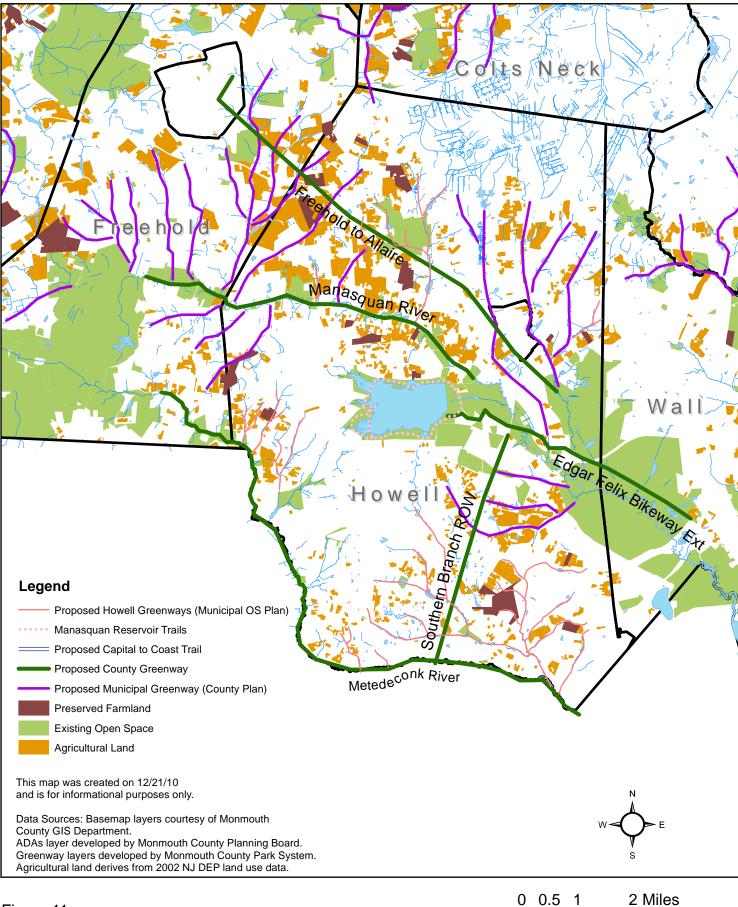


Zoning Map

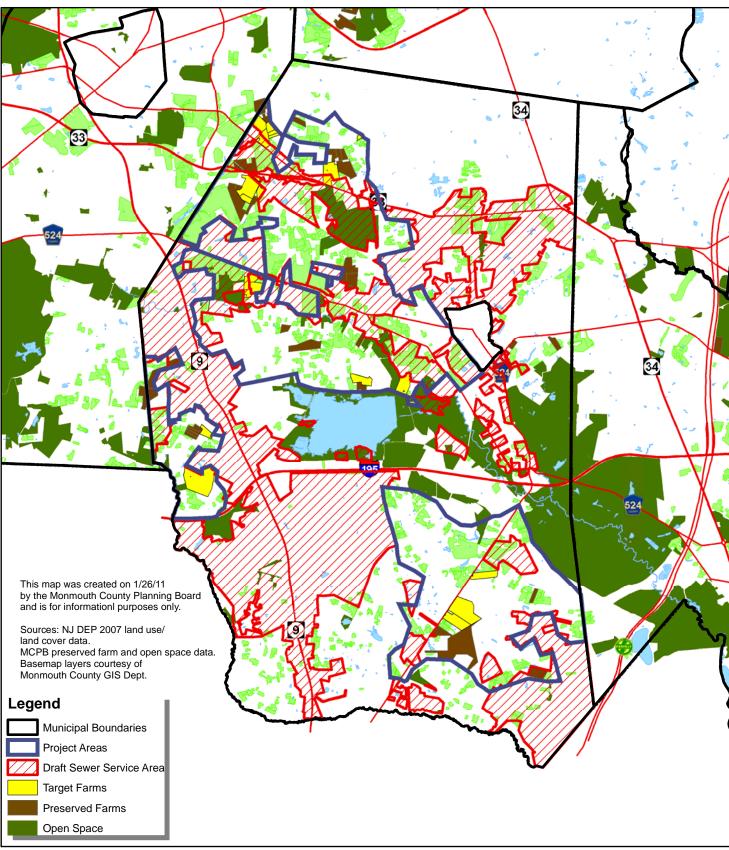


Howell Greenway and Trail Projects

Monmouth County Agriculture Development Board One East Main Street, Freehold, NJ 07728 732-431-7460



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Howell Township Updated Sewer Service Areas Map

Figure 12

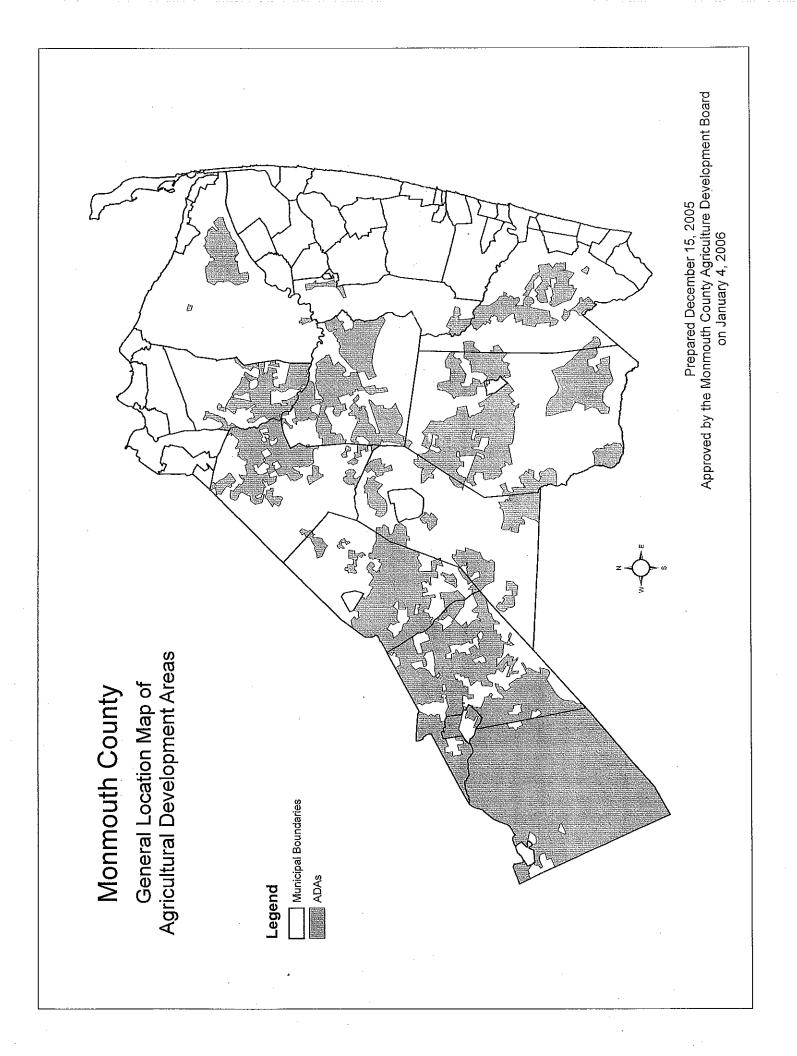
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APPENDIX A

MONMOUTH COUNTY ADA MAP



APPENDIX B

TARGET FARMS LIST

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	Wetland Area	(%)	32.93	53.23	55.08	3.49	15.84	21.27	AN	3.72		NA	AN	0	48.93	48.07	84.01	13.73	
	Total	(AC)	32	100	13.84	25	42.6	11.49	~	24.23		44	36.82	45.28	74	27	11.43	58.51	
	DW 99	(AC)	б	30	5.75	3	0	2.49	0	0		A	20.82	2.28	0	m	3.43	13	
	NON APPUR APP WD	(AC)	0	0	0	0	4	0	0	0		AN	0	0	0	0	D	0	
	SUBTOTAL	(YO)	23	70	7	22	38.6	6	3	24.23		NA	15	43	74	23	ø	45.51	
	PERM PAST	(AC)	23	£	2	0	0	0	ю	0		NA	15	0	20	23	o	0	
	CROP PAST	(AC)	0	0	0	0	0	0	0	0		AN	0	0	20	0	0	0	
ARMS	CROP HARV CROP PAST PERM PAST	(AC)	o	65	0	22	38.6	6	0	24.23		AN	0	43	34	0	∞	45.51	
TARGET FARMS		NAME	BERGRUD, NIC & TONI	BERKOBEN, J&E, WHALEN, W & BENNETT, R	BUZIO, JOSEPH	CLAYTON, THOMAS A	DI GREGORIO, GIACINTO, & ESTHER	DI GREGORIO/ TWIN PONDS FARMS, LLC	FERRARO, STEPHEN A & MEGAN P	GIBSON JR, E E & C E & KETCHAM, E M		HILLPOT, DOROTHY V & LIPSKI, JOAN M	JORDAN, CINDY	LEWIS, PAUL & KOVACS, JOAN	NARYSHKIN, GEORGE & VERA	POKUS, MARYANNE	THOMPSON, JOHN D SR. FAMILY LP	THOMPSON, JOHN D SR. FAMILY LP	
		T PROPERTY LOCATION	270 SC	1	1	CASINO DRIVE	1	ADELPHIA FARMINGDALE ROAD	9 470 BRICKYARD RD		14,	16 ROUTE 33	4 LAKEWOOD FARMINGDALE RD	BRICKYARD ROAD	S ILAKEWOOD-FARMINGDALE ROAD	F	8 HOWELL RD	01 HOWELL ROAD	
		- Ч		166	12	11	24.25	32	29	29	8.02, 14,	15, 16	34	1	36	43	38	8.01	
		BIOCK	155	110	135	154	152	152	176	170		170	42	183	42	42	168	164	

APPENDIX C

RIGHT TO FARM ORDINANCE

CHAPTER 244RIGHT TO FARM

[HISTORY: Adopted by the Township of Howell by Ord. No. 0-81-42, as amended through Ord. No. 0-99-14 (§ 31-3 of the 1974 Code). Subsequent amendments noted where applicable.] GENERAL REFERENCES General penalty — See Ch. <u>1</u>, Art. <u>II</u>. Uniform construction codes — See Ch. <u>108</u>.

Land use — See Ch. 188.

Noise — See Ch. 208.

Nuisances — See Ch. <u>211</u>.

Swine — See Ch. 284.

§ 244-1 Findings.

<u>A.</u>

The right to farm all land is hereby recognized to exist as a natural right and is also hereby ordained to exist as a permitted use everywhere in the Township of Howell, subject only to area and bulk requirements (as per the Schedule of Bulk, Dimensional, Height and Related Requirements for the Zones in Chapter 188, Land Use) and to ordinances of the Township, county and State dealing with health, sanitation and environmental protection. The right to farm as it is used in this chapter includes the use of irrigation pumps and equipment, aerial and ground seeding and spraying, tractors, farm laborers and the application of chemical fertilizers, insecticides and herbicides as well as other mechanized equipment and modern procedures, including composting and on-site disposal of organic waste; all for the purpose of producing from the land agricultural products, such as but not limited to vegetables, grains, hay, fruits, fibers, wood, trees, plants, shrubs, flowers and seeds, as well as the propagation and maintenance of horses, cows and other grazing livestock, fowl production, the maintenance of swine (as per and in accordance with Board of Health regulations), and provide for the processing and packaging, wholesaling and retailing of such products as contribute to farm income, including the construction of buildings, fences and parking areas in conformance with Township codes. Livestock fencing shall conform to the use intended and shall not require permits and fees.

<u>B.</u>

The foregoing uses and activities included in the right to farm, when reasonable and necessary for the particular agricultural/farming, livestock and/or fowl production, and when conducted in accordance with generally accepted agricultural/farming practices, can and may occur on holidays, Sundays, and weekdays, at night and in the day, and the usual noise, odors, dust and fumes that are caused by them are also specifically permitted as part of the exercise of this right.

<u>C.</u>

It is expressly found that whatever inconvenience may be caused to others not of the farming community by such uses and activities so conducted is legal for the farmer, and is more than offset by the benefits from farming to the neighborhood, community and to society in general by the preservation of open space, the beauty of the countryside and clean air, and by the preservation and continuance of farming operations in Howell Township and in New Jersey as a source of agricultural products for this and future generations.

§ 244-2 Notice of nearby farming uses.

<u>A.</u>

If a developer and/or landowner plans to build or sell an existing dwelling in an area within 1,500 feet in any direction of a property currently in active farm use, both the developer and/or landowner, through their agents, must inform prospective purchasers that they are next to an active farm, and therefore may be subjected to such usual noises, odors, dust and/or fumes that an active farm may have. Furthermore, they should be aware of this Right to Farm Ordinance which allows the farmer to pursue his endeavors without complaints and/or harassment. Any development that occurs in the area of an active farm use shall do so in a manner so as not to infringe on the rights of the farms. Particular attention must be paid to water problems in said areas, as well as environmental issues. A development, be it one house or many, cannot and will not cause flooding problems for the farmer or the neighborhood. Furthermore, if a development is erected next to an active farm use, the developer must erect and maintain a buffer zone of at least 50 feet on his property for protection from both the existing farm and the new development as per Chapter <u>188</u>, Land Use, § 188-7C.

Editor's Note: See now § 188-63, Buffers and screening.

<u>B.</u>

For the purpose of giving due notice of nearby farming uses to proposed new residential areas adjacent to farmland, or unimproved land that is suitable for farming, the Planning Board shall require an applicant for an adjacent major or minor subdivision as a condition of approval of such application, to include a provision in each and every contract for and deed conveying all or any portion of the lands thereby subdivided, as well as on filed subdivision maps the following record notice to and waiver by grantees of such present or future proximate farming uses, which such provision shall be made to run with the land. Said language shall read as follows:

"The Grantee (purchaser of property) that is within 1,500 feet of the active farm use, acknowledges such notice that there are presently or may in the future be farm uses adjacent to or in close proximity of such purchase property, from which may emanate noise, odors, dust and fumes and by acceptance of this conveyance the Grantee does hereby waive any and all objections to such activities."

§ 244-3 Buffer area.

Additionally, the grantee and any prospective purchasers must be further advised

Township of Howell, NJ

that as per the Buffer Ordinance, there is to be no structure, activity, storage of materials, or parking of vehicles that shall be permitted in a buffer area pursuant to Chapter <u>188</u>, Land Use, § 188-7A.

Editor's Note: See now § 188-63, Buffers and screening.

§ 244-4 Erection of buildings on farms permitted.

In an effort to preserve and continue farming in the Township of Howell, residents involved in active farming and agricultural pursuits should and can be allowed to construct buildings on their land that are directly related to the farming pursuit, e.g. barns, storage buildings, equipment buildings, etc. Said buildings must be erected in accordance with Township Building Codes,

Editor's Note: See Ch. <u>108</u>, Construction Codes, Uniform. and shall follow the schedule as set by the Township.

§ 244-5 <u>Intent.</u>

These statements are of a general intent and meant to express a basic philosophy by which all other ordinances are to be considered and interpreted.