

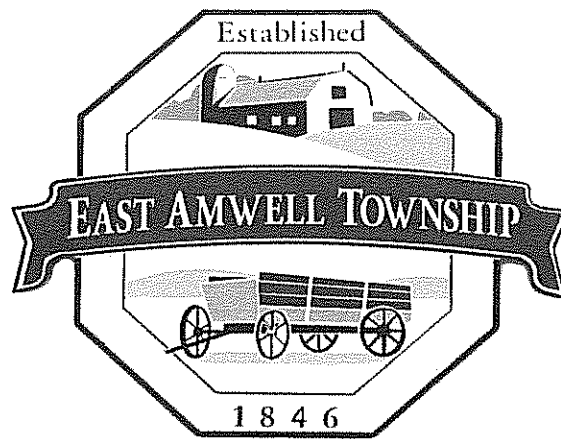
Comprehensive Farmland Preservation Plan

East Amwell Township

Hunterdon County

Third Revision

May 20, 2010



Prepared by the Farmland and Open Space Preservation Committee

In consultation with Banish Associates, Inc. Flemington, New Jersey 08822

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Table of Contents

Introduction

Map of East Amwell Open Space and Preserved Farmland 2009
Narrative to map

List of Maps, Tables and Appendix Documents

Chapter and Title	Pages
Chapter I East Amwell Township Agricultural Land Base	1-6
Chapter II Overview of East Amwell Agricultural Industry	1-7
Chapter III Land Use Planning Context	1-16
Chapter IV Overview of Farmland Preservation Program in East Amwell	1-8
Chapter V Future Farmland Preservation Program	1-7
Chapter VI Economic Development	1-8
Chapter VII Natural Resource Conservation	1-8
Chapter VIII Agricultural Industry Sustainability, Retention and Promotion	1-5

Conclusion

Appendix with Listing of Documents Included

**EAST AMWELL TOWNSHIP
COMPREHENSIVE FARMLAND AND PRESERVATION PLAN
THIRD REVISION
MAY, 2010**

INTRODUCTION

The East Amwell Township Master Plan (2006) cites preserving farmland and open space as one of the most important policy goals for the Township. The first key objective listed in the plan is to:

- Maintain the community's prevailing agricultural character by promoting the industry of farming and preserving the productive agricultural land base.

The Master Plan emphasizes the importance of agriculture and provides several strategies to retain and encourage agriculture in the township. The Plan states that:

- Agriculture is important in East Amwell's history and its future, providing a rural lifestyle valued by farmers and non-farmers alike, while also contributing breathtaking scenic views, promoting the local economy and utilizing a valuable natural resource.

Therefore East Amwell should:

- Recognize agriculture as a significant economic industry in the community and encourage economic opportunities in this industry.
- Promote the potential for the success of the agricultural industry, through the preservation of agricultural lands and productive soils.
- Preserve the large contiguous land base required to assure that agriculture remains a viable, permanent land use.
- Encourage agricultural land preservation through the use of techniques such as agricultural easements and clustering provisions for housing development.
- Distribute the benefits and burdens of farmland and open space preservation among all the citizens of the Township.
- Encourage a harmonious existence between agricultural operations and neighboring non-agricultural development.

East Amwell continues its commitment to farmland preservation and farming. Over one third of the Township or about 6,871 acres have been preserved through various programs. The map that follows shows preserved lands in the Township. This map and narrative is provided to all citizens as an annual report on progress made by FOSPC in its preservation efforts.

The Plan documents the viability of farming in the Township and the commitment of the citizens to these goals. East Amwell Township passed the 2007 State Ballot Question Three for continued funding of the program by an overwhelming 63% margin. The 2009 State Ballot Question for continued funding was approved by 61% of East Amwell voters. Funding requests to the citizens for preservation funding through municipal bond issues have also received wide support.

The Township formed the Farmland and Open Space Preservation Committee (FOSPC) to insure that preservation efforts continue through a formal structure. The Agricultural Advisory Committee has played an important role in providing advice to FOSPC and working to maintain the viability of farming in the Township.

East Amwell will continue its long history of commitment to farming and farmland preservation in the Township and we look forward to continued financial support toward these efforts.

CHAPTER	NUMBER	TITLE OF MAP
Introduction	2009 Farmland Map	2009 Annual Report to East Amwell Taxpayers with Map of all preserved properties in the Township
One	1-A	East Amwell Zoning Map
	1-B	2002 Land Use/Land Cover: East Amwell
	1-C	Preserved Farms and Targeted Farms 12/07
	1-D	Farmland Capability (Prime & Statewide Soils)
	1-E	Township Parcels by Tax Class
	1-F	Land Use/Land Cover: East Amwell Township with Land Use/Land Cover Summary Chart in Support of 1-F
	1-G	NJDEP 2002 Land Use/Land Cover: Crop & Pastureland
	1-H	Project Area, Ag Zoning District, County ADA and State Planning Areas: March 2009
	1-I	Regional Agricultural Areas
Two		No maps in Chapter II
Three	III-A	State Plan Planning Areas PA4, PA4B and PA5
	III-B	Sourland Mountain Study Area: Special Resource Area
	III-C	Harvest Farm Cluster Development
	III-D	Myers Road Cluster Development
	III-E	Caroussel Estates Cluster Development
	III-F	Subdivision of Gordeuk Farm using Open Lands Ratio
Four	IV-A	County ADA with East Amwell ADA shown
	IV-B	Project Area and Target Farms
	IV-C	Land Use/Land Cover showing Project Area
	IV-D	Preserved Farms by Acquisition Program
	IV-E	E. Amwell ADA & Project Area with Prime & Statewide Soils
	IV-F	Garden State Greenways in Township & Vicinity with legend on second page also marked as IV-F
	IV-G	E. Amwell Preserved Open Space by Acquisition Program
	IV-H	D&R Greenway Preserved Lands In East Amwell
Five	V-A	Project Area and Targeted Farms
	V-B	Project Area, Ag Zoning District, County ADA & State Planning Areas
Six		No maps in Chapter VI
Seven		No maps in Chapter VII
Eight	VIII-A	Amwell Valley Trail Association Trail Map

Chapter	Number	Title of Table
One	I-1	Farmland Properties in the Township (8 pages)
	I-2	Leased Farm Acreage by Tenant in the Township (4 pages)
	I-3 & 1-4	Farmland Assessed Acres: Township & County 1980-2005
	I-5 & I-6	Land Use Acres by Farmland Assessment Categories: Township and County 1980-2005
	I-7	Size Distribution of Farms Comparing East Amwell and Hunterdon County
Two	II-1	Ag Production by Commodity for 1990, 2000 and 2005: East Amwell and Hunterdon County
	II-2	Value of Agricultural Production for selected grain crops 2000 and 2005 East Amwell and Hunterdon County
Three	III-1	Acreage Amounts by Planning Areas in the State Plan
	III-2	Land Use/Land Cover Data
	III-3	Preserved Farms in East Amwell arranged by cost per acre from 1989-2008
	III-4	
Four	IV-1	Land Use/Land Cover Data
	IV-2	East Amwell Preserved Farms arranged by Preservation Program
	IV-3	Pending Farmland Preservation Applications as of December, 2007
Five	V-1	Targeted Farms by acreage with prime and statewide soils noted
	V-2	East Amwell Cropland and Pastureland Acres
	V-3	Ranking Criteria for Farms in the Municipal PIG Program: East Amwell
	V-4	Open Space Tax Receipts from 1999-2009
	V-5	East Amwell Debt History
	V-6	Preserved Farms Cost Share: State/County/Township
	V-7	SADC Cost Share Formula
Six	VI-1	Area, Yard and Bulk Regulations (4 pages) for Amwell Valley Agricultural District in East Amwell Township
Seven		No Tables in Chapter VII
Eight	VIII-1	Hunterdon County 4-H and Ag Fair Calendar of Events for 2007

In Support of Chapter	Title of Appendix Reference
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III-A	Planning for Farming in the Future of East Amwell (Part of 2006 East Amwell Master Plan: Pages 18-23)
III-B	Municipal Demographic & Housing Characteristics and Municipal Employment Projects (Pages 16-29)
III-C	East Amwell Code Section 92-91 Amwell Valley Agricultural District (Pages 174 and 175)
III-D	Feasibility Study for Hidden Valley On-Site Groundwater Discharge (Pages 1-11) (Figures 1-9) (List of Soil Logs & Chart)
III-E	East Amwell Township State Plan Implementation Project Funded by Matching Grant from ANJEC: May, 1977 Executive Summary and Pages 1-16 with additional attachments
V-A	East Amwell PIG Application to SADC: October, 1999
V-B	Hunterdon CADB County PIG Ranking Criteria as of 9/13/07
V-C	State Agriculture Development Committee (SADC) Policy P-14-E Ranking Criteria

CHAPTER I

EAST AMWELL TOWNSHIP AGRICULTURAL LAND BASE

The Amwell Valley claims a healthy abundance of productive agricultural soils, illustrated by the farmland mosaic throughout the Valley. This mosaic is particularly evident when one notices the woodlands, stream corridors and residential development that serve to enhance the agricultural areas.

Location and Size of Agricultural Land Base

Tables I-1 and I-2

Maps I-A and I-C

Maps I-F and I-G and I-H and I-I

Summary Chart: GIS data and percentages

The items noted below are taken from the GIS data and maps listed above and the Summary Chart that presents that GIS data in a table format for ease in comparison. Please refer to these documents at the end of this chapter.

Lands Under Farmland Assessment

Using the GIS data from the 2002 Land Use/Land Cover Map (Map I-F) East Amwell Township consists of 18,287 acres**. Table I-1 is a listing of all farms in East Amwell Township under Farmland Assessment as of August 1, 2007. This listing shows that East Amwell has 296 farms under Farmland Assessment for a total of 11,384 acres or 62% of all acreage. Table I-2 lists farmland leased in the Township. This list was compiled from the 2007 Farmland Assessment forms. About 7,400 acres of land or about 65% of all acreage under Farmland Assessment is rented to farmers. The list also reveals that many of the tenants are residents of East Amwell or live in Hunterdon County. The availability of land for rent helps maintain the rural and agricultural nature of the Township.

Project Area

Note: The Summary Chart as part of Map I-F at the end of this chapter provides the acreage amounts represented by the various maps in this section.

East Amwell has designated most of the Amwell Valley Agricultural District as its farmland preservation project area. Our project area depicted by the black outline on Map I-H is the same as the County ADA. The project area includes 13,515 acres of which 54% or 7,281 acres are in agriculture.

The Land Use/Land Cover map (I-F) indicates that 44% (8001 acres) of the Township is agricultural land. There are 7,281 agricultural acres in the Project Area which means that 91% of agricultural land is included in the Project Area.

**You will note that the acreage for the Township calculated using tax records is given as 17,792 acres. This is an acreage difference of about 500 acres. The tax map acreage is always approximate. The GIS figure is more accurate.

GIS data also reveals the Township has a total of 7,297 acres of cropland and pastureland. The project area has 6,716 acres of cropland and pastureland. This means that or 92% of crop and pastureland is within the project area. The project area captures over 90% of all agricultural acres in the Township and over 90% of all pasture and cropland acres in the Township.

Land Use/Land Cover

Maps and Summary Chart

(Map I-F) shows Land Use/Land Cover for East Amwell and the surrounding area. Both are included for clarity and reference.

A comparison of the Land Use/Land Cover GIS data from 1986 to 2002 indicates that East Amwell had 9,059 acres in agriculture in 1986. In 2002 the number of agriculture acres dropped to 8,001. This is a decrease of 12%. In that same period barren land has increased over 200% from 34 acres to over 100 acres in 2002. This is partly explained by land in NRCS programs that offer cash incentives for reserve programs that require no crop. In recent years, farmers are renting only the more fertile land for crops and allowing the marginal land to lie fallow.

Regional Agricultural Areas

East Amwell is bounded by these Hunterdon County towns: Raritan Township to the north, West Amwell Township and Delaware Township to the west. The Somerset County townships of Hillsborough and Montgomery border us to the east and Hopewell Township (Mercer County) is to the south and West as depicted on Map I-F.

Map I-I shows the agricultural areas in the townships that surround East Amwell. The map reveals a line of contiguous preserved land from the Three Bridges area in Readington Township continuing to the Amwell Road in Hillsborough Township, Somerset County in a southwesterly direction through East Amwell and continuing to West Amwell and Delaware Township in Hunterdon County. The I-I map also makes clear that there are significant properties preserved for open space in East Amwell and West Amwell. Hopewell Township (Mercer County) has several open space properties in the area bordering East Amwell Township. The former Lindbergh Property is an example of a property in this area along the border between Hopewell Township and East Amwell. The Lindbergh property was designated for open space in a cooperative effort by both townships.

Soil Capability Classes

The Hunterdon County Soil Survey published in 1974 by the U.S. Department of Agriculture Soil Conservation Service and the NJ Agricultural Experiment Station discusses soil capability classes. These capability groups show in a general way the suitability of the soils for most kinds of field crops. The groupings are made according to the soil limits when used for field crops, the risk of damage when they are used and the way these various soils respond to treatment.

There are eight soil capability classes designated by roman numerals I through VIII. The numerals indicate progressively greater limitations and narrower choices for practical use. Classes I through IV can all be cultivated but with progressively greater limitations. Classes V through VIII are not suited to cultivation. Here is a brief description of each class:

- Class I soils have **few** limitations that restrict use.
- Class II soils have **moderate** limitations that reduce the choice of plants or that require **moderate** conservation practices.
- Class III soils have **severe** limitations that reduce the choice of plants, require **special** management practices or both.
- Class IV soils have **very severe** limitations that reduce the choice of plants and require **very careful** management or both.
- Class V soils are not likely to erode but have other **limitations that are impractical to remove**. This limits their use to pasture, woodland or wildlife habitat.
- Class VI soils have **severe limitations** that make them generally **unsuited to cultivation** and limit their use largely to pasture, woodland or wildlife habitat.
- Class VII soils have **very severe limitations** that make them **unsuitable to cultivation** and that restrict their use largely to pasture, woodland or wildlife habitat.
- Class VIII soils have limitations that **preclude their use for commercial plants** and restrict their use to recreation, wildlife, water supply or esthetic purposes. There are no Class VIII soils in Hunterdon County.

Farmland Soil Classification

In addition to the broad Soil Capability Classes I through VIII determined by the Soil Conservation Service listed above, the Natural Resources Conservation Service (NRCS) of the US Department of Agriculture discussed farmland soil classification in order to better understand the extent and location of the best land for producing food, feed, fiber, forage and oilseed crops in the United States. This farmland classification identifies four classifications called PRIME farmland, UNIQUE farmland, farmland of STATEWIDE IMPORTANCE and LOCALLY IMPORTANT Farmland.

The NRCS website defines these four **classifications as follows**:

Prime Farmland

Prime farmland is the land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber and oilseed crops. It must also be available for these uses. It has the soil quality, growing season, and moisture supply needed to produce economically sustained high yields of crops when treated and managed according to acceptable farming methods including water management. In general prime farmlands have an adequate and dependable water supply from precipitation or irrigation, a favorable temperature and growing season, acceptable acidity or alkalinity, acceptable salt and sodium content and few or no rocks. They are permeable to water for a long period of time, and they either do not flood frequently or are protected from flooding. NJ further classified Prime Farmlands as all those soils in Soil Capability Class I and selected soils from Land Capability Class II as described above.

Unique Farmland

Unique farmland is land other than prime farmland that is used for the production of specific high value food and fiber crops. It has the special combination of soil quality, location, growing season and moisture supply needed to economically produce sustained high quality and/or high yields of a specific crop when treated and managed according to acceptable farming methods.

Examples of such crops are citrus, tree nuts, olives, cranberries, fruit and vegetables. The Hunterdon County Soil Conservation office reports there are no unique soils in Hunterdon County.

Farmland of Statewide Importance

This is the land, in addition to prime and unique farmlands that is of statewide importance for the production of food, feed, fiber, forage and oil seed crops. Criteria for defining and delineating this land are to be determined by the appropriate state agency or agencies. Generally, additional farmlands of statewide importance include those that are nearly prime farmland and that economically produce high yields of crops when treated and managed according to acceptable farming methods. Some may produce as high a yield as prime farmlands if conditions are favorable. In some states, additional farmlands of statewide importance may include tracts of land that have been designated for agriculture by state law. NJ defines *Farmlands of Statewide Importance* as those soils in land capability Class II and III that do not meet the criteria as Prime Farmland.

Locally Important Farmland

In some local areas, there is concern for certain additional farmlands for the production of food, feed, fiber, forage and oilseed crops, even though these lands are not identified as having national or statewide importance. Where appropriate, these lands are to be identified by the local agency or agencies concerned. In places, additional farmlands of local importance may include tracts of land that have been designated for agriculture by local ordinance. The Hunterdon County Soil Conservation Service reports there are no locally important soils in Hunterdon County.

Distribution of Soil Types Maps I-B, I-D and Acreage Summary Chart for Map I-F

Both maps provide an overview of the land use in the township. Map I-D shows the location of Prime and Statewide soils in East Amwell Township. Map I-B expands to give a broad picture not just the agricultural land but also the location of forest, water, wetlands and barren land. The Summary Chart directly after Map I-F provides a narrative to summarize the various classifications by acreage. These maps and the summary chart were provided by Banisch Associates, Planners for East Amwell Township.

East Amwell has 18,287 acres in the township per the LU/LC maps. Of this total, 5,639 acres are classified as Prime soils (31% of all acres). There are 7,453 acres of Statewide soils in the township or 41% of all township acres. Prime and Statewide soils represent 13,092 acres or 72% of all East Amwell acres.

The 3,322 acres of Prime soils in the township represent 46% of township wide cropland and pasture land (3,322 divided by 7,297 of acres of crop and pasture land). The 3,191 acres of Statewide soil in the township represent 44% of township wide crop and pasture land. In total, prime and statewide important soils comprised 13,092 acres or 72% of all township acres.

Based on the mapping provided by the USDA Soil Conservation Service, East Amwell has five different soil associations, and a total of 20 soils series and 50 soil phases. Of these 20 soils series, the Lehigh-Chalfont-Lawrenceville association is located in the Valley region and is

considered deep, nearly level to moderately steep, moderately well-drained and some poorly well drained, and non-stony to very stony.

Number of Irrigated Acres

Farmland Assessment statistics indicate that very few acres are under irrigation in East Amwell. These farmland assessment statistics report that East Amwell Township had 9 irrigated acres in 2006, 1 acre in 2005, none in 2004. The assessment statistics indicate that in 2000 there were 14 irrigated acres and none in 1993 and 1983. The trend in the County since 1990 has been an increase in irrigated acres. The farmland assessment figures indicate the county had 283 irrigated acres in 1990, 395 acres under irrigation in 2000 and by 2004, the number increased to 492 acres. However, according to the Agricultural Census in 2002, the county had 1,058 irrigated acres. The Ag Advisory Committee had no explanation for this wide variation in reported irrigated acres.

Farmers on the Agricultural Advisory Committee estimate that the township has ponds and other sources to irrigate 500 to 1,000 acres in the township. This estimate was determined by estimating the farms with ponds and other irrigation sources. However, this anecdotal knowledge is not reflected in the actual irrigated acres reported in farmland assessment reports.

Potential sources for irrigation are wells, the Delaware River and the South Branch of the Raritan River. The Highlands Act has worked to protect the water resources in parts of Hunterdon County but none of East Amwell is in the Highlands area. However, NJDEP issues water allocation permits and this process has become more difficult in the past two years. Many farmers with historic allocations have been unable to obtain the permits necessary to continue their water use at levels granted in the recent past.

Farmland Assessment and Census of Agriculture Trends

Farmland Assessed Acres Tables 1-3 and 1-4 and Map I-E

The tables shown at the end of the Chapter and referenced here were compiled from FA-1 forms by the NJ Division of Taxation Date from 1980 through 2005

Tables 1-3 and 1-4 document land enrolled in farmland assessment in East Amwell and Hunterdon County for a 25 year period. The trend since 1980 shows a decline in the percentage of agricultural land both in the township and the county as measured by Farmland Assessment records. In 1980 East Amwell Township had 77% of its land base in agriculture. The percentage in 2005 is 63%. Hunterdon County had 61% of its land base in agriculture in 1980. That percentage was 49% in 2005.

Types of Land Use by Acres Tables I-5 and I-6

Data in Tables I-5 and I-6 describe the types of land qualifying for farmland assessment in East Amwell and Hunterdon County and document the changes from 1980 to 2005. This chart shows as a sub-total the three categories that comprise the designation known as Active Agricultural Use acres. Active Agriculture Use acres are the acres devoted to cropland harvested, cropland pastured and permanent pasture. Woodlands and wetlands are excluded from Active Agricultural Use acres.

East Amwell land devoted solely to agricultural or horticultural use excluding buildings was 10,729 acres in 2005. Of this total 74% (7,925 acres) are in Active Agricultural Use and 26% or about 2800 acres are woodlands/wetlands. While the percentages in these two general categories from 1980 through 2005 remained consistent, the 2000 and 2005 statistics show a change within the three categories that comprise the Active Agriculture Acres. The Cropland Harvested Acres decreased in favor of the Cropland Pastured and Permanent Pasture categories. This change is explained by the increased number of horses, llamas and alpacas in the Township using pasture and the fact that it is increasingly difficult for landowners to lease or hire farmers to crop their acreage. This is especially true on the more marginal soils.

Hunterdon County had 131,572 acres devoted to agriculture and horticulture in 2005. Sixty-five percent of these acres are in Active Agricultural Use and thirty-five percent are in woodlands/wetlands. These percentages remain consistent from 1980 through 2005. Unlike the Township, the County percentages of acreage in Cropland Harvested, Cropland Pastured and Permanent Pasture have also been consistent. It is noted the number of acres in every category continues to go down, but the percentage of land used in every category remains consistent. For example, Cropland Harvested is about 70% of Active Agriculture Acres, Cropland Harvested is about 10% and Permanent Pasture is about 20% from 1980 through 2005.

In 2006 East Amwell Township had 8,280 acres listed as Active Agricultural Acres. The 2002 Land Use/Land Cover data list 8,001 Agriculture Acres in the Township. This indicates that the number of acres farmed has remained relatively unchanged during this time period. This is partly explained by the number of preserved acres in the Township that continue as active cropland and pasture.

The 2006 Farmland Assessment data also indicates that East Amwell Township is ranked third (3rd) in Hunterdon County and fifteenth (15th) in the State based on the number of Active Agricultural Acres. These figures highlight the important role of agriculture in the Township.

Number of Farms and Farms by Size Table I-7

This table shows the distribution of farms by size for both East Amwell Township and the County (see footnote 2). Over half the farms in Township (52%) are between 10-49 acres. The County has 48% of its farms in this acreage range (see footnote 3.)

East Amwell Township and the County have about the same percentage represented in two acreage ranges. Farms of less than 10 acres represent about 23% of farms in both the Township and County. Farms between 50 and 179 acres represent about 22% of farms in both the Township and the County.

The average farm size in the Township is about 39 acres with the median at 18 acres.

Footnote 2: County data for median and average farm size taken from 2002 Census of Agriculture

Footnote 3: Both the Number of Farms by Size and the Average and Median figures are based on parcels in common ownership in the Township. The figures were compiled by the Township Tax Assessor.

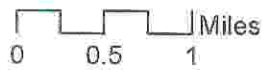
Zoning Map

East Amwell Township
Hunterdon County, NJ

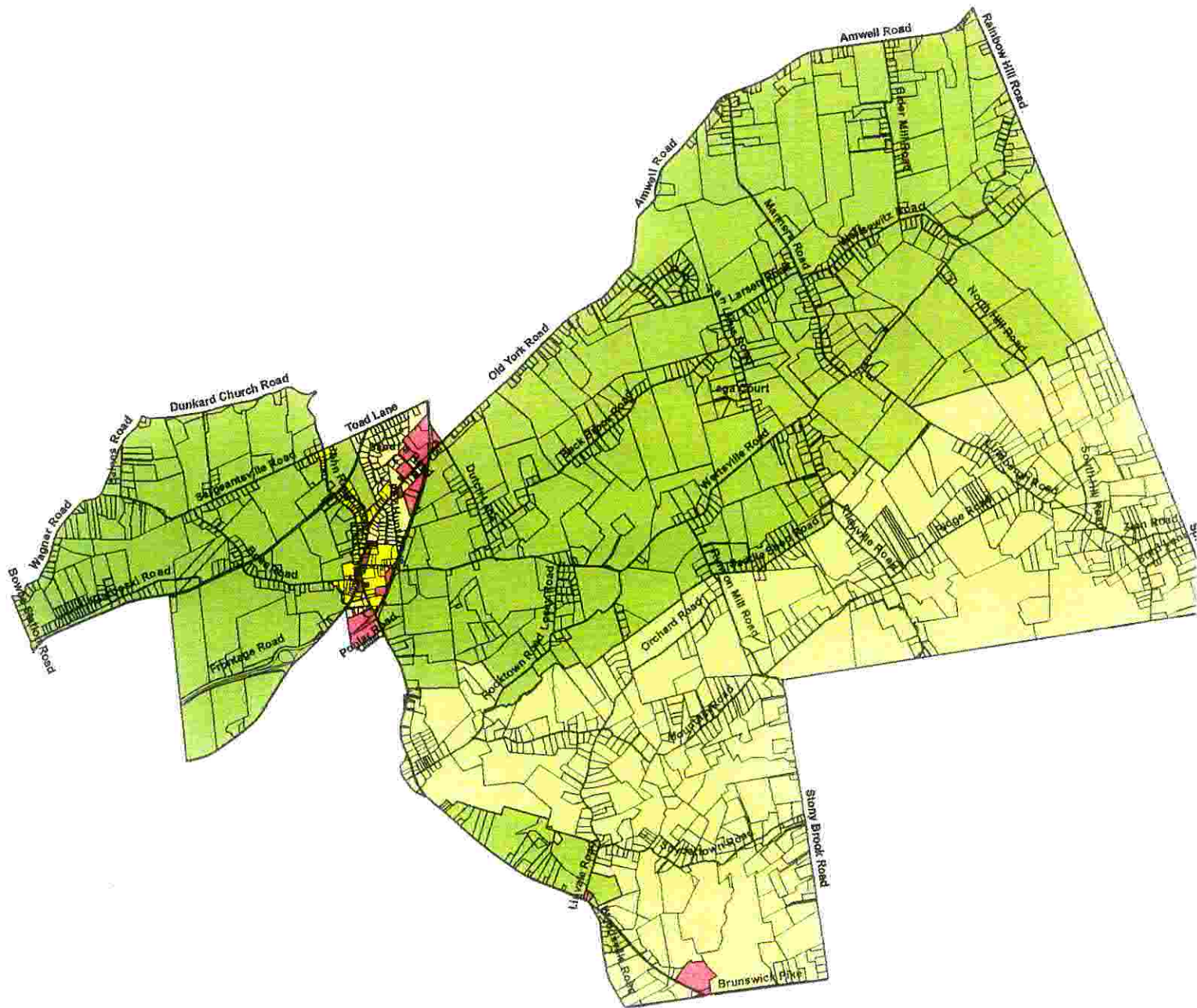
July 2006

Legend

-  Sourland Mountain District
-  Amwell Valley Agricultural District
-  Residential District
-  Village District
-  Highway Office District
-  Local Business District



Data Sources:
Hunterdon County Division of GIS



MAP I-B

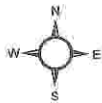
2002 Land Use/ Land Cover

East Amwell Township
Hunterdon County, NJ

May 2006

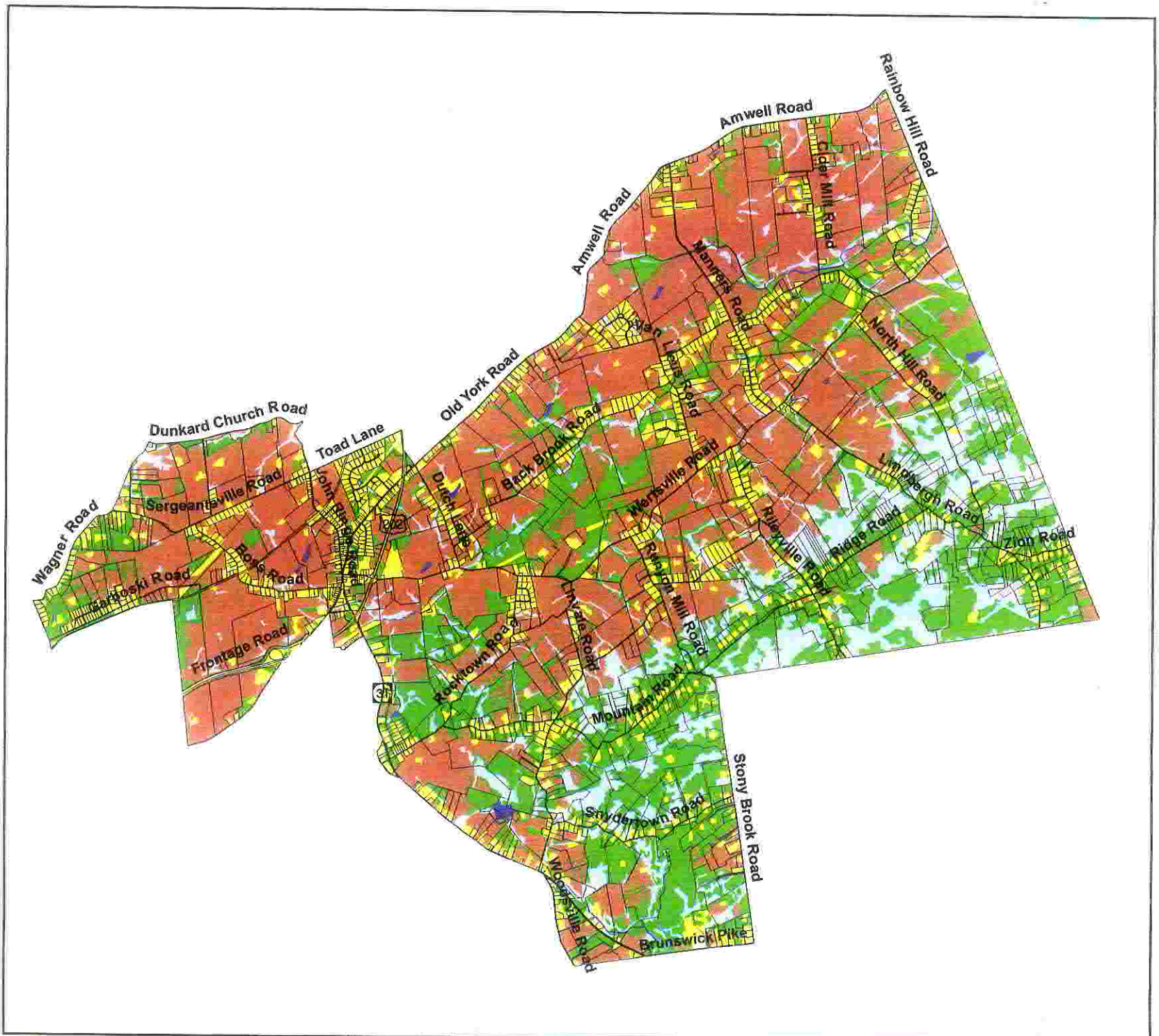
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-  Agriculture
-  Barren Land
-  Forest
-  Urban
-  Water
-  Wetlands



Data Sources:
Hunterdon County Division of GIS
NJGS

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



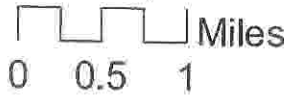
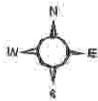
Preserved Farms and Targeted Farms

East Amwell Township
Hunterdon County, NJ

December 2007

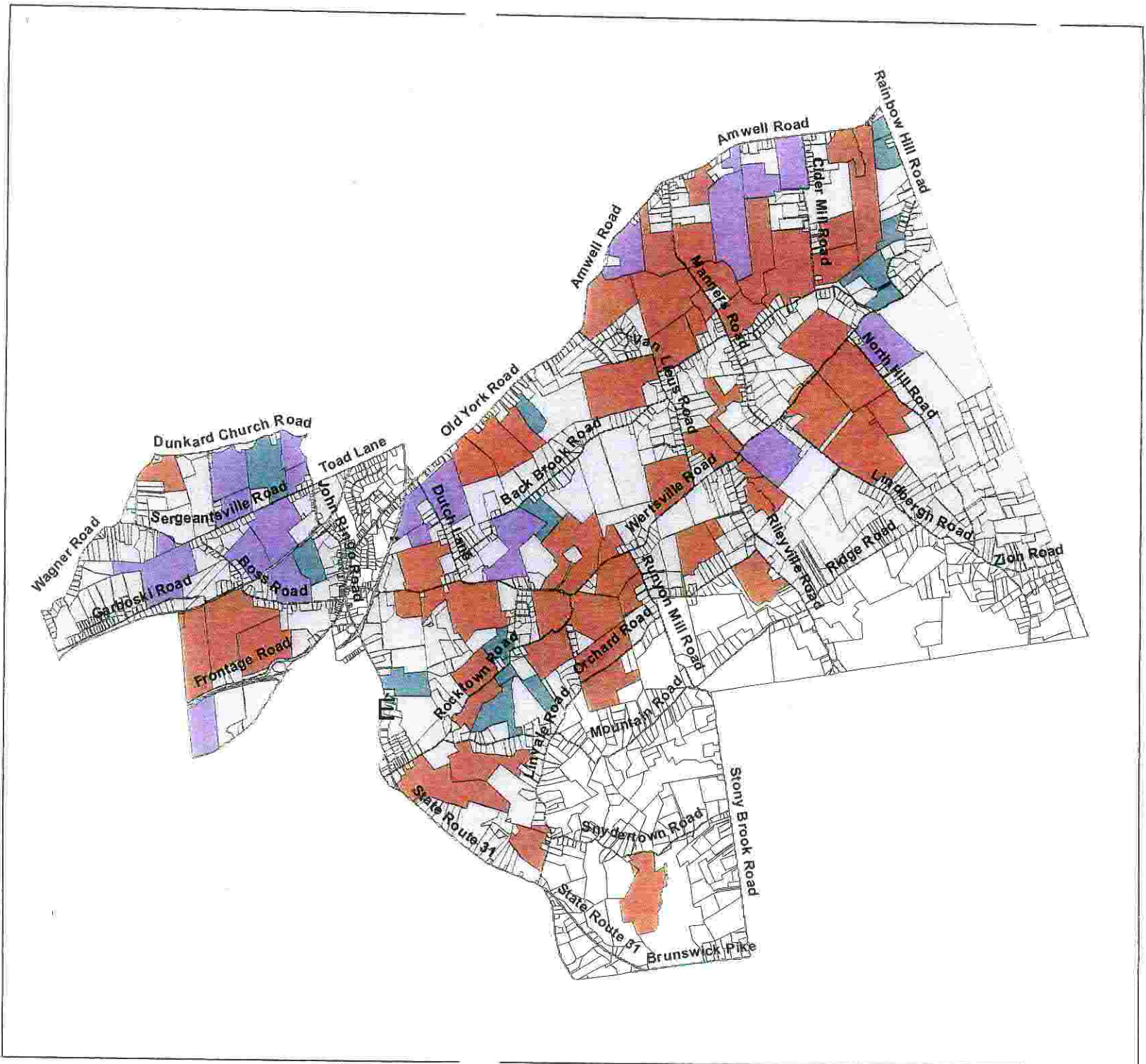
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-  Target Farm
-  Farm Preservation In Progress
-  Preserved Farm
-  Project Area
-  Parcel





Data Sources:
Hunterdon County Division of GIS
NJS

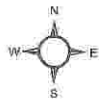
This map was developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been NJDEP verified and is not State-authorized.



MAP I-D
Farmland Capability
East Amwell Township
Hunterdon County, NJ
 May 2006

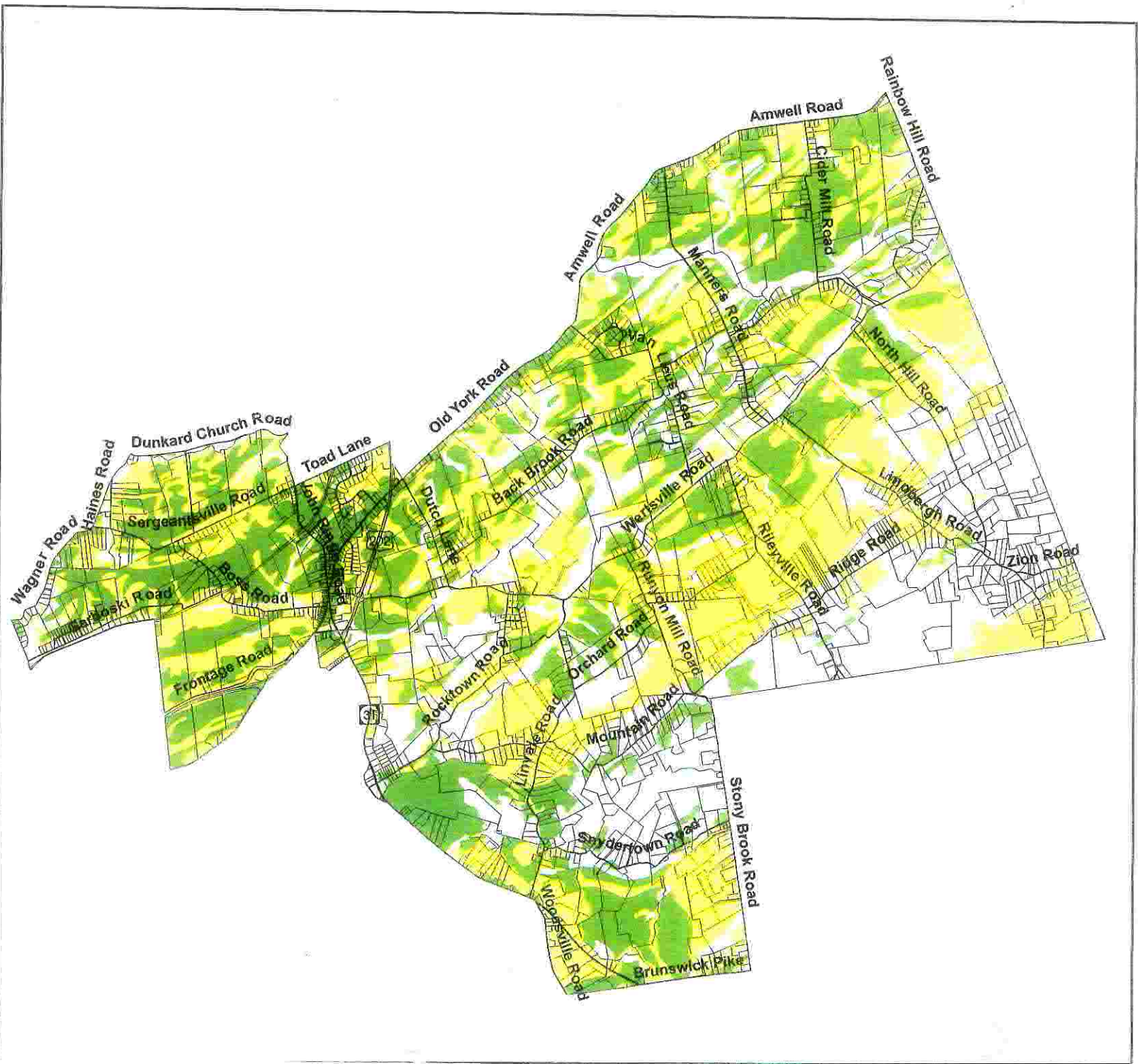
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-  Prime Soils
-  Soils of Statewide Importance



Data Sources:
 Hunterdon County Division of GIS
 NJGS

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



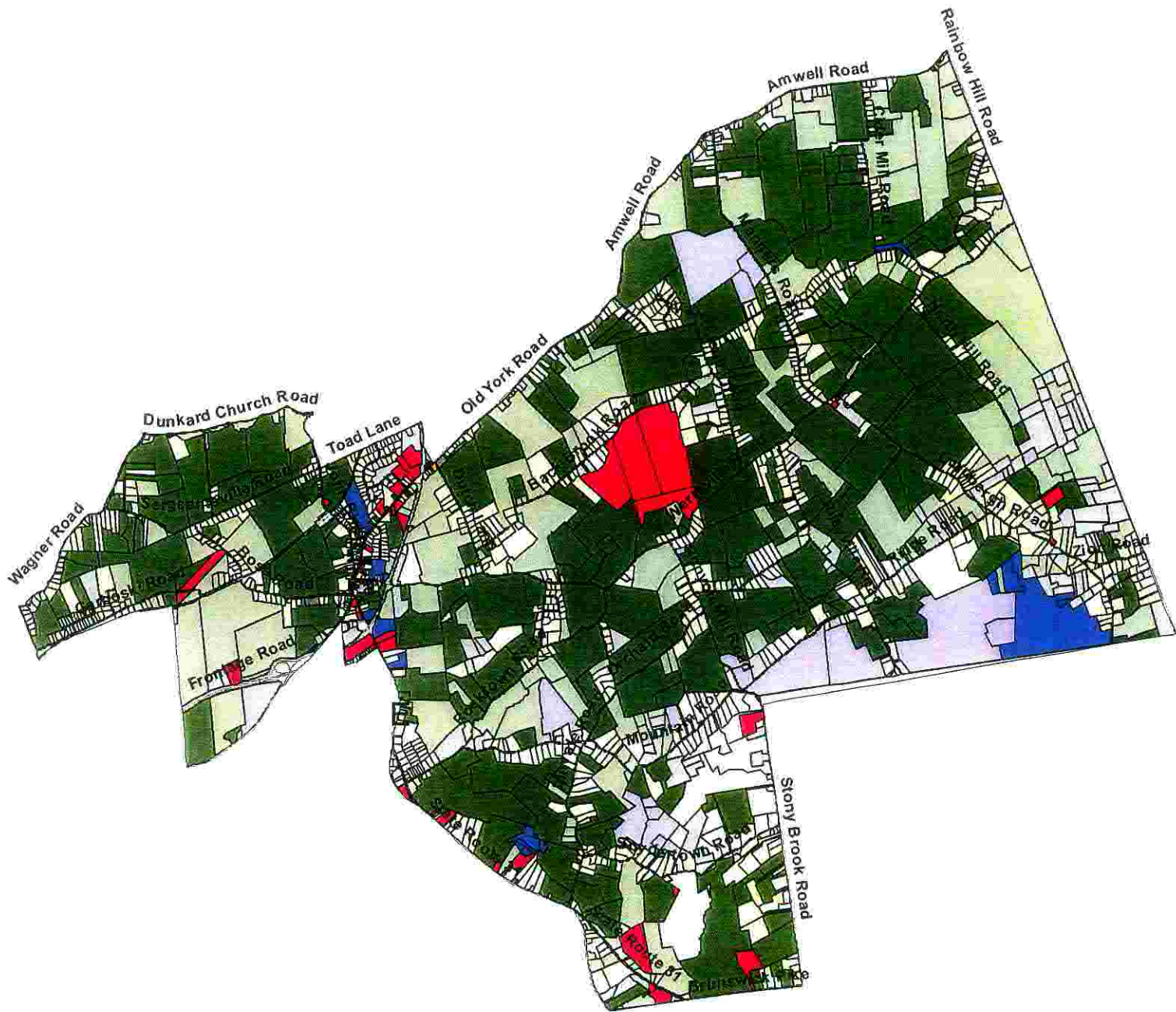
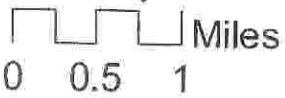
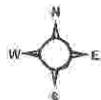
East Amwell Parcels by Tax Class

East Amwell Township
Hunterdon County, NJ

December 2007

Legend

-  Vacant
-  Public Property
-  Church and Charitable
-  Cemeteries and Graveyards
-  Other Exempt
-  Residential
-  Commercial
-  Farm Assessed/Qualified
-  Farm Qualified



Data Sources:
Hunterdon County Division of GIS
NIGS

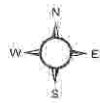
This map was developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been NJDEP verified and is not State-authorized.

**2002 Land Use/
Land Cover**
East Amwell Township
Hunterdon County, NJ
October 2009

MAP I-F

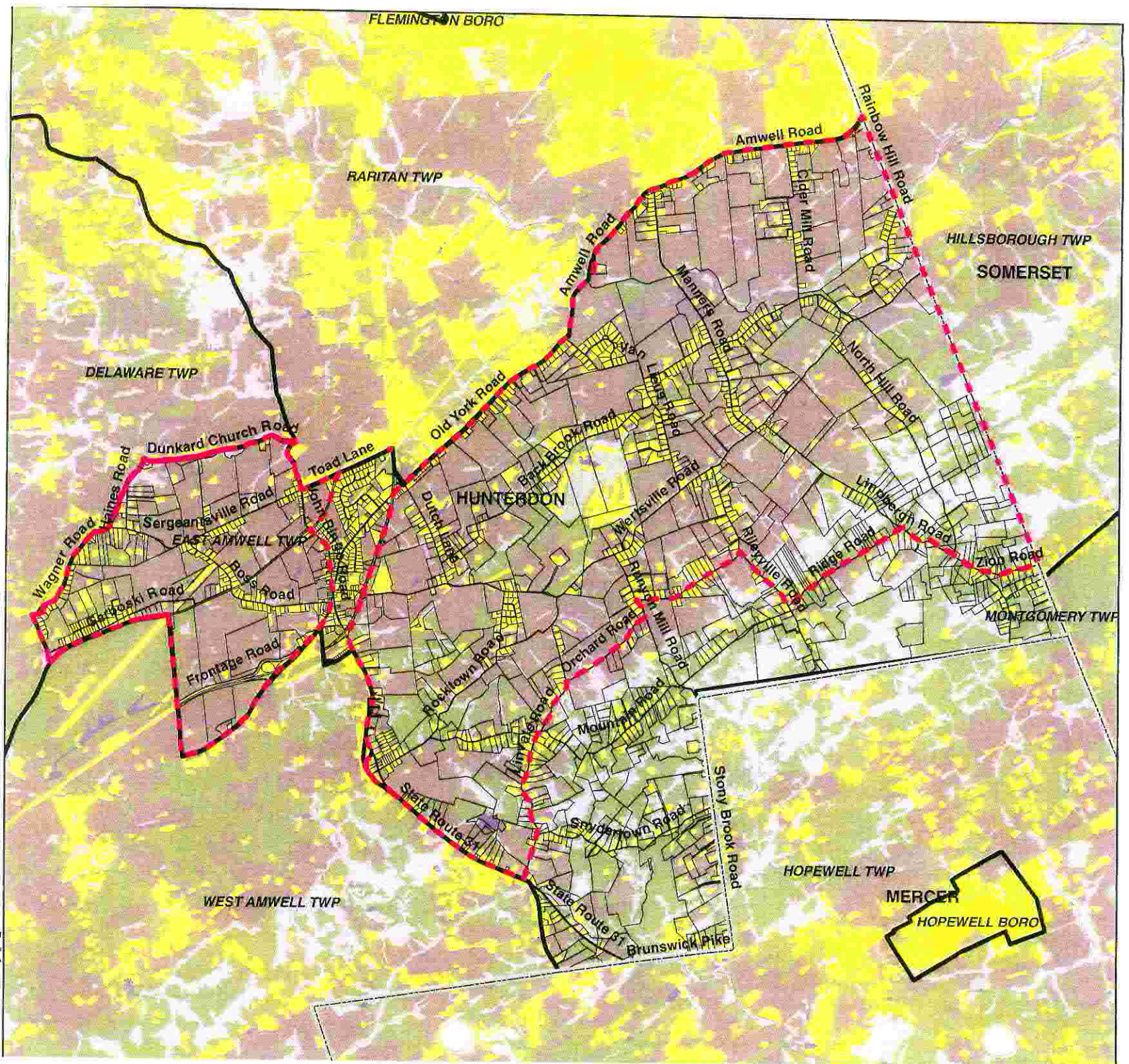
Legend

 Project Area



Data Sources:
NJDEP 2002 LU/LC
Hunterdon County Division of GIS

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



SUMMARY CHART

Land Use/Land Cover Map I-F

2002 Land use/Land Cover for East Amwell Township

Type	Total	%
Agriculture	8,001	44
Forest	4,928	27
Urban	2,701	15
Wetlands	2,460	13
Barren Land	103	1
Water	94	1
TOTAL	18,287	101*

This chart provided by Banisch & Assoc Planners summarizes the acres in various categories shown on the LU/LC I-F map.

**due to rounding*

2002 Land Use/Land Cover for East Amwell Proposed Project Area

Type	Total	%
Agriculture	7,281	54
Forest	2,763	20
Urban	1,953	14
Wetlands	1,333	10
Barren Land	103	1
Water	82	1
TOTAL	13,515	100

2002 Land Use/Land Cover Cropland and Pastureland*

Category	Acres of Cropland/Pastureland	Total Area (Acres)	Percentage of Area
Township Wide Cropland and Pasture Land	7,297	18,288	40
East Amwell Valley Agricultural District Cropland and Pasture Land	6,201	11,109	56
Township Project Area Cropland and Pasture Land	6,716	13,515	50

**Using GIS calculated acres*

Farm Capable Soils for East Amwell Township

Soil	Total Acres	%	Acres in Agricultural Areas (2002 LU/EC cropland and pastureland)	% in Agricultural Areas (2002 LU/EC cropland and pastureland)
Prime Soils	5,639	31	3,322	46
Statewide Important	7,453	41	3,191	44
Total	13,092	72	6,513	90

Land Use/Land Cover Change 1986 to 2002




	1986		1995		2002		Percent Change
	Acres	%	Acres	%	Acres	%	
Agriculture	9,059	50	8,387	46	8,001	44	-12
Barren Land	34	0	11	0	103	0	202
Forest	4,572	25	4,850	27	4,929	27	8
Urban	2,064	11	2,475	14	2,701	15	31
Water	68	0	84	0	94	0	38
Wetlands	2,491	14	2,481	14	2,460	13	-1
TOTAL	18,288	100	18,288	101*	18,288	100	

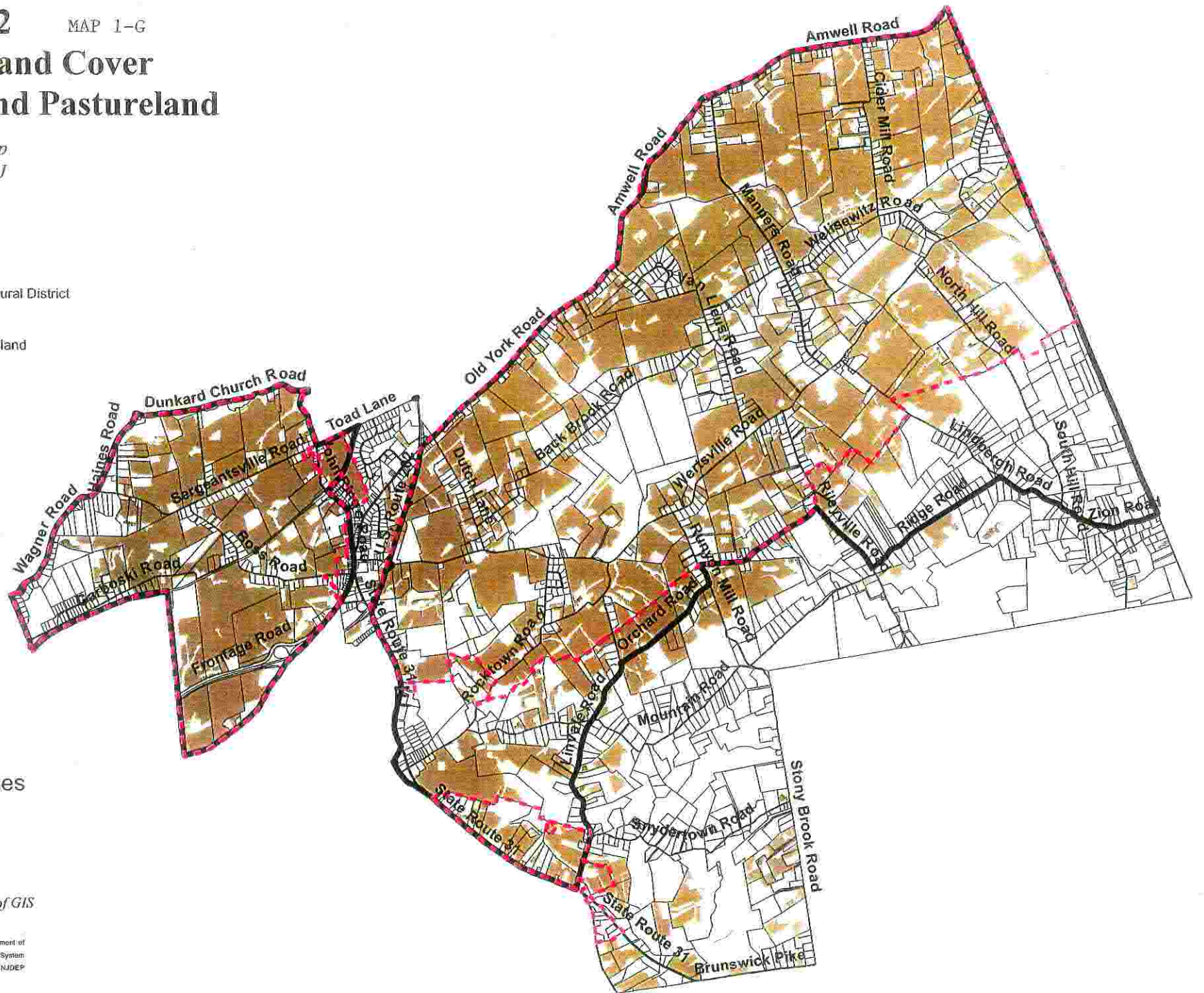
Land Use/Land Cover Cropland and Pastureland

East Amwell Township
Hunterdon County, NJ

March 2009

Legend

-  Amwell Valley Agricultural District
-  Project Area
-  Cropland and Pastureland



Data Sources:
 NJDEP 2002 LU/LC
 Hunterdon County Division of GIS
 NJGS

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

East Amwell Township Project Area, Agricultural Zoning District, Hunterdon County ADA and State Planning Area

East Amwell Township
Hunterdon County, NJ

March 2009 MAP I-H

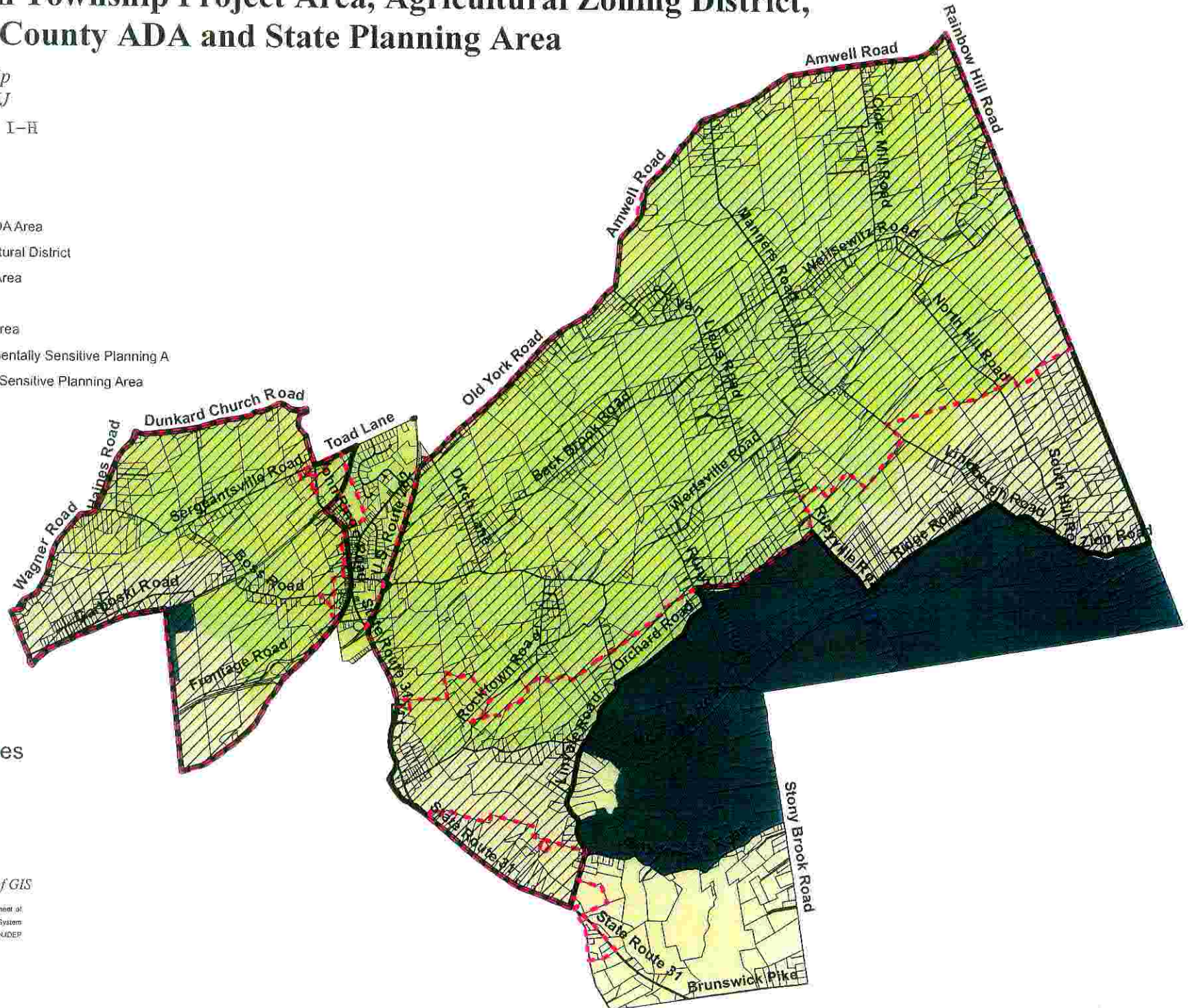
Legend

-  Hunterdon County ADA Area
-  Amwell Valley Agricultural District
-  East Amwell Project Area

State Planning Area

-  PA4 Rural Planning Area
-  PA4B Rural/Environmentally Sensitive Planning A
-  PA5 Environmentally Sensitive Planning Area

MAP I-H



Data Sources:
NJDEP
Hunterdon County Division of GIS

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

Regional Agricultural Areas

East Amwell Township
Hunterdon County, NJ
March 2009

Map I-I

Legend

-  Preserved Farms
-  Open Space
-  Agricultural Areas

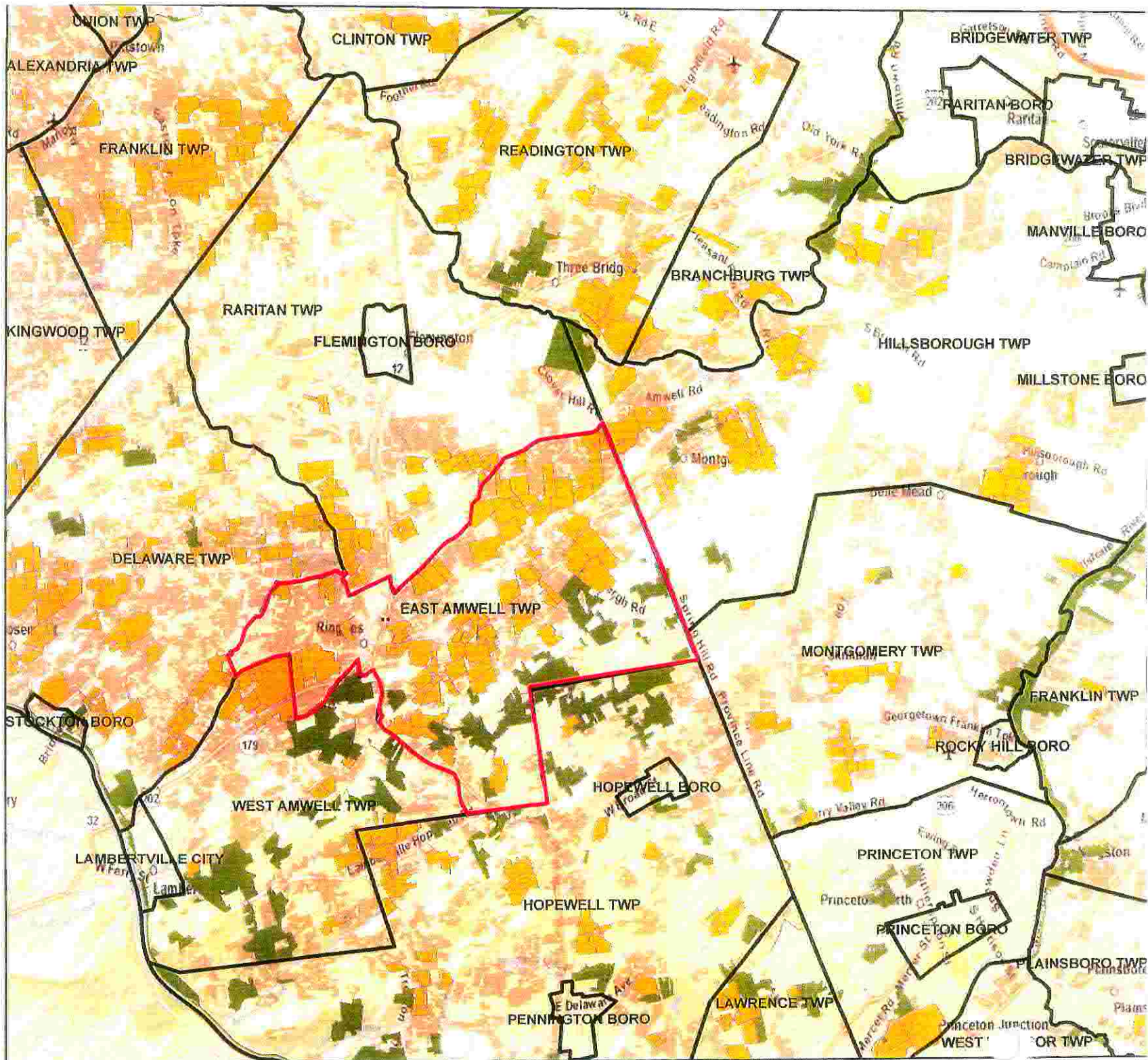


0 1 2 Miles

Data Sources:
NJDEP 2002 LU/LC
ESRI Road Atlas

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

BANISCH
ASSOCIATES, INC.
Planning and Design



EAST AMWELL
FARMLAND PROPERTIES
TABLE I-1

Block	Lot	Qual	Location	Acreage	Total Farm Acreage	Owner	
	1	4	Q0001 ROSEMONT-RINGOES ROAD	6.92	6.92	FUSI ROBERT W & BARBARA E	3B
	2	1	Q0002 DUNKARD CHURCH ROAD	4.47	4.47	PADALINO, JOSEPH R	3B
	2	2	Q0003 RYNEARSON ROAD	66.88		RYNEARSON, FREDERICK O SR TRUSTEE	3B
3	2	9	Q0003 RYNEARSON ROAD	12.87	79.75	RYNEARSON, FREDERICK O SR TRUSTEE	3B
	2	5	Q0004 ROSEMONT-RINGOES ROAD	54.47		GORDEUK OLGA EST C/O THERESA SHEA	3B
	2	6	Q0004 ROSEMONT-RINGOES ROAD	0.84		GORDEUK OLGA EST C/O THERESA SHEA	3B
4	6	14	Q0004 ROSEMONT-RINGOES ROAD	0.72		GORDEUK OLGA EST C/O THERESA SHEA	3B
					56.03		
	2	7	Q0005 ROSEMONT-RINGOES ROAD	1.62		HOLCOMBE, JACQUELINE F	3B
	2	00008 03	Q0005 HAINES ROAD	3.44		HOLCOMBE, JACQUELINE F	3B
					5.06		
	2	00010 02	Q0007 20 HAINES ROAD	21.68	21.68	STEENMAN, BERNARDUS F & JUDITH ANN	3B
	2	00010 05	Q0010 32 HAINES ROAD	43.91	43.91	ROSENBERG, SUZANNE A	3B
	3	1	Q0011 JOHN RINGO ROAD	35.99		EVERITT, ROGER & ALICE	3B
	3	00002 02	Q0011 JOHN RINGO ROAD	19.20	55.19	EVERITT, ROGER K & ALICE L	3B
	3	3	Q0012 ROSEMONT-RINGOES ROAD	87.05	87.05	RYNEARSON, HELEN A	3B
	3	00003 02	Q0013 24 ROSEMONT-RINGOES ROAD	13.14	13.14	DAVIDSON, JAMES G & SUSANNE E	3B
	3	4	Q0014 ROSEMONT-RINGOES ROAD	39.36		PERKOVICH, EDWARD & SARAH	3B
	3	5	Q0014 RYNEARSON ROAD	71.93		PERKOVICH, EDWARD & SARAH	3B
	3	6	Q0014 RYNEARSON ROAD	2.20	113.49	PERKOVICH, EDWARD & M VIRGINIA	3B
	3	7	Q0015 DUNKARD CHURCH ROAD	3.27	3.27	KLESNEY, FRANCIS X & ANITA	3B
	3	8	Q0016 DUNKARD CHURCH ROAD	6.68	6.68	BOND, DAVID CHARLES & SHIRLEY ANN	3B
	4	1	Q0017 104 JOHN RINGO ROAD	0.20		CASE CLAUDE EST/ FLORENCE	3B
	4	4	Q0017 106 JOHN RINGO ROAD	35.09		CASE CLAUDE EST/ FLORENCE	3B
	5	17	Q0017 109 JOHN RINGO ROAD	23.54	58.83	CASE CLAUDE EST/ FLORENCE & WARREN	3B
	5	00001 06	Q0018 BOSS ROAD	55.25		STAHL, CHRISTOPHER H JR	3B
	5	2	Q0018 ROSEMONT-RINGOES ROAD	88.70	143.95	STAHL, CHRISTOPHER H JR	3B
	5	00001 09	Q0019 138 BOSS ROAD	9.00		KIRCHNER, PATRICIA & ROBERT H SR	3B
	5	00001 20	Q0019 138 BOSS ROAD	13.32	22.32	KIRCHNER, PATRICIA E & ROBERT H JR	3B
	5	3	Q0020 ROSEMONT-RINGOES ROAD	12.61	12.61	SERAFIN, PAULINE	3B
	6	1	Q0022 85 BOWNE STATION ROAD	26.25	26.25	F M N CORPORATION	3B
	6	2	Q0024 WAGNER ROAD	14.34	14.34	VERNON, ROBERT B & SANDRA L	3B
	6	00002 08	Q0025 WAGNER ROAD	13.90	13.90	WOLFE, ROBERT & CAROL	3B
	6	00002 08	Q0025 WAGNER ROAD	14.25	14.25	GHERARDI, JOSEPH	3B
	00006 01	17	Q0026 HARVEST HILL DRIVE	7.65		LAHOV, JOHN EST & PATRICIA P	3B
	00006 01	18	Q0027 8 HARVEST HILL DRIVE	18.35	26.00	LAHOV, JOHN EST & PATRICIA PERNESKI	3B
	00006 01	21	Q0027 HARVEST HILL DRIVE				
	6	13	Q0029 ROSEMONT-RINGOES RD	12.89		PEREHINYS FARM	3B
	6	25	Q0029 ROSEMONT-RINGOES ROAD	116.50	129.39	PEREHINYS FARM	3B
	6	16	Q0031 BOSS ROAD	18.45		PEREHINYS, ROBERT & MARY	3B
	6	26	Q0031 54 GARBOSKI ROAD	25.38		PEREHINYS ROBERT & MARY	3B
	6	30	Q0031 GARBOSKI ROAD	15.10		PEREHINYS, ROBERT G & MARY M	3B
	6	31	Q0031 GARBOSKI ROAD	12.13		PEREHINYS, ROBERT G & MARY M	3B
	6	00031 01	Q0031 GARBOSKI ROAD	3.09		PEREHINYS, ROBERT G & MARY M	3B
	6	00031 02	Q0031 GARBOSKI ROAD	3.23		PEREHINYS, ROBERT G & MARY M	3B
	6	00031 03	Q0031 GARBOSKI ROAD	3.07		PEREHINYS, ROBERT G & MARY M	3B
	7	3	Q0031 45 GARBOSKI ROAD	3.02		PEREHINYS ROBERT & MARY	3B
	7	00003 04	Q0031 51 GARBOSKI ROAD	1.57		PEREHINYS ROBERT	3B
	7	00003 05	Q0031 49 GARBOSKI ROAD	1.84		PEREHINYS ROBERT	3B
	7	00003 06	Q0031 47 GARBOSKI ROAD	3.04		PEREHINYS, ROBERT & MARY	3B
	7	4	Q0031 43 GARBOSKI ROAD	5.66		PEREHINYS, ROBERT & MARY	3B
	7	10	Q0031 GARBOSKI ROAD	5.00		PEREHINYS, ROBERT G & MARY M	3B
	8	1	Q0031 FRONTAGE ROAD	0.02	100.60	PEREHINYS, ROBERT & MARY ET ALS	3B
	7	6	Q0034 BOSS ROAD	0.01		AMWELL VALLEY CONS INC C/O SCOZART	3B
	8	2	Q0034 FRONTAGE ROAD	3.23		AMWELL VALLEY CONS INC C/O S COZART	3B
	8	3	Q0034 FRONTAGE ROAD	99.57		AMWELL VALLEY CONS INC C/O S COZART	3B
	8	4	Q0034 BOSS ROAD	135.54		AMWELL VALLEY CONS INC C/O S COZART	3B
	8	24	Q0034 FRONTAGE ROAD	99.47		AMWELL VALLEY CONS INC C/O S COZART	3B
	8	25	Q0034 FRONTAGE ROAD	4.85		AMWELL VALLEY CONS INC C/O S COZART	3B
	8	26	Q0034 FRONTAGE ROAD	7.49		AMWELL VALLEY CONS INC C/O S COZART	3B
	8	00026 02	Q0034 FRONTAGE ROAD	4.29	354.45	AMWELL VALLEY CONS INC C/O S COZART	3B
	8	10	Q0036 1127 OLD YORK ROAD	37.87		CHIESA, ESTATE & EUGENE CHIESA	3B
	8	00024 02	Q0037 FRONTAGE ROAD	15.00	15.00	ZIEGENFUSS, JEAN	3B

EAST AMWELL
FARMLAND PROPERTIES
TABLE 1-1

Block	Lot	Qual	Location	Acreage	Total Farm Acreage	Owner	
00008 02	26	Q0039	OLD YORK ROAD	12.56	12.56	ZIMMERMAN, NORMA J & ERIK A	3B
00008 02	29	Q0041	OLD YORK ROAD	60.50	60.50	SILVIS SALVATORE J & MARGOT M	3B
9	15	Q0042	ROUTE 31	11.15	11.15	ALI MAX LLC	3B
11	00002 01	Q0044	36 BOSS ROAD	5.56	5.56	MONTAGNA, VINCENT & THERESA	3B
11	00002 02	Q0045	50 BOSS ROAD	5.23	5.23	SCHOLZ, BARBARA	3B
11	3	Q0046	20 BOSS ROAD	50.00	50.00	SOUTHWARK FARM LLC	3B
11	4	Q0047	35 JOHN RINGO ROAD	18.00	18.00	CASE, CLAUDE INC	3B
11	37	Q0048	95 JOHN RINGO ROAD	39.22	39.22	SCIBILIA, P. GREGORY/DENA K.	3B
11	00037 03	Q0048	JOHN RINGO ROAD	6.50	45.72	SCIBILIA, P. GREGORY/DENA K.	3B
11	00037 02	Q0050	69 JOHN RINGO ROAD	18.37	18.37	SCIBILIA, WAYNE	3B
17	00023 07	Q0051	117 VAN LIEU'S ROAD	13.13	13.13	REID, JAMES & JANET L	3B
16	00010 01	Q0052	1034 ROUTE 202	14.89		SWEET VALLEY FARMS LLC	3B
16	19	Q0052	ROUTE 202	5.38		SWEET VALLEY FARMS LLC	3B
16	00019 03	Q0052	ROUTE 202	3.05		SWEET VALLEY FARMS LLC	3B
00016 01	00033 01	Q0052	ROUTE 202	2.00	25.32	SWEET VALLEY FARMS LLC	3B
00014 02	28	Q0053	ROUTE 202	8.00	8.00	202 REALTY LLC C/O C LEE	3B
00016 01	00010 02	Q0056	ROUTE 202	10.60	10.60	BROPHY, JAMES D	3B
00016 01	26	Q0057	ROUTE 202	39.16		THOMPSON REALTY CO OF PRINCETON, INC	3B
00016 01	27	Q0057	DUTCH LANE	18.89	58.05	THOMPSON REALTY CO OF PRINCETON, INC	3B
00016 01	31	Q0058	23 DUTCH LANE	88.56		REITER, WILLIAM H	3B
00016 01	00031 01	Q0058	DUTCH LANE	1.79	99.78	REITER, MARY ANN & WILLIAM H	3B
00016 01	00031 02	Q0058	12 DUTCH LANE	9.43		REITER, WILLIAM H	3B
17	9	Q0060	OLD YORK ROAD	62.58		SCHWAB FLOYD M & MARIE H	3B
17	10	Q0060	OLD YORK ROAD	83.13	145.71	SCHWAB FLOYD M & MARIE H	3B
17	14	Q0061	70 OLD YORK ROAD	6.91		CRATER, SANDRA L & CLAUDE M	3B
17	15	Q0061	OLD YORK ROAD	40.05	46.96	CRATER, SANDRA L & CLAUDE M	3B
17	16	Q0062	OLD YORK ROAD	100.86		THOMPSON REALTY CO. OF PRINCETON	3B
17	00016 09	Q0062	OLD YORK ROAD	3.28		THOMPSON REALTY CO OF PRINCETON	3B
17	00016 11	Q0062	OLD YORK ROAD	10.01	114.15	THOMPSON REALTY CO OF PRINCETON	3B
00016 01	00031 05	Q0063	55 WERTSVILLE ROAD	21.50	21.50	REITER, ROGER H & ELIZABETH E	3B
17	00016 03	Q0064	80 OLD YORK ROAD	25.71	25.71	FISHER, MICHAEL H & ELSA E	3B
17	00016 05	Q0065	86 OLD YORK ROAD	5.50	5.50	DELAY, ROGER L & KAREN S	3B
17	00016 08	Q0066	100 OLD YORK ROAD	1.50		CATENACCI, RICHARD D C/O CONNELL	3B
17	00016 10	Q0066	OLD YORK ROAD	12.51		CATENACCI, RICHARD D C/O CONNELL	3B
17	00016 12	Q0066	98 OLD YORK ROAD	3.12		CATENACCI, RICHARD D	1
17	00016 13	Q0066	OLD YORK ROAD	10.87	28.00	CATENACCI, RICHARD D	3B
17	23	Q0068	111 VAN LIEU'S ROAD	10.00	10.00	EDWARDS, JAMES J & JENNIFER A WYNNE	3B
17	00023 06	Q0069	127 VAN LIEU'S ROAD	14.15	14.15	TISCHLER, JULES & BERNICE	3B
17	24	Q0070	107 VAN LIEU'S ROAD	148.10	148.10	VAN MARTER LLC C/O THOMPSON MGMT	3B
17	00025 01	Q0071	155 BACK BROOK ROAD	10.00	10.00	SANK, RUSSELL D & JOAN M	3B
17	28	Q0072	121 BACK BROOK ROAD	5.53	5.53	KOTZAS, MARK	3B
17	31	Q0073	59 BACK BROOK ROAD	20.99	20.99	EMANN, DANIEL J & JOAN M DAVIAU	3B
17	32	Q0074	BACK BROOK ROAD	62.62		THOMPSON REALTY CO OF PRINCETON INC	3B
25	2	Q0074	BACK BROOK ROAD	79.54	142.16	THOMPSON REALTY CO.	3B
17	00032 01	Q0075	43 BACK BROOK ROAD	11.12		DARDER, MICHAEL C	3B
17	00032 03	Q0075	BACK BROOK ROAD	1.37		DARDER, MICHAEL C	3B
17	00032 04	Q0075	51 BACK BROOK ROAD	1.37	13.86	DARDER, MICHAEL C	3B
18	1	Q0078	134 OLD YORK ROAD	108.00	108.00	DIPPOLITO, MICHAEL & AMANDA	3B
18	3	Q0080	OLD YORK ROAD	64.38	64.38	HOCKENBURY, IRVIN & VILMA	3B
18	00016 03	Q0081	121 MANNERS ROAD	7.01	7.01	GOLDSTEIN, ANDREW J & VALERIE BURNS	3B
18	18	Q0082	OLD YORK ROAD	75.00		KANACH, J JOHN	3B
18	20	Q0082	111 MANNERS ROAD	26.61	101.61	KANACH, J JOHN & MARILYN V	3B
18	21	Q0084	43 LARSEN ROAD	5.51	5.51	CAROM, ANNA	3B
18	22	Q0085	101 MANNERS ROAD	133.52	133.52	RIBBANS, ROBERT W & HELEN M	3B
18	23	Q0086	21 LARSEN ROAD	75.60	75.60	BATTLE, MARIAN S	3B
18	24	Q0087	11 DANBERRY DRIVE	25.64	25.64	DELLAVALLE, ALBERT J & LINDA E	3B
00018 01	00024 02	Q0088	VAN LIEU'S ROAD	6.27	6.27	ROUNSAVILLE, AUDREY L	3B
20	6	Q0089	126 MANNERS ROAD	64.76	64.76	KANACH, DAVID J & PAULA C	3B
20	22	Q0090	MANNERS ROAD	51.94	51.94	MARTIN, THEODORE	3B
20	8	Q0091	30 AMWELL ROAD	149.00		WELISEWITZ, NICHOLAS & ROBERT	3B
20	9	Q0091	AMWELL ROAD	14.70	163.70	WELISEWITZ, NICHOLAS & ROBERT	3B

EAST AMWELL
FARMLAND PROPERTIES
TABLE I-1

Block	Lot	Qual	Location	Acreage	Total Farm Acreage	Owner	
					12.05	KANACH JOHN J & MARILYN V	3B
20	00006 03	Q0092	34 AMWELL ROAD	12.05		VAN DOREN, ABRAM & HERMINE	3B
20	16	Q0093	76 AMWELL ROAD	50.00		VAN DOREN, ABRAM & ETALS	3B
20	00016 01	Q0093	CIDER MILL ROAD	1.27		VAN DOREN, ABRAM & ETALS	3B
20	30	Q0093	CIDER MILL ROAD	47.68		VAN DOREN, ABRAM T	3B
35	53	Q0093	SOUTH HILL ROAD	7.51	106.46		
					10.50	STELLWAG, HARALD & WALTRAUD EST	3B
20	17	Q0094	146 CIDER MILL ROAD	10.50	9.55	BARIS, RONALD R & AUDREY J	3B
20	00017 09	Q0095	150 CIDER MILL ROAD	9.55	13.75	RANFT, LINDA M	3B
20	00017 10	Q0096	148 CIDER MILL ROAD	13.75	10.00	GLESMANN, JOHN B & LINDA L ADAMS	3B
20	00017 11	Q0097	CIDER MILL ROAD	10.00		NANCE, CYNTHIA HOAGLAND	3B
20	00017 07	Q0098	CIDER MILL ROAD	2.31		NANCE, CYNTHIA HOAGLAND	3B
20	18	Q0098	156 CIDER MILL ROAD	105.33	107.64		
					135.31	DU FOSSE, WILLIAM	3B
20	20	Q0099	190 CIDER MILL ROAD	135.31	10.52	KANACH, GERALD A & JOYCE H	3B
20	23	Q0100	94 MANNERS ROAD	10.52	61.50	KANACH, DAVID J	3B
20	24	Q0101	118 MANNERS ROAD	61.50	7.43	MOURAR, JON P & GRACIELA M CALDERO	3B
20	25	Q0102	MANNERS ROAD	7.43	51.52	ENGEL, TROY & ELIZABETH	3B
20	00023 02	Q0103	MANNERS ROAD	51.52	88.61	LANWIN DEVELOPMENT CORP	3B
21	1	Q0104	CIDER MILL ROAD	88.61	10.73	LELKE'S LOUIS & ANTRA M	3B
21	00001 12	Q0105	119 CIDER MILL ROAD	10.73	120.94	CRISAFULLI, PETER & KENNETH	3B
21	2	Q0106	AMWELL ROAD	120.94	44.29	CRISAFULLI, PETER & KENNETH	3B
21	00002 03	Q0106	110 AMWELL ROAD	44.29			
21	11	Q0107	91 RAINBOW HILL ROAD	14.86	42.94	KANACH, THOMAS G EST & LILLIAN S	3B
21	12	Q0107	RAINBOW HILL ROAD	28.08		KANACH, THOMAS G EST & LILLIAN S	3B
21	13	Q0108	RAINBOW HILL ROAD	36.97	36.97	THOMAS, SUSAN	3B
21	14	Q0109	RAINBOW HILL ROAD	10.77	10.77	DROZDOWICZ, CARLA K & MARIA L WEBB	3B
21	15	Q0110	51 RAINBOW HILL ROAD	24.69	24.69	TORSILIERI, DEAN & CHRISTINE	3B
21	00015 02	Q0111	33 RAINBOW HILL ROAD	7.80	12.80	GALVIN, RONALD P & RUTH	3B
21	00015 03	Q0111	RAINBOW HILL ROAD	5.00		GALVIN, RONALD P & RUTH	3B
21	00001 05	Q0112	CIDER MILL ROAD	9.00	9.00	KOOPMAN, JOHN A & PAMELA A	3B
21	16	Q0113	RAINBOW HILL ROAD	46.97	70.76	STAUMP EDWARD C	3B
21	00016 03	Q0113	RAINBOW HILL ROAD	23.79		STAUMP EDWARD C	3B
21	00016 01	Q0114	RAINBOW HILL ROAD	11.10	11.10	HAY, BARBARA	3B
21	19	Q0115	165 CIDER MILL ROAD	49.81	49.81	ANDERSON, NEFATITI	3B
21	00019 03	Q0116	179 CIDER MILL ROAD	57.71	57.71	NEMETH, ERNO T & ROSE B	3B
22	1	Q0117	WERTSVILLE ROAD	20.53	20.53	LANWIN DEVELOPMENT CORP	3B
21	00015 04	Q0118	RAINBOW HILL ROAD	11.00	11.00	NINKE, WILLIAM H & JUDITH W	3B
22	00002 01	Q0119	RAINBOW HILL ROAD	5.00	5.00	STELIN, DAVID & HEATHER HAVILAND	3B
21	00016 02	Q0120	RAINBOW HILL ROAD	9.64	9.64	STOUT, GEORGE & SONDR	3B
22	00002 05	Q0121	18 RAINBOW HILL ROAD	7.99	7.99	LYTWYN, MARK & BARBARA	3B
22	00003 04	Q0124	44 RAINBOW HILL ROAD	8.40	8.40	MOLNAR PAUL & SUSAN CATHERINE	3B
23	00004 05	Q0126	WELISEWITZ ROAD	13.03	13.03	RUSSO ANTHONY & DIANA	3B
23	00001 08	Q0127	MANNERS ROAD	10.00		RAPPAPORT, LIZA PRICE	3B
23	00001 09	Q0127	MANNERS ROAD	10.34		RAPAPORT, LESLIE L	3B
23	13	Q0127	WERTSVILLE ROAD	15.31		RAPAPORT, LESLIE L	3B
23	00013 03	Q0127	MANNERS ROAD	2.51	38.16	RAPAPORT, LESLIE L	3B
23	00001 10	Q0128	WERTSVILLE ROAD	8.88	8.88	SAVAD NEIL & CECILE	3B
23	00004 15	Q0129	WELISEWITZ ROAD	9.35	9.35	LENOX, LINDA FAIR	3B
23	00004 21	Q0130	22 WELISEWITZ ROAD	10.41	10.41	WUTHERING REALTY LLC	3B
23	00004 06	Q0131	WELISEWITZ ROAD	16.70	16.70	FLEISCHER, HOWARD L	3B
23	5	Q0132	WELISEWITZ ROAD	9.44	9.44	FOX, ROBERT M & LINDA M	3B
23	6	Q0134	54 WELISEWITZ ROAD	18.80	18.80	MYERS, ROBERT B & PATRICIA Y	3B
23	00007 01	Q0135	74 WELISEWITZ ROAD	9.20	9.20	LGW LAND CO C/O MANNY WOLF REAL EST	3B
24	00011 04	Q0136	WERTSVILLE ROAD	16.40	16.40	KUNTZ, LAWRENCE & SHIRLEY	3B
23	11	Q0137	WERTSVILLE ROAD	104.36	104.36	DENTON, HAROLD R & BARBARA W	3B
23	00007 10	Q0138	78 WELISEWITZ ROAD	10.56	10.56	THORNTON, EDWARD L & LISA	3B
24	1	Q0139	WERTSVILLE ROAD	14.15	14.15	KOHANSKI, JOHN A	3B
24	3	Q0140	WERTSVILLE ROAD	14.15	56.70	KINDERMAN, HENRY C	3B
24	00003 01	Q0141	VAN LIEU'S ROAD	56.70	15.70	GERVASIO ARNOLD	3B
24	00004 07	Q0142	64 VAN LIEU'S ROAD	15.70	5.36	BARR, JAMES P & BUFF C	3B
24	00004 12	Q0143	VAN LIEU'S ROAD	5.36	13.38	LAX, HOWARD L & SUSAN R G	3B
24	00004 13	Q0144	VAN LIEU'S ROAD	13.38	10.90	MAIWALDT, RALPH H TRUSTEE	3B
24	6	Q0145	16 LARSEN ROAD	10.90	12.50	BALLY JOHN C & BRENDA G	3B
24	00006 07	Q0146	14 LARSEN ROAD	12.50	13.33	ROBBINS, MARY	3B
24	8	Q0147	MANNERS ROAD	13.33	7.59	FOSTER, WALTER B JR	3B
24	00008 01	Q0148	MANNERS ROAD	7.59	26.53	PROSSER LAND HOLDINGS LLC	3B

EAST AMWELL
FARMLAND PROPERTIES
TABLE 1-1

# Farms	Block	Lot	Qual	Location	Acreage	Total Farm Acreage	Owner	
		24	11	Q0149 33 MANNERS ROAD	47.60	47.60	PEABODY, R THOMAS & KAREN ETALS	3B
		24	00011 05	Q0150 MANNERS ROAD	12.18	12.18	BENSON, WILLIAM J & PATRICIA A KANE	3B
		25	00002 01	Q0151 26 BACK BROOK ROAD	23.94	23.94	MORIN, ROGER K	3B
		23	00001 12	Q0152 WERTSVILLE ROAD	11.50	11.50	DECESARE, RAYMOND R & RONI C	3B
		17	00033 04	Q0154 20 DUTCH LANE	2.03		KNAACK, KRIS & LORETTA GAIL REITER	3B
		25	00001 01	Q0154 4 BACK BROOK ROAD	2.35		KNAACK, KRIS & LORETTA GAIL REITER	3B
		25	00001 03	Q0154 12 DUTCH LANE	1.96	6.34	KNAACK, KRIS & LORETTA GAIL REITER	3B
		25	7	Q0155 142 BACK BROOK ROAD	6.65	6.65	MATTHEWS, NORMAN & ANN	3B
		25	00007 08	Q0157 LAGA COURT	8.40	8.40	KRUPA, GREGORY A & DEBRA E WHITE	3B
		25	9	Q0159 231 WERTSVILLE ROAD	89.88	89.88	DITZELL, WALTER H III & JENELLE E	3B
		25	00007 19	Q0160 BACK BROOK ROAD	6.60	6.60	DIGIOIA, FRANK	3B
		25	11	Q0161 WERTSVILLE ROAD	24.59		WIELENTA, JULIE & RONALD	3B
		32	5	Q0161 171 WERTSVILLE ROAD	56.31		WIELENTA, JULIE & RONALD	3B
		32	00005 02	Q0161 RUNYON MILL ROAD	0.85		WIELENTA JULIE ET ALS	3B
		32	00005 03	Q0161 RUNYON MILL ROAD	25.76	107.51	WIELENTA, JULIE ET ALS	3B
		25	12	Q0162 WERTSVILLE ROAD	121.89	121.89	HENSSLER SUSAN BARBARA	3B
		25	00012 01	Q0163 WERTSVILLE ROAD	22.56	22.56	WOLFE, ROBERT J. & BARBARA BURGESS	3B
		25	14	Q0164 WERTSVILLE ROAD	41.00	41.00	MEZZAROBA, JOSEPH A / M DICKINSON	3B
		26	00001 02	Q0165 36 ROCKTOWN ROAD	7.59	7.59	MARMORATO FRANK P & LORI A	3B
		25	13	Q0166 WERTSVILLE ROAD	0.56		EIREF, ZVI	3B
		26	3	Q0166 ROCKTOWN ROAD	59.42		EIREF, ZVI	3B
		31	5	Q0166 ROCKTOWN ROAD	69.31		EIREF, ZVI	3B
		31	00005 07	Q0166 LINVALE ROAD	5.94	135.23	EIREF, ZVI	3B
		27	3	Q0167 511 ROUTE 31	2.35		PIERMAN, ELAINE E	3B
		27	4	Q0167 ROUTE 31	4.10	6.45	PIERMAN, ELAINE E	3B
		25	15	Q0168 WERTSVILLE ROAD	8.00	8.00	GAVIGAN, FRANCES	3B
		27	7	Q0169 ROUTE 31	47.00	47.00	GEILS, BRYAN	3B
		27	00009 03	Q0172 545 ROUTE 31	6.55	6.55	BROPHY, JAMES D	3B
		27	33	Q0173 WERTSVILLE ROAD	60.24	60.24	BEAVER CREEK EQUESTRIAN CEN NJ LLC	3B
		27	00033 01	Q0174 48 WERTSVILLE ROAD	25.33	25.33	CANNELONGO, KATHLEEN JANE	3B
		25	00002 10	Q0175 50 BACK BROOK ROAD	10.00	10.00	CELEBRE, RALPH & ALICE	3B
		27	39	Q0176 WERTSVILLE ROAD	137.50	137.50	TOTTEN, ROBERT K	3B
		25	21	Q0177 WERTSVILLE ROAD	3.12		MURSKY LEO	3B
		27	41	Q0177 96 WERTSVILLE ROAD	19.47	22.59	MURSKY, LEO	3B
		27	46	Q0178 ROCKTOWN ROAD	26.00		HARRISON, HAZEL M TRUST	3B
		27	00046 05	Q0178 ROCKTOWN ROAD	1.50		HARRISON, HAZEL M TRUST	3B
		31	4	Q0178 65 ROCKTOWN ROAD	39.80		HARRISON, HAZEL M TRUST	3B
		31	10	Q0178 MOUNTAIN ROAD	61.30		HARRISON, HAZEL M TRUST	3B
	00040	01	40	Q0178 MOUNTAIN ROAD	4.02	132.62	HARRISON, HAZEL M TRUST	3B
		27	47	Q0179 ROCKTOWN ROAD	53.42		RUSSELL, NORMAN F S JR ESTATE & VIV	3B
		31	3	Q0179 85 ROCKTOWN ROAD	41.90	95.32	RUSSELL, NORMAN F S JR ESTATE & VIV	3B
		27	48	Q0180 ROCKTOWN ROAD	22.57	22.57	GARRETT, BARBARA D	3B
		27	49	Q0181 96 ROCKTOWN ROAD	10.67		TYROL, JOHN & KAREN	3B
		27	50	Q0181 ROCKTOWN ROAD	12.20	22.87	TYROL, JOHN & KAREN	3B
		27	32	Q0183 ROUTE 31	11.47		DANEBO LLC C/O SHIRLEY HIRSCH	3B
	00027	01	18	Q0183 20 JOHN RINGO ROAD	7.32		DANEBO LLC C/O SHIRLEY HIRSCH	3B
	00027	01	32	Q0183 ROUTE 202	3.57	22.36	DANEBO LLC C/O SHIRLEY HIRSCH	3B
		30	4	Q0185 ROCKTOWN ROAD	24.20	24.20	HAWKINS, JOHN C & LISA L	3B
		30	5	Q0186 28 MOUNTAIN ROAD	84.31		GULICK EAST AMWELL FARMS LLC	3B
		30	00041 01	Q0186 457 ROUTE 31	1.05		GULICK EAST AMWELL FARMS LLC	3B
		30	42	Q0186 127 ROCKTOWN ROAD	131.52	216.88	GULICK EAST AMWELL FARMS LLC	3B
		30	00005 03	Q0187 76 LINVALE ROAD	5.26	5.26	DAVIES, JAMES P & KAREN BARNISH	3B
		30	12	Q0189 LINVALE ROAD	5.18		MENCHEK, FLOYD	3B
		30	00016 01	Q0189 LINVALE ROAD	42.94	48.12	MENCHEK, FLOYD & JUDITH	3B
		30	17	Q0190 ROUTE 31	4.43		KOBREN, PAULINE E & THEODORE	3B
		30	00017 01	Q0190 ROUTE 31	7.01		KOBREN, PAULINE E & THEODORE	3B
		30	19	Q0190 385 ROUTE 31	1.96	13.40	KOBREN THEODORE AND PAULINE	3B
		30	30	Q0192 415 ROUTE 31	9.95		MADDALENA, EUGENE J & JANET A	3B
		30	32	Q0192 ROUTE 31	5.53	15.48	MADDALENA, EUGENE J & JANET A	3B

EAST AMWELL
FARMLAND PROPERTIES
TABLE F-1

Block	Lot	Qual	Location	Acreage	Total Farm Acreage	Owner	
				52.92	52.92	KUPCZAK, ANTONINA	3B
30	33	Q0194	425 ROUTE 31				
31	00004 02	Q0197	59 ROCKTOWN ROAD	18.08		KOWALCZYK, ROBERT & MARGARET J	3B
31	00004 04	Q0197	ROCKTOWN ROAD	1.54	17.62	KOWALCZYK, ROBERT & MARGARET J	3B
				6.50	6.50	RAVERS, CLARK G	3B
00040 01	00003 01	Q0198	ORCHARD ROAD	11.56	11.56	GRAPER, RICHARD	3B
31	11	Q0200	MOUNTAIN ROAD	86.18	86.18	NIELSEN, KRIS / PATRICIA GALLOWAY	3B
32	1	Q0202	ROCKTOWN ROAD	73.48		SOWSIAN, JOSEPH T & BERNICE M	3B
32	3	Q0203	ORCHARD ROAD	89.11		SOWSIAN, JOSEPH	3B
00040 01	3	Q0203	ORCHARD ROAD	6.29	168.88	SOWSIAN, JOSEPH T & BERNICE M	3B
00040 01	00003 02	Q0203	ORCHARD ROAD				
				21.60	21.60	RAZZAGHI, FRED & JUDITH ANN GLOGAU	3B
32	4	Q0204	14 ORCHARD ROAD	26.14	26.14	WARD, PHILIP H & PAULA MARIE	3B
33	00001 01	Q0206	RUNYON MILL ROAD	12.30		CALLAWAY, NORMAN T JR & LISA S	3B
33	4	Q0207	36 SADDLE SHOP ROAD	0.52	12.82	CALLAWAY, NORMAN T JR	3B
00033 01	1	Q0207	36 SADDLE SHOP ROAD				
				3.04		BUXTON, STEPHEN R & CHERYL I	3B
33	00001 03	Q0208	SADDLE SHOP ROAD	63.07		BUXTON, STEPHEN R & CHERYL I	3B
33	5	Q0208	48 SADDLE SHOP ROAD	11.51	77.62	BUXTON, STEPHEN R & CHERYL I	3B
33	00007 06	Q0208	340 RILEYVILLE ROAD				
				3.23		MOTT, RICHARD B & MARGERY L	3B
33	7	Q0210	RILEYVILLE ROAD	10.68	13.91	MOTT RICHARD B & MARGERY L	3B
33	00007 04	Q0210	RILEYVILLE ROAD				
				9.18	9.18	CROCKETT, BRIAN S	3B
33	00007 07	Q0211	RILEYVILLE ROAD	15.72	15.72	KELLY JOHN & BERNADETTE	3B
33	11	Q0212	WERTSVILLE ROAD	37.00	37.00	SNOWDEN MARY D / JOSEPHINE GRIEFF	3B
33	15	Q0213	WERTSVILLE ROAD	9.73	9.73	THOMAS, CHRISTOPHER M & EVELYN	3B
33	31	Q0215	SADDLE SHOP ROAD	19.15	19.15	ENGLISH, TERRENCE J & ILONA S	3B
33	32	Q0216	RUNYON MILL ROAD	37.38	37.38	GREEK, FRANK JR & CATHY	3B
34	00027 01	Q0217	LINDBERGH ROAD	1.82		GARRETT, ROBERT Y IV & DIANA B	3B
34	00001 01	Q0218	WERTSVILLE ROAD	25.66		GARRETT, ROBERT Y IV & DIANA B	3B
34	2	Q0218	RILEYVILLE ROAD	13.42		GARRETT, ROBERT Y IV & DIANA B	3B
34	00002 09	Q0218	351 RILEYVILLE ROAD	23.89	64.79	GARRETT, ROBERT Y IV & DIANA B	3B
34	4	Q0218	RILEYVILLE ROAD				
				27.86		BLACKMAN CAROL ANN	3B
34	5	Q0219	RILEYVILLE ROAD	11.20	39.06	BLACKMAN CAROL ANN	3B
34	7	Q0219	RILEYVILLE ROAD				
				12.66	12.66	ELMALEH, ANTONIO OSATO	3B
34	00005 01	Q0220	RILEYVILLE ROAD	50.72	50.72	ROCHFORD JOSEPH M & BARBARA V	3B
34	00005 02	Q0221	RILEYVILLE ROAD	69.34	69.34	VISCEGLIA, JOHN	3B
34	27	Q0226	28 LINDBERGH ROAD	95.38	95.38	HOLCOMBE, ROBERT W & BARBARA ANN	3B
34	34	Q0227	WERTSVILLE ROAD	29.22	29.22	TUFARO, RUTH ETALS TRUSTEES	3B
34	40	Q0228	40 LINDBERGH ROAD			HIGGINS, JOHN P	3B
35	2	Q0229	WERTSVILLE ROAD	261.40		HIGGINS, JOHN P	3B
35	10	Q0229	NORTH HILL ROAD	128.50		HIGGINS, JOHN P	3B
35	12	Q0229	NORTH HILL ROAD	18.90		HIGGINS, JOHN P	3B
35	57	Q0229	SOUTH HILL ROAD	8.00	416.80	HIGGINS JOHN P	3B
				96.37		WERTSVILLE IND C/O SHAFEI	3B
35	3	Q0230	WERTSVILLE ROAD	14.11	110.48	WERTSVILLE IND C/O SHAFEI	3B
35	65	Q0230	SOUTH HILL ROAD				
				10.00	10.00	DAVIES, ERNEST M & KIMBERLY	3B
35	9	Q0231	NORTH HILL ROAD	9.20	9.20	CARLUCCIO PAUL A & TRACY	3B
35	13	Q0232	81 NORTH HILL ROAD	4.30		MANNERS, R GREGORY	3B
23	12	Q0234	WERTSVILLE ROAD	3.10		MANNERS, R GREGORY	3B
23	00012 01	Q0234	WERTSVILLE ROAD	116.73	124.13	MANNERS, R GREGORY	3B
00035 01	8	Q0234	WERTSVILLE ROAD				
				9.00	9.00	PARKER, NANCY GIAQUINTO	3B
00035 01	00011 01	Q0235	NORTH HILL ROAD	53.71	53.71	GARDNER FREDERICK & GAEL W	3B
00035 01	11	Q0236	NORTH HILL ROAD	123.58	123.58	LOWER FARM LLC	3B
00035 01	10	Q0237	WERTSVILLE ROAD	78.70		SOURLAND FARM LLC	3B
00035 01	12	Q0238	NORTH HILL ROAD	162.53		SOURLAND FARM LLC	3B
00035 01	13	Q0238	33 LINDBERGH ROAD	7.77	249.00	SOURLAND FARM LLC	3B
00035 01	19	Q0238	LINDBERGH ROAD				
				80.45	80.45	ZUEGNER, LOUIS L III & JEANNE K	3B
17	34	Q0244	56 DUTCH LANE	56.98	56.98	HOFER TRUSTEE C/O CONNIE CASPER	3B
38	4	Q0246	RILEYVILLE ROAD	9.35	9.35	SCIANNA, BARBARA	3B
40	00001 02	Q0253	63 LINVALE ROAD	11.20	11.20	PLOSKI, BLANCHE M C/O C PICKELL	3B
40	6	Q0254	103 LINVALE ROAD	5.02		MAYO, HERBERT	3B
30	00005 04	Q0261	85 LINVALE ROAD	5.35	10.37	MAYO, HERBERT B & SHARON L	3B
40	56	Q0261	85 LINVALE ROAD				
				14.70	14.70	ALFIERI, DONNA & PATRICIA KURKEWICZ	3B
00040 01	00001 01	Q0262	45 LINVALE ROAD	75.60	75.60	CVETAN, STEVEN A EST & SOPHIA	3B
00040 02	1	Q0267	SADDLE SHOP ROAD				

EAST AMWELL
FARMLAND PROPERTIES
TABLE I-1

Block	Lot	Qual	Location	Acreage	Total Farm Acreage	Owner	
00040 02	2	Q0268	OLD ROAD	78.55		STULTS, AMOS W JR & MARION M	3B
00040 02	26	Q0268	OLD ROAD	13.26	91.81	STULTS, AMOS W JR & MARION M	3B
00040 02	6	Q0270	SADDLE SHOP ROAD	63.70	63.70	WEE BEGINNINGS FARM LLC	3B
00040 02	13	Q0271	12 MOUNTAIN ROAD	7.15	7.15	NEME TH, JULIUS EST & LORRAINE	3B
41	2	Q0275	ROUTE 31	25.37	25.37	SIMONE ASSOCIATES LLC	3B
41	16	Q0278	129 LINVALE ROAD	23.25	23.25	MARCHUK MARK & KATHLEEN E	3B
41	00016 01	Q0279	ROUTE 31	15.75	15.75	HARIG, CHRISTOPHER D	3B
41	00016 02	Q0280	ROUTE 31	13.70	13.70	FERYOK, STEVEN P & NANCY J	3B
41	00017 02	Q0282	125 LINVALE ROAD	24.36	24.36	WEIS MICHAEL B / M JANE MCINTOSH	3B
41	00040 05	Q0284	STONY BROOK ROAD	19.58	19.58	DELCAMPO, ANN	3B
41	00043 03	Q0287	144 LAMBERTVILLE-HOPEWELL	11.57	11.57	ROBBI, ANTHONY & GLORIANNE H	3B
41	00041 01	Q0288	STONY BROOK ROAD	9.80	9.80	BOLKAN, STEVEN & GALE BYRNES	3B
41	00017 03	Q0290	95 SNYDERTOWN ROAD	9.87	9.87	ZICK, WILLIAM F & MARY BETH BOLAND	3B
42	9	Q0292	WOODSVILLE ROAD	11.16	11.16	MILNE, CALEB & DAVID	3B
42	10	Q0293	45 WOODSVILLE ROAD	15.54	15.54	DORIO, CHARLES R & JOSEPH L JR	3B
42	12	Q0294	ROUTE 31	6.15	6.15	ORLANDO, JOHN & LILLIAN	3B
42	00012 04	Q0295	LAMBERTVILLE-HOPEWELL	9.25	9.25	WALNUT HOUSE CORPORATION	3B
33	16	Q0297	WERTSVILLE ROAD	39.62	39.62	PETROLINO ROBERT	3B
35	1	Q0298	WERTSVILLE ROAD	34.01	34.01	PRINCETON RESEARCH LANDS INC	3B
00035 01	00008 01	Q0301	27 LINDBERGH ROAD	10.00	10.00	LENTINE SALVATORE V & DEBORAH M	3B
25	00007 16	Q0302	VAN LIEU'S ROAD	9.30	9.30	SIMEONE JOSEPH JR	3B
25	00004 01	Q0304	92 BACK BROOK ROAD	5.70	5.70	MIRABITO, DANIEL W & JAMIE B	3B
6	00012 02	Q0306	ROSEMONT-RINGOES RD	9.16	9.16	GUNN, MARK C & GRETCHEN L	3B
31	6	Q0308	LINVALE ROAD	16.24	16.24	READ JOAN L	3B
33	00007 05	Q0310	RILEYVILLE ROAD	9.00	9.00	WILLIAMS LINDA	3B
00006 01	12	Q0311	20 HARVEST HILL DRIVE	10.06	10.06	WATERBURY, TRISHKA	3B
23	00004 19	Q0313	MANNERS ROAD	10.61	10.61	MILLER, PETER	3B
23	00007 11	Q0314	WELISEWITZ ROAD	8.50	8.50	HUGHES JAMES W & CONNIE O	3B
41	40	Q0317	STONY BROOK ROAD	14.85	14.85	RUSSELL JOHN J & BARBARA L	3B
23	00004 18	Q0319	44 MANNERS ROAD	9.37	9.37	BATTIATO ANTHONY P & TRUDY	3B
17	00035 13	Q0320	107 BACK BROOK ROAD	9.50	9.50	SOHMER, KENETTE	3B
23	00001 11	Q0336	WERTSVILLE ROAD	14.63	14.63	HEIDE, PETER VAN B & MOLLIE L	3B
24	00011 08	Q0337	MANNERS ROAD	22.33	22.33	MALTZ FAMILY LP	3B
17	00031 01	Q0347	73 BACK BROOK ROAD	26.67		SKEEHAN, JOHN	3B
17	00035 05	Q0347	85 BACK BROOK ROAD	10.64		SKEEHAN ASSOCIATES LLC	3B
17	00035 08	Q0347	BACK BROOK ROAD	10.43	47.74	SKEEHAN, JOHN	3B
25	00010 03	Q0348	WERTSVILLE ROAD	10.38		VEGOTSKY, LORI	3B
25	00010 04	Q0348	WERTSVILLE ROAD	11.35	21.73	VEGOTSKY, LORI	3B
6	00012 01	Q0351	ROSEMONT-RINGOES RD	9.50	9.50	HURFORD, RONALD & LEE G.	3B
20	11	Q0357	AMWELL ROAD	28.42	28.42	VAN DOREN, FRED C	3B
1	1	Q0358	HAINES ROAD	2.25	2.25	MARESCA, EMIL & JOSEPH & HELEN	3B
33	00006 02	Q0362	10 SADDLE SHOP ROAD	12.41	12.41	TRUPPELLI, GERALD S & LORETTA M	3B
24	00004 09	Q0364	VAN LIEU'S ROAD	11.10	11.10	SMITH, GARY D & EILEEN V.	3B
16	00038 01	Q0365	ROUTE 202	3.98		KOHANE, DAVID RTA/C/O Z URBACH	3B
16	00038 02	Q0365	ROUTE 202	1.33	5.31	KOHANE, DAVID RTA/C/O Z URBACH	3B
25	3	Q0368	56 BACK BROOK ROAD	30.89	30.89	ISABELLA, GERARD & PATRICIA	3B
16	00019 01	Q0372	ROUTE 202	5.00	5.00	PARDEN IV	3B
6	00005 01	Q0400	WAGNER ROAD	9.09	9.09	MCTEIGUE, KEVIN W & DONNA L	3B
6	8	Q0401	ROSEMONT-RINGOES ROAD	22.21	22.21	CORSO, MARIE S	3B
30	00010 02	Q0402	80 LINVALE ROAD	8.44	8.44	MARTIN, SUZANNE	3B
25	00007 09	Q0404	LAGA COURT	10.63	10.63	ANDERSON, RICHARD G & KAREN W	3B
22	00002 02	Q0405	RAINBOW HILL ROAD	4.84		FREEDMAN, MARVIN I & SUZANNE I	3B
22	00002 03	Q0405	RAINBOW HILL ROAD	4.75	9.59	FREEDMAN, MARVIN I & SUZANNE I	3B
27	5	Q0406	ROUTE 31	64.92		D & R GREENWAY LAND TRUST INC	3B
27	6	Q0406	521 ROUTE 31	2.16	67.08	OMICK, GLADYS	3B
27	8	Q0407	ROUTE 31	37.18		PRINCETON RESEARCH LANDS INC	3B
27	00009 02	Q0407	ROUTE 31	0.86	38.04	PRINCETON RESEARCH LANDS INC	3B
27	34	Q0408	WERTSVILLE ROAD	38.50	38.50	CHERET, STEPHANE & CAROLINE	3B
30	00010 01	Q0409	82 LINVALE ROAD	70.25		PUGMIRE, THOMAS E IRREVOCABLE TRUST	3B
30	00011 01	Q0409	LINVALE ROAD	3.40		PUGMIRE, THOMAS E IRREVOCABLE TRUST	3B
30	00012 01	Q0409	LINVALE ROAD	3.62		PUGMIRE, THOMAS E IRREVOCABLE TRUST	3B
30	00012 02	Q0409	LINVALE ROAD	3.11	80.38	PUGMIRE, THOMAS E IRREVOCABLE TRUST	3B
34	8	Q0410	56 RIDGE ROAD	6.33	6.33	SETZER, JEROME JR	3B
40	00027 01	Q0410	56 SNYDERTOWN ROAD	8.85	8.85	STELLITANO, GARY	3B

EAST AMWELL
FARMLAND PROPERTIES
TABLE I-1

# Farm	Block	Lot	Qual	Location	Acreage	Total Farm Acreage	Owner	
					15.66	15.66	HELM, CURTIS W & JANET B	3B
	34	18	Q0411	RIDGE ROAD	11.98		PEARSON EST C/O GEORGE H PEARSON	1
	34	00019 01	Q0414	RIDGE ROAD	3.73	15.71	PEARSON EST C/O GEORGE H PEARSON	1
	34	00021 01	Q0414	RIDGE ROAD				
					19.03	19.03	EVANS, GEORGE	3B
	34	22	Q0415	RIDGE ROAD	19.00	19.00	SCHEPPELE, KIM L & SERGUEI OUSHAKINE	3B
	35	00018 02	Q0416	SOUTH HILL ROAD	20.90	20.90	CULVER ANTHONY	3B
	00035 01	32	Q0417	23 SOUTH HILL ROAD	36.50	36.50	THOMPSON BRYCE IV ET ALS	3B
	35	63	Q0418	SOUTH HILL ROAD	11.28	11.28	MCDOWELL, JOHN IV	3B
	37	1	Q0419	187 LINDBERGH ROAD	25.25	25.25	MARGGRAF, CARL W. C/O LOUIS MILLER	3B
	37	4	Q0420	17 BURD LANE	20.00	20.00	PLIMPTON, JOHN & LORI	3B
	38	3	Q0421	247 RILEYVILLE ROAD	9.89		THOMPSON, WILLIAM B V & LISE LOWRY	3B
	38	36	Q0422	LINDBERGH ROAD	6.77	16.66	THOMPSON, WILLIAM B V & LISE LOWRY	3B
	38	37	Q0422	LINDBERGH ROAD				
					2.10		THOMPSON, WILLIAM B V & LISE LOWRY	3B
	38	22	Q0423	LINDBERGH ROAD	6.60		THOMPSON, WILLIAM B V & LISE LOWRY	3B
	38	23	Q0423	LINDBERGH ROAD	3.71	12.41	THOMPSON, WILLIAM B V & LISE LOWRY	3B
	38	39	Q0423	LINDBERGH ROAD				
					16.24	16.24	SPENCER, STEVEN S & PENELOPE A	3B
	34	00007 01	Q0424	RILEYVILLE ROAD	9.04	9.04	CASPER, CONNIE HOFER TRUST/E HOFER	3B
	38	00014 01	Q0425	7 RIDGE ROAD	44.01	44.01	WENGRYN, MARY ANNE & STEVEN	3B
	40	34	Q0428	24 SNYDERTOWN ROAD	34.60	34.60	FISCOR, MICHAEL & AUDREY	3B
	40	00051 05	Q0429	157 MOUNTAIN ROAD	16.69		GEORGE, STEVEN A & JOYCE E	3B
	40	52	Q0430	MOUNTAIN ROAD	2.29		GEORGE, STEVEN A & JOYCE E	3B
	40	53	Q0430	MOUNTAIN ROAD	38.35	57.33	GEORGE, STEVEN A & JOYCE E	3B
	40	54	Q0430	MOUNTAIN ROAD				
					82.63		PURSELL, CHARLES II & ADELE A	3B
	00040 01	5	Q0431	RUNYON MILL ROAD	0.57		PURSELL, CHARLES II & ADELE A	3B
	00040 02	00001 01	Q0431	RUNYON MILL ROAD	0.23	83.43	PURSELL, CHARLES II & ADELE A	3B
	00040 02	00001 02	Q0431	RUNYON MILL ROAD				
					10.34	10.34	HYLAND, JOHN	3B
	00040 01	17	Q0432	MOUNTAIN ROAD	17.84	17.84	GILL, DAVID M	3B
	00040 01	39	Q0433	MOUNTAIN ROAD	11.50	11.50	STRIZKI, MICHAEL & ANN	3B
	40	00027 05	Q0434	26 SNYDERTOWN ROAD	17.68	17.66	YASUNAS, SUSAN J	3B
	00040 02	5	Q0435	13 SADDLE SHOP ROAD	12.25		THAYER, RICHARD P & DOROTHY	3B
	00040 02	14	Q0436	MOUNTAIN ROAD	1.00		THAYER RICHARD P & DOROTHY	3B
	00040 02	15	Q0436	MOUNTAIN ROAD	0.10		THAYER, RICHARD P & DOROTHY	3B
	00040 02	16	Q0436	MOUNTAIN ROAD	3.75	17.10	THAYER RICHARD P & DOROTHY	3B
	00040 03	4	Q0436	MOUNTAIN ROAD				
					7.97		WILLIAMS, MARK D TESTAMENTARY TRUST	3B
	00040 01	23	Q0437	MOUNTAIN ROAD	6.00	13.97	WILLIAMS, MARK D TESTAMENTARY TRUST	3B
	00040 01	00025 01	Q0437	MOUNTAIN ROAD				
					45.93	45.93	DIPIRRO, CHARLES D & CHERYL ANN M	3B
	41	17	Q0438	SNYDERTOWN ROAD	42.00	42.00	COLONIAL SPORTSMAN CLUB INC	3B
	41	00025 02	Q0439	SNYDERTOWN ROAD	41.19	41.19	ZELIN, ALBERT	3B
	41	42	Q0440	116 STONY BROOK ROAD	0.03		JORDON SIDNEY & TIA IFIDA REALTY	3B
	40	25	Q0441	SNYDERTOWN ROAD	10.56		JORDAN SIDNEY & TIA IFIDA REALTY	3B
	41	44	Q0441	164 LAMBERTVILLE-HOPEWELL	208.31	218.90	JORDAN SIDNEY & TIA IFIDA REALTY	3B
	41	45	Q0441	174 LAMBERTVILLE-HOPEWELL				
					2.00		WASHABAUGH FRANK III & NANCY V	3B
	40	4	Q0442	LINVALE ROAD	3.83	5.83	WASHABAUGH FRANK III & NANCY V	3B
	40	5	Q0442	97 LINVALE ROAD				
					10.48	10.48	SCHIMELPFENIG, JOHN & SALLY	3B
	34	00007 03	Q0443	RILEYVILLE ROAD	27.23	27.23	MILLER, MATTHEW & GAYLE	3B
	00040 03	00016 01	Q0444	RILEYVILLE ROAD	22.92		LANG, STEVEN	3B
	27	53	Q0445	116 ROCKTOWN ROAD	8.84	31.76	LANG, STEVEN	3B
	27	00053 01	Q0445	ROCKTOWN ROAD				
					9.92	9.92	MATHEWS, TIMOTHY J & CYNTHIA S	3B
	30	9	Q0447	LINVALE ROAD	20.00	20.00	ROSACHA, STEVE & MARION	3B
	27	37	Q0448	WERTSVILLE ROAD	10.00	10.00	FORSYTHE, ROBERT C.	3B
	40	10	Q0449	100 SNYDERTOWN ROAD	87.21	87.21	KLEBER, JOSEPH & DEIRDRE S	3B
	40	37	Q0450	STONY BROOK ROAD	4.84		EVANS, GREGORY & BETH PARCELL	3B
	34	00022 01	Q0451	RIDGE ROAD	3.00	7.84	EVANS, GREGORY & BETH PARCELL	3B
	34	00022 02	Q0451	RIDGE ROAD				
					43.23	43.23	CLAIR, FRANK A JR & DIANNE	3B
	41	23	Q0453	61 SNYDERTOWN ROAD	27.64	27.64	GOMPPER, JAY ARTHUR	3B
	00040 02	20	Q0454	MOUNTAIN ROAD	47.00		JOHNSON, JUDY	3B
	38	18	Q0456	108 LINDBERGH ROAD	5.00	52.00	JOHNSON, JUDY	3B
	38	00042 01	Q0456	LINDBERGH ROAD				
					22.75	22.75	RIVELLA, THOMAS H JR & ANITA	3B
	40	00021 01	Q0458	SNYDERTOWN ROAD	9.03	9.03	LORENZONI, ANTHONY J & TAMMY J	3B
	42	00009 02	Q0459	43 WOODSVILLE ROAD				

EAST AMWELL
 FARMLAND PROPERTIES
 TABLE I-1

Block	Lot	Qual	Location	Acreage	Total Farm Acreage	Owner	
34	9	Q0460	54 RIDGE ROAD	13.86	13.86	ROLINKSI, SYLVIA J	3B
35	64	Q0461	SOUTH HILL ROAD	20.70	20.70	AMWELL VALLEY FARM INC	3B
35	27	Q0462	143 LINDBERGH	13.62	13.62	SWEENEY, THOMAS E	3B
40	00051 06	Q0463	161 MOUNTAIN ROAD	9.52	9.52	ROSNER, DAVID M & MAYRA L	3B
			Total # of Acres		11,383.82		
			Total # of Farms	296.00			

LEASED FARM ACREAGE BY TENANT IN EAST AMWELL TOWNSHIP

Table 1-2

BLOCK	LOT	FARM OPERATOR 2007	ACREAGE FARMED	TOTAL FARM ACRES
40.02	6	Amwell Leasing, LLC/East Amwell	35.00	63.70
27	49/ 50	Andrew Garrett/Flemington	9.80	22.87
11	2.01	Barbara Scholz/Ringoes	5.56	5.56
24	3	Centre Ridge Farm/Ringoes	56.70	56.70
17	23.07	Charles Marsh/Lambertville	13.13	13.13
33	15	Charles Marsh/Lambertville	37.00	37.00
			50.13	50.13
40.02	1	Dan & Jane Collins/Ringoes	44.90	75.60
30	30/ 32	Dan Collins/Ringoes	15.18	15.48
			60.08	91.08
7	6	Dave Everitt/Ringoes	326.53	354.45
8	2/3/4/24/25/26/26.02	"		
34	1.01/ 2/ 2.09/ 4	Deer Run Farm/Neshanic Station	41.53	64.79
9	15	Floyd Menchek	11.52	11.15
25	10.03/ 10.04	Floyd Menchek/Ringoes	15.00	21.73
25	11	Floyd Menchek/Ringoes	104.12	107.51
32	5/ 5.02/ 5.03	"		
30	33	Floyd Menchek/Ringoes	48.00	52.92
40	25	Floyd Menchek/Ringoes	21.00	218.90
41	44/ 45	"		
41	2	Floyd Menchek/Ringoes	20.00	25.37
41	16	Floyd Menchek/Ringoes	23.25	23.25
41	16.01	Floyd Menchek/Ringoes	12.00	15.75
41	40	Floyd Menchek/Ringoes	14.35	14.85
42	12.04	Floyd Menchek/Ringoes	9.25	9.25
42	14	Floyd Menchek/Ringoes	7.20	17.58
41	25.02	Floyds Nursery/Ringoes	20.00	42.00
			305.69	560.26
20	16/ 16.01/ 30	Fred Van Doren/Flemington	110.99	106.46
35	53	"		
20	17.07/ 18	Fred Van Doren/Flemington	99.00	107.64
23	6	Fred Van Doren/Flemington	12.00	18.80
20	17.1	Fred Van Doren/Flemington	13.75	13.75
			124.75	140.19
2	5/ 6	George Perehinys	50.03	56.03
6	14	"		
16	38.01/ 38.02	George Perehinys/Ringoes	5.31	5.31
16	19.01	George Perehinys/Stockton	5.00	5.00
			60.34	66.34
25	2.01	Gerald Brenner	10.00	23.94

LEASED FARM ACREAGE BY TENANT IN EAST AMWELL TOWNSHIP

TABLE I-2

BLOCK	LOT	FARM OPERATOR	ACREAGE FARMED	TOTAL FARM ACRES
41	42	James Sansone/Hopewell	11.40	3.09
42	10	James Sansone/Hopewell	12.50	15.54
			23.90	18.63
23	1.11	Jeffrey Bowlby/Flemington	14.63	14.63
17	14/ 15	Jeffrey Bowlby/Flemington	36.59	46.96
			51.22	61.59
21	1.05	Jim Lane/Hillsborough, NJ	9.00	9.00
33	7/ 7.04	John Kohanski/Ringoes	9.73	13.91
33	31	Joe Sowsian/Ringoes	9.73	9.73
31	6	Joseph Sowsian/Ringoes	14.55	19.24
40.01	3.01	Joseph Sowsian/Ringoes	6.50	6.50
40.02	5	Joseph Sowsian/Ringoes	5.00	17.66
			35.78	53.13
5	1.09/ 1.20	Joseph Vogel/Hamilton Twp	19.22	22.32
16.01	26/ 27	June Totten/Ringoes	42.222	58.050
17	16/ 16.09/ 16.11	June Totten/Ringoes	91.09	114.15
17	32	June Totten/Ringoes	92.413	142.16
25	2	"	24.71	25.71
17	16.03	Totten/Ringoes	250.435	340.070
23	7.11	K. Crisafulli-Deer Run Farm/Flemington	6.00	8.50
24	4.09	K. Kosar-Ken Kosar Farms/Ringoes	7.00	11.10
17	28	K. Kosar-Ken Kosar Farms/Ringoes	5.53	5.53
			12.53	16.63
23	1.10	L. Price Rappaport-Serendipity Farm/Ringoes	8.88	8.88
24	11.08	Mark Kurtz/Ringoes	18.33	22.33
27	7	R. Fulper-Fulper Farms/Lambertville	25.00	47.00
27	47	R. Fulper-Fulper Farms/Lambertville	48.00	95.32
31	3	"	48.00	95.32
30	5/ 41.01/ 42	Fulper Farms LLC/Lambertville	216.88	216.88
30	4	Robert Fulper/West Amwell Twp	22.00	24.20
8.02	29	Robert & Fred Fulper/Lambertville	59.50	60.50
			419.38	539.22
20	23	R. Gregory Manners/Ringoes	10.52	10.52
26	1.02	R. Gregory Manners/Ringoes	5.00	7.59
18	23	R. Gregory Manners/Ringoes	62.00	75.60
18	1	R. Gregory Manners/Ringoes	101.00	108.00
33	1.03/ 5/ 7.06	R. Gregory Manners/Ringoes	60.03	77.62
34	5.01	R. Gregory Manners/Ringoes	12.00	12.66

LEASED FARM ACREAGE BY TENANT IN EAST AMWELL TOWNSHIP

TABLE I-2

BLOCK	LOT	FARM OPERATOR	ACREAGE FARMED	TOTAL FARM ACRES
34	5.02	R. Gregory Manners/Ringoes	41.50	50.72
35	3/ 65	R. Gregory Manners/Ringoes	96.37	110.48
35	9	R. Gregory Manners/Ringoes	7.00	10.00
35.01	8.01	R. Gregory Manners/Ringoes	10.00	10.00
35.01	11.01	R. Gregory Manners/Ringoes	6.00	9.00
34	34	G. Manners/Ringoes	95.30	95.38
17	24	R. Gregory Manners/Ringoes	136.10	148.1
			642.82	725.67
35	2/ 10/ 12/ 57	R. Gregory Manners/Ringoes & Steve Zamek/Hillsborough	203.70	416.80
"	"			
23	4.06	R. Russo-Russo's Pheasant Farm/Ringoes	11.60	16.70
20	6	Rick Denbign/Flemington	64.76	64.76
3	4/ 5	Robert Perehinys/Stockton	86.35	113.49
25	12	Robert Petrolino/Ringoes	115.56	121.89
25	12.01	Robert Petrolino/Ringoes	20.01	22.56
			135.57	144.45
17	34	Roger & David Everitt/Ringoes	79.45	80.45
3	3	Roger Everitt/Ringoes	79.70	87.05
			159.15	167.50
31	4.02/ 4.04	Steve Zamek/Hillsborough	17.62	17.62
34	27	Steve Zamek/Hillsborough	40.00	69.34
34	40	Steve Zamek/Hillsborough	24.22	29.22
21	1	Steve Zamek/Hillsborough	81.24	88.61
20	17.01	"		
35.01	12/ 13/ 19/ 10	Steve Zamek/Hillsborough	237.92	249.00
22	1	Steve Zamek/Hillsborough	18.00	20.53
35	1	Steve Zamek/Hillsborough	19.80	34.01
34	27.01	Steve Zamek/Neshanic Station	15.70	37.38
21	11/12	Steve Zamek/Neshanic, NJ	35.47	42.94
21	13	Steve Zamek/Neshanic, NJ	29.20	36.97
			519.17	625.62
2	10.05	Steven Spayed/Stockton	37.54	43.91
20	24	Thomas Zeng/Paradise, PA	61.50	61.50
25	3	Thomas Zeng/Paradise, PA	20.00	30.89
25	14	Thomas Zeng/Paradise, PA	27.00	41.00
27	32	Thomas Zeng/Paradise, PA	21.86	22.36
27.01	18/ 32	"		
20	22	Thomas Zeng/Paradise, PA	52.03	51.94
18	24	Thomas Zeng/Paradise, PA	22.00	25.64
17	16.08/ 16.10/ 16.13	Thomas Zeng/Paradise, PA	28.00	29.00
16.01	31.05	Thomas Zeng/Paradise, PA	18.50	21.50
17	31.01/ 35.05/ 35.08	Thomas Zeng/Paradise, PA	41.44	47.74

LEASED FARM ACREAGE BY TENANT IN EAST AMWELL TOWNSHIP

TABLE I-2

BLOCK	LOT	FARM OPERATOR	ACREAGE FARMED	TOTAL FARM ACRES
18	19	Thomas Zeng/Paradise, PA	6.46 298.79	10.99 342.56
25 27	21 41	Woodcrest Farm/Ringoes Woodcrest Farm/Ringoes	20.59 "	22.59
GRAND TOTALS			7391.26	9347.80

FARMLAND ASSESSED ACRES
TABLE I-3 - EAST AMWELL TOWNSHIP

YEAR	TOTAL LAND DEVOTED TO AGRICULTURAL OR HORTICULTURAL USE	LAND WITH FARM HOUSE	ALL OTHER LAND NOT DEVOTED TO AGRIC. OR HORTIC. USE	TOTAL FARM ACREAGE FROM APPROVED FA-1 FORMS	TOTAL ACREAGE IN TAXING DISTRICT	% TOTAL ACREAGE IN FARMLAND ASSESSMENT
2005	10,729	327	82	11,138	17,792	62.60%
2000	11,351	308	57	11,716	17,792	65.80%
1995	12,117	299	97	12,513	17,792	70.30%
1990	12,522	370	89	12,981	17,792	72.90%
1985	12,112	335	264	13,712	17,792	77.10%
1980	13,149	271	336	13,756	17,792	77.30%

FARMLAND ASSESSED ACRES
TABLE I-4 - HUNTERDON COUNTY

YEAR	TOTAL LAND DEVOTED TO AGRICULTURAL OR HORTICULTURAL USE	LAND WITH FARM HOUSE	ALL OTHER LAND NOT DEVOTED TO AGRIC. OR HORTIC. USE	TOTAL FARM ACREAGE FROM APPROVED FA-1 FORMS	TOTAL ACREAGE IN TAXING DISTRICT	% TOTAL ACREAGE IN FARMLAND ASSESSMENT
2005	131,572	3988	1952	137,512	279,680	49.20%
2000	139,867	3878	1684	145,429	279,680	52.00%
1995	149,161	4,051	1997	155,209	279,680	55.50%
1990	150,033	4,032	2310	156,376	279,680	55.90%
1985	162,411	4,113	5180	171,616	279,680	61.40%
1980	161,612	271	3665	169,390	279,680	60.60%

Source: report of Data from FA1 Forms, NJ Division of Taxation Data for tax years 2005, 2000, 1995, 1990, 1985, and 1980 were collected in the preceding year.

FARMLAND ASSESSMENT DATA
 TYPES OF LAND USES, BY ACRES
 TABLE I-5 - EAST AMWELL

YEAR	CROPLAND HARVESTED	CROPLAND PASTURED	PERMANENT PASTURE	ACTIVE AGRICULTURAL USE: SUB-TOTAL	WOODLANDS AND WETLANDS	TOTAL LAND DEVOTED TO AGRIC. OR HORTIC. USE
2005	5,231 (66%)	1,333 (17%)	1,361 (17%)	7,925 (74%)	2,804 (26%)	10,729 (100%)
2000	5,858 (72%)	1,134 (14%)	1,140 (14%)	8,132 (72%)	3,219 (28%)	11,351 (100%)
1995	6,960 (76%)	805 (8%)	1,400 (15%)	9,165 (76%)	2,952 (24%)	12,117 (100%)
1990	7,003 (77%)	776 (8%)	1,300 (14%)	9,079 (73%)	3,444 (27%)	12,522 (100%)
1985	7,628 (78%)	883 (9%)	1,310 (9%)	9,821 (75%)	3,291 (25%)	13,112 (100%)
1980	7,656 (77%)	783 (8%)	1,475 (15%)	9,914 (75%)	3,235 (25%)	13,149 (100%)

Table I-6 Hunterdon County

YEAR	CROPLAND HARVESTED	CROPLAND PASTURED	PERMANENT PASTURE	ACTIVE AGRICULTURAL USE: SUB-TOTAL	WOODLANDS AND WETLANDS	TOTAL LAND DEVOTED TO AGRIC. OR HORTIC. USE
2005	59,113 (70%)	8,843 (10%)	16,888 (20%)	84,844 (65%)	46,728 (35%)	131,572 (100%)
2000	64,653 (71%)	8,771 (10%)	17,239 (19%)	90,663 (65%)	49,204 (35%)	139,867 (100%)
1995	72,162 (72%)	8,930 (9%)	19,454 (19%)	100,546 (67%)	48,615 (33%)	149,161 (100%)
1990	75,857 (72%)	9,434 (9%)	20,065 (19%)	105,356 (70%)	44,677 (30%)	150,033 (100%)
1985	84,016 (73%)	9,476 (8%)	21,729 (19%)	115,221 (71%)	47,191 (29%)	162,411 (100%)
1980	85,049 (72%)	9,900 (8%)	23,619 (20%)	118,568 (73%)	43,044 (27%)	161,612 (100%)

Note 1: The percentages shown for Cropland Harvested, Cropland Pastured and Permanent Pasture represent a percent of Active Agricultural Use Acres.

Note 2: The percentages shown for Woodlands and Wetlands represent a percentage of Total Land Devoted to Agriculture.

Note 3: The percentages shown in the sub-total of Active Agricultural Use represents a percentage of Total Land Devoted to Agriculture.

Source: report of Data from FA-1 Forms, NJ Division of Taxation Data
 for tax years 2005, 2000, 1995, 1990, 1985, and 1980
 were collected from the preceding year.

CHAPTER II

OVERVIEW OF EAST AMWELL AGRICULTURAL INDUSTRY

This chapter includes tables to provide an overview of agriculture in East Amwell. The summary below is followed by a more detailed look at the trends in both the County and the Township.

Table II-1 illustrates the trend in agricultural commodity production, livestock numbers, and also shows the number of acres in government programs in the Township and the County for the years 1990, 2000 and 2005. These years were chosen because Farmland Assessment figures were available in a consistent format. All data in this chart is from the FA-1 Farmland Assessment Forms provided by the Division of Taxation.

Table II-2 shows the value of the agricultural production of traditional row crops grown in the Township and the County in the years 2000 and 2005. The crop yields were taken from FA-1 Farmland Assessment Forms provided by the Division of Taxation.

Table II-1: Agricultural Production by Commodity in East Amwell Township and Hunterdon County

This table displays the number of acres planted to various crops in both the Township and the County over a 15 year period. The crops included are the most predominant in the Township. It also includes the number of head of various livestock in the Township and County for that same period. The last section of the table labeled as Other Information displays the changes in firewood and timber produced in the Township. These were included to trace the trend in the wooded areas in the Sourland Mountain area of the Township. The number of acres in Government programs is included to chart this trend.

The table shows that the number of acres planted by farmers to corn for grain has declined steadily in both the Township and the County, however the Township has produced about 13% of that crop during the period.

Acres planted by farmers to corn silage in both the Township and County has also declined in the 15 year period covered in this table. In 1990 the farmers in the Township planted 165 acres for corn silage and in 2005 only 14 acres were planted. The East Amwell acres represented 6% of the corn silage crop in 1990 and 2000. In 2005, the Township had just 1% of the County acres planted to corn silage.

It is interesting to note that the trend in dairy animal numbers in both the Township and the County follow the same pattern. The County lost 72% of its dairy animals in the fifteen years between 1990 and 2005. The Township lost 54% of its dairy animals during that same period. Most of this loss occurred in the ten year period between 1990 and 2000. The County lost 62% of its dairy animals during that period and East Amwell lost 49%.

The numbers continued to decline between 2000 and 2005 but the rate has slowed. The one large dairy farm in the Township accounts for most of the dairy animals remaining.

In 2005, East Amwell had 14% of the dairy animals in Hunterdon County. As the overall dairy animals in the County declined, East Amwell has increased its percentage of all animals in the County from 9% in 1990 to 14% in 2005.

The number of sheep in the County has declined from 5,457 head in 1990 to 3,595 head in 2005. East Amwell had 318 head in 1990 and 244 in 2005. However, East Amwell continues to have a consistent 6% to 7% of all sheep in the County over that time period.

It is interesting to note the trend in grape production. Hunterdon County production dropped from 120 acres of production in 2000 to 73 acres in 2005. East Amwell acres in grape production doubled in this period from 25 acres in 1990 to 50 acres in 2005. East Amwell increased its percentage share of County grape acres from 21% in 1990 to 68% in 2005.

Wheat Production

Acreage planted to wheat by farmers in Hunterdon County and East Amwell Township showed a decline in the number of acres planted between 1990 and 2005. The County experienced a 55% decline in wheat acres planted in this fifteen year period. The Township experienced a 34% decline in wheat acres planted during the same period. Even though the number of acres planted in the Township has declined, East Amwell farmers planted 12% of the wheat acres in Hunterdon County in 2005.

Members of the Agricultural Advisory Committee report that the nearest market for wheat is in Lancaster County, Pennsylvania. The price is set there and farmers experience long waits in line to unload their trucks. This may provide at least a partial explanation for the decline in wheat production.

Soybean Production

Table II-1 shows a general reduction in soybean acreage planted by farmers in the County between 1990 to 2005. The most dramatic decline occurred between 1990 and 2000 when soybean acres planted dropped from 7,645 to 5,129 acres or about 35%. The Township experienced a less dramatic drop in soybean acres planted by farmers. The decline in the fifteen years between 1990 and 2005 was 13%. East Amwell farmers planted 14% of soybeans acres in the County in 2005..

Hay Production

Table II-1 shows interesting trends in hay production. Farmers in the County and the Township have decreased the number of acres planted to alfalfa in the 15 year period shown. However acres planted by farmers in the Township show a more dramatic decline. The number of County alfalfa acres planted declined by 16% while production in the Township dropped by 40%. This drop is partially explained by the reduced number of dairy animals and the demand for alfalfa hay for dairy feed.

The acreage in all hay production has remained remarkably constant in the County throughout this fifteen year period. Farmers planted 29,368 acres to all hay types in 1990 and 29,504 acres were planted in 2005. East Amwell farmers have decreased their hay acres. They planted 2,371 acres to all hay in 1990 and 1,775 in 2005. This represents a 25% decrease in all hay acreage.

In 2008 and 2009, Rutgers Cooperative Extension agents and various farmers in the county report a mite is now found with increasing frequency in timothy hay. An aggressive spraying program is required and the cost for this may see a shift to other types of hay production in the future.

Members of the Agricultural Advisory Committee verified these trends in East Amwell. They cite less acreage in grain crops. They believe the cost of equipment and lack of close markets as the major reasons for this. The AAC believes that hay production has declined more slowly because a strong local market exists for sales to owners of horses and other livestock. They also note the increase in roadside sales of fresh vegetables. The Perehinys Family operates a large farm market. The market is located on Highway 31/202 in Ringoes, NJ. The family has converted grain acreage to sweet corn, squash, green peppers, melons and peaches for sale in the market.

The number of County acres in government programs has declined significantly between 1990 and 2005. 7,195 acres were enrolled by County landowners in 1990 and only 2,925 acres enrolled in 2005. This is a 60% reduction in acreage enrolled in various government programs. The most rapid decline was reported in the ten years between 1990 and 2000. This could be explained by development in various townships in the County during that period. East Amwell shows very little change in the number of acres enrolled in government programs in this same 15 year period. While the acres have not had marked change, the percentage these acres represent of the County total has increased from 10% in 1990 to 25% in 2005.

Value of Agricultural Production Table II-2

Table II-2 illustrates the value of agriculture production for hay, corn, soybeans and wheat in the years 2000 and 2005 in East Amwell Township.

It was surprising to see that yield declined slightly in all the crops shown. The decline in corn for grain yields was very slight from 134 bushels/acre in 2000 to 133 bushels/acre in 2005.

The value of agricultural production for the traditional field crops was \$832,437 in 2000 and \$815,386 in 2005.

Other Agricultural Related Industries

East Amwell possesses a minimal amount of agriculture related industries, since its greatest and most abundant feature is farmland. However, with the growing developments of surrounding areas, Landscape materials businesses have blossomed along the main travel routes. Rutgers Landscape and Sweet Valley Nursery are both located on RT 202. Both sell a variety of shrubs, annuals, perennials and trees. They also sell a variety of landscape materials such as stone,

pavers and seasonal needs such as bulk mulch. Rutgers Landscape will also provide landscape services.

Sweet Valley also sells seasonal vegetables grown on their farm. They developed a variety of sweet corn that is popular. They sell their own peaches and many other vegetables during the summer months.

The equine business has grown substantially, benefitting from the hay grown by the local farmers. The equine business includes breeding, boarding, shows, lessons and training. There are several indoor arenas in the township used for lessons and shows.

A new horse enterprise was recently added to a farm that is on the border between Somerset and Hunterdon Counties. This farm trains western cutting horses and holds shows to demonstrate how these horses are used in the cattle industry. These horses are trained to work cattle and require both a well trained horse and a skilled rider.

Rutgers Cooperative Extension located in Flemington provides various training programs to support the growing equine industry. They recently provided a short course for barn managers and various seminars on hay production are held annually.

East Amwell also boasts two fine vineyards that attract a large number of tourists and wine aficionados.

Support Services

Members of the Agricultural Advisory Committee report that support services are available to farmers in the Township. The Country Mechanic, D&R Equipment and Pennington Sales are within 10 miles of the village of Ringoes. These business sell and service farm machinery and equipment. They also sell parts. At times farmers work through equipment dealers in Pennsylvania for various parts not available locally. Most of the machinery dealers in Pennsylvania use overnight delivery for parts.. This service still requires an overnight delay and work is halted until the part is received and repairs are completed. A visit to these dealers for new machinery purchases or for on site parts purchases requires a drive of about one hour to the Allentown, Pennsylvania area and over two hours to Lancaster County, Pennsylvania. Crop inputs such as seed and fertilizer are available through Rosedale Mills, Sergeantville Grain and Feed and Gro-Mark, all within a 10 mile drive. Seeds are generally purchased locally from individual farmers. These farmers work as representatives of various seed companies. This seed sale business is generally done on a part-time basis in addition to the regular farming operation.

A well-known and well-equipped equine medical facility known as Mid-Atlantic Equine Hospital is located within the township boundaries and provides valuable and immediate care to the horses in this and surrounding townships. The University of Pennsylvania (UPenn) Veterinarian Hospital recently had a salmonella outbreak at their facility. They needed to move the healthy horses at their facility to protect them from the salmonella infection. The University asked the Mid-Atlantic Equine Hospital to house and care for these horses. The East Amwell

Township Committee granted permission for Mid-Atlantic Equine Hospital to erect temporary housing at their facility to accommodate the horses from the University of Pennsylvania.

The Agricultural Advisory Committee has learned about the Green Pages resource provided by the Salem County website. This is a very complete listing of services within the region. It includes listings for services from fencing to sheep shearers to places to purchase organic feeds. The listing also includes financial services such as banking and crop insurance sources. The Agricultural Advisory Committee reports that farmers prefer to work with local businesses but they regularly purchase equipment, parts and other needs from regional dealers. They report that it is very convenient for them when the regional providers have local delivery and local representatives.

With the growing interest in alternative forms of energy, and the desire to conserve both resources and finances, a solar energy system company, situated locally, has introduced many of the equine facilities, farm production businesses and residences to its products and enhanced those capabilities for conservation.

Financial support services are available through the Farm Credit East association office located in Lebanon, NJ. Members of the Agricultural Advisory Committee report they have used various services including recordkeeping, tax preparation, estate planning, choice of business entity and other topics. These services are discussed in greater detail in Chapter 8.

There are no processing facilities in East Amwell Township but the Green Pages list several facilities within the region. Local farmers report using regional processors for freezer beef, lambs and other livestock.

Agricultural Production by Commodity
East Amwell Township and Hunterdon County
Table II-1

COMMODITY	2005 Acres			2000 Acres			1990 Acres		
	E.Amwell	Hunterdon	% EA/HC	E.Amwell	Hunterdon	% EA/HC	E.Amwell	Hunterdon	% EA/HC
Corn for Grain	658	5,623	12%	915	7,197	13%	1,494	11,880	13%
Corn Silage	14	940	1%	123	1,918	6%	165	2,774	6%
Hay: Alfalfa	309	4,924	6%	357	5,346	7%	517	5,880	9%
Hay: Other	1,466	24,580	6%	1,593	25,047	6%	1,854	23,488	8%
Soybeans	688	4,947	14%	705	5,129	14%	784	7,645	10%
Wheat	280	2,347	12%	347	5,268	7%	427	4,262	10%
Grapes	50	73	68%	48	128	38%	25	120	21%
Sweet Corn	22	293	8%	98	368	27%	46	384	12%
Pumpkins	21	333	6%	58	325	18%	43	251	17%
Trees/Shrubs	102	1,807	6%	83	1,592	5%	59	1,774	3%
Total Nursery	186	4,110	5%	140	3,798	4%	113	3,958	3%
	2005 Head			2000 Head			1990 Head		
LIVESTOCK	E. Amwell	Hunterdon	% EA/HC	E. Amwell	Hunterdon	% EA/HC	E. Amwell	Hunterdon	% EA/HC
Dairy Animals (HD)***	216	1,520	14%	242	2,069	12%	471	5,433	9%
Beef Cattle (HD)	177	3,676	5%	219	4,141	5%	454	3,667	12%
Equine (HD)	554	4,062	14%	424	3,774	11%	464	3,192	15%
Sheep (HD)	244	3,595	7%	250	4,212	6%	318	5,457	6%
OTHER INFORMATION	E. Amwell	Hunterdon	% EA/HC	E. Amwell	Hunterdon	% EA/HC	E. Amwell	Hunterdon	% EA/HC
Fuel/Wood (Cords)	169	4,908	3%	169	3,855	4%	240	8,194	3%
Timber (Board Feet)	36,617	762,041	5%	107,681	854,416	13%	519,879	1,435,410	36%
Gov't Program (Acres)	725	2,925	25%	636	3,708	17%	716	7,195	10%

**East Amwell Township
Value of Agricultural Production
Table II-2**

	Tax Year 2005	Average	Season	Total	Tax Year 2000	Average	Season	Total
CROP	Acres Planted	Yield	average	Value	Acres Planted	Yield	average	Value
	East Amwell	Hunterdon Cty	NJ Price		East Amwell	Hunterdon Cty	NJ Price	
Corn for Grain	950	133 bushels/acre	2.12	\$267,862	915	134/bushels/acre	1.97	\$241,542
Hay: Alfalfa	289	2.5 tons/acre	150	\$108,375	357	2.8 tons/acre	121.00	\$120,952
Hay: Other	1608	1.6 tons/acre	115	\$295,872	1593	1.9 tons/acre	100.00	\$302,670
Soybeans	575	34 bushels/acre	5.65	\$110,458	705	41/bushels/acre	4.35	\$125,737
Wheat	198	51/bushels/acre	3.25	\$32,819	347	57 bushels/acre	2.10	\$41,536
				\$815,386				\$832,437

Value and yields taken from FA-1 Farmland Assessment form from the NJ Division of Taxation

CHAPTER III.

LAND USE PLANNING CONTEXT

Introduction

Section III is sourced from East Amwell's Master Plan elements as prepared by Banisch Associates.

East Amwell consists of a rich mosaic of land cover types, from the fertile farmland of the Amwell Valley and the historic settlements of Ringoes Village and the rural hamlets that dot the countryside to the largest remaining contiguous forest in Central New Jersey that covers the Sourland Mountain. The Township's land use planning is designed to retain the best qualities of the community, and address the needs of Township residents.

East Amwell's Master Plan is a product of a continuing planning program, and contains a compilation of Master Plan elements adopted at various points in time. Comprehensive township-wide goals were adopted in 2004 so that the Township's current priorities would be included in the latest cross-acceptance dialogue with the county and the state. The Township currently is awaiting a response from Hunterdon County on its submission in the second cross-acceptance process.

Since the adoption of the 1993 comprehensive Master Plan, the land use plan has been reconsidered and substantially altered. A comprehensive new land use plan for the Amwell Valley Agricultural District (AVAD) was adopted in 1998 as the previous plan was determined to be inadequate to retain farmland and the industry of farming. The new plan includes a variety of strategies targeted at permitting limited residential development consistent with East Amwell's farmland retention goals. The Amwell Valley zoning was the subject of a legal challenge that was resolved in the Township's favor at Trial Court level in 2002. In September 2005, the AVAD zoning was upheld by New Jersey's Appellate Division. The case was submitted to the New Jersey Supreme Court on appeal and their decision not to review the case affirms the Appellate Court decision and the zoning which had been challenged.

Natural resource conservation has also been a guiding principle in planning for the Sourland Mountain, where the fragile ecological balance requires careful attention to the types and intensities of permitted land uses. The Planning Board commissioned a Groundwater Resource Evaluation (August 2002) that analyzed safe sustainable well yields and aided the update of the Land Use Plan for the Sourland Mountain District.

State Development & Redevelopment Plan Planning Areas and Endorsed Plans

Map III-A: State Plan Planning Areas

Table III-1: Acreage amounts in Planning Areas

Table III-2: Land Use/Land Cover Change 1986-2002.

The New Jersey State Plan has designated planning areas for all of Hunterdon County in accordance with the NJ State Planning Act. The purpose of the Plan is to establish statewide planning objectives regarding land use and related planning issues.

According to the plan, growth should occur primarily in the state's urban and suburban areas and designated centers where infrastructure exists or is planned in order to accommodate more intensive growth. The plan acknowledges that rural areas will invariably grow; however it recommends in these areas growth in the form of Centers.

Centers are defined as compact, mixed use communities that incorporate a variety of transportation modes including pedestrian and bicycle travel. Centers also house a variety of land uses and architectural styles. Centers range in size and composition from large urban centers to towns, villages and hamlets. Centers are higher density land uses and require some sewer treatment system. Hunterdon County has numerous places that qualify as centers however, only those centers that have received official recognition by the Office of Smart Growth receive benefits. Benefits include prioritization for certain grants, assistance from state agencies for various project or expedited permits for select infrastructure needs. Flemington Borough was designated as a Town Center in 2001.

Here is a brief outline of the various Planning Areas:

PA-1 Urban Planning Area

These are densely populated urban areas associated with a high degree of development. Hunterdon County has NO PA-1 areas.

PA-2 Suburban Planning Area

These are located adjacent to densely developed urban areas, and have a more dispersed and fragmented pattern of low-density automobile oriented development. Infrastructure including water, sewer and transportation are already in place or planned for these areas. Municipalities are urged to guide future development to these areas to minimize development in the more rural areas known as PA-3, PA-4 and 4B and PA-5.

PA-3 Fringe Planning Area

These areas are adjacent to the PA-2 area with scattered development and generally lacking major infrastructure. These areas are seen as a buffer between the PA-2 and the rural or environmentally sensitive planning areas.

PA-4 Rural Planning Area

This area has large areas of undeveloped land including farmland and woodland. There is scattered development on rural roads generally with wells and septic systems. Future growth in this area should be accommodated in centers to avoid impacts to environmental and agricultural resources.

PA-4B Rural/Environmentally Sensitive Planning Area

This area shares traits and planning policies appropriate to the PA-4 and PA-5 designation. Just as in the PA-4 areas, future growth for the PA-4B areas should be accommodated in centers to

avoid impacts to environmental and agricultural resources. New growth in this area should ensure that natural resources are protected.

PA-5 Environmentally Sensitive Planning Area

This area has large areas of valuable ecosystems and wildlife habitats. Future growth in this area should be accommodated in centers to avoid impacts to environmental and agricultural resources.

PA-6 and PA-8

PA-6 areas are municipal and county owned parks. PA-8 areas are state owned parks.

PA-11 areas are bodies of water.

The table numbered as III-1 at the end of this chapter shows the number of Active Agriculture Acres in the County by planning area.

The table reveals that the largest number of agriculture acres in the County (51%) is in the PA-4B Rural/Environmentally Sensitive Planning Area. Thirty percent of the agriculture acres in the County are in the PA-4 Rural Planning Area. When these two areas are combined, they contain about 82% of all the Active Agriculture Acres in the County. When the PA-5 Environmentally Sensitive Area is added to the other areas, 92% of all agriculture acres are included.

The State Development and Redevelopment Plan (SDRP) of 2001 designated most of East Amwell's Valley Agricultural District within the Rural Planning Area (PA-4) as over 61% of the Township is classified in this area. There is a small portion (22%) in the Rural/Environmentally Sensitive Planning Area (PA-4B) and 17% in the Environmentally Sensitive Planning Area (PA-5). These Planning Areas are intended to promote continued farming, the retention of large contiguous tracts of farmland and other open lands and protection of sensitive natural resources. The intent of the SDRP is also to prevent suburban sprawl and preserve the desirable visual character of the scenic countryside.

The SDRP recognizes that sprawl degrades the rural countryside and diverts economic resources essential to beneficial redevelopment of New Jersey's cities and older suburbs. SDRP strategies are intended to redirect the development pressures for sprawl into appropriate growth areas.

The Amwell Valley Agricultural District (AVAD) was fashioned in response to East Amwell's formal submission of its 1993 Master Plan to the State Planning Commission (SPC) for a Consistency Review, wherein the SPC recommended that East Amwell "... promote additional mechanisms to ensure that large contiguous tracts are preserved from development..." through such techniques as lot size averaging, lot suitability standards and lower residential density.

Special Resource Areas

East Amwell is one of 7 municipalities in the Sourland Mountain Region supporting a resolution of the Sourland Planning Council's application to the State Planning Commission for the

Sourland Mountain District to be designated as a Special Resource Area (SRA). Banisch Associates, Planners for the Township estimate there are 612 active agriculture acres in the Sourland Mountain District of East Amwell Township.

Special Resource Areas are large contiguous lands that contain unique characteristics or resources of statewide importance which are essential to the sustained well being and function of its own region and other regions or systems--environmental, economic and social--and to the quality of life for future generations.

The Map labeled as III-B shows the Sourland Mountain District to include these seven municipalities:

Lambertville City
West Amwell Township
East Amwell Township
Hopewell Township
Hopewell Borough
Hillsborough Township
Montgomery Township

The SRA was accepted by each of the three counties (Hunterdon, Somerset and Mercer) and included in the cross-acceptance process. The Sourland Planning Council formally sent its application to the State Planning Commission and received approval. The Sourland Region is now included as a Special Resource Area.

The natural resources of the Sourland Mountain are of regional and State-wide significance and represent an important part of East Amwell Township's rural and community character. The convergence of critical features, including wetlands, large contiguous forests, limiting geology, characterized by low rates of recharge for bedrock aquifers and low yielding wells, and critical habitat for threatened and endangered species, points to the need for land use policies and regulations that promote sustainability and resource preservation. Critical public health and welfare concerns include protecting an adequate water supply and preventing contamination of drinking water by improperly treated septic effluent.

In 1990 the East Amwell Township Board of Health enacted new standards and testing procedures related to wells, which included reporting on a number of critical factors that are relevant to water supply. The new regulations increased the consistency of the reporting process and the data derived, which has now provided approximately 17 years of data.

Concerns regarding water supply prompted East Amwell to engage a hydro-geologist in 2002 to study well records and other data. This study, "Groundwater Resource Evaluation-Sourland Mountain and Stony Brook Districts of East Amwell Township" prepared by Demicco and Associates, Inc. (August 2002), was used to formulate planning policies and zoning strategies to protect safe sustainable well yields. (A copy of this study is available on request). The findings of this analysis formed part of the basis for increasing minimum lot area requirements in the Sourland Mountain District, where the minimum lot area is 15 acres/unit.

This district is intended to recognize the general environmental frailty of the Sourland Mountain with its generally rugged terrain, rocky soils, and limited access. Encompassing lands with an elevation between 240 feet and 540 feet above mean sea level, the Sourland Mountain District is underlain with hard rock formations having very limited water-bearing potential. Tributary streams originating in the Sourland Mountain District are headwaters to the Stony Brook, Back Brook and the Neshanic River. Wetlands on the ridge and significant areas of Palustrine wetlands on slope areas are watershed feeders. Steep slopes and high erosion potential are additional severe development constraints unique to the slopes adjacent to the ridge. Due to the natural limitations of this district and a desire to promote a sustainable human and wildlife habit, minimum design standards and criteria are intended to protect natural and cultural resources and preserve the rural character of the Sourland Mountain.

The regulations applicable to the Sourland Mountain District are also intended to promote the intent of the State Development and Redevelopment Plan for the Environmentally Sensitive Planning Areas (PA-4B and PA-5), which dominate the Sourland Mountain District. These include:

- Protecting critical natural resources
- Balancing ecological systems and beneficial growth
- Relating the character of development to the capacity of natural systems on a sustainable resource basis
- Maintaining large contiguous areas of undisturbed habitat to protect natural resources.

Municipal Master Plan and Development Regulations

Land Use Plan

East Amwell's Land Use Plan, adopted November 30, 2005 (Amwell Valley Agricultural District amended 1998 and Sourland Mountain and Stony Brook District amended 2002) is designed to implement the goals, objectives, principles and assumptions of the master plan in a manner that respects and responds to the capabilities and limitations of the natural conditions – groundwater quantity and quality, surface water resources, agricultural use opportunities, soils, steep slopes, woodlands, wetlands and flood prone areas. The Land Use Plan also seeks to carefully manage growth and change to retain productive farmland and the industry of farming in the Amwell Valley Agricultural District, while also protecting the fragile ecology of the Sourland Mountain.

The Land Use Plan Element represents a municipality's basic statement about the future disposition of land and the physical form of the community.

Sustainable development, a key objective of smart growth planning efforts, seeks to manage resource utilization in ways that will provide effectively for the needs of future generations, maintain ecological integrity and conserve limited resources. Land use and management decisions made today will determine whether we squander these riches through ill-conceived development and exploitation, or choose to be worthy stewards of the land and water, preserving what is best about the Township, and its critical resources, for future generations.

East Amwell's continuing planning process has seen refinements in the statement of goals and the selection of strategies that can better effectuate East Amwell's land use objectives.

Most of East Amwell is situated within the Amwell Valley Agricultural District and the Sourland Mountain District, which together comprise almost 18,000 acres. In recent years these districts have been carefully examined, and amendments to the Land Use Plan have been adopted specific to those districts. These plan amendments provide strategies to address the overriding goals of retention of farmland, support for the industry of agriculture in the Amwell Valley, protection of the large contiguous forest on the Sourland Mountain and preservation, protection, and enhancement of the fragile ecology and important environmental resources that pervade the Sourland Mountain District.

The Township is also blessed with compact historic villages and hamlets that reflect the cultural history of this farming community. Protecting the character of these special places requires careful attention to managing change so that new construction respects the scale and styles that contribute to the character of these areas.

Amwell Valley Agricultural District

The Land Use Plan for the Amwell Valley Agricultural District is primarily intended to retain productive farmland for current and future agricultural use, enhance opportunities for farming and promote the industry of agriculture in East Amwell. Retaining large farm parcels, through both permanent preservation and zoning, is key to East Amwell's farmland preservation strategy. Agriculturally-compatible zoning has been implemented, which deters suburbanization and provides protection from rapid change and non-farm interference with farming. In concert with East Amwell's aggressive development rights purchase program, the desirable patterns resulting from the zoning ordinances for the AVA District will preserve the permanent mosaic of viable agriculture in the Amwell Valley.

The AVA District is the result of an evolutionary process, which strengthened the Master Plan's long-standing goals to preserve farmland and promote the industry of agriculture. Over 80% of the Amwell Valley Agricultural District consists of prime farmland or soils of statewide importance, with 2/3 of the district actively farmed and under farmland assessment. The goals of the Municipal Land Use Law, which are specifically directed at preserving agricultural lands and discouraging suburban sprawl, are directly advanced by the AVA District.

The 1998 Land Use Plan amendment, "***Planning for Farming in the Future of East Amwell***" (see copy of this document in Appendix in Support of Chapter III under tab III-A) was designed to promote the industry of agriculture and retain farmland, conserve the community character of East Amwell's agricultural countryside and protect natural resources and environmentally sensitive lands. These are long-standing objectives of East Amwell's Master Plan, which are also recognized goals of the State Development and Redevelopment Plan (SDRP), the statewide planning tool designed to promote and coordinate sound state, regional and local planning.

The 1998 land use amendment establishing the Amwell Valley District provided the performance requirements that are the basis for its current zoning. In addition to the conventional

development option of ten-acre lots, the new zoning included a bonus density provision for maintaining significant open lands and a lot size averaging provision. Both provisions are discussed in detail below under the heading of Description of Innovative Planning Techniques.

The re-zoning of the Amwell Valley Agricultural District was challenged by a group of landowners and in 2003 was upheld by Superior Court Judge Helen Hoens (now a justice on the New Jersey Supreme Court). In September 2005 the Appellate Division upheld the trial court, finding East Amwell to be a “quintessential agricultural community.” The New Jersey Supreme Court twice refused to hear a petition to review the Appellate Court decision.

Residential District

This district includes the area of residential development that adjoins the historic Village of Ringoes. The reliance on wells and on-site septic systems suggests that densities for the cluster design options and mixed housing types previously recommended in the Land Use Plan cannot be readily accommodated.

Since sewer infrastructure does not exist and is not planned for East Amwell, minimum lot area requirements for new development were increased from 40,000 square feet to 1.5 acres for lots receiving final approval after November 30, 2005.

Non-residential Districts

- Local Business District. This district is located in two areas, the Village of Ringoes and at the intersection of Linvale Road and Route 31, to recognize existing commercial development patterns.
- Highway and Office District. This district is situated in two areas, one adjoins the Village of Ringoes along southbound Route 202 and the other is found at the intersection of County Route 518 and State Route 31.
- Larison’s Corner District. This district provides an opportunity for residential and office development along a portion of northbound Route 202 and Old York Road, including adaptive reuse of the existing buildings. Site design will limit the visual impact and enhance the “green belt” around the village of Ringoes.

The Zoning Map presented at the end of Chapter I and labeled as I-A graphically depicts the location of these districts in the Township.

Current Land Use and Trends

In recent decades development has occurred rapidly in Hunterdon County. Improved highways such as Route 78 and Route 287 have provided access to employment centers and the desirable quality of life in Hunterdon has attracted many new residents.

Even with the recent development, Hunterdon County is still considered one of the most rural parts of New Jersey. The 2000 census reports that the County has more population in rural areas than any other county in the State. In 1972 only 4.5% of the County was developed. By 2001

nearly 24% was developed. This growth resulted in the great loss of farmland, woodland and other natural resources.

Land preservation efforts have become more aggressive and by 2006, the County had preserved 31,269 acres of County parkland, open space and preserved farms. Preserved farms account for 20,000 acres or 64% of all County preserved land. It is interesting to note that East Amwell preserved 6,825 acres of land in all categories as of June 2008. East Amwell preserved 4,303 acres of farmland. In each of these categories East Amwell accounts for over 20% of the County total while accounting for less than 7% of its land area. Preserved farmland equal 63% of all preserved land in the Township. This is on a par with County efforts.

Table III-2 at the end of this chapter shows the land use/land cover changes from 1986 to 2002 in East Amwell. Agriculture acres suffered a 12% decline from 9,059 acres in 1986 to 8,001 acres in 2002. In the same period bare land increased 202% from 34 acres in 1986 to 103 acres in 2002.

In December of 2008, the East Amwell Township Planning Board adopted as part of the Housing Plan Element and Fair Share Plan of the Master Plan a demographic study. The study is called *Municipal Demographic and Housing Characteristics and Municipal Employment Projections* and is found in the Appendix in support of Chapter III under tab III-B.

Due to the Township's aggressive Farmland Preservation efforts and the increase in zoning requirements to 10 acres there have been no huge subdivisions such as are seen in Raritan Township. This is evident from the Building Department's report under "Housing Unit Changes". For the period 2000 to 2007, there were 58 housing units gained and 12 lost for a total of just 46 housing units for the seven year period.

Table 23 on Page 28 (tab III-B) in the Housing Characteristic Appendix shows the 58 certificates of occupancy issued by the Township by year issued. This report notes 'the rate (of certificates of occupancy) is expected to remain at a low level and to trend lower during the next several years, as the excess housing inventory of existing dwellings is significant.' The report also projects that East Amwell will have 92 more households in 2020 than it had in the year 2000.

East Amwell has remained largely beyond the suburban expansion that transformed much of central New Jersey over the past several decades. Local land use policies seek to prevent suburban sprawl from altering the farming economy and desirable settlement patterns as well as broad open spaces and farmlands that prevail throughout the Township. As a result, East Amwell has chosen to limit the scale and scope of non-residential development to serve local, not regional needs and to reflect and maintain the desirable agricultural economy and rural character that remains largely intact. Refer to Table 25 on page 29 of the Housing Characteristic Appendix.

Sewer Service Areas / Public Water Supply Service Areas

On-site septic systems and private individual wells are utilized throughout the township. East Amwell has no sewer service areas or public water supply service areas.

Municipal Master Plan and Zoning – Overview

East Amwell’s Master Plan provides a range of strategies to retain farmland and the industry of farming. While it is commonplace for open space and farmland preservation to become focal issues as development impacts change the character of the community, East Amwell has committed substantial municipal resources in aid of farmland preservation. As part of a comprehensive strategy for permanent farmland preservation, the Township has combined the purchase of development rights with zoning rules that conserve agricultural lands for future agricultural use, supplemental techniques and incentives to support the viability of agriculture, and the future of farming in East Amwell.

1. General Lot Size Categories and Distribution throughout East Amwell

The Hunterdon County Planning Department provides the following information on the acreage within East Amwell’s municipal zones:

- small lots: 349.68 (less than 1 acre)
- medium lots: 126.50 ($\geq 1 \leq 5$ acre minimum)
- large lots: 11109.41 ($> 5 \leq 10$ acre minimum)
- very large lots: 6702.33 (> 10 acre minimum)

2. Description of Innovative Planning Techniques

All the innovative planning techniques employed in East Amwell are voluntary rather than mandatory, but the low density zoning regulations in the Amwell Valley Agricultural District tend to make options that afford flexibility and particularly the 50% bonus available under the open lands ratio zoning option attractive to developers.

- a. Cluster Development is defined as a planned development technique based on a density of dwelling unit(s) per acre. The permitted number of dwelling units is then clustered onto one or more portions of the overall tract on reduced lot sizes so that individual segments of the tract have higher densities, provided that together portions of the tract are left in open space or common property so that the gross density limitation of the entire tract is not exceeded.

East Amwell’s experience with clustering indicates that it may be a tool to preserve some open space but it will not preserve large blocks of contiguous acreage for long term agricultural production. The Township’s cluster developments (Harvest Farm, Myers Lane and Carousel Estates) gives evidence to the long term impacts of residential land conversion. (See tax maps labeled as III-C, III-D and III-E at the end of this chapter.) Harvest Farm a 35 lot subdivision of 87 acres on Garboski Road, included four back lots ranging from 12 to 18 acres for anticipated agricultural use. The Myers Lane cluster on an adjoining parcel on

Garboski Road, included a similar 14 acre back lot. Carousel Estates, a 22-unit subdivision located on Van Lieu's Road utilized 50 acres of the original 75.5 acre tract for residential lots and retained 25 acres for a private ownership farmette under the Township's ordinance provisions for lot-size averaging. The 25-acre parcel provides a limited opportunity for continued agriculture when located next to a 22-lot development and clearly represents the elimination of a block of productive farmland in the Township.

The permitted residential density (3 acres) at the time of the development and resulting number of units created this problem. Substantial new residential development is detrimental to agricultural operations.

The lessons derived from the Carousel Estates development contributed to the Township's decision in 1999 to change the basic zoning density in the AVAD from 3 acres to 10 acres and offer the clustering option described below under Open lands ratio zoning which contains provisions to protect the quality of the deed restricted agricultural land.

b. Non-contiguous cluster zoning also known as Simultaneous Development Transfer (SDT) is defined as a zoning option which permits the voluntary transfer of density to noncontiguous parcels using either clusters or lot-size average plans to develop a hamlet or village in the designated overlay zone. Land from which development credits are transferred is deed restricted in perpetuity. This concept of Limited TDR was adopted in 1982 and was targeted to land owners who controlled ownership of both sending and receiving parcels whether through outright ownership or by contract with others. Only limited interest was shown and eventually the option was dropped in the Land Use Management ordinance.

c. Lot-size averaging. In order to encourage and promote flexibility, economy and environmental soundness in layout and design, the Planning Board may approve the varying, within conventional subdivision, of lot areas and dimensions, and yards and setbacks otherwise required by municipal development regulations in such a way that the average lot areas and dimensions, yards and setbacks within the subdivision conform to the conventional norms of the municipal development regulations, provided that such standards shall be appropriate to the type of development permitted.

This option or zoning alternative is provided to promote larger parcels for agricultural uses and to meet the goals stated in the Land Management ordinance to "encourage and promote flexibility, economy and environmental soundness in subdivision layout and design". The minimum residential lot area shall be 1 ½ acres. Maximum dwelling unit density shall be 0.1 unit/acre. Each lot created by the subdivision shall satisfy lot suitability requirements, and shall be deed-restricted against further subdivision. The design of the development utilizing this option shall foster the following objectives: retention of large contiguous farmland areas; stream corridor and wetlands preservation; steep slope protection; overall site design; reduction of impervious coverage; traffic circulation; and the site's natural features, topography and relationship to open lands on neighboring parcels.

This option has continued in use since the 1999 zoning change from density of one unit per three acres to one unit per ten acres. This has led to a variety of lot sizes in relatively small

subdivisions which include parcels suitable for many types of agriculture. In some instances these parcels are suitable for cultivation when in proximity to other cropland. The Planning Board has worked and will continue to work with developers to maximize the agricultural usefulness of the larger parcels, but there are no specific provisions under lot-size averaging to enforce this objective. The only instances since 1999 in which the area of the development has been large enough for the developer to consider clustering around an interior roadway have been the Gordeuk and Fred Rynearson tracts described under Open land ratio zoning below.

d. Transfer of Development Rights is defined as a procedure under which municipalities, by ordinance, could facilitate the transfer of development potential from areas which require special protection (farmland, woodland, floodplain, aquifer recharge area, natural habitats, recreation or parkland, or land which has unique aesthetic, architectural, or historic value) to areas that can absorb increased development without substantial adverse environmental impact. Two or more municipalities would be permitted to provide for a joint program for development transfers. The development transfer ordinance would designate sending zones and receiving zones, and would allow property owners in the receiving zone to sell any development potential attached to their property to a person who could use it in the receiving zone.

The Township has extensively explored opportunities for transfer of development rights. A grant was awarded by the Association of New Jersey Environmental Commissions (ANJEC) to study TDR as a technique to improve consistency with the State Development and Redevelopment Plan. In general, the study found that a voluntary TDR program would not likely be effective in preserving farmland in East Amwell, under the then 3-acre zoning in the Amwell Valley District, due to the extent of permitted development and the limited suitability of the areas studied for receiving districts. In addition, there is no environmentally acceptable waterway within the township to handle the effluent from a treatment plant that would be a necessary service component of a TDR development.

In 1993, the East Amwell Planning Board identified 17 possible sites for community septic facilities after review of mapped constraints. These were further reduced to two after review of factors such as soils, view shed, access to County roads and other factors.

The Hidden Valley drive-in theatre site was identified as a potential receiving site for creating a 'new' village which might accommodate 300-350 units. (Note: the Township had approximately 6,000 acres of undeveloped and unpreserved land in the Valley Zone, at 3 acres per unit, this meant theoretically there were 2,000 development credits needed to be built or transferred somewhere, or retired through farmland preservation). A new village of 350 units would preserve only 1,050 acres of land, if the transfer of credits were a linear relationship of one credit for 3 acres. (Note: a village of 350 units would have a huge impact on the landscape, road capacity and local services since it would be larger than the Village of Ringoes).

The concept of the new village on Frontage Road and Hidden Valley was incorporated into the 1993 Master Plan and Wastewater Management Plan. The next step was to investigate the feasibility of the site. A grant from ANJEC was received in 1994 which funded a study by Applied Wastewater Technology, Inc. This study is called *Feasibility Study for Hidden Valley*

On-Site Groundwater Discharge (appendix tab III-D) and was published in 1996. A summary report by the East Amwell ANJEC committee entitled ***Summary Report by East Amwell ANJEC Committee*** was published in 1997 (appendix tab III-E). The Wastewater Technology report concluded:

“A more realistic volume for irrigation at this site would be 20,000 to 30,000 gallons per day (gpd).” And “Realistically, 20,000 to 30,000 gpd of treated effluent could be accommodated on 30 to 40 acres of land.” Using assumption of 250 gpd per house (although the 1993 waste water management plan used 300 gpd per house), then this site could handle a waste water system for 80-120 units, not 200-300 units. This would mean preserving farmland equivalent to 240-360 acres, not 750 acres.

Furthermore, some members of the focus groups feared a new village would encourage development and overwhelm Ringoes.. Public reaction spawned a round of flyers and mailings opposed to a center designation for Ringoes. This concern focused on an inability to provide the necessary infrastructure for the affordable housing obligation that would likely follow.

The 1997 Final Report to ANJEC concluded:

“A voluntary TDR program could be even more effective in preserving higher ratios of farmland, if an appropriate receiving site or sites could be identified, and if the economic and market feasibility of a TDR program could be demonstrated....Community wastewater systems, essential to tightly clustered neighborhoods (i.e. 1/3 to 1/2 acre lots) might not work in East Amwell Township primarily because of limiting environmental conditions but also because of political considerations and questionable public support...Without introducing community wastewater systems, a reduction in the potential number of houses allowed by gross zoning density will be another means that will assure the long term retention of agriculture and the municipality’s rural character.”

As a result of these findings, the Planning Board rejected this approach of creating one or two larger receiving districts and decided not to pursue it further. Since there were about 6,000 acres of undeveloped and unpreserved farmland, this was a relatively LITTLE amount of farmland to protect for a relatively BIG village.

In summary of policy, the Planning Board sent the following findings in a February 12, 1998 memo to Linda Weber, planner for the Hunterdon County Planning Board, re: Cross Acceptance:

- “We do not have the legislative tools, specifically enabling legislation for TDR to accomplish transfer of development potential from the farmland into a designated receiving site.
- The Economic feasibility of a voluntary TDR program is not likely to appeal to developers as better than conventional sprawl development.
- Even if we did have TDR legislation, the current zoned density and large amount of undeveloped land creates such a vast number of potential units to be transferred away

- Finally, environmental features more than likely preclude our ability to create a center of any meaningful size because the environmental constraints...will limit the size and potential locations of any community waste water processing system.”

In 1999, the Planning Board and East Amwell Township Committee raised the minimum lot size from 3 acres to 10 acres in the Amwell Valley Agricultural District. This was indicated by the futility of trying to find a receiving zone adequate in size and ability to accommodate the vast number of potential units to be transferred. The increase in lot size also helped to create an environment (which maintained values for development rights at the prior 1998 zoning) which resulted in successful negotiations for farmland preservation purchases. (4,341.59 acres as of June, 2009).

One might conclude that with the downzoning resulting in fewer development opportunities to transfer, that the impact of transfer would be substantially reduced. However it must be recognized that the original conditions found to be inadequate continues to be inadequate such as: failure to find a suitable location for wastewater disposal, general reluctance on the part of property owners to be near a receiving district and the general conservatism of farmers who were suspicious of the transfer concept. Consequently, the township moved toward an aggressive farmland preservation program through purchase of development rights and modest clustering options such as lot size averaging, and open lands ratio zoning both of which have yielded minimal results.

e. Open lands ratio zoning. This option or zoning alternative is available only in the Amwell Valley Agricultural District and is intended to promote retention of large farm tracts and the aggregation of smaller farm parcels through the granting of density incentives to those who qualify and submit to requirements. It is also intended to encourage and promote flexibility, economy and environmental soundness in subdivision layout and design. At least 75% of the tract shall be designated as “open lands” and be deed restricted for agricultural use. At least 65% of such designated open lands shall be unconstrained land area and prime soils (SCS Classes I and II) or soils of statewide importance (SCS Class III). Lots qualifying as open lands shall be permitted a primary residence and other appropriate accessory buildings. In return for meeting the open lands requirements, the developer is entitled to a 50% bonus on the number of residences allowed on the remaining 25% of the tract. For tracts of 100 acres or less, the open lands shall be contained in one deed-restricted contiguous parcel; for tracts of larger than 100 acres, the open lands may be composed of noncontiguous parcels, provided that each open lands area shall contain at least 50 contiguous acres.

This option has been used by the developer of the Gordeuk farm on the Rosemont-Ringoes Road. The survey map at the end of this chapter identified as III-F shows Block 2 Lot 5 after the open lands ratio option was used. The lot now identified as Lot 5.10 is the 11 acres to be further subdivided into seven lots. Lot 5 is about 45 acres and was sold by the developer to a farmer. The development was nominated for New Jersey Future’s Smart Growth award.

f. Incentive for Preservation of Larger Tracts. The landowner is permitted to subdivide from the same tract provided that at least 50 acres remains in preservation, no more than two lots, each having a minimum lot area of 1 ½ to 3 acres and having a single-family dwelling as a principal use. The subdivided lots are recognized as severable exceptions, located so as not to impact the agricultural use of the preserved farmland. The agricultural deed restriction must be substantially in the form utilized in the New Jersey Agricultural Retention and Development Program. This option has been used by landowners in a number of recent farmland preservation applications.

3. Description of Buffer Requirements that separate agricultural uses from other land uses

East Amwell's zoning ordinance requires: "Any residential lot created by a subdivision shall have a buffer located on the residential lot along any lot line adjacent to lands that are deed-restricted for agricultural purposes. Such buffer area is restricted to the installation of a board or split-rail fence and maintained by the lot owner just inside the residential lot line, and no new trees can be planted within 25 feet of the lot line."

East Amwell believes that these buffers have given reasonable protection to the Township's farmers. However, the adequacy of buffers depends more on the character of the surrounding neighborhood than on physical barriers or distance requirements. The Township believes that its relatively low population density and the absence of large tract developments within its borders have been critical elements in the maintenance of a farm-friendly environment.

4. Discussion of Development Pressures and Land Value Trends

East Amwell, situated in the southern part of Hunterdon County within easy commuting distance of metropolitan areas and suburban corporate headquarters, faces the growth pressures of the region, and these pressures are even more enhanced when you take into account that East Amwell Township is bisected through its center by a major state highway (Route 202/31) and in close proximity to several others (Routes 206, I95 and PA Rt. 611).

It is obvious that residential development is moving steadily in the direction of East Amwell Township, as communities to the north, east and south of the Township become increasingly developed with subdivisions of residential housing. The shrinking supply of available land for development will cause increased pressure on the extraordinary agricultural lands of East Amwell. For example, in the time period 1990 through 1997, a total of 6,335 residential building permits were issued by the six municipalities that border East Amwell Township, the vast majority being situated in the Townships of Raritan, Hillsborough, Montgomery and Hopewell. Delaware and West Amwell Townships have not, as yet, experienced large-scale development of residential subdivisions. Table 23 is on page 28 of the appendix tab III-B.

The population of East Amwell increased by 2.84% in the ten years from 1990-2000, bringing the 2000 census figure to 4,455 from 1990's 4,332. It is noted in an earlier section of this report that based on Farmland Assessment records, East Amwell in 1980 had 77% of its land base in agriculture while the percentage in 2005 dropped to 63%.

Based on data from the New Jersey Dept of Treasury, Division of Taxation, the *Star-Ledger* in November 2004 listed East Amwell's average home sales price in 2004 as \$403,163 compared to the 2000 year price of \$250,908, an increase of 61.2%. The percent change in 2004 from 2003 was 5.4%.

Table III-3 shows the cost of preservation easements from the start of the program in 1988 through 2008. It is difficult to draw conclusions from this history since it is arranged by date of closing and not by date of appraisal. However, we have found that property appraised at about the same time have consistent values. For example, the chart indicates the price paid per acre for the Cannelongo property in March of 2006 looks high compared to the other closings that year. However, the Cannelongo price is consistent with the price paid for the Wielenta properties because both appraisals were completed in the last half of 2004.

The information in Table III-3 was converted to a graph identified as III-4. Again, it is difficult to draw firm conclusions because the closing date is sometimes three or four years after the appraisals are completed. The graph and Table III-3 verify the easements purchased between 1989 and 2005 were purchased for less than \$10,000/acre with only two exceptions. The Manners farm exceeded \$11,000/acre. The \$14,367/acre for the Cavalier Farm represents a fee not easement purchase.

The chart and graph also shows that certified easement values for the development rights of farmland in applications for the State's preservation programs have been slowly increasing over the past four years. The value of preserved/development restricted farmland also is increasing. Recent auction sales of preserved property in East Amwell have sold for \$10,000 or more per acre. This price was achieved in recent auction sales of the former Kanach property on Route 514 and the former Halstead property on Cider Mill Road.

5. Municipal and Regional TDR Opportunities

Hunterdon County's draft Comprehensive Farmland Preservation Plan (2008) describes TDR as a land use planning tool that shifts development from one location to another; transferring development to areas that a community determines to be an optimal growth area where infrastructure can be provided while simultaneously preserving open space or farmland elsewhere.

New Jersey in 2004 became the first state in the nation to authorize statewide comprehensive TDR enabling legislation. The State TDR Act includes requirements which municipalities must adopt, such as Development Transfer Plan Element, a Capital Improvement Program, a Utility Service Plan Element and an ordinance designating Sending and Receiving zones, as well as prepare a Real Estate Analysis.

TDR has been successfully used in the Pinelands area of New Jersey, and since 2004 municipalities within the Highland Region have the option to send and receive development rights within each of the Highland counties.

It was noted earlier in this report that East Amwell has extensively explored opportunities for transfer of development rights, utilizing an ANJEC grant to study TDR as a technique to improve consistency with the State Development and Redevelopment Plan. TDR requires identification of a growth area where infrastructure can be provided. After considerable research, it was concluded that the Township lacks a water course that can environmentally accept the effluent from such infrastructure.

East Amwell has concluded that its current policy of financing, together with the state and county, the purchase of farmland development rights, financing and supporting open space acquisition with partners such as Delaware and Raritan Greenway with support from the New Jersey Green Acres program, and utilizing Open Land Ratio zoning and large lot zoning in the Amwell Valley and Sourland Mountain are the most effective techniques to complement the East Amwell Land Use Plan and the State Development and Redevelopment Plan designation for East Amwell discussed earlier in this chapter. Increasing development opportunity through any form of Transfer of Development Rights would seem to run counter to this goal.

Regional and inter-municipal TDR programs were not addressed by East Amwell. “**What if**” discussions were instead replaced by “**what is**” and concluded that no treatment capacity is available in East Amwell. There is no likelihood that scarce resources will be invested in a search for other potential receiving districts when the most likely sites were thoroughly reviewed and found wanting. (Hidden Valley site is now the County Fairgrounds and the Frontage Road site was preserved by the Amwell Valley Conservancy).

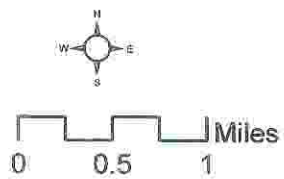
The notion of a transfer concept initiated between towns or region wide presupposes some form of supporting governmental structure which does not seem to be in place. It is questionable that any municipality would willingly accept transfer of development without a strong financial incentive. When coupled with the specter of additional COAH units to be accommodated, this concept appears to be intellectual at best and not competitive to the current system of purchase of development rights.

State Plan Planning Areas

East Amwell Township
Hunterdon County, NJ
May 2006

Legend

- PA4 Rural Planning Area
- PA4B Rural/Environmentally Sensitive Planning A
- PA5 Environmentally Sensitive Planning Area



Data Sources:
Hunterdon County Division of GIS
NJGS

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

Figure 2: Sourland Mountain Study Area

The Sourland Mountain
A Portion of Central New Jersey
November 2008



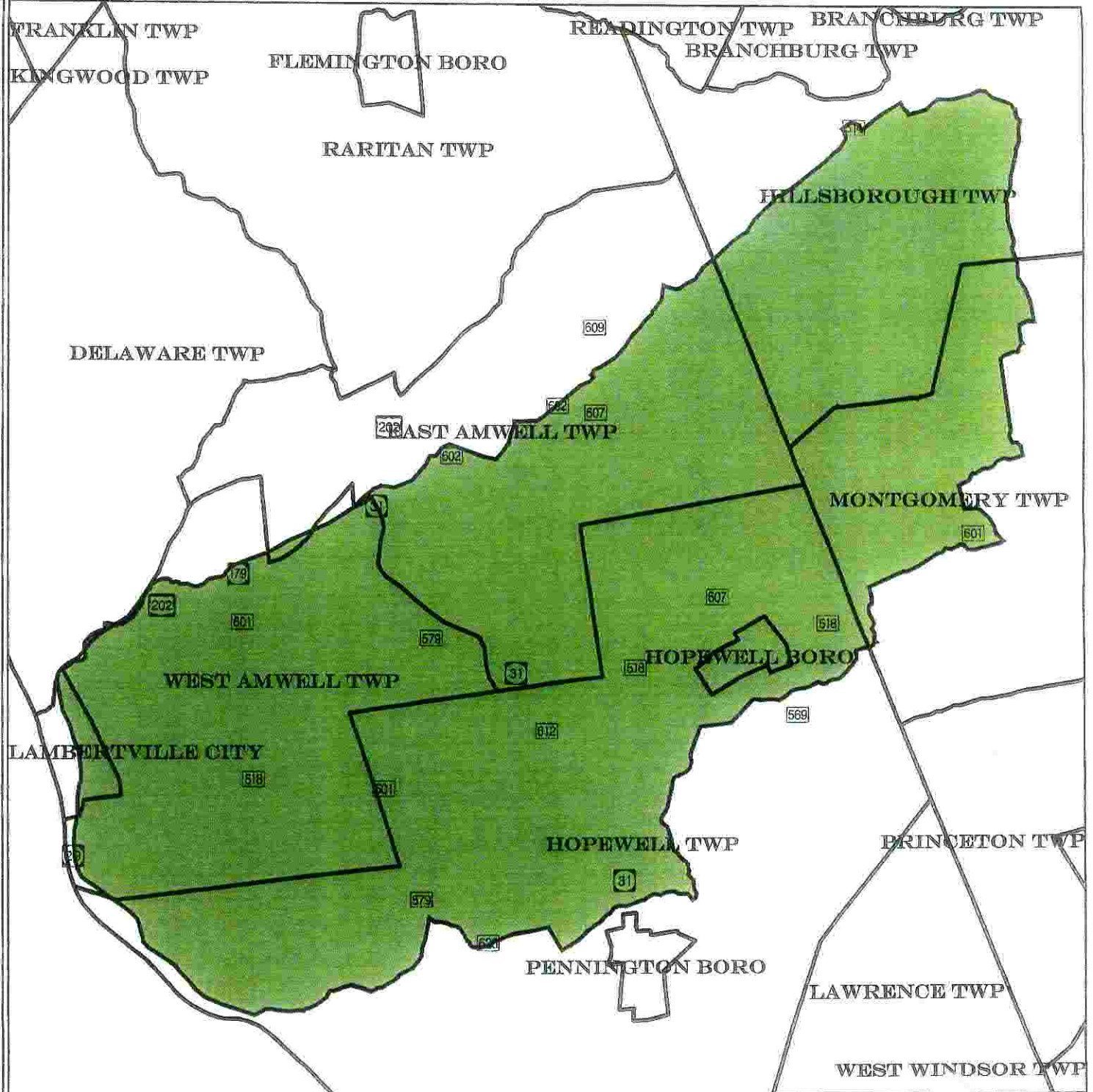
Legend

Study Area Boundary

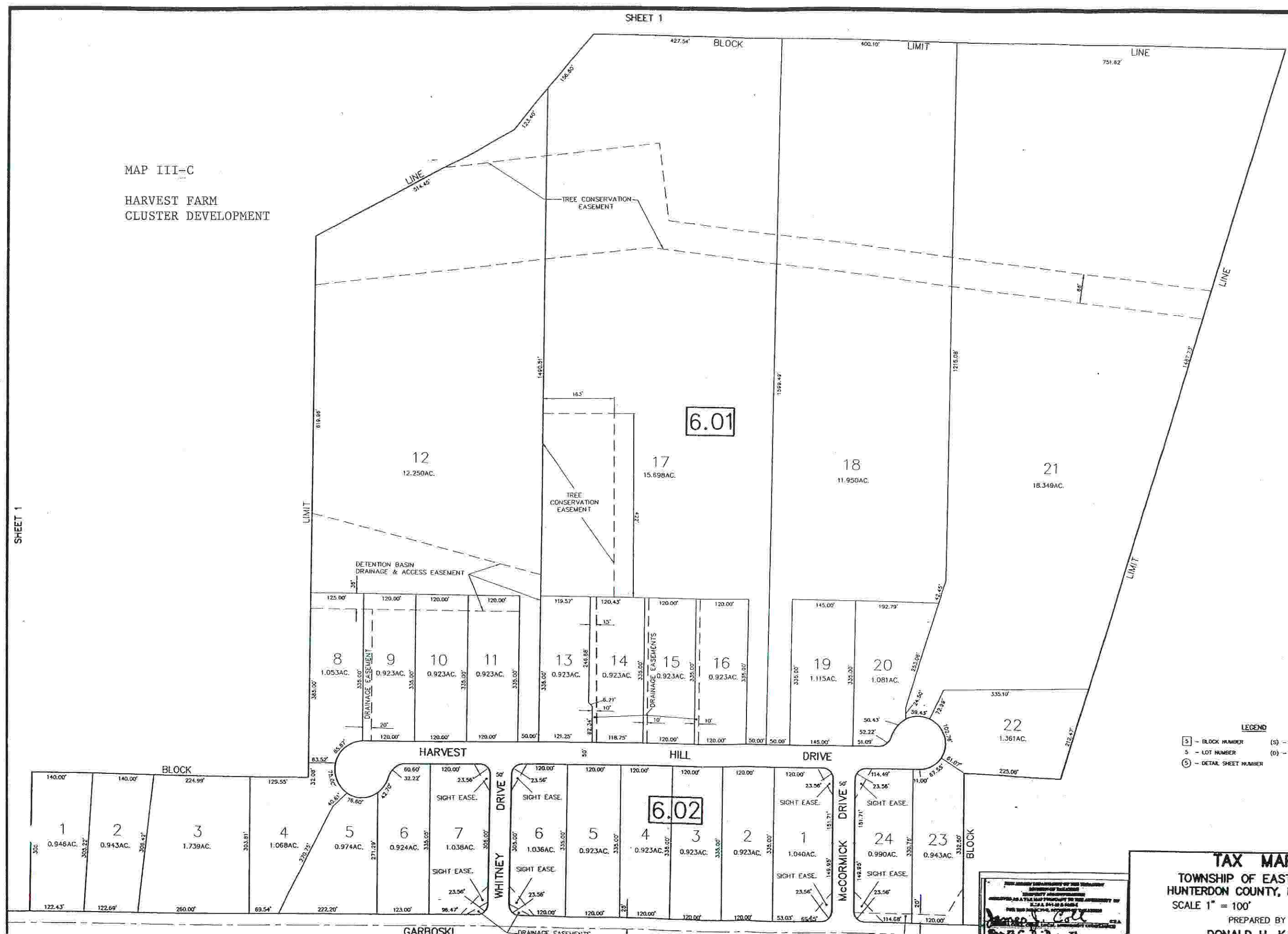
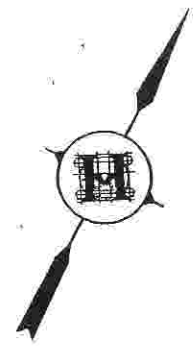
This map was developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been NJDEP verified and is not State-authorized.

Data Source:
NJDEP
New Jersey Office of Smart Growth

BANISCH
ASSOCIATES, INC.
Planning and Design



MAP III-C
HARVEST FARM
CLUSTER DEVELOPMENT



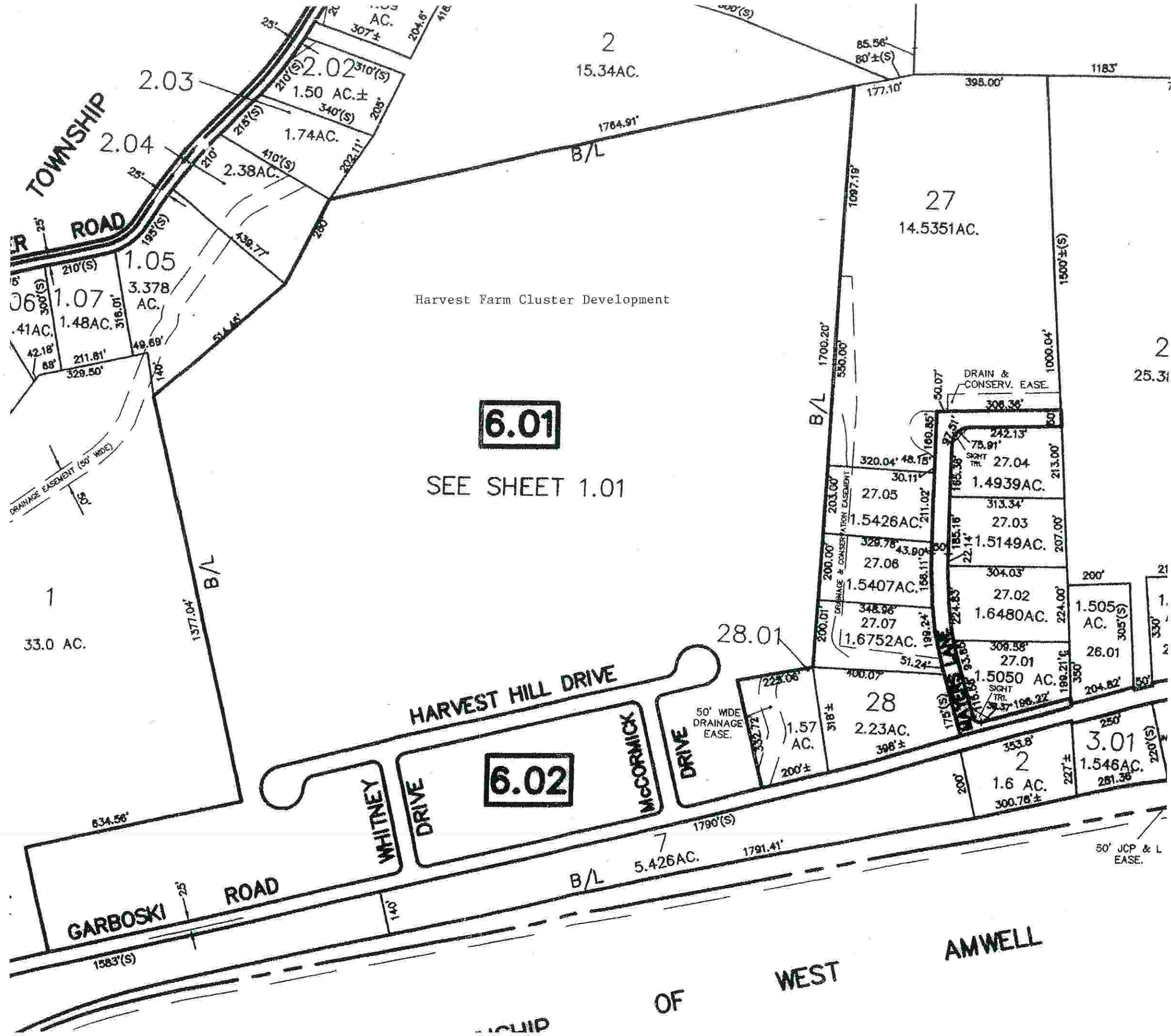
LEGEND
[] - BLOCK NUMBER (S) - SCALED DIMENSION
S - LOT NUMBER (D) - DEED DIMENSION
⊙ - DETAIL SHEET NUMBER

TAX MAP
TOWNSHIP OF EAST AMWELL
HUNTERDON COUNTY, NEW JERSEY
SCALE 1" = 100' MAY, 2004
PREPARED BY
DONALD H. KAMP

James J. Cole
C.S.A.
Professional Land Surveyor

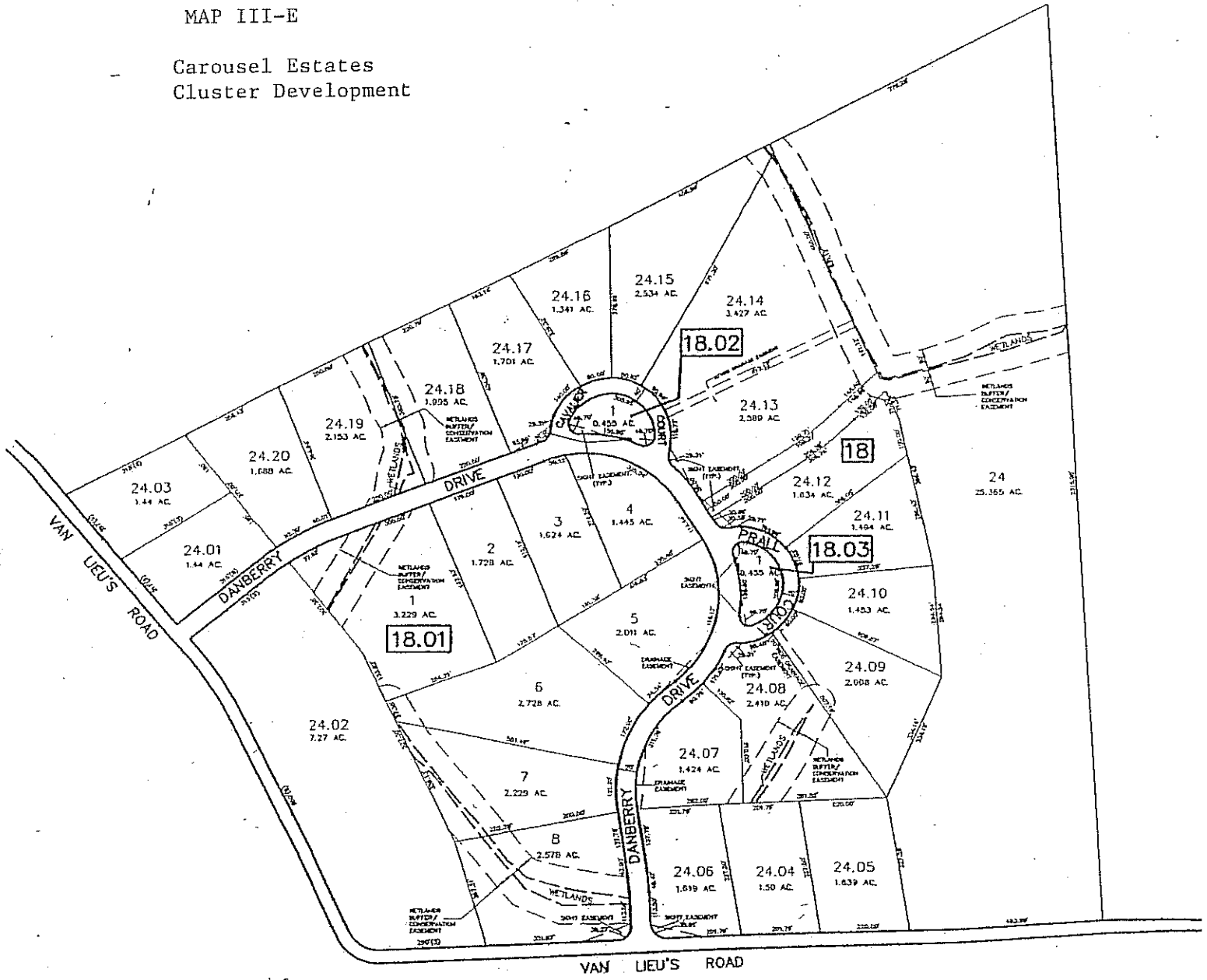
MAP III-D

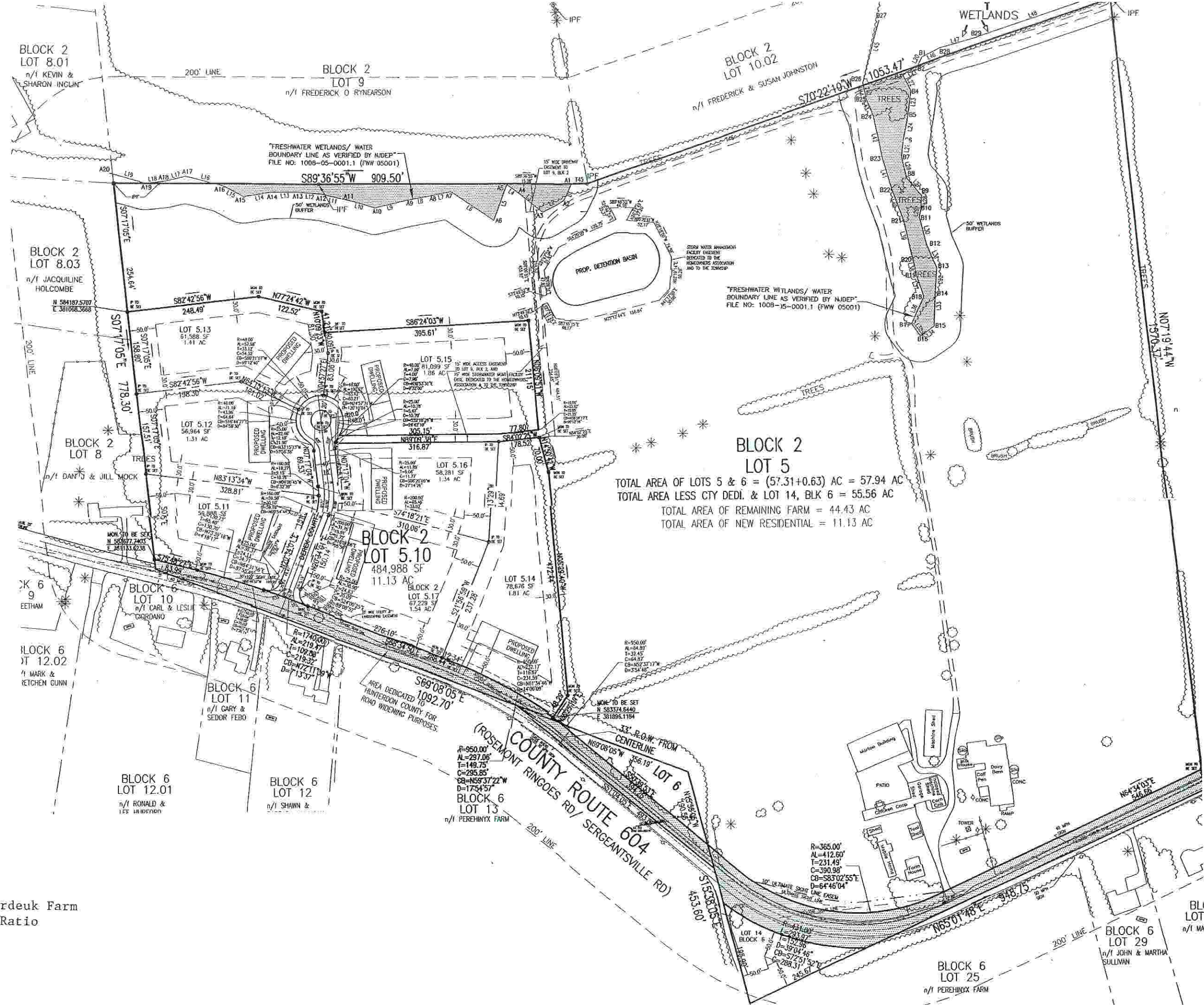
MYERS ROAD
CLUSTER
DEVELOPMENT



MAP III-E

Carousel Estates
Cluster Development





MAP III-F
 Subdivision of Gordeuk Farm
 using Open Lands Ratio

HUNTERDON COUNTY				
Table III-1				
Acreage Amounts in Planning Areas per The State Plan				
Only Planning Areas represented in Hunterdon County are listed in this chart.				
2001 State Plan Planning Area	Total Acreage	Active Ag Acres	Percent of all Acres in this Plan Area	Percent Ag Acres in this Plan Area
PA-2	13,359	2,536	4.79%	3.09%
PA-3	21,704	3,153	7.79%	3.84%
PA-4	54,318	25,296	19.49%	30.81%
PA-4B	118,213	41,947	42.43%	51.10%
PA-5	59,295	8,242	21.28%	10.04%
PA-6	1,564	71	0.56%	0.09%
PA-8	6,626	843	2.38%	1.03%
PA-11	3,551	2	1.27%	0.00%
	278,630	82,090	100.00%	100.00%
EAST AMWELL TOWNSHIP				
Acreage Amounts in Planning Areas per State Plan				
2001 State Plan Planning Area	Total Acreage	Active Ag Acres	Percent of all Acres in this Plan Area	Percent Ag Acres in this Plan Area
PA-4	11,173		61.14%	
PA-4B	3,968		21.72%	
PA-5	3,132		17.14%	
	18,273		100.00%	
Source: Hunterdon County Comprehensive Farmland Preservation Plan				
Dated December 4, 2008				
Mapping by Banisch Associates				

TABLE III-2

2002 Land use/Land Cover for East Amwell Township

Type	Total	%
Agriculture	8,001	44
Forest	4,928	27
Urban	2,701	15
Wetlands	2,460	13
Barren Land	103	1
Water	94	1
TOTAL	18,287	100

*due to rounding

2002 Land Use/Land Cover for East Amwell Proposed Project Area

Type	Total	%
Agriculture	7,281	54
Forest	2,763	20
Urban	1,953	14
Wetlands	1,333	10
Barren Land	103	1
Water	82	1
TOTAL	13,515	100

2002 Land Use/Land Cover Cropland and Pastureland*

Category	Acres of Cropland/Pastureland	Total Area (Acres)	Percentage of Area
Township Wide Cropland and Pasture Land	7,297	18,288	40
Amwell Valley Agricultural District Cropland and Pasture Land	6,201	11,109	56
Township Project Area Cropland and Pasture Land	6,716	13,515	50

*Using GIS calculated acres

Farm Capable Soils for East Amwell Township

Soil	Total Acres	%	Acres in Agricultural Areas (2002 EU/EC cropland and pastureland)	% in Agricultural Areas (2002 EU/EC cropland and pastureland)
Prime Soils	5,639	31	3,322	46
Statewide Important	7,453	41	3,191	44
Total	13,092	72	6,513	90

Land Use/Land Cover Change 1986 to 2002

	1986		1995		2002		Percent Change
	Acres	%	Acres	%	Acres	%	
Agriculture	9,059	50	8,387	46	8,001	44	-12
Barren Land	34	0	11	0	103	0	202
Forest	4,572	25	4,850	27	4,929	27	8
Urban	2,064	11	2,475	14	2,701	15	31
Water	68	0	84	0	94	0	38
Wetlands	2,491	14	2,481	14	2,460	13	-1
TOTAL	18,288	100	18,288	101*	18,288	100	

New Jersey Farmland Preservation Program
STATE, COUNTY and MUNICIPALLY PRESERVED FARMLAND

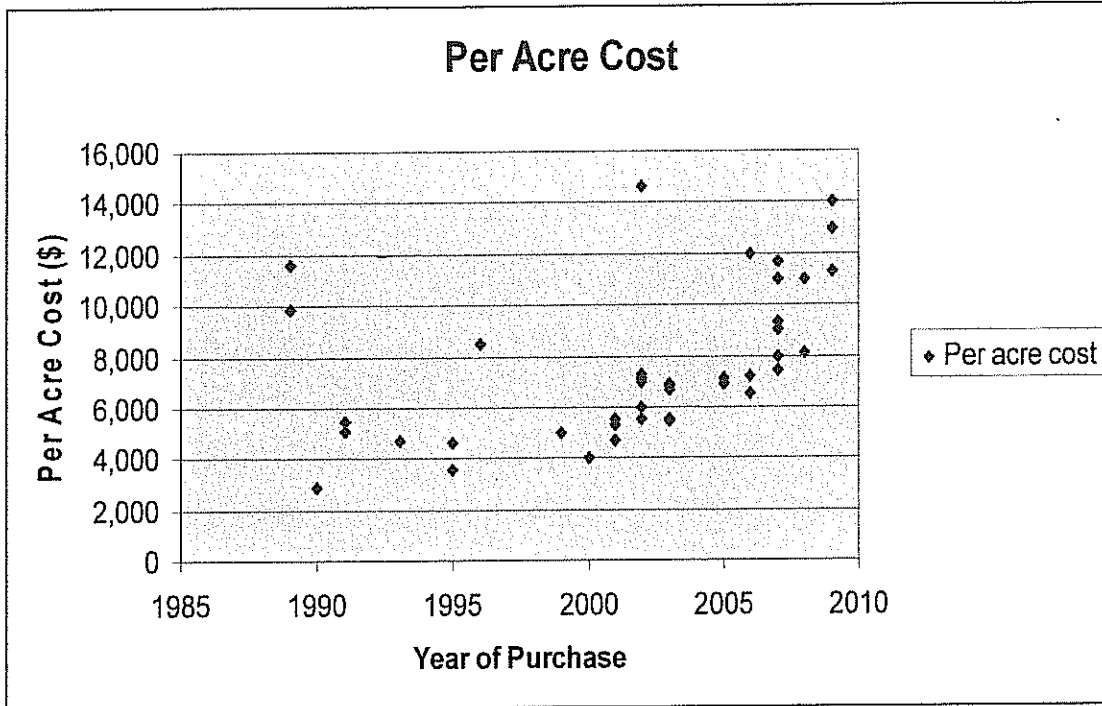
SPREADSHEET SORTED BY DATE OF PURCHASE
FROM EARLIEST TO MOST RECENT

TABLE III-3

County	Municipality	Original Owner	Acres	Block	Lot	Total Cost	State Cost	Per Acre Total Cost	Type of Acquisition	Date of Purchase
Monterdon	East Amwell	Hill, W. & P.	131.4770			1,294,770.00	971,077.50	9,848	City EP	06/23/89
Monterdon	East Amwell	Manners, E.	123.1860			1,426,985.15	1,070,223.86	11,584	City EP	06/23/89
		Totten, R. & E.	136.7200			1,347,200.00	925,906.64	9,854	City EP	10/19/89
Monterdon	East Amwell	Kinderman	57.7290			165,970.88		2,875	City EP	01/05/90
		Thompson (N)	123.5880			677,352.41	440,279.07	5,481	City EP	11/27/91
Monterdon	East Amwell	Thompson (S)	163.6450			834,790.09	542,813.55	5,101	City EP	11/01/91
Monterdon	East Amwell	Gulick, R. & E.	215.4230			1,016,370.63	609,822.38	4,718	City EP	09/22/93
Monterdon	East Amwell	du Fosse	130.9830			602,521.80	358,893.42	4,600	City EP	04/12/95
Monterdon	East Amwell	Weeden, M.	78.8800			279,314.08	151,449.60	3,541	City EP	08/15/95
Monterdon	East Amwell	SADC/Van Marter	147.9860			1,257,881.00	1,257,881.00	8,500	SADC FS	10/31/96
Monterdon	East Amwell	SADC/Rosenborg	46.7800	2	10.05				SADC Don	06/04/97
Monterdon	Delaware	SADC/Rosenborg	0.2600	45	12				SADC Don	06/04/97
Monterdon	East Amwell	SADC/Gardner	56.6890						SADC Don	12/05/97
Monterdon	East Amwell	Inga Denton Estate	104.2230						City Don	08/27/99
Monterdon	East Amwell	East Amwell/Sowsian	148.8093			750,000.00	459,790.98	5,040	City EP	12/30/99
Monterdon	East Amwell	Garrett, R.&D./Mack, J.&L.	65.1310			260,524.00	182,368.80	4,000	City EP	05/19/00
Monterdon	East Amwell	East Amwell/Schwab, F.&M.	145.7360			777,647.30	519,986.05	5,336	City EP	03/23/01
Monterdon	East Amwell	Nemeth, E. & R.	59.6430			281,575.20	192,409.72	4,721	City EP	06/29/01
Monterdon	East Amwell	East Amwell/Battle, M.	75.5360			415,459.00	298,375.10	5,500	City EP	09/28/01
Monterdon	East Amwell	East Amwell/Amwell Valley Co.	337.0250			1,857,955.00	1,161,984.38	5,513	City EP	10/15/01
Monterdon	East Amwell	Crater, S.	41.4410			290,087.00	290,087.00	7,000	SADC EP	04/25/02
Monterdon	East Amwell	East Amwell/Kanach J.	49.2280			342,977.00	194,472.00	6,967	City EP	06/18/02
Monterdon	East Amwell	SADC/Cavaller	105.8970			1,550,000.00	1,539,982.26	14,637	SADC FS	06/20/02
Monterdon	East Amwell	Nielsen, K. & Galloway, P.	87.7680	31	1	623,152.80	390,567.60	7,100	City EP	07/09/02
Monterdon	East Amwell	Russell, N. & V.	95.3170	27; 31	47; 3	692,238.07	431,756.73	7,262	City EP	07/24/02
Monterdon	East Amwell	East Amwell/Engel, T. & E.	49.6520			353,014.00	193,596.00	7,110	City EP	09/26/02
Monterdon	East Amwell	East Amwell/McLarty	90.4000			502,590.00	348,040.00	5,560	City EP	12/11/02
Monterdon	East Amwell	East Amwell/Mencheck	51.0340			303,868.00	199,032.60	5,954	City EP	12/12/02
Monterdon	East Amwell	East Amwell/Halstead, R & D	108.5800	20	17.07, 18	746,000.40	470,304.60	6,808	PIG	05/07/03
Monterdon	East Amwell	East Amwell/Furst	62.2320	20	6	427,598.00	267,095.39	6,871	PIG	08/09/03
Monterdon	East Amwell	East Amwell/Harrison	58.7490	20	24	406,264.00	253,166.50	6,915	PIG	08/19/03
Monterdon	East Amwell	East Amwell/Hill	48.0790	21	19	264,000.00	175,488.35	5,491	PIG	06/19/03
Monterdon	East Amwell	East Amwell/Kanach J.	70.8310	18	18	474,245.00	299,191.36	6,695	PIG	11/17/03
Monterdon	East Amwell	East Amwell/Scibilia, P. & D.	40.1030			220,803.00		5,506	PIG	11/17/03
Monterdon	East Amwell	We Beginnings Farm, LLC	62.9220			449,892.30	449,892.30	7,150	SADC EP	06/10/05
Monterdon	East Amwell	NJCF/Baron	163.2310			1,126,293.90	1,126,293.90	6,900	SADC EP	09/28/05
Monterdon	East Amwell	Cannelongo, K.	25.2690	27	33.01	303,228.00	181,936.80	12,000	PIG	03/31/06
Monterdon	East Amwell	Hensler, S.	123.3860	25	12	802,009.00	512,051.90	6,500	City EP	07/06/06
Monterdon	East Amwell	Hun Cty/Kanach	133.4670	18	22	980,962.40	483,410.00	7,200	City EP	12/08/06
Monterdon	East Amwell	Peabody, R. & K./Manners B.	46.0490	24	11	368,392.00	221,035.20	8,000	City EP	03/09/07
Monterdon	East Amwell	Colonial Sportsmen Club, Inc.	92.3730	41	25.02	686,797.50	686,797.50	7,435	SADC EP	03/15/07
Monterdon	East Amwell	East Amwell/Rieter	19.0450	16.01	31.05	177,118.05	102,843.00	9,300	SADC EP	05/24/07
Monterdon	East Amwell	East Amwell/Rieter	52.0250	16.01	31	483,832.50	416,200.00	9,300	SADC EP	05/24/07
Monterdon	East Amwell	Wielanta North	23.1050	25	11	270,328.50	162,197.10	11,700	PIG	07/26/07
Monterdon	East Amwell	Wielanta South	73.3770	32	5	807,147.00	484,288.20	11,000	PIG	07/26/07
Monterdon	East Amwell	Torsilleri, D. & C.	19.0000	21	15	171,000.00	102,600.00	9,000	PIG	12/17/07
Monterdon	East Amwell	Isabella, G. & P.	31.3680	25	3	254,080.80	155,271.60	8,100	PIG	01/11/08
Monterdon	East Amwell	Kanach, J. & W. & Thomas, S	35.8000	21	12	394,900.00	236,940.00	11,000	PIG	09/05/08
	Total		4,210.26			27,699,115.76	19,497,577.94			

New Jersey Farmland Preservation Program
STATE, COUNTY and MUNICIPALLY PRESERVED FARMLAND

County	Municipality	Original Owner	Acres	Block	Lot	Total Cost	State Cost	Per Acre Total Cost	Type of Acquisition	Date of Purchase
East Amwell										
Cty EP - County-owned easement with SADC cost share grant SADC EP - SADC-owned easement through acquisition SADC FS - SADC purchase of farm in fee simple or grant to county or municipality for fee simple purchase, and resold to new owner with agricultural deed restrictions PIG - Easement purchased through Planning Incentive Grant program Cty Don - Donation of easement to county TDR - Development rights sold under Transfer of Development Rights Ordinance							Cty IEP - County-owned easement independently without SADC NPG - Grant to non profit organization for purchase of easement NP IEP - Non profit owned easement independently without SADC SOL - State-owned lands with SADC agricultural deed restrictions SADC Don - Donation of easement to the SADC			



Graph III-4 plotting per acre cost of easements in East Amwell Township

CHAPTER IV OVERVIEW OF FARMLAND PRESERVATION PROGRAM IN EAST AMWELL

County Agricultural Development Areas Geographic Information System mapping

The State Agriculture Retention and Development Act of 1983 created a statewide farmland preservation program and authorized the creation of county agriculture development boards to administer several programs and participate in farmland preservation matters. Many of the elements of this legislation were patterned after Hunterdon County's already existing CADB program, created in 1981 by the Hunterdon County Board of Chosen Freeholders.

The overall role of the CADB is to administer the State farmland preservation program at the local level. An important responsibility of the CADB is the identification of Agriculture Development Areas (ADAs). The State Agriculture Retention and Development Act defines ADAs as the land areas that are most suitable for sustaining agriculture in the future. The ADA is also used to identify areas in which agriculture is the preferred land use.

The state statutory criteria and purpose for designating an ADA is to encompass productive agricultural land currently in production or with a strong potential for future production in agriculture, and in which agriculture is a permitted use under the current municipal zoning or in which agriculture is permitted as a non-conforming use. An ADA is identified as an area that is reasonably free of suburban conflicting development and comprises not greater than 90% of the agricultural land mass of the county as well as incorporates any other characteristics deemed appropriate by the CADB.

Hunterdon County's ADA criteria and map were based on a Middlesex-Somerset-Mercer Regional Study Council study of agriculture in the county. The study mapped productive agricultural operations and the location of prime and statewide important soils. Initially the ADAs were mapped along physical boundaries or property lines. In 1988 the County ADAs were changed to be mapped by tax blocks. This change reduced the land area in the ADAs, reflecting new construction throughout the County. The County requirements are a minimum contiguous area of at least 250 acres; the predominance of prime or statewide important soils; land use that is reasonably free of non-farm development; and the absence of public sewers. Landowner consent is required for a parcel to be included within the Hunterdon County ADAs. Recently the Hunterdon ADA map has been amended at the request of several municipalities. The changes are pending certification from the State Agriculture Development Committee. Most of the requested changes are from municipalities experiencing intense development pressure. The contiguity of farmland in the new proposed areas is less than in other ADAs. The Hunterdon CADB has waived some ADA criteria in suburbanizing areas to retain what little farmland remains.

The East Amwell Agricultural Development Area has remained consistent from the start of the program. Map IV- A is the latest Countywide ADA map with East Amwell highlighted. This map also delineates the ADA in East Amwell, two areas which coincide with the Amwell Valley

east and west of Ringoes. All of the farms preserved to date reside within this area, with the exception of the following three parcels:

-
- Blk. 41 lots 25.01,25.02 (92.37 acres) preserved through SADC direct easement program
- Blk. 40.02 lot 6 (62.92 acres) preserved through SADC direct easement program
- Blk. 32 lot 3 (75 acres) preserved through County easement program. This family farm, totaling 148.81 acres is bisected by Orchard Road with the north acreage located within the ADA boundary, and the contiguous 75 acres located on the south side of the road.

Map IV-D shows these preserved farms by acquisition program.

Current applications under review as well as all targeted farms are located within the township's ADA. (MapIV-B)

Map IV-C shows East Amwell's ADA with 2002 NJDEP agricultural Land Use/Land Cover. Table IV-1 provides the data for the 2002 agricultural Land Use/Land Cover. Of the total acreage of 18,287 in the Township, 8,001 acres (44%) are in agriculture of which 7,297 acres (40%) are in Cropland and Pasture Land. In the Amwell Valley Agricultural District of 11,109 acres, 6,201 acres (56%) are in Cropland and Pastureland.

Farmland Preserved to date by program

As of this date, nearly 4,000 acres in East Amwell have been preserved through a variety of programs: (See Table IV-2 and Map IV-D)

- 2,719 acres through the County Easement Program
- 471 acres through the Municipal PIG Program
- 431 acres through SADC easements
- 254 acres through SADC direct purchase
- 208 acres through donated easements to the county or state programs

The chart in Chapter V labeled as Chart V-6 shows the cost sharing to date with the Farmland Preservation Program. Through 2008, the total cost of farmland preserved in East Amwell is \$27,086,854. The State of NJ has contributed \$19,489,647 or 72%. Hunterdon County contributed \$3,989,131 or 15% and the Township paid \$3,608,082 or 13%.

Additionally, there are 10 applications in process totaling 438 acres (see Table IV-2)

County Easement Purchase

Hunterdon's traditional program was developed in accordance with the State Agriculture Retention and Development Act of 1983. The program involves the sale of development rights on a farm in exchange for permanent restriction on the land that requires it to be available for agriculture in perpetuity. The County's minimum eligibility requirements for the traditional program is that the farm is located in an ADA and an agricultural district, is a minimum of 40 acres and is predominantly tillable farmland -

farms with more than 50% woodlands are ineligible. The CADB does review applications that are less than the 40 acre minimum when they are close to or adjacent to other preserved farms.

County Planning Incentive Grants Program

Initially introduced in 1999 and revised with new regulations this program took effect on July 2, 2007 to promote County PIGs to streamline and expand the farmland preservation program throughout the state. An agricultural advisory committee (the County CADB) is required to direct the County PIG program. The county also is required to maintain a "dedicated source of funding or alternative means for funding farmland preservation.

Municipal Planning Incentive Grants Program

The SADC is authorized under the 1999 Farmland Preservation Planning Incentive Grant Act to provide a grant to eligible municipalities (in addition to counties) for farmland preservation purposes based on whether the identified project area provides an opportunity to preserve a significant area of reasonably contiguous farmland that will promote the long term viability of agriculture as an industry in the municipality (or county).

The 1999 Farmland Preservation PIG Act set grant eligibility requirements for a municipal PIG program to include:

- Identify project areas of multiple farms that are reasonably contiguous and located in an agricultural development area (ADA);
- Establish an agricultural advisory committee composed of at least three, but not more than five, residents with a majority of the members actively engaged in farming and owning a portion of the land they farm;
- Establish and maintain a dedicated source of funding for farmland preservation, or an alternative means of funding for farmland preservation (such as repeated annual appropriations or repeated issuance of bonded indebtedness).
- Prepare a farmland preservation plan element in consultation with the agricultural advisory committee.

In July 2007 the SADC adopted amended rules to implement the Farmland Preservation Planning Incentive Grant Act by establishing a municipal farmland preservation planning incentive grant program. The SADC requires municipal PIG applications to include a discussion of farming trends, characterizing the type(s) of agricultural production in the municipality and a discussion of plans to develop the agricultural industry in the municipality. The SADC requires the municipality to adopt a right-to-farm ordinance that provides greater protections to commercial farm operators and owners. The SADC specified the components the municipality must include in a comprehensive municipal farmland preservation plan.

SADC Direct Easement Purchase

In this state acquisition program the SADC purchases development rights of farmland for preservation purposes, and the land is permanently deed-restricted for agricultural use. The land does not have to be within an ADA if the landowners make an application directly to the State. SADC purchases are funded by the Garden State Preservation Trust.

SADC Fee Simple

The State Direct Program also includes fee simple acquisitions in which an entire property is purchased at its certified market value. The farmland must be in an ADA, eligible for farmland assessment and meet SADC minimum standards. The landowner does not retain any rights, and the land is permanently preserved for agriculture. The SADC re-sells the property at auction, and does not retain ownership.

Non-profit Programs

Non-profit organizations are eligible for SADC funding support up to 50% of the fee simple or development easement purchase on project farms. Application is made to the SADC for the non-profit grant program. The Hunterdon CADB has shown some interest in contributing funds to make up part of the 50% shortfall from State funds.

The New Jersey Conservation Foundation was instrumental in the donation of the farmland preservation easement of Blk 23 lot 11 (104.22 acres) to the County, and Blk 21, lots 2,2.03 (172.51 acres) to the SADC. The NJCF subdivided lot 2.04 (6 acres) from the latter farm for the purpose of protecting a steep bank area of the Neshanic River.

Other Partnerships and Programs

As noted in a previous chapter East Amwell investigated the feasibility of Transfer of Development Rights and was not successful in locating a receiving area. However a similar concept was adopted called the Open Lands Ratio where smaller lots could be accommodated if a substantial portion was set aside for agriculture. To date, one project on Blk 2 lot 5 (Gordeuk farm) has been approved setting aside 27 acres of preserved farmland. An adjacent farm, Blk 2 lot 2 is currently under review. While farmland is preserved at no public cost, the resulting residential development could be a point of friction with continued farming activities.

Park or open space preservation projects positively enhance the preservation of contiguous farmland. In East Amwell this occurred with the SADC direct easement purchase of Block 41, Lots 25.01 and 25.02 (92.37 acres) which is contiguous to NJDEP conserved land of Block 41, Lot 45 (198 acres) and Block 41 Lot 10 (42 acres).

Presently, the NJCF, on behalf of East Amwell Township, is negotiating with the owner (Higgins) of Blk 35, lots 2,10,12 and 57 for a total of 400+ acres. The NJCF is negotiating with the same owner on behalf of Hillsborough Twp, Somerset County for a contiguous 100+ acres. Fee simple purchase of these properties would involve Green Acres and SADC funding, as well as Hunterdon and Somerset Counties and East Amwell and Hillsborough Townships.

Strategic Targeting Project

The Strategic Targeting Project is a regional planning process utilizing the most recent, "best available" statewide data to prioritize farmland preservation investments. The State's purpose is to ensure that all levels of government make the most efficient and effective use of available resources in promoting "smart growth." A meaningful strategic targeting effort for farmland preservation involves three primary data sets: agricultural soils, agricultural land use and existing and future sewer service areas. The preservation of Prime Soils and Soils of Statewide Importance in agricultural production outside Sewer Service Areas is the priority of the initiative.

The soils analysis component of strategic targeting identifies the preferred categories of soil quality:

- Prime Farmland is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber and oilseed crops and is available for these uses.
- Soils of Statewide Importance are nearly Prime Farmland and economically produce high yields of crops when treated and managed according to acceptable farming methods.

The SADC/CADB Farmland Preservation Strategic Targeting Project has three primary goals:

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

The East Amwell farmland preservation program continues to be consistent with the State's strategic targeting approach to prioritizing farmland. Map IV-E shows the distribution of Prime Farmland soils and soils of Statewide Importance in the East Amwell ADA. East Amwell has 46% or 3,322 acres classified as Prime Farmland and 44% or 3,191 acres designated as of Statewide Importance as farm capable soils in its agricultural areas. East Amwell continues to prioritize the preservation of Prime Farmland and Statewide Importance soils that are in agricultural production. East Amwell does not have nor does it plan for a sewer service area.

Eight Year Programs

In this State program farmland owners can agree to voluntarily restrict nonagricultural development for eight years in exchange for certain benefits, i.e. grants funding up to 50% of the costs of approved soil and water conservation projects. The farmland must be located in an Agricultural Development Area, be eligible for farmland assessment and meet local and/or county program criteria. Applications for this program are directed to the County Agricultural Development Board.

Two eight-year programs are available: municipally approved and non-municipally approved. The former requires a formal agreement among the landowner, county and municipality; the second requires an agreement between the landowner and county. Enrollment in a municipally approved program provides greater protections from nuisance complaints, emergency fuel and water rationing, zoning changes and eminent domain actions.

When the Eight-year Preservation Program was initiated ten East Amwell farms, totaling 352 acres, enrolled. Subsequently some of these farms donated or sold their development rights, or did not renew the voluntary deed restriction. Current members of the AAC state that, to the best of their knowledge, the eight year program has not been recently publicized, promoted or discussed with farmland owners in the township. There is the possibility of interest by owners of unpreserved farms if state cost share funds for soil and water conservation projects were restored. The Township would look to the State or County for promotion and recent information on this program.

Municipal Coordination of Farmland Preservation and Open Space Conservation

East Amwell Township has two standing committees that work to enhance and retain agriculture in the community. The Agricultural Advisory Committee (AAC), as required by state statute is composed of five residents of whom three operate and own their own farms, which are preserved, in the township. The AAC, first appointed in East Amwell Township in the mid-1980's, gives members of the farming community a recognized role and voice in the farming issues before the municipal government. While

AAC membership is currently five members, in some years the committee has had as many as nine members. The AAC offers advice and comment on all farmland-related issues under consideration by the Planning Board,

Environmental Commission, the Board of Health and the Township Committee. These include individual applications for residential development and policy issues, such as stream corridor protection and woodlot and forestry management practices. They also comment on land use ordinances proposed by the Planning Board, the Environmental Commission, or the Township Committee.

The Farmland & Open Space Preservation Advisory Committee (FOSPC) established by the Township Committee in 2003, is composed of five members and two alternates. The duties of FOSPC include advising the Township Committee on the financial needs of the various preservation plans and on the use of the funds in the Municipal Open Space Trust Fund. On behalf of the Township, FOSPC seeks opportunities for the preservation of open space and farmland and researches funding from governmental and private sources. FOSPC is charged to inform and educate residents about the Township's open space and farmland preservation programs and goals. [A copy of East Amwell Code, Chapter 26, establishing the Farmland & Open Space Committee is included in the Appendix.]

The East Amwell farmland preservation and open space conservation initiatives are coordinated by the advisory Farmland & Open Space Preservation Committee, in liaison with the Agricultural Advisory Committee. The Township employs a Farmland/Open Space Administrator (part-time) to perform administrative duties for implementation of the Township's open space and farmland preservation programs, i.e. to process farmland applications, and maintain communications with applicants, prospective applicants, the SADC and CADB.

County and Township Coordination

A member of FOSPC, serving as liaison, attends the monthly meetings of the CADB to keep informed of its actions on current issues in the County on the farmland preservation program. County Freeholders' policy and rules on the County's farmland preservation program are announced at CADB meetings by the County Counsel. In addition, the Farmland/Open Space Administrator and chair/vice-chair of FOSPC attend monthly meetings with CADB staff members regarding the East Amwell municipal PIG and County PIG farmland preservation applications in process. The application status meetings between the county and municipalities were initiated on the recommendation of the SADC. These meetings provide the Township with an opportunity to learn of County determinations on cost-sharing, deadlines, and relevant policy issues. Meetings with the County's Open Space Coordinator are requested as needed. The County's communications with East Amwell regarding coordination of strategic landowner outreach, trail planning, infrastructure planning, habitat and historic preservation planning are minimal.

County representatives met with the Township's Planning Board in August 2003 in a special meeting for a "courtesy review" of the County's plans for development of the South County Park and the Hunterdon County 4-H Fairgrounds. The Planning Board in a resolution of October 15, 2003 supported the County's application for the park. The Township Board of Health reviewed the County's plans for the on-site septic system and made design recommendations which were accepted eventually and installed.

East Amwell has joined with West Amwell Township in requesting the County Parks & Recreation Committee to develop playing fields on the County parkland that is located in West Amwell directly across Rte 179 from the South County Park and 4-H Fairgrounds. The County purchased this parcel of

open space and appropriately dedicated it for active recreational use. There is an increased need in the south County for playing fields, and the County could make the dedication a reality.

East Amwell's conserved open space for active recreation use presently is limited to a few ball fields in Ringoes owned by and adjacent to the Township Municipal Building, the East Amwell Fire Company's building, and the Township School. Clawson Park, a 23 acre parcel in Ringoes donated to the Township with funding assistance from Green Acres, has tennis courts, playground equipment, a gazebo, and a walking path.

East Amwell is fortunate to have the Amwell Valley Trail Association, a non-profit member supported organization has obtained landowner permission to mark, map, and maintain a 75 mile network of trails on private property for hiking and equine riding, the largest trail network on private land in the Northeast. (See Map VIII-A showing the trail system). At this date there are no publicly-owned farm parcels in East Amwell, but long-term leasing of such could be possible.

Coordination on Open Space Preservation Initiatives

The NJCF/NJDEP Garden State Greenways map (Map IV-F) is included here to illustrate greenways in the Township and adjacent portions of Hunterdon, as well as Somerset and Mercer counties. Strategic open space preservation can help to secure greenways and large contiguous blocks of undeveloped land. Map IV-G shows preserved open space by acquisition program.

East Amwell works closely with the non-profit Delaware & Raritan Greenway Land Trust on open space conservation within the township, and most recently on a farmland preservation project. This partnership assists D&R to meet regional goals of establishing greenways and trail systems in the Sourland Mountain area. (See Map IV-H) of D&R greenways) D&R is the Township's valuable partner in open space preservation, providing information on its projects, meeting with landowners, eliciting Township participation and financial support. D&R brings additional funding partners to open space projects to assist the Township in meeting Green Acres' 50% funding match. In this manner D&R was instrumental in securing the participation of the Nature Conservancy in the Township's successful purchase of the 63 acre Omick Woods preserve located in the Sourlands. The Omick Woods parcel lies directly across Rte 31 from a large contiguous block of preserved open space in West Amwell Township.

In 2004 D&R planned and directed an assemblage of land easements along the Township's Mountain Road that extends trail access to D&R's Northern Stony Brook Preserve, a contiguous preserved open space of over 720 acres in the heart of the Sourlands.

In 2005-6 East Amwell sought and received the support of Friends of Hopewell Open Space, a non-profit volunteer organization active in neighboring Hopewell Township, in the successful project to preserve the portion of the Lindbergh Estate (Blk. 37 lot 30) of 192 acres which lies within East Amwell. The New Jersey Department of Treasury and/or New Jersey Department of Corrections transferred this historically and ecologically significant property to the New Jersey Natural Lands Trust which accepted a conservation easement as an addition to the Highfields Preserve. The part of the Estate in Hopewell Twp. previously had been conserved under the New Jersey Natural Lands Trust.

Monitoring of Preserved Farmland

The holder of the deed of easement is responsible for annual monitoring of preserved farms. For example, SADC is responsible for monitoring farms preserved through Direct Easement and Fee Simple Programs, as well as any Municipal PIG preserved farms if the County is not a funding partner. It is the responsibility of the Soil Conservation Service to work with Hunterdon County and the HCADB on monitoring County easements. East Amwell is responsible for monitoring farmland preserved through the Open Lands Ratio program.

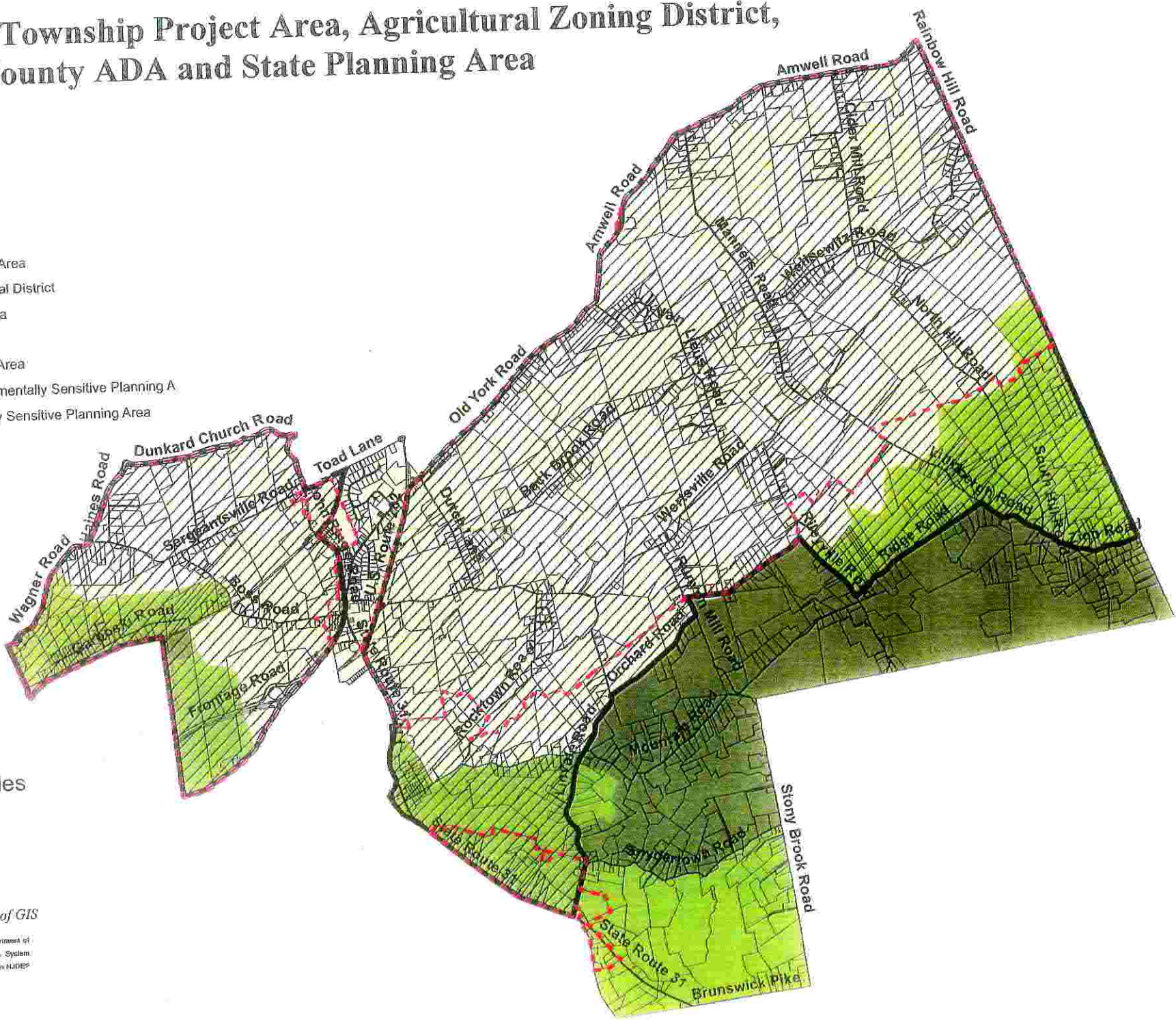
The Township and the AAC/FOSPC would notify the appropriate agency if violations were suspected.

East Amwell Township Project Area, Agricultural Zoning District, Hunterdon County ADA and State Planning Area

East Amwell Township
Hunterdon County, NJ
March 2009

- Legend**
-  Hunterdon County ADA Area
 -  Amwell Valley Agricultural District
 -  East Amwell Project Area
 - State Planning Area**
 -  04.PA4 Rural Planning Area
 -  05.PA4B Rural/Environmentally Sensitive Planning Area
 -  06.PA5 Environmentally Sensitive Planning Area

Map IV-A



Data Sources:
NJDEP
Hunterdon County Division of GIS

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

Project Area and Target Farms

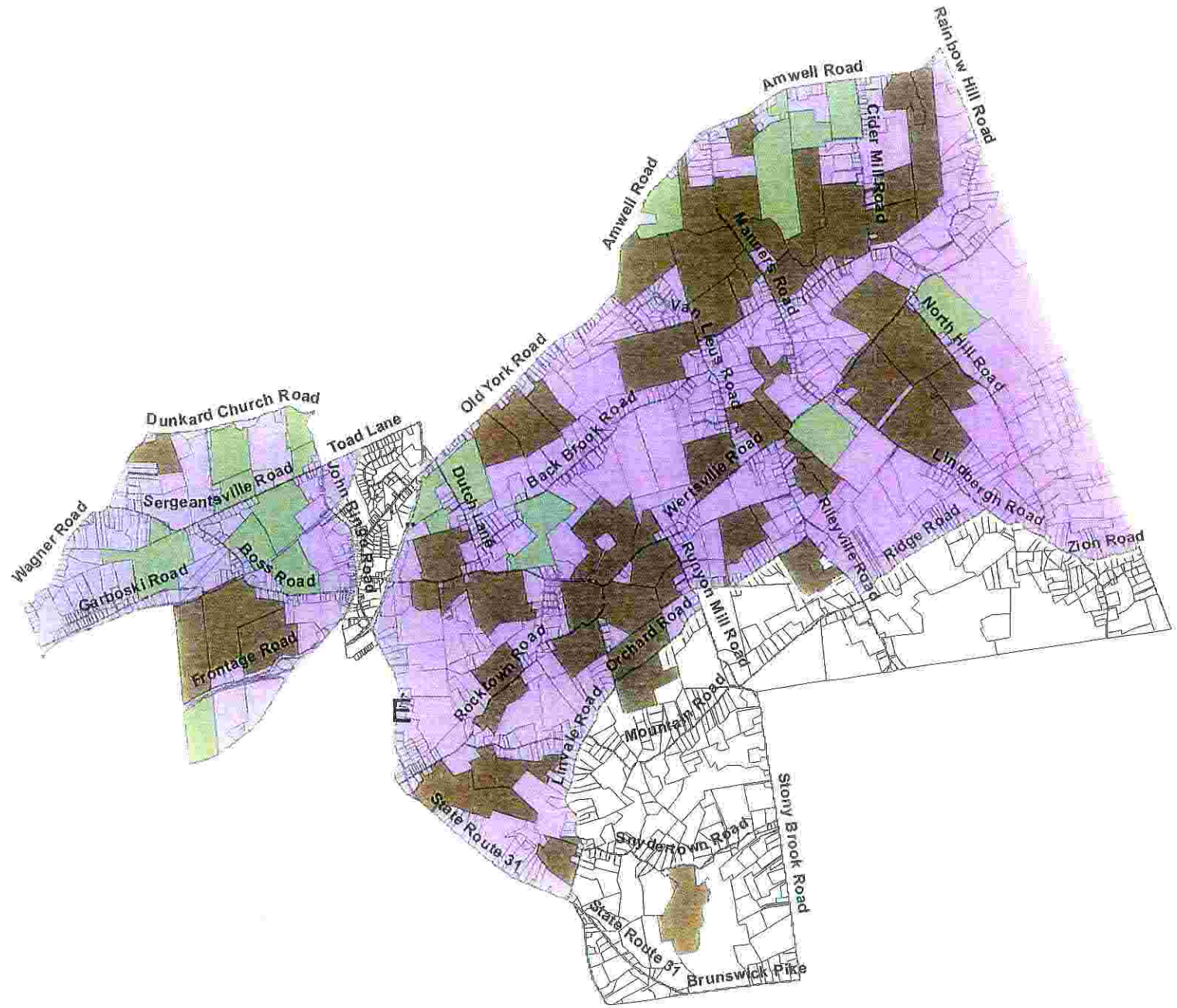
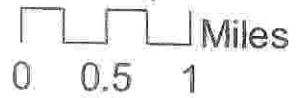
East Amwell Township
Hunterdon County, NJ

December 2007

Legend

-  Target Farm
-  Preserved Farm
-  CAD/BADA
-  Parcel

Map IV-B



Data Sources:
Hunterdon County Division of GIS
MUGS

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

2002 Land Use/ Land Cover

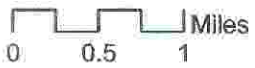
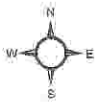
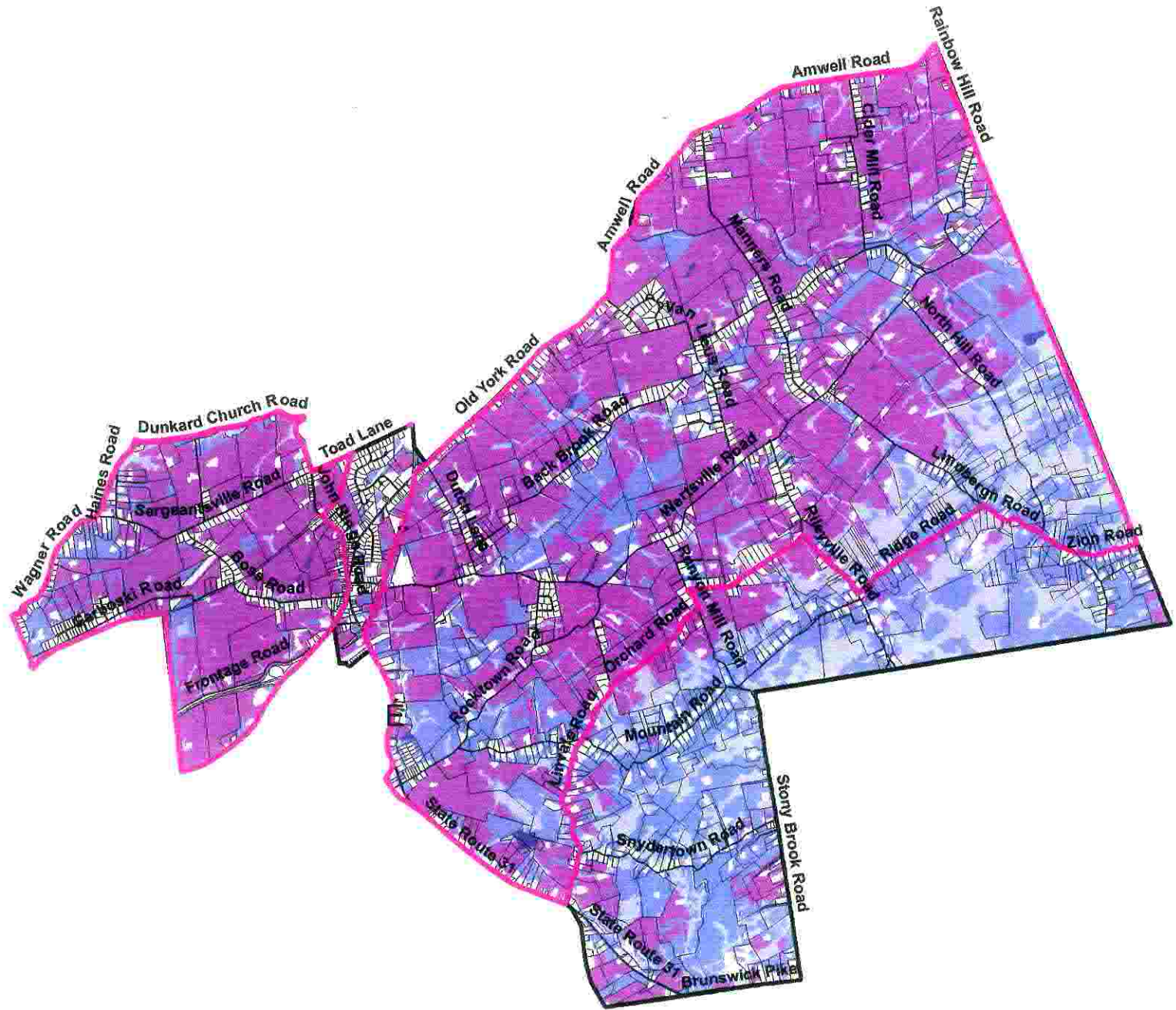
East Amwell Township
Hunterdon County, NJ

October 2009

MAP IV-C

Legend

-  Project Area
-  Agriculture
-  Barren Land
-  Forest
-  Urban
-  Water
-  Wetlands



Data Sources:

NJDEP 2002 LU/LC
Hunterdon County Division of GIS

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

Preserved Farms by Acquisition Program

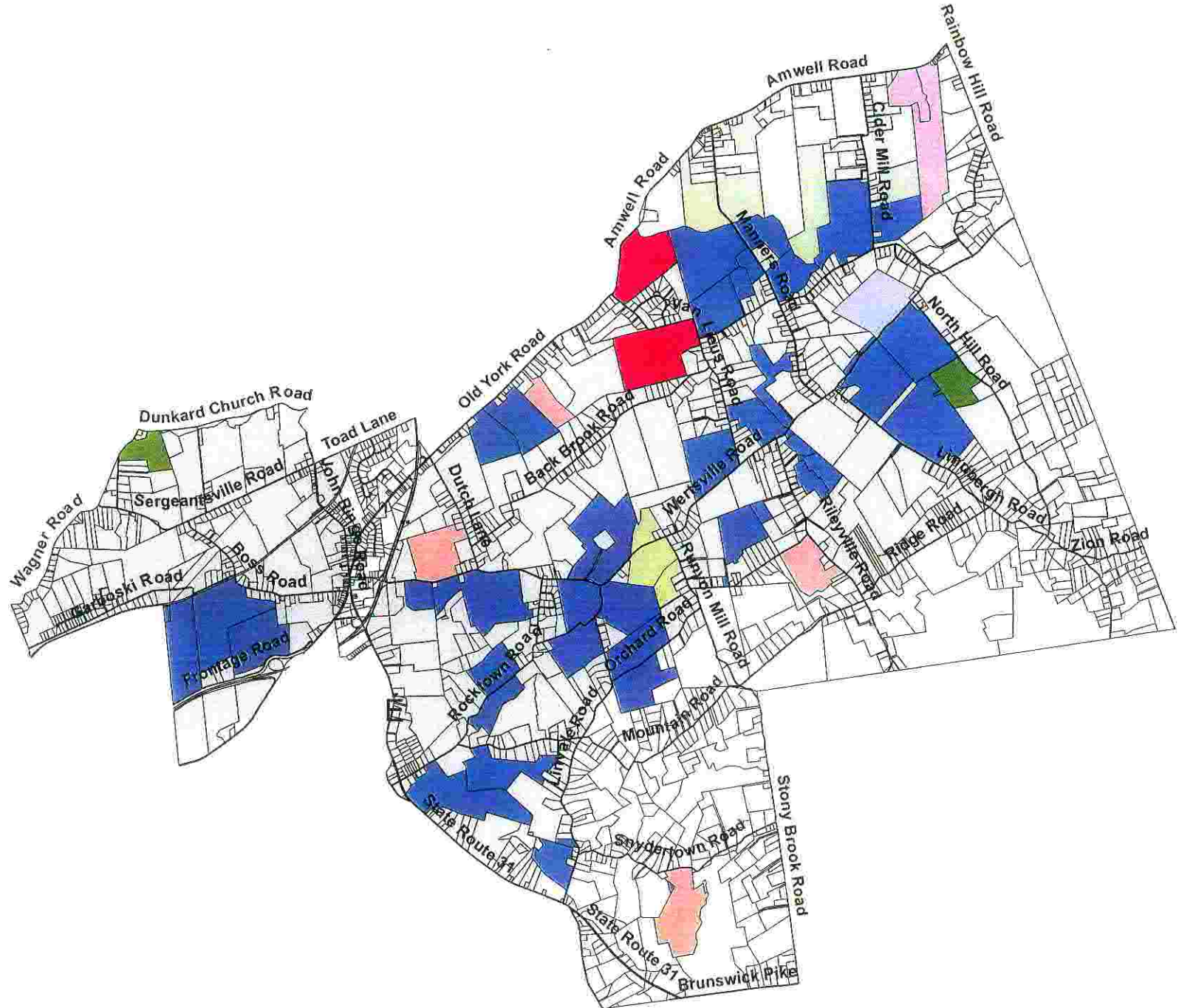
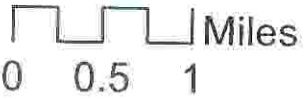
East Amwell Township
Hunterdon County, NJ

December 2007

Legend

- County Donated
- County Easement Program
- Municipal PIG
- SADC Donated
- SADC Easement
- SADC Fee Simple
- Project Area
- Parcel

Map IV-D



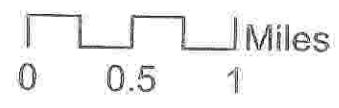
Data Sources:
Hunterdon County Division of GIS
NJGS

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

Farmland Capability

East Amwell Township
Hunterdon County, NJ

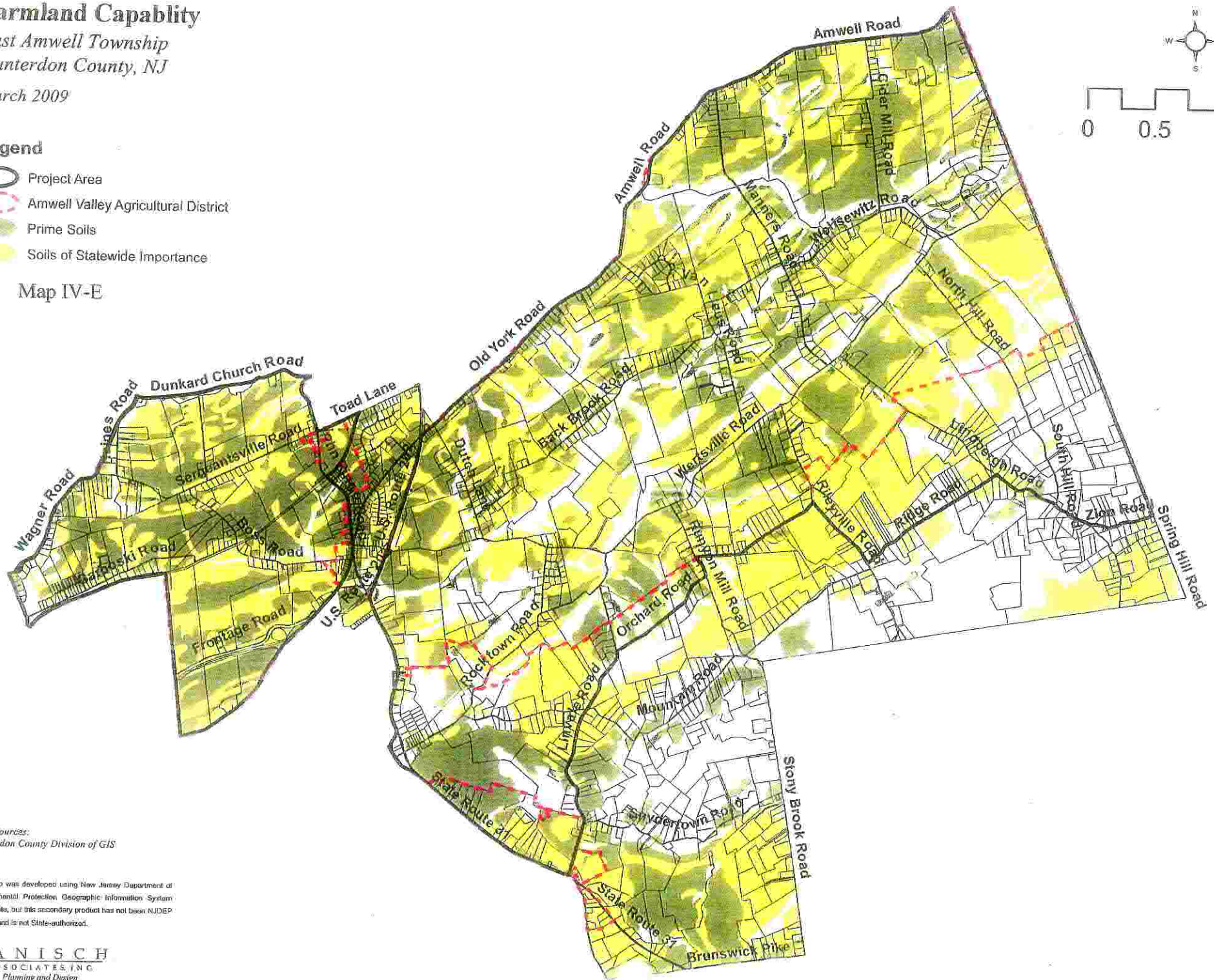
March 2009



Legend

- Project Area
- Amwell Valley Agricultural District
- Prime Soils
- Soils of Statewide Importance

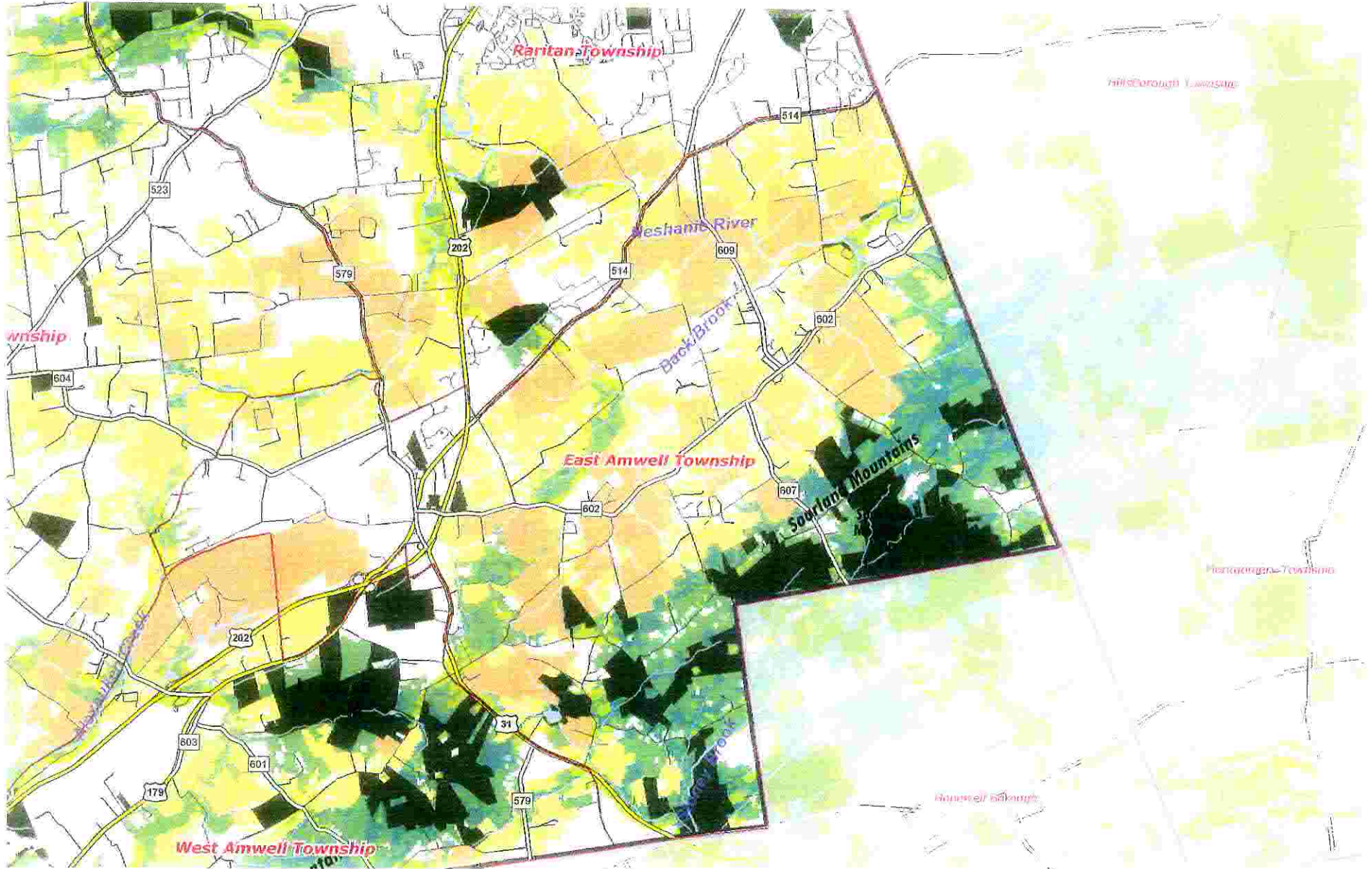
Map IV-E



Data Sources:
Hunterdon County Division of GIS
NIGS

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

GARDEN STATE GREENWAYS MAP





This map was developed using Hunterdon County, New Jersey, Geographic Information System digital data, but this secondary product has not been verified by Hunterdon County and is not county-authorized.

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

Data Sources:

Jurisdictional Boundaries, Water - New Jersey Department of Environmental Protection
 Roads - New Jersey Department of Transportation
 Developed Land Cover - Grant F. Walton Center for Remote Sensing and Spatial Analysis
 Garden State Greenways - New Jersey Conservation Foundation
 *Preserved Open Space and Preserved Farmland were compiled from a variety of data sources, including State, county, and Non-Profit organizations.

Garden State Greenways		Other Land Cover	
Agriculture/Grassland	Preserved Open Space	Interstate/Toll Highway	
Emergent Wetland	Preserved Farmland	U.S./State Highway	
Forested Wetland	Water	County Road	
Upland Forest	Developed 2001	Local Road	
Beach/Dune	County Boundary	Municipal Boundary	1:55,000
Connectors			

Garden state results conduct cooper Protecti for Rem

The N. function Jersey. in order

Garden identifi open sp impacts

Green and qua recreati water st animal p ameniti through

As of July 2006

Preserved Open Space by Acquisition Program

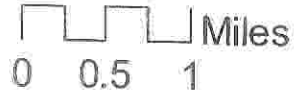
East Amwell Township
Hunterdon County, NJ

December 2007

Legend

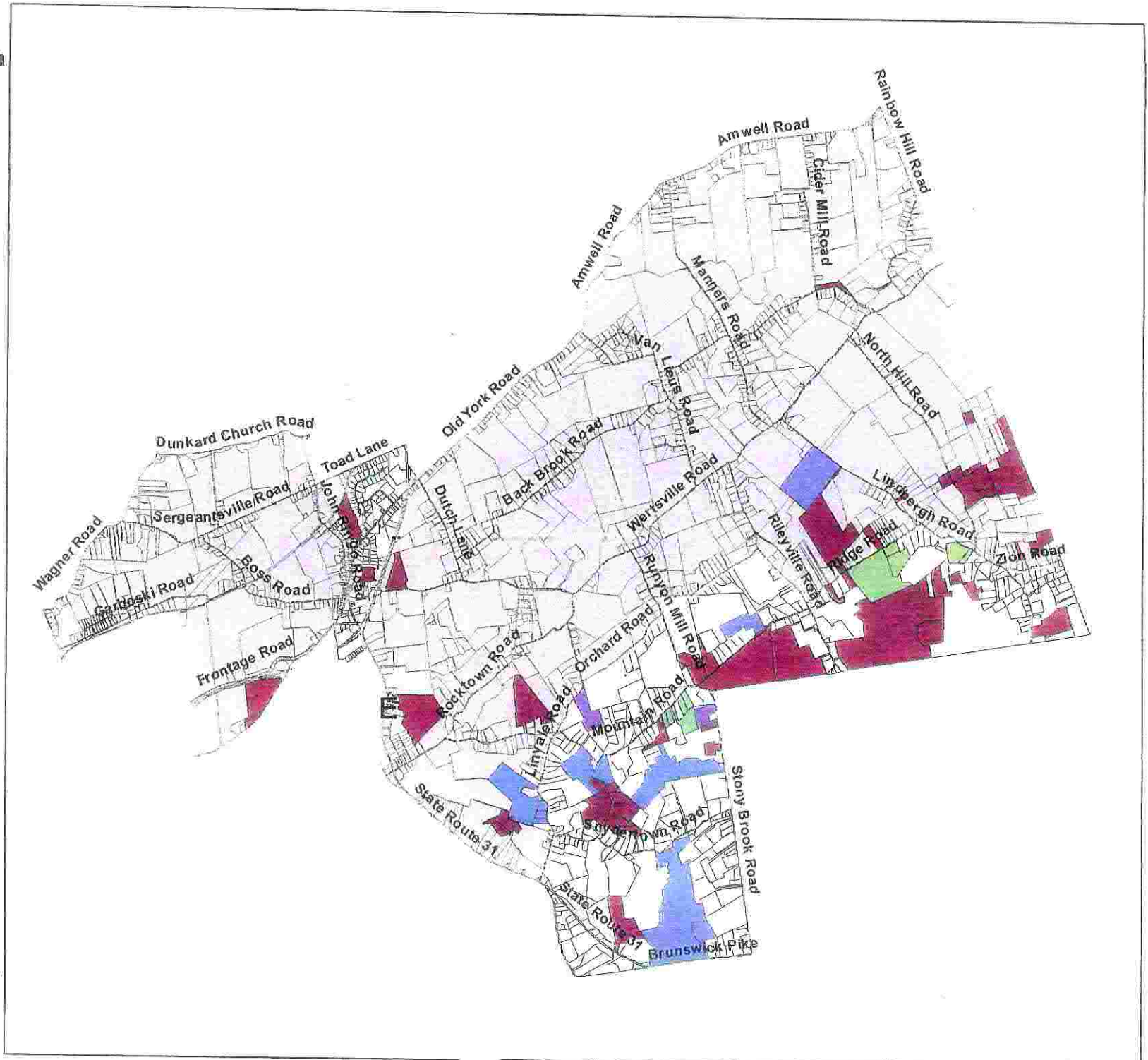
- Donated Easement
- Easement
- Fee
- Preserved
- Project Area
- Parcel

Map IV-G



Data Sources:
Hunterdon County Division of GIS
NIGS

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



D&R Greenway East Amwell Preserved Lands

- D&R Easements
- D&R Fee
- D&R Facilitations
- D&R Greenway Lands Preserved or Facilitated
- Other Preserved Land
- Municipal Boundaries
- County Boundaries
- Greenways
- Roads

Map IV-H

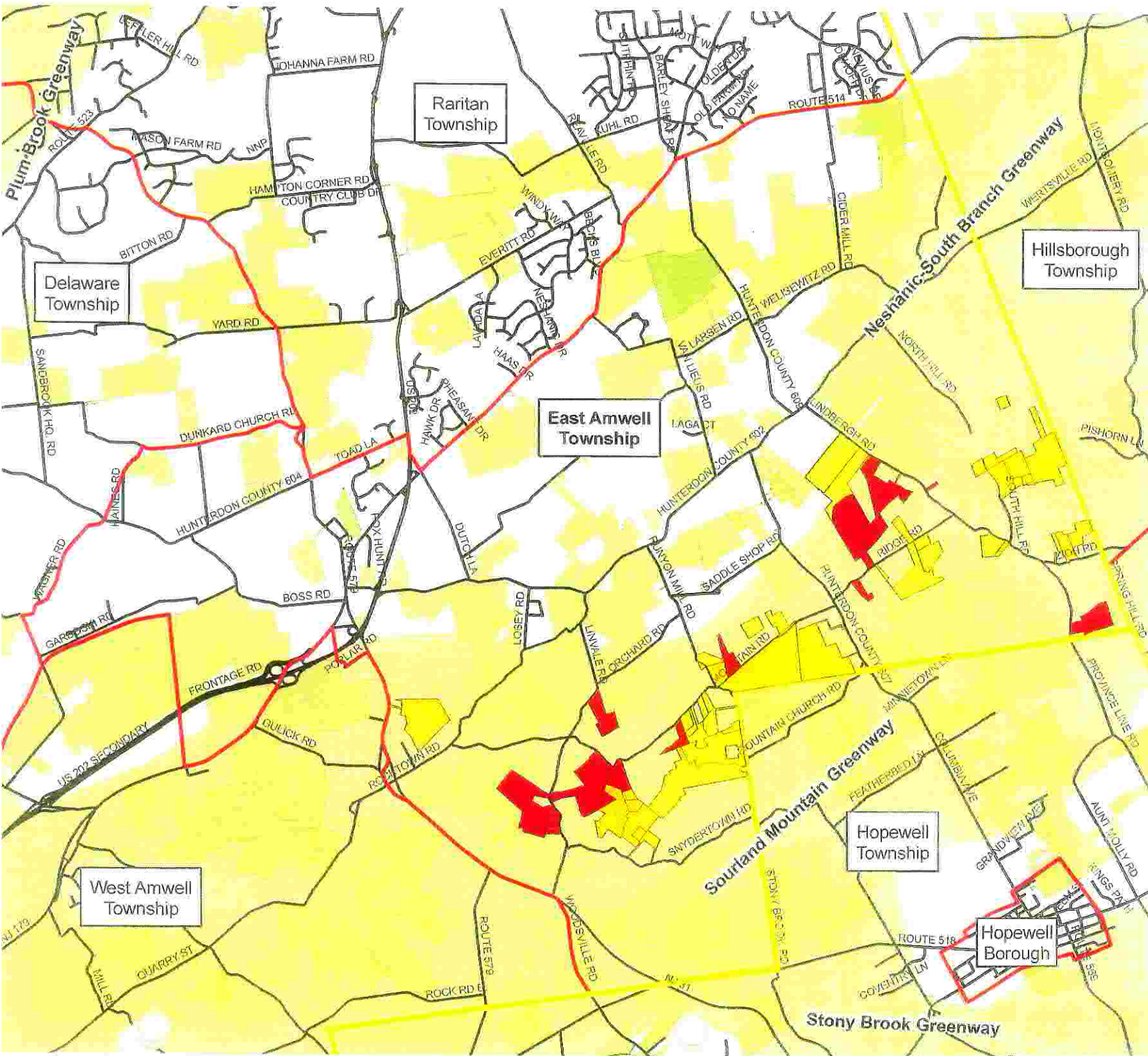
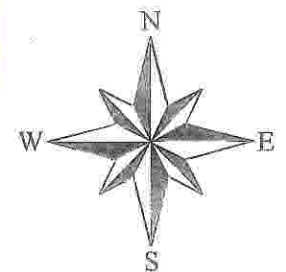


Table IV - 1

2002 Land use/Land Cover for East Amwell Township

Type	Total	%
Agriculture	8,001	44
Forest	4,928	27
Urban	2,701	15
Wetlands	2,460	13
Barren Land	103	1
Water	94	1
TOTAL	18,287	101

*due to rounding

2002 Land Use/Land Cover for East Amwell Proposed Project Area

Type	Total	%
Agriculture	7,281	54
Forest	2,763	20
Urban	1,953	14
Wetlands	1,333	10
Barren Land	103	1
Water	82	1
TOTAL	13,515	100

2002 Land Use/Land Cover Cropland and Pastureland*

Category	Acres of Cropland/Pastureland	Total Area (Acres)	Percentage of Area
Township Wide Cropland and Pasture Land	7,297	18,288	40
East Amwell Valley Agricultural District Cropland and Pasture Land	6,201	11,109	56
Township Project Area Cropland and Pasture Land	6,716	13,515	50

*Using GIS calculated acres

Farm Capable Soils for East Amwell Township

Soil	Total Acres	%	Acres in Agricultural Areas (2002 LU/LC cropland and pastureland)	% in Agricultural Areas (2002 LU/LC cropland and pastureland)
Prime Soils	5,639	31	3,322	46
Statewide Important	7,453	41	3,191	44
Total	13,092	72	6,513	90

Land Use/Land Cover Change 1986 to 2002

	1986		1995		2002		Percent Change
	Acres	%	Acres	%	Acres	%	
Agriculture	9,059	50	8,387	46	8,001	44	-12
Barren Land	34	0	11	0	103	0	202
Forest	4,572	25	4,850	27	4,929	27	8
Urban	2,064	11	2,475	14	2,701	15	31
Water	68	0	84	0	94	0	38
Wetlands	2,491	14	2,481	14	2,460	13	-1
TOTAL	18,288	100	18,288	101*	18,288	100	

East Amwell Preserved Farms
Table IV-2

COUNTY DONATED

<u>Original Owner</u>	<u>Preserved Acres</u>	<u>BL</u>	<u>Lot</u>	<u>Tax Map Ac</u>
Inga Denton Estate	104.22	23	11	108.89

Total County Donated
104.22

COUNTY EASEMENT PROGRAM

<u>Original Owner</u>	<u>Preserved Acres</u>	<u>BL</u>	<u>Lot</u>	<u>Tax Map Ac</u>
du Fosse	130.98	20	20	136.31
Amwell Valley		7	6	
Conservancy	337.03	8	2, 3, 4, 24	337.92
East Amwell/Battle, M.	75.54	18	23	75.54
J. Kanach / Martin	49.65	20	22	51.99
E. Amwell/Kanach J./Engel	49.23	20	23.02	53.46
E. Amwell/McLarty	90.40	25	9	90.45
E. Amwell/Menchek	51.03	30	12, 16.01	49
E. Amwell/Schwab, F.&M.	145.74	17	9, 10	145.74
E. Amwell/Sowsian		32	3	
	148.81	40.01	3	148.91
Garrett, R.&D./Mack, J.&L.	65.13	34	1.01, 2, 2.09, 4	65.79
Gulick, R. & E.	215.42	30	5, 41.01, 42	220.38
Henssler, S.	123.39	2.5	12	123.29
Hill, W. & P.		26	3	
	131.48	31	5	128.37
Hun Cty/Kanach	133.47	18	19, 20, 22	171.123
Kinderman	57.73	24	3	57.48
Manners, E.		23	12, 12.01	
	123.19	35.01	8	124.15
Nemeth, E. & R.	59.64	21	19.03	59.71
Nielsen, K. & Galloway, P	87.77	32	1	88.97
Peabody/Manners	46.05	24	11	48.23
Russell, N. & V.		27	47	
	95.32	31	3	95.37
Thompson (N)	123.59	35.01	10	123.59
Thompson (S)	163.65	35.01	13	163.53
Totten, R. & E.	136.72	27	39	136.72
Weeden, M.	78.88	33	1.03, 5, 7.06	79.62

Total County Easement Program
2719.84

MUNICIPAL PIG

<u>Original Owner</u>	<u>Preserved Acres</u>	<u>BL</u>	<u>Lot</u>	<u>Tax Map Ac</u>
Cannelongo, K.	25.27	27	33.01	27.29
East Amwell/Furst	62.23	20	6	62.23
East Amwell/Halstead, R & D	109.58	20	17.07, 18	109.58
East Amwell/Harrison	58.75	20	24	60.80
East Amwell/Hill	48.08	21	19	49.81
East Amwell/Kanach J.	70.83	18	18	74.08
Wielenta North	23.11	25	11	26.59
Wielenta South	73.37	32	5, 5.02, 5.03	82.94

Total Municipal PIG
471.22

SADC DONATED

<u>Original Owner</u>	<u>Preserved Acres</u>	<u>BL</u>	<u>Lot</u>	<u>Tax Map Ac</u>
SADC/Gardner	56.67	35.01	11	56.11
SADC/Rosenborg	47.04	2	10.05	46.41

Total SADC Donated
103.71

SADC EASEMENTS

<u>Original Owner</u>	<u>Preserved Acres</u>	<u>BL</u>	<u>Lot</u>	<u>Tax Map Ac</u>
Colonial Sportsmen Club, Inc.	92.37	41	25.01, 25.02	113.24
Crater, S.	41.44	17	15	41.44
East Amwell/Rieter	19.05	16.01	31.05	22.50
East Amwell/Rieter	52.03	16.01	31	52.31
NJCF/Baron	163.23	21	2, 2.03, 2.04	172.51
Wee Beginnings Farm, LLC	62.92	40.02	6	67.7

Total SADC Easement
431.04

SADC FEE SIMPLE

<u>Original Owner</u>	<u>Preserved Acres</u>	<u>BL</u>	<u>Lot</u>	<u>Tax Map Ac</u>
SADC/Cavalier	105.90	18	1	109
SADC/Van Marter	147.99	17	24	147.99
<u>Total SADC Fee Simple</u>				
				253.89

GRAND TOTAL ACREAGE

3979.70

FARMLAND PRESERVATION APPLICATIONS IN PROCESS
 DECEMBER, 2007
 TABLE IV-3

NAME	BLOCK	LOT(S)	ACRES	PRESERVATION PROGRAM
East Amwell PIG Program				
Fisher, Jeff & Debra	17	16.03	27	PIG
Hay, Barbara	21	16, 16.03	56	PIG
Hazel Harrison Trust	27	46,46.05	29	PIG
Isabella, Gerald & Patricia	25	3	34	PIG
Kanach, Estate of Lillian	21	11,12	37	PIG
Rynearson, Helen (North)	3	3.04	43	PIG
Rynearson, Helen (South)	3	3	38	PIG
Scibilia, Greg & Dena	27	7	49	PIG
Torsillieri	21	15	24	PIG
Total PIG Acres			337	
County PIG Program				
Hazel Harrison Trust	31	10,4	99.6	County
Total County Acres			99.6	
Total All Acres Pending			436.6	
Update as of May, 2010				
This chart lists farmland applications pending (both Township and County) as of December, 2007.				
As of May, 2010, all but three of the farms listed have closed and are now preserved properties.				
The Helen Rynearson Properties (Block 3, Lots 3 and 3.04), the Scibilia Property (Block 27, Lot 7) and the the Hazel Harrison County application are still in process.				

CHAPTER V. FUTURE FARMLAND PRESERVATION PROGRAM

Preservation Goals

East Amwell has targeted 16 farms totaling 1453 acres for preservation in the next 10 years. Table V-I and Map V-A show the acreage and location of each of these 16 farms. The goals for 1 year are 10% or 145 acres, and 50% or 727 acres as a 5 year goal. The selection of targeted farms of 54 acres or above suggests a desire to secure the larger farms in preservation despite our minimum threshold of 25 acres.

East Amwell has preserved 38% of the Township when both farmland and open space projects are combined. Farmland preservation accounts for 4,341 acres or 24% of all acreage in the Township. The Farmland Map and Narrative found as part of the introduction to this Comprehensive Plan illustrate these statistics.

These goals seem reasonable given the rate of East Amwell preservation since the program's inception. East Amwell continues to partner with not for profit organizations to preserve farmland. The NJ Conservation Foundation is working to preserve a large tract known as the Higgins Property and the Township has pledged financial support for that project. D&R Greenway is currently negotiating with Lanwin Development Corporation in a joint preservation project to preserve that 89 acre tract.

East Amwell's preservation goals depend on continued support from both the State and the County for shared funding. Cost sharing from both the state and county has allowed the township to leverage its limited resources. It is unlikely we could continue the current rate of preservation without these shared funding sources. Even though funding is eventually based on the certified market value of easements, the County has recently required landowners to sign option agreements at below market values for municipal PIG applications to be considered for County cost share funds. This requirement has made the County cost share which was almost a certainly in the past more problematic.

East Amwell has obtained the usual 20% cost share from Hunterdon County for its current applications, however, funding approval has become a much more rigorous and bureaucratic process. In the most recent funding rounds (2009 and 2010), Hunterdon County did include the two farms East Amwell Township submitted for funding to their list of approved farms. The option agreement policy mentioned above with outdated easement values presented additional hurdles for both the township and the landowners. The Township believes these County policies will remain in place as long as funding resources are limited.

The Township has supported farmland preservation by consistently funding 20% of the cost of easement purchase. This continues to be true since all recent requests for township funding have been approved. .

The availability of shared funding since the first bond issue was approved by voters over ten years ago has helped East Amwell achieve its preservation goals. It is most important to East Amwell to have an assured source of cost share funding from the State and County. East Amwell has generally waited until a secure source of funding is known before applications for preservation are accepted. Landowners are assured that the Township is committed to preserving the property and this policy has given credibility to the program. East Amwell voters have shown their support for preservation consistently by approving bond issues that fund the various programs.

Project Area Summaries

Agricultural Development Areas (ADA) are the target areas mapped by the Hunterdon County Agriculture Development Board as locations for preserving farmland permanently. The Amwell Valley Agricultural District, a zoning district, comprises about two-thirds of the township with approximately 12,000 acres of farmland. The zoning district and East Amwell's ADA are almost comparable. U.S. Route 202/31 bisects East Amwell, with a corridor including Ringoes, between the two parts of the Township's project area. All of East Amwell's ADA lies within Hunterdon County's mapped ADA. (See Map V-B).

Table V-2 shows that 40% of the Township's 18,288 acres is in Cropland and Pasture Land, while 56% of the 11,109 acres in the Amwell Valley Agricultural District is Cropland and Pastureland. Prime Soils constitute 46% of the acreage in the Agricultural Area, and Soils of Statewide Importance constitute 44%.

Preservation of farmland in the Amwell Valley Agricultural District, as it continues to be delineated, is of strategic importance on the western side of Hunterdon County and the State. East Amwell remains a largely agricultural community, and it serves as buffer from the development pressures further north, east and south of the Township. East Amwell's agricultural district merges into agricultural areas to the north and west in West Amwell and Delaware Townships and a portion of Raritan Township. To the south, the northern portion of Hopewell Township also contains much agricultural land. By building a solid block of agricultural land in this part of Hunterdon County, East Amwell can continue to be a catalyst for further agricultural preservation in this region. This critical mass of viable farmland is also essential for maintaining a strong farming industry and culture.

East Amwell's ADA lies in the County's South project area. The County's Comprehensive Farmland Preservation Plan 2008 (p.57) states "Already preserved farms were the foundation that laid the base for the general areas as the preservation of large tracts of agricultural land....The purpose of focusing on areas in which farms were already preserved is to preserve farms to allow for a more consistent and seamless agriculture land base." HCADB staff report the County's intention in the future to examine individually all potential farm parcels in the County's ADA to identify the best agricultural candidates for preservation.

In Chapter III we note that the State Development and Redevelopment Plan of 2001 designated most of East Amwell's Valley Agricultural District within the Rural Planning Area, with a small portion in the Rural/Environmentally Sensitive Planning Area and one lot in the Environmentally Sensitive Planning Area. These Planning Areas are intended to promote continued farming, the retention of large contiguous tracts of farmland and other open lands and protection of sensitive natural resources.

Municipal and County Minimum Eligibility and Ranking Criteria

East Amwell developed a list of minimum criteria for eligibility to apply for farmland preservation through the municipal PIG program. These criteria are shown on Table V-3 at the end of this chapter. Minimum criteria for farmland preservation include an acreage requirement of 25 acres or more, current eligibility under Farmland Assessment, road frontage of 50 feet or more, and 30% or more tillable acres.

The Township's ranking criteria is also shown on Table V-3. This point ranking system rewards size/acreage, tillable acres, prime soils acreage, statewide soils/acreage as well as frontage footage, and

linking footage in a contiguous border with preserved property. These criteria provide an indication of agricultural productivity and continued viability. A positive consideration is a Conservation Plan on file with the Soil Conservation District. Points are deducted for a non-severable exception created for a new house, and for each severable exception. These ranking criteria are used to evaluate all applications that meet minimum eligibility requirement. The township uses these rankings to determine the best possible farms for preservation.

Hunterdon County's eligibility criteria for the County PIG program are reproduced in the Appendix and labeled In Support of Chapter V and found at Tab V-B. These criteria set a minimum size of 40 acres unless the application directly adjoins a preserved farm, or warrants individual examination. The HCADB's criteria for ranking applications includes soils, boundaries and buffers, local commitment, size and density, soil conservation and farm practices management. County criteria include the degree of imminence of change of the land from productive agriculture to nonagricultural use.

The State Agriculture Development Committee established minimum eligibility criteria to designate qualifications for a farmland parcel to be considered for cost share by the SADC. The criteria are specific to two land sizes: farms 10 acres and less; farms greater than 10 acres.

For farms that are 10 acres or less:

- Farm must produce \$2,500 worth of agricultural or horticultural products annually
 - At least 75% of property, or minimum of 5 acres tillable, whichever is less
 - Tillable acreage must consist of soils (Prime & Statewide) capable of supporting agricultural/horticultural production
 - Land must have development potential (zoning allowing additional development, legal access)
 - 80% or more of soils cannot be classified by DEP as freshwater or modified agricultural wetlands
 - 80% or more of land cannot have slopes greater than 15%, identified by NRCS soils map
- OR
- Land is eligible for allocation of development credits from TDR program authorized and adopted by law

For farms that are greater than 10 acres:

- At least 50% of property or minimum of 25 acres tillable, whichever is less
 - Tillable acreage must consist of soils capable of supporting agricultural/horticultural production
 - Land must have development potential (municipal zoning ordinance for appraised property must allow additional development; access to property allows further development; if access thru an easement must be confirmed by municipal zoning officer)
 - Land less than 25 acres must not contain more than 80% soils classified by DEP as freshwater or modified agriculture wetlands
 - Land less than 25 acres, 80% or more of land cannot have slopes greater than 15% identified by NRCS soils map 2.2
- OR
- Land is eligible for allocation of development credits from transfer of development potential program authorized and adopted by law

County PIG applications are also subject to qualifications as an “eligible farm” if SADC funds are requested (N.J.A.C.2:76-17.2). Eligibility is determined by averaging individual farm application “quality scores” over the past three years, then requiring each new application to be at least 70% of that average. Counties can request a waiver of these minimum criteria.

SADC ranking criteria (Policy P-14-E: 9/25/97) is included in the appendix and marked with Tab V-C. The ranking categories shown on page three of the policy include type of soils, tillable acres, boundaries and buffers, local commitment, size and density and the ranking received at the County level.

East Amwell finds that its minimum eligibility criteria and ranking criteria are compatible with those of the SADC and the HCADB. Each set of criteria, while different in the math used to rank each property all emphasize size of the parcel, soil type and boundaries. All three discourage non-severable exceptions and severable exceptions. All are weighted to reward the best soils and contiguous farming acreage. In considering an application to the East Amwell PIG program, the criteria of the SADC and the HCADB is reviewed for consistency. It is understood that the new SADC "eligible farm" standard applies to the County PIG Program. To date the Township has not considered independently preserving farmland assessed properties that do not meet either the County or SADC minimum standards.

Municipal and County Ranking Criteria

HCADB eligibility policy requires the minimum acreage for County PIG applications be 40 acres unless the application directly adjoins a preserved farm. The County states that it will examine each application that is less than 40 acres on a case by case basis. HCADB ranking criteria are used to score all perspective farms in order to place each farm in an overall ranking. The rankings indicate the farms that are the best candidates for preservation and continued agricultural viability. The amount of funding available in a given year will determine how many farms on the ranked list get preserved.

HCADB, at SADC request, is planning for future preservation through its coordination with Municipal PIG programs' development of a list of targeted farms that will fit well into the previous preservation efforts of the County and the municipalities. Please note, as discussed earlier in this Chapter, East Amwell's identified targeted farms are 54 acres or above to secure larger farms in the Township's ADA. East Amwell's targeted farms were selected in concert with the County's focus to fill in contiguous blocks of preserved farms along with making preserving large tracts a priority. The Township will review potential applications that meet its minimum acreage requirement with consideration of the farm parcels' contiguity to preserved farms and compatible open space, as well as development potential.

In the 2009 County PIG round two East Amwell farm applications ranked first (75.28 HCADB score) and fifth (67.74 HCADB score) in a list of 33 applications. In the 2009 Municipal PIG round an East Amwell farm ranked first with 80.27 HCADB score. When the HCADB ranked the County and Municipal applications together the East Amwell farm with the 80.27 HCADB score ranked first and the East Amwell farm with the score of 67.74 ranked fourth in a field of 43 applications. As noted above, the application of the East Amwell farm that ranked first in the County PIG was denied because the owner did not sign the County's option agreement value. The first and fourth ranked applications in the joint County/Municipality also were denied for the same reason.

This new Hunterdon CADB rule instituted in the 2009 PIG application round requires all Municipal PIG applicants to sign an option letter accepting a County floor price for purchase of development easements. This rule, or criteria, does not appear in the HCADB's PIG easement purchase criteria included in its Comprehensive Farmland Preservation Plan 2008. In extending this rule to Municipal PIG applications the County effectively torpedoes Municipal PIGs as a separate program. The option agreement values are based on appraisal values that are more than 3 years old.

In July, 1997, when the East Amwell Planning Board was considering significant acreage rezoning proposals, a meeting was held with a large group of farmers at the home of the Farmland and Open Space Preservation Coordinator to hear their suggestions on how the Township could make it easier for them to protect their land values through preservation. Their principal recommendations were:

- that the Township act as underwriter in purchasing their development rights, thus enabling them to avoid the complexity, delays, and negotiations which they maintained kept them from applying directly to the State program
- that they receive protection from the potential impact of a zoning change on the appraisal of development rights for a reasonable period of time
- that they be assured of a reasonable minimum price per acre in line with current appraisals rather than having to agree to sell at a lowball number imposed by Hunterdon County if the County's appraisal numbers failed to exceed that price.

These recommendations were agreed to by the Township Committee and were incorporated into the Equity Protection Program described in East Amwell's 1999 Farmland Preservation Plan (included in the Appendix as under tab V-A). The development rights on a large number of farms as detailed in the 1999 Plan were acquired by the Township under this program, funded through substantial borrowing until the State and County shares could be applied for and received. Protection for several years from the impact of rezoning was subsequently incorporated into State law, a measure which was of great help to the Township's finances. It is noteworthy, however, that the County still maintains its insistence on an applicant agreeing to sell at a price well below a reasonable estimate of current values and that in 2009 this caused two East Amwell applicants with highly ranked farms to withdraw their applications.

East Amwell Township does not require applicants to sign option agreements because this requirement erodes landowner trust in a fair, equitable process. East Amwell asks interested farmland owners to state informally what price they are seeking for the easements. The "going rate" based on recent appraisals are discussed with them to let them know where the market stands. If the expected price is far removed from the market, the application is not accepted. The Township makes no price guarantees to landowners but bases discussion on recent easement sales. The price for easements on farms preserved under the East Amwell Municipal PIG program in the most recent past have been \$1,500 to \$3,500 per acre more than the County's floor price for East Amwell.

Policies Related to Farmland Preservation Applications

Housing Opportunities

The CADB and the SADC permit housing on preserved farmland provided they meet the stringent criteria for "residential dwelling site opportunities" (RDSO), agricultural labor housing, or are located on exception areas. The SADC policy on agriculture labor housing for family members requires applicants and or program participants to use an exception, RDSO or other approach to allow for family members who work on the farm to live on the farm. East Amwell's Agricultural Advisory Committee recognizes the difficulties of attracting responsible agricultural labor that is not family related. While recognizing there is the chance of potential abuse, allowing family members working on the farm to occupy agricultural labor housing would enhance the labor supply. The annual monitoring of preserved farmland would include review that the occupancy of agricultural labor housing meets the restrictions.

The Township encourages prospective applicants to limit the number and size of exceptions. The decision as to severable or non-severable exceptions and their location is best determined by limiting the impact on the agricultural operation and farm affordability. The location and size of a new residential dwelling in a non-severable exception is directed by limited impact on the agricultural operation and ensuring farm affordability. East Amwell recommends to applicants that it is a good idea to create a non-severable exception around any existing residences and farmsteads to provide flexibility and avoid monitoring issues. Landowners are advised to consider reserving enough land to allow for an alternative septic bed in the event the original system fails.

Owners and potential owners of preserved farms are advised that the replacement of existing residential buildings on preserved farms must adhere to the restrictions in the deed of easement. East Amwell Township expressed concern to the SADC when the new owner of the preserved Cavalier farm (Blk 18, Lot 1) of 105 acres wanted to demolish the original residence structure. The SADC preserved the farm in 2002 through a fee simple purchase, and then sold the farm at auction. The new owner requested to replace existing structures with new buildings whose footprint would exceed the size restrictions placed on the structures in the deed of easement. The owners also proposed to move a building opportunity to a portion of the property which was in production. The SADC denied this as well and required the replacement take place within the already developed area. These decisions by SADC are in agreement with Township policy. The decisions worked to retain the productive acres and adhered to the provisions in the deed of easement. It is unclear what expectations the owners had when the property was purchased since the requests made to demolish and/or relocate buildings were not in keeping with the deed of easement. It is a disappointment to the Township that the property is still not occupied by the buyer.

Residual Dwelling Site Opportunity

RDSOs are "floating" future housing opportunities within the deed-restricted farm, allowing for an overall gross density of up to one RDSO per 100 acres. The RDSO is considered in the valuation of the property as a residential opportunity. This increases the after value of the property thus reducing the easement value. An RDSO means the potential to construct a residential single-family unit and other appurtenant structures on the premises. An RDSO is considered to be for an agricultural purpose. The residential dwelling must be occupied by at least one person regularly engaged in common farm activities on the premises. East Amwell

would review an application that included an RDSO if it met the SADC requirements and advise the owners of all the requirements. The CADB as well as the SADC must approve the allocation of an RDSO. The HCADB generally discourages RDSO use, but accepts applications as long as applicant understands that the location must be approved by the CADB.

Division of Premises

Depending on the date the development easement was acquired, specific language related to the Division of premises is included in the landowner's Deed of Easement. Division of premises must be for an agricultural purpose and result in agriculturally viable parcels. SADC policy states that an agriculturally viable parcel is "capable of sustaining a variety of agricultural operations that yield a reasonable economic return under normal conditions, solely from the parcel's agricultural output."

Application is made to the CADB, which forwards the application and its decision to the SADC for final review. SADC's objective is to retain large masses of viable agricultural land, since agricultural parcels may become less viable if reduced in size. However, the HCADB reports that due to agricultural trends towards smaller, more productive farms there are opportunities for landowners to divide a permanently preserved farm provided the division meets SADC criteria. The Township's role in a division of premises lies with the Planning Board review and approval of the subdivision after CADB and SADC actions. Since Division of premises is instituted at the County level, it is possible that the Township would not be informed until after decisions are made. The East Amwell Agriculture Advisory Committee recommends that the HCADB notify the Township when a Division of Premises request is received from an East Amwell Township resident and that its input be considered when the request is discussed.

Approval of Exceptions

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

Severable: A severable exception is defined by the SADC as an "area which is part of an existing Block and Lot owned by the applicant which will be excluded from the restrictions of the Deed of Easement and may be sold as a separate lot in the future." A severable exception is made "if a landowner wants to be able to sell the excepted area separate from the deed-restricted farm." There may be some very limited situations when this would be appropriate, but generally the Farmland Advisory Committee and the Township strongly discourages them because it feels that severable exceptions detract from the farmland preservation goals and because changing zoning circumstances can affect the future ability to subdivide and thus may not be advisable for the landowner.

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

severable exception, a non-severable exception is “always attached to the protected farm.” Exceptions made to farmland have the potential to impact the value of the property. When an appraisal occurs, both severable and non-severable exceptions are considered in the determination of the restricted/ after value of the property.” Most farmland preservation projects include a non-severable exception around existing structures, which has little to no negative impact on the agricultural. If the farm is vacant and the landowner intends to live on the farm in the future, the Township encourages siting a non-severable location that minimizes the impact on the farm’s agricultural viability. The Agricultural Advisory Committee agrees that landowners should be encouraged to limit the size and location of non-severable exceptions such that their impact on natural agricultural practices is limited.

The Township, HCADB and SADC work cooperatively with applicants to minimize the impact of exceptions on the agricultural operations. The size of the exception, its impact on existing agricultural operations, and the number of existing housing units on the farm are reviewed. To encourage minimal intrusion of severable exceptions on acreage in agricultural use, East Amwell provides an incentive for preservation of larger tracts. This provision is discussed in detail in Chapter III (see heading “Incentive for Preservation of Larger Tracts”) and allows for no more than two sub-divided lots. This provision requires that the remainder lot is at least 50 acres, is preserved and the lots do not impinge on the viability of the farming operation. This option has been used in the preservation of the Wielenta farm (Blk 25, lot 11 and Blk 32 lots 5, 5.02 and 5.03) totaling 96.48 acres.

Chapter V Part 2 FUNDING PLAN

Funding Sources

In 1988, East Amwell voters authorized a non-binding referendum for up to \$2 million of local tax dollars to fund farmland preservation. This was the funding source for the first ten years of the farmland preservation program in East Amwell. Short term debt was issued to provide funds at each closing and then several years of short term debt were combined for issuance of a long term bond. Two long term bonds were issued in 1993 and 1998. A larger bond issue results in much greater efficiency and a better rate is generally received.

While there were still uncommitted balances remaining of the \$2 million bond authorization, the general approach throughout the state for funding land preservation shifted from bonding to a dedicated tax. In 1998, the Mayor appointed a task force to recommend the appropriate level of a dedicated tax. The committee recommended a referendum question regarding a dedicated tax of 2 cents per \$100 of assessed valuation. This ballot question passed with a 62% majority.

The East Amwell dedicated tax for preservation has been in place since 1999. In 2005 East Amwell residents voted to double the rate to four cents per hundred. The chart reflects the increased funding available beginning in 2005. In 2004 the Township collected \$159,500 through this tax and in 2005 the amount collected was \$313,315. From 1999 through 2009, the township raised \$2,497,089 through the tax levy.

Each year the township receives its share of the County Open Space Tax. Since 2002, East Amwell has added \$208,673 to its preservation funding from this source. An additional \$11,994 was received from the County due to additional amounts raised by the County due to added assessments. This small amount of additional share due to the Township is calculated at the end of the year by the County and sent to the Township.

Table V-4 summarizes two sources of funding used by the Township: a dedicated tax and the Township's share of the County dedicated tax.

The chart shows the total receipts from both sources are \$2,717,756 through 2009.

The combination of long term borrowing with principal and interest payments from an annual appropriation in the municipal budget, plus the funds raised annually through a dedicated tax, enables East Amwell to minimize the expense to the taxpayer while maximizing the amount of preserved acreage.

It should be noted however, that in addition to funding farmland preservation, the \$2.7 million raised to date is also available to recreation and open space acquisition as well as for historic preservation. Chapter 27 of the East Amwell CODE sets forth the details for the Open Space Trust Fund. This chapter is attached at the end of this chapter for reference. As required by the Ordinance, one annual public hearing is held to apportion and allocate the use of this money. The allocations are usually done as part of the budgeting process and then presented to the public through the hearing process.

Hunterdon County has been a consistent partner in funding farmland preservation. The County generally pays twenty percent of the cost of easement purchases. The County has financially supported preservation beginning in 1980 when voters approved a \$2.2 million bond referendum for farmland preservation. In November, 1999 county voters approved a dedicated open space/farmland/historic preservation tax of up to \$.03 per \$100 of assessed valuation by a two to one margin. The Hunterdon County Comprehensive Farmland Plan (2008) reports that the County collected \$23,718, 416 from this tax during the five years between January 1, 2000 and December 31, 2004. These funds were used to preserve parkland, open space and approximately 7,384 acres of farmland.

The County has no policy that states a consistent percentage or amount of these funds be allocated to Farmland Preservation. These funds are used for preservation of farmland, open space and historic preservation. The amount allocated to each program is determined on a year to year basis by the Freeholders.

Table V-6 at the end of this chapter shows that E. Amwell Township has received \$3,989,131 in shared funding from the county to date for farmland preservation from these various County revenue sources with an additional \$604,780 allocated to the Township for purchase of easements on applications still pending.

Bonding Activity

Table V-5 at the end of this chapter records the bonding activity by East Amwell to finance Farmland Preservation. This summary records that East Amwell borrowed \$10,753,500 through bonding from 1993 to 2005 for all purposes. Of this total, \$9,449,500 or 88% was used to fund farmland preservation. The Township has made progress in reducing debt incurred through bonding. At the end of 2008, outstanding bonding debt was \$6,642,366. To date, East Amwell has not used any of the dedicated open space tax to service debt. The payments of interest and principal have been funded using reimbursements received through cost sharing with SADC and CADB and with annual tax revenue receipts.

Table V-6 at the end of this chapter is the record of monies spent for farmland preservation. The last column in the table provides the funding source used by the Township to pay its share. This record indicates that the Township has spent \$3,608,082 for farmland preservation to date. There are six pending applications with anticipated costs for the Township of \$620,980. When these preservation applications close, East Amwell's total expense for preservation will be over \$4 million dollars.

Pre-Acquisition

In 1997, when the Planning Board was beginning to develop the new Master Plan and discuss possible future change in zoning, the Mayor appointed a small committee consisting primarily of farmers and major landowners. This committee was asked to develop some alternatives that could preserve a lot of farmland and also protect farmer's equity with land values based on the then current three acre zoning. Ultimately this committee recommended the traditional and familiar mechanism for preservation by purchase of the development easements.

The Township Committee agreed to acquire development rights on as many parcels of farmland as there were interested sellers. East Amwell committed to advance 100% of the purchase price for the development rights to landowners. East Amwell planned to submit these properties to the CADB and SADC for cost sharing.

This program resulted in the preservation of nine farms. One of the farms preserved under this pre-acquisition program (Scibilia) is still pending for cost sharing by CADB and SADC.

The Township Committee will consider the pre-purchase option in the future in special cases but to date the preservation committee has not brought a formal request to them. We do not believe that pre-purchase is required to attract applicants to preservation but can be a helpful tool if preservation requires a timely closing that cannot be obtained through the usual process.

East Amwell has found the process of gaining cost share from both the County and State both cumbersome and expensive. Reimbursement is not a guarantee and the township prefers not to engage in this method of land acquisition on a regular basis.

Funding Partners

East Amwell has not developed any funding partners other than Hunterdon County and the SADC for farmland preservation. The Township has the usual cost sharing arrangement of 60% of the cost from SADC, 20% from Hunterdon County and 20% from East Amwell. Cost share percentages are based on the SADC sliding scale formula and the general range of easement values in East Amwell Township.

In the past cost sharing from the County was approved without problems. The Township approved its PIG applications and forwarded a request to the County for review and preliminary funding approval. These approvals were received without exception through 2008. In 2009, Hunterdon County changed the eligibility requirements for cost sharing for municipalities under the Planning Incentive Grant (PIG) program. The County extended the policy in place for CADB applicants to the Municipal PIG program. This policy required applicants to the municipal PIG program to sign option agreements stating a floor price for the development easements before appraisals were conducted. East Amwell landowners refused to sign because the document legally obligated them to accept the certified value for their easements with no good estimate of what that value would be. The "floor price" stated in the option agreement is based on appraisal data that is more than three years old. This policy has caused landowners to question the transparency of the County program.

East Amwell Township does not use Installment Purchase Agreement but pays its entire share of funding at closing. The Township believes this policy provides transparency to the program because Township funding is a certainty. Prospective applicants are so advised when reviewing the application form used by the Township which was modeled after the one developed by the County. Hunterdon County also pays its full cost share at closing.

East Amwell Township has partnered with D&R Greenway on projects to preserve or obtain land for open space or public access. The New Jersey Conservation Foundation is working to preserve the Higgins Property that is partially in East Amwell and partially in Somerset County. Part of this property would qualify as farmland. The Township Committee agreed to cost share with NJCF and other agencies and townships to preserve this property. Negotiations with the landowner are currently on hold. East Amwell will be ready to participate by cost sharing when the landowner is again ready to discuss preservation.

SADC Sliding Scale

SADC uses a sliding scale to determine their percentage of cost sharing. The sliding scale is based on the easement value per acre (see Table V-7 at the end of this chapter). For certified per acre easement values between \$9,000 and \$50,000/acre, SADC will pay 60% of the easement cost. To date easement values in East Amwell have not exceeded \$14,500/acre. The Township has enjoyed a 60% cost share on most properties. We do not anticipate that values will exceed the \$50,000 upper limit in the next five to ten years. We also anticipate that if values in New Jersey escalate, this sliding scale may need revision. We believe the values in East Amwell will not be in the upper ranges found in the highly populated, northern counties where extreme development pressure drives the land values upward. Our projections for cost share are based on receiving 60% from SADC, 20% from the County and budgeting 20% from the Township.

Cost Projections for One, Five and Ten Year Goals

We know that most land owners think about preservation for a long time before circumstances are right for their participation. Because of this, the committee has an information session every two years to discuss the various preservation programs. In addition, the Committee sends an annual report to all taxpayers. The 2009 report is included at the end of the Introduction Section to this plan. The report shows a map with all preserved properties and a short narrative describing some aspect of preservation. This serves as a reminder about the program on an annual basis. We continue to build trust between landowners and the Township so we are ready to help when they are ready to discuss preservation.

Table V-1 presents the list of sixteen targeted farms for preservation for a total of 1,453 acres. These represent the largest farms in the township with good soils and locations near already preserved farms. Members of the Farmland and Open Space Preservation Committee have contacted every landowner on this list. The Zuegner Farm has a current application, Chris Stahl has expressed interest and Lanwin Development is considering an application.

It is difficult to know when these farms will complete applications so our projections are based on a steady level of preservation throughout the ten year period namely 10% of the acreage or 145 acres each year. We need to preserve just one or two farms (depending on the size of the farm) each year to meet or exceed this target.

We have based our projections using \$12,000/acre for the cost of easements. The most recent appraisal (December of 2008) on the Zuegner farm indicated \$13,000/acre for the easements as follows:

Before the development easement:	\$23,000/acre.
After development easement	<u>10,000/acre</u>
Development easement value	\$13,000/acre

The before development value of this farm reflects its high development potential, size, good soils and excellent location. The after development value of \$10,000 is in line with recent sales of deed restricted properties. The deed restricted Kanach and Halstead farms sold recently for about \$10,000 to \$11,000/acre.

We based our projections on the more modest value of \$12,000/acre for the easements because this amount reflects a more modest "before" value for smaller farms with less development potential. These are the more typical farms in the Township.

Assuming an easement cost of \$12,000 per acre, the one, five and ten year preservation goals would be:

\$ 1,740,000	1 year	145 acres @ \$12,000
\$8,700,000	5 years	725 acres@ \$12,000
\$17,400,000	10 years	1450 acres @ \$12,000

At 20% obligation, East Amwell's cost would be respectively:

\$ 348,000	1 year
\$1,740,000	5 years
\$3,480,000	10 years

These numbers would seem to compare favorably with East Amwell's past record of preservation costs. Table V-6 indicates total expenditure to date is \$3.6 million and will reach \$4.2 million when all pending approved applications are closed.

Ancillary costs are estimated at \$10,000 per farm or \$140,000. The Township receives a 50% reimbursement for these costs. Therefore we would add about \$70,000 for a total cost of \$3,550,000 to the Township.

Township Debt Status and Bonding Capacity

East Amwell is in a very good position to borrow additional funds through bonding as shown here:

<u>Borrowing Power Under NJSA 40A:2-6 As Amended</u>	
3.5% of equalized valuation basis of \$794,561,610	\$27,809,656.35
Net debt as of 12/31/08	<u>(6.642.366.00)</u>
Remaining borrowing power	\$21,167,290.35

Even with borrowing power, the Township will continue to consider additional debt very carefully before approving large bond issues.

The East Amwell Open Space Trust Fund based on the 4 cents/hundred of assessed value will continue to grow only if assessed values continue to rise. It is unlikely assessed values will increase to any large degree. In 2009, East Amwell saw its first decline in assessed values since 2005. Since 2005, increases each year have been modest. These facts are reflected in Table V-4.

Further indication of slow assessed value growth, the number of building permits issued in the Township is going down and the building department fees in 2008 did not cover the costs of the department. The Building Inspector and his secretary have had their hours and/or salaries reduced in 2009 due to reduced fees and reduced demand.

New Jersey still seeks a source of dedicated funding to continue its cost sharing with municipalities with certainly and without interruption. The voters of New Jersey continued their support of farmland

preservation by approving the ballot initiative in November of 2009. An assured source of funding allows continuity in all preservation efforts by municipalities and counties and assures landowners interested in preservation that funding will be available.

Agricultural Advisory Committee (AAC) Farmland and Open Space Preservation Committee (FOSPC) and Administrative Resources

In 2003, East Amwell elected to create, in addition to the Agricultural Advisory Board, a Farmland and Open Space Preservation Committee. (See attached Chapter 26 of the East Amwell Township Code attached at the end of this chapter.)

What had been an ad-hoc activity by dedicated individuals became an organized activity within Township governing structure. The Committee hired Judy Conard as their part time administrator. She tracks applications as well as organizes meetings and responds to inquiries. A recording secretary also assists in the regular meeting minute preparation.

The Farmland and Open Space Preservation Committee works closely with the Agricultural Advisory Committee. We have joint meetings about three times per year. Several of their members are occupational farmers and they were most helpful in providing anecdotal evidence for some of the sections of this Plan. They have provided valuable insights about families interested in preservation and the FOSPC group has made contact with farm families through them.

From time to time, the Committee has relied on assistance from the Municipal Engineer, Municipal Attorney, Planning Board's Professional Planner, as well as the Township Clerk's office. All appraisal and survey work is contracted out.

East Amwell is too small to have a Geographic Information System at the office. Banisch and Associates as Professional Planners for the township have provided maps and other information to us. We relied on information provided by the Planning Board for the Agricultural Element in the Master Plan by Banisch Associates. The Committee continues to rely on them for its data and mapping needs.

FOSPC has a modest administrative budget to cover salaries and incidental expenses. Salary costs do not exceed \$10,000.00 and \$2,000.00 is budgeted for miscellaneous expenses. Costs for surveys, appraisals and other professional services, as well as the cost of easements for farmland preservation are part of a capital budget prepared by FOSPC annually. This budget is reviewed by the Township Committee and approved through the normal budget process.

Members of FOSPC meet each month with staff members from HCADB. Rick Steffey and Bill Millette are the CADB staff members working with the municipal and county PIG program and with the HCADB board. They have been helpful to us by providing information and resources when asked.

The Hunterdon County CADB should begin to operate more effectively because they have added several members to the board. Two full time farmers were added who should bring good perspective to the board. Mark Phillips grows fresh vegetables in Holland Township and John Pehinys is an East Amwell vegetable and grain farmer. Both have large direct marketing enterprises. Liz Schmid is the new non-farm member who has experience working on the municipal level with the program and will

understand the issues raised by municipalities. She may be able to suggest ways to streamline the process and shorten the time from application to closing.

Factors Limiting Farmland Preservation

The first ten years of cost sharing with the County and State were stable because the Garden State Preservation Trust assured a guaranteed source of funding. This First GSPT funding expired in 2008. The funding available in 2009 is limited. Limited funds required the Township and the FOSPC committee to rethink their policies. The funding we received for the current round allows the Township to fund only one farm with certainty.

It is the policy of FOSPC to discuss the availability of funding with landowners interested in preservation. We currently have two landowners interested in preservation but have been placed on a wait list because of the uncertainty and amount of future funding. We believe the program gains credibility with landowners because of open communication and honest discussion about funding availability.

East Amwell has supported farmland preservation for many years and the Township Committee has responded positively to funding requests through the budgeting process. The preservation program has slowed in East Amwell due to reduced cost share funding.

As discussed earlier, the County responded to limited funding by extending their option agreement requirement to Municipal PIG applicants. Three East Amwell applicants were not approved for cost sharing because they would not sign the option agreement. East Amwell discussed the negative effects of this rule with HCADB but could not prevail.

Landowner Interest

Landowner interest remains high. Outreach efforts through formal meetings, individual contacts by members of FOSPC and the Agricultural Advisory Committee, the annual report and other efforts have kept landowner interest in preservation at a high level. Citizens of East Amwell have supported funding for preservation and have consistently voted in favor of local, county and state ballot funding requests.

Other Limiting Factors

Landowners consistently express concern and frustration about the length of time it takes to close a farmland preservation application. The process is very cumbersome with many levels of approval. Municipalities must depend on staff at the CADB, the County Attorney, review engineers and many others to continue the process toward closing. The progress of the application bogs down whenever a problem is encountered with title, subordination, survey details and a myriad of other requirements. Perhaps every application needs a champion at the SADC to track its progress through the system. It takes continued monitoring to know where the application is at any moment in time and then to determine who has the power to move it to the next step. It takes about two years to close an application with no major problems. We have applications at East Amwell pending for more than five years.

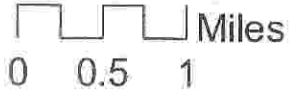
Project Areas and Target Farms

East Amwell Township
Hunterdon County, NJ

December 2007

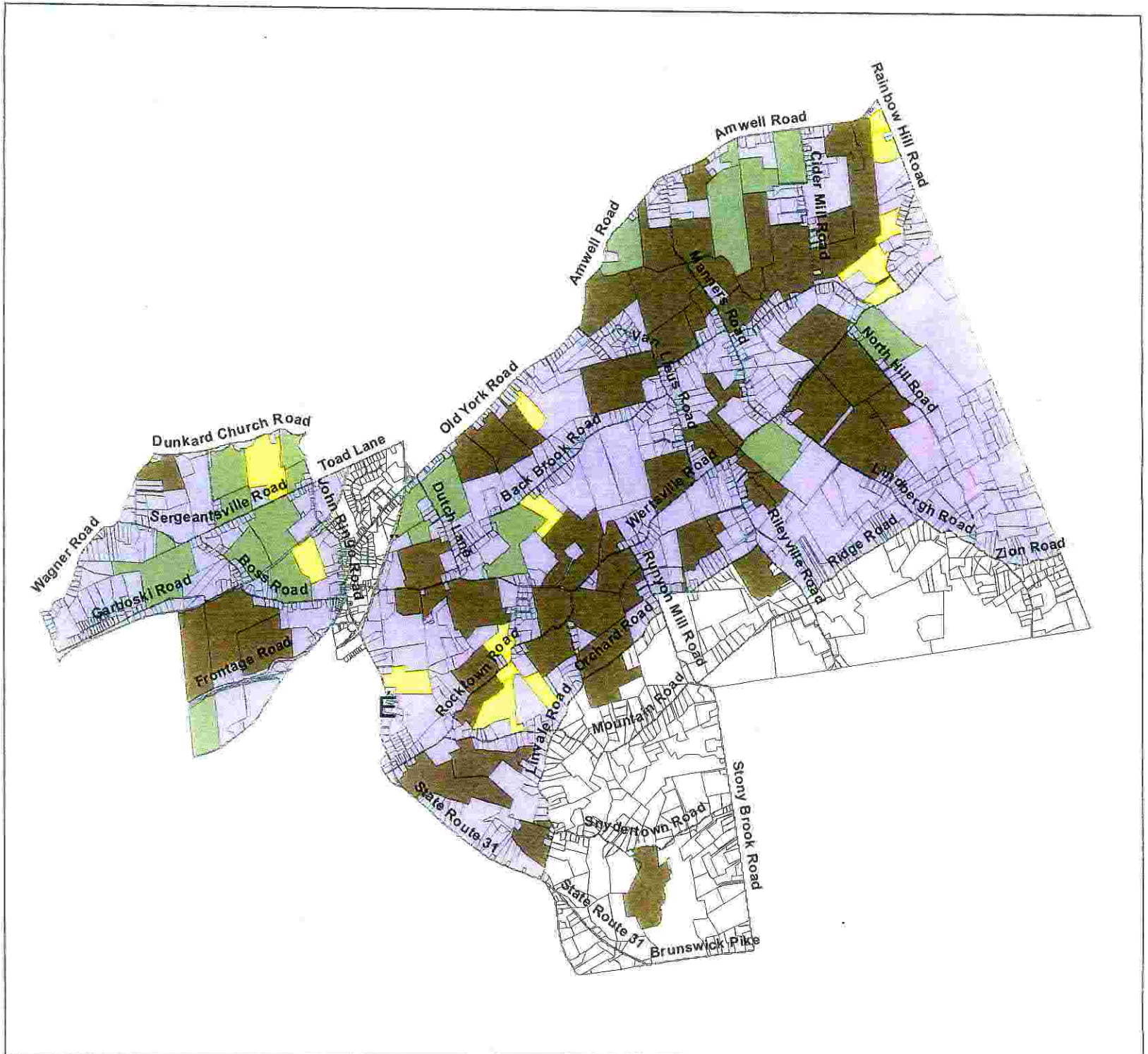
Legend

-  Target Farm
-  Preserved Farm
-  Project Area
-  Farm Preservation In Progress
-  Parcel



Data Sources:
Hunterdon County Division of GIS
NJGS

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





East Amwell Township Project Area, Agricultural Zoning District, Hunterdon County ADA and State Planning Area

East Amwell Township
Hunterdon County, NJ




March 2009

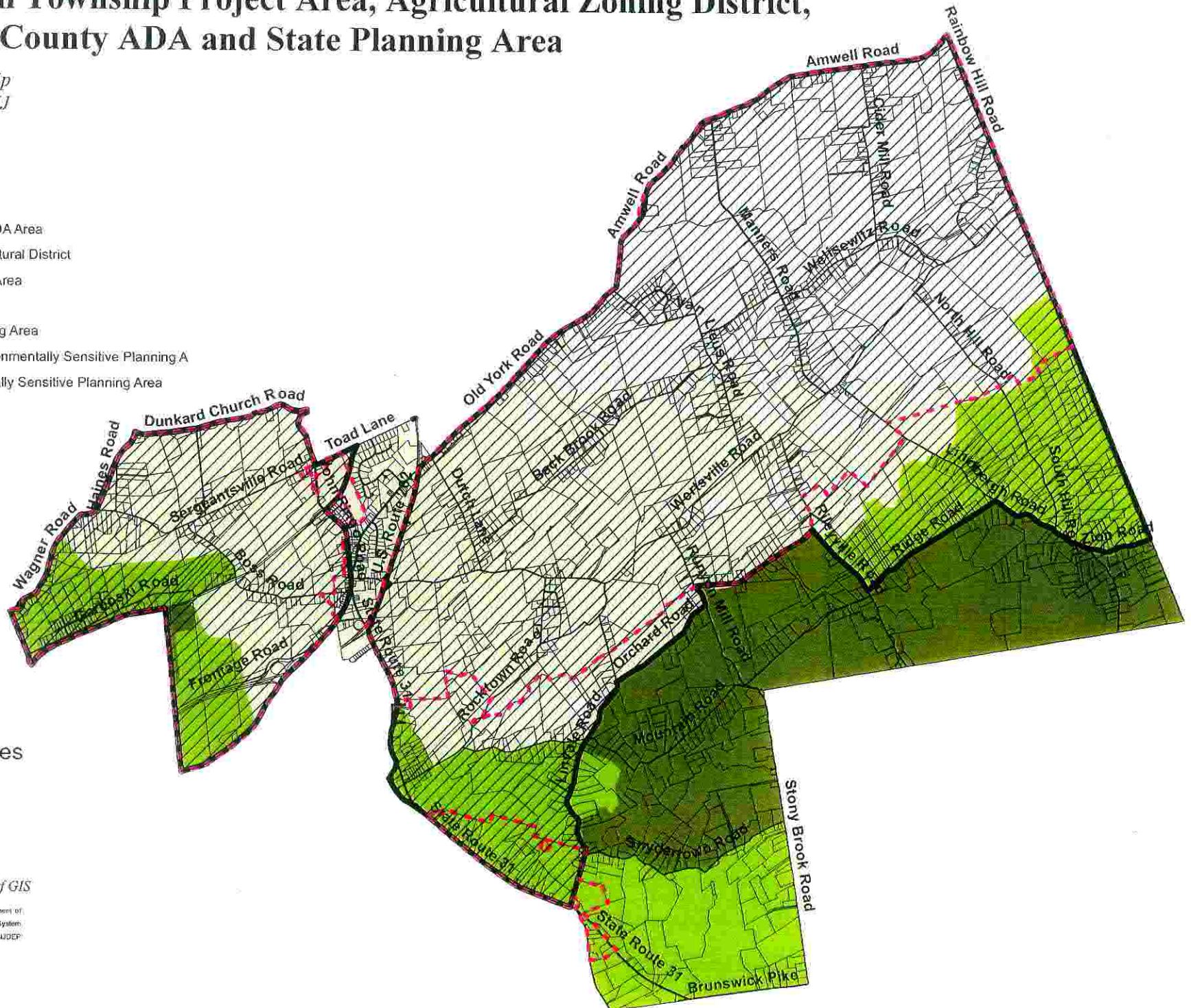
Map V-B

Legend

-  Hunterdon County ADA Area
-  Amwell Valley Agricultural District
-  East Amwell Project Area

State Planning Area

-  04.PA4 Rural Planning Area
-  05.PA4B Rural/Environmentally Sensitive Planning A
-  06.PA5 Environmentally Sensitive Planning Area



Data Sources:
NJDEP
Hunterdon County Division of GIS

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

TARGETED FARMS
East Amwell Township
TABLE V-1

NAME	ACRES	BLOCK	LOT	% Prime Soils	% State Soils
Everitt, Roger & Alice	56	3	1, 2.02	30.52	59.88
Hockenbury, Irvin & Vilma	64	18	3	34.53	44.02
Holcombe, Robert & Barbara Ann	97	34	34	76.41	23.59
Perehynys Farm	130	6	13, 25	45.26	51.22
Perkovich, Edward & Sarah	113	3	4, 5	58.39	40.57
Slivis, Salvatore & Margo	62	8.02	29	64.83	35.17
Lanwin Development Corporation	89	21	1	77.66	20.93
Thompson, Bryce	0.06	20	17.01	small triangle as part of BI 21 Lot 1	
Jorgenson:Southwark	63	11	3	56.20	28.67
Stahl, Chris	145	5	1.06 & 2	69.86	30.14
Thompson Realty	58	16.01	26,27	64.34	35.00
Thompson	88	25	2	10.99	50.92
VanDoren Family	144	20	16,16.01,30	38.12	52.54
Welisewitz, Nick & Robert	165	20	8,9	47.92	38.52
Wertsville Industries	97	35	3	55.90	21.89
Zuegner, Louis & Jeanne	82	17	34	49.48	39.97
Total Acres	1453.06				

2002 Land use/Land Cover for East Amwell Township

Type	Total	%
Agriculture	8,001	44
Forest	4,928	27
Urban	2,701	15
Wetlands	2,460	13
Barren Land	103	1
Water	94	1
TOTAL	18,287	101

**due to rounding*

2002 Land Use/Land Cover for East Amwell Proposed Project Area

Type	Total	%
Agriculture	7,281	54
Forest	2,763	20
Urban	1,953	14
Wetlands	1,333	10
Barren Land	103	1
Water	82	1
TOTAL	13,515	100

2002 Land Use/Land Cover Cropland and Pastureland*

Category	Acres of Cropland/Pastureland	Total Area (Acres)	Percentage of Area
Township Wide Cropland and Pasture Land	7,297	18,288	40
Amwell Valley Agricultural District Cropland and Pasture Land	6,201	11,109	56
Township Project Area Cropland and Pasture Land	6,716	13,515	50

**Using GIS calculated acres*

Farm Capable Soils for East Amwell Township

Soil	Total Acres	%	Acres in Agricultural Areas (2002 EU/EC cropland and pastureland)	% in Agricultural Areas (2002 EU/EC cropland and pastureland)
Prime Soils	5,639	31	3,322	46
Statewide Important	7,453	41	3,191	44
Total	13,092	72	6,513	90

Land Use/Land Cover Change 1986 to 2002

	1986		1995		2002		Percent Change
	Acres	%	Acres	%	Acres	%	
Agriculture	9,059	50	8,387	46	8,001	44	-12
Barren Land	34	0	11	0	103	0	202
Forest	4,572	25	4,850	27	4,929	27	8
Urban	2,064	11	2,475	14	2,701	15	31
Water	68	0	84	0	94	0	38
Wetlands	2,491	14	2,481	14	2,460	13	-1
TOTAL	18,288	100	18,288	101*	18,288	100	

EAST AMWELL TOWNSHIP
Table V- 3

CRITERIA FOR RANKING FARMS IN THE PIG PROGRAM

Minimum Criteria to be eligible to apply to the PIG Program in East Amwell Township

- 25 acres or more
- Currently under Farmland Assessment
- 50 feet or more of road frontage
- 30% or more tillable acres

POINT RANKING SYSTEM

CRITERIA	HOW MEASURED	POINTS
Size	For each acre offered for preservation	1
Frontage	Add all feet of frontage remaining after exceptions (use tax map) and divide by 50	as calculated
Linkage	Add feet in contiguous border with preserved property and divide by 100	as calculated
Non-severable Exception	for each new house created	-5
Non-severable exception	for existing house	0
Severable exception	for each severable exception	-10
Tillable acres	for each tillable acre	1
Prime soils	for each acre of prime soil	1
Statewide soils	for each acre of statewide soil	1

Other Considerations (Non-quantifiable)

- AVTA usage
- Historic value
- River Friendly
- Viewscape
- Conservation Plan on file with the Soil Conservation District

TABLE V - 4

OPEN SPACE TAX HISTORY RECEIPTS					3/24/2009
		County	Add/Omit		
	Tax Levy	Grant	OS Tax	Total	
1999	148,881			148,881	
2000	150,614			150,614	
2001	154,140			154,140	
2002	155,400	12,649		168,049	
2003	156,000	15,458	1,485	172,943	
2004	159,500	18,706	2,141	180,347	
2005	313,315	17,475	1,518	332,308	
2006	313,694	32,276	2,389	348,359	
2007	314,523	35,050	3,097	352,670	
2008	316,690	38,561	1,364	356,615	
2009	314,332	38,498		352,830	
Sub-totals	2,497,089	208,673	11,994		
Grand Total				2,717,756	
Tax rate is 4 cents per hundred as of 2005					
Was 2 cents per hundred in prior years.					

TABLE V-5

EAST AMWELL TOWNSHIP DEBT			TOTAL	OPEN SPACE		12/31/2007	12/31/08
			DEBT	FARMLAND		BALANCE	
15 year bond-maturing 2008	1993						
4.65% Ren Mun Bldg		556,000					
Manners/Hill/Totten		389,850					
Kinderman		65,650					
Thompson		228,500					
Gulick		204,000	1,444,000	888,000	62%	120,000	0
15 year -St NJ Loan-Ren Mun Bldg	1994	179,500	179,500			11,967	0
20 year bond-maturing 2018	1998						
5.07% Dufosse/Weeden		271,000					
Sowsian		779,000					
COAH		550,000	1,600,000	1,050,000	66%	1,065,000	995,000
20 year bond-maturing 2021	2001						
4.65% Kanach		1,704,000					
Scibilia		49,000					
Clawson		125,500					
Schwab		109,500					
McLarty		85,500					
Menchek		55,000					
AVC		371,500	2,500,000	2,500,000	100%	1,965,000	1,865,000
20 year bond-maturing 2023	2003						
4.074% Farms-Nielson/Nemeth/Russell		295,000					
Clawson		213,000					
Halstead		141,000					
Women's Crisis Center		18,500					
McLarty		400,000					
Mencheck		240,000					
Hill		266,000					
Scibilia		170,000					
Kanach		472,000					
AVC		604,500	2,820,000	2,801,500	99%	2,420,000	2,320,000
BANS Various Farms	2007	1,000,000	1,000,000	1,000,000		1,000,000	1,000,000
Reiter		710,000	710,000	710,000	100%	696,150	0
Green Acres Loan	2005						
2% Clawson		500,000	500,000	500,000	100%	487,580	462,366
TOTAL DEBT		10,753,500	10,753,500	9,449,500	88%	7,765,697	6,642,366

TABLE V-5 EAST AMWELL DEBT HISTORY

NEW SADC COST-SHARE FORMULA

When developing the funding plan it is important to note that the SADC uses a sliding scale to determine the State's cost-share (N.J.A.C 2:76-6.11).

The SADC will pay:

Certified Market Value	SADC % Cost Share
From \$0.00 to \$1,000	80% of the first \$1000 of easement value
From \$1,000 to \$3,000	\$800 + 70% over \$1000
From \$3,000 to \$5,000	\$2,200 + 60% over \$3,000
From \$5,000 to \$9,000	\$3,400 + 50% over \$5,000
From \$9,000 to \$50,000	60%
From \$50,000 to \$75,000	\$30,000 + 55% of easement value over \$50,000
From \$75,000 to \$85,000	\$43,750 + 50% of easement value over \$75,000
From \$85,000 to \$95,000	\$48,750 + 40% of easement value over \$85,000
From \$95,000 to \$105,000	\$52,750 + 30% of easement value over \$95,000
From \$105,000 to \$115,000	\$55,750 + 20% of easement value over \$105,000
Over \$115,000	\$57,750 + 10% of easement value over \$115,000

The final funding share will be determined by the certified market value established by property appraisals and approved by the SADC.

Chapter 27

OPEN SPACE TRUST FUND

§ 27-1. Trust fund established.

§ 27-3. Funding.

§ 27-2. Apportionment and allocation of fund.

§ 27-4. Sale of property.

[HISTORY: Adopted by the Township Committee of the Township of East Amwell 6-10-1999 by Ord. No. 99-18. Amendments noted where applicable.]

GENERAL REFERENCES

Powers of Environmental Commission concerning open space preservation — See Ch. 14, § 14-8. Land management — See Ch. 92.

§ 27-1. Trust fund established.

There is hereby established a reserve in the General Capital Fund which shall be known and designated as the "Municipal Open Space, Recreation and Farmland and Historic Preservation Trust Fund." A special bank account shall be opened and maintained for this purpose. Funds from the Municipal Open Space, Recreation and Farmland and Historic Preservation Trust Fund may, as directed by the Mayor and Township Committee, be utilized to acquire by gift, purchase or by eminent domain proceedings pursuant to N.J.S.A. 20:3-1 et seq. development easements, or other easements, vacant land, as well as land which has improvements upon it at the time of acquisition, where the principal purpose of the acquisition is for any or all of the following purposes, or any combination thereof.

- A. Acquisition of lands for recreation and conservation purposes;
- B. Development of lands acquired for recreation and conservation purposes;
- C. Maintenance of lands acquired for recreation and conservation purposes;
- D. Acquisition of farmland for farmland preservation purposes;
- E. Historic preservation of historic properties, structures, facilities, sites, areas, or objects, and the acquisition of such properties, structures, facilities, sites, areas, or objects for historic preservation purposes; or
- F. Payment of debt service on indebtedness issued or incurred by the Township of East Amwell for any of the purposes set forth in Subsections A through E above.

§ 27-2. Apportionment and allocation of fund.

The Mayor and Township Committee, annually, after the holding one public hearing thereon, shall apportion and allocate the use of such tax receipts among the purpose or purposes set forth in § 27-1A through F.

§ 27-3. Funding.

The Municipal Open Space, Recreation and Farmland and Historic Preservation Trust Fund shall be funded through the dedication to the fund of an amount of \$0.04 per \$100 of assessed valuation of each annual tax levy commencing with the year tax and budget year 1999. The fund shall also be permitted to accept donations and testamentary bequests. The accumulated receipts and deposits with the fund may be utilized for the purposes set forth in §§ 27-1 and 27-2 herein. Any and all interest accruing shall be retained in and used for the same purposes as established in accordance with §§ 27-1 and 27-2 herein. All moneys set aside for open space as of the effective date of this chapter shall be deposited into the fund.

§ 27-4. Sale of property.

- A. No property acquired with these funds shall be leased or sold, unless action has been authorized by the Mayor and Township Committee in a manner as prescribed by law.
- B. The Mayor and Township Committee, after at least one public hearing thereon, and upon a finding that the purposes of this chapter might otherwise be better served or that any land acquired by the Township of East Amwell pursuant to this chapter is required for another public use, may by ordinance convey, through sale, exchange, transfer or other disposition, title to, or a lesser interest in, that land, provided that the Township of East Amwell shall replace any land conveyed under this section by land of at least equal fair market value and of reasonably equivalent usefulness, size, quality and location to the land conveyed. Any money derived from the conveyance shall be deposited into the fund created thereunder.
- C. Any conveyance made pursuant to this section shall be made in strict accordance with the Local Lands and Buildings Law (N.J.S.A. 40A:12-1 et seq.). In the event of conveyance by exchange, the land or improvements thereon to be transferred to the trust shall be at least equal in fair market value and of reasonable equivalent usefulness, size, quality and location to the land or improvements transferred from the trust.

Chapter 26

FARMLAND AND OPEN SPACE PRESERVATION COMMITTEE

§ 26-1. Establishment.

§ 26-2. Membership.

§ 26-3. Term of office.

§ 26-4. Officers.

§ 26-5. Administrative secretary.

§ 26-6. Public meetings.

§ 26-7. Powers and duties of Committee.

[HISTORY: Adopted by the Township Committee of the Township of East Amwell 5-8-2003 by Ord. No. 03-07. Amendments noted where applicable.]

GENERAL REFERENCES

Open space trust fund — See Ch. 27.

Right to farm — See Ch. 110.

§ 26-1. Establishment.

There is hereby established a Farmland and Open Space Preservation Committee (the "Committee") in the Township of East Amwell, which shall consist of five members and two alternates whose terms, powers and affiliations are set forth herein.

§ 26-2. Membership.

- A. Regular members. The Farmland and Open Space Preservation Committee shall consist of the following residents to be appointed by the Mayor:
- (1) Mayor (or Mayor's designee).
 - (2) Four members of the public who shall hold no elected office in the Township.
 - (3) Two alternates who shall hold no elected office in the Township.
- B. Liaisons. A liaison to be selected annually by each of the boards, committees and commissions listed below and shall serve in a non-voting capacity:
- (1) Agriculture Advisory Committee.
 - (2) Planning Board.
 - (3) Environmental Commission.
 - (4) Recreation Committee.
 - (5) Historic Preservation Committee.
- C. Volunteers. All members shall serve without remuneration.

§ 26-3. Term of office.

- A. Mayor (or Mayor's designee): one year.
- B. Regular member. Initially these members shall serve for staggered terms of one at three years, one at two years and two at one year. After the completion of the initial terms, the terms of these members shall be three years.
- C. Alternate members. Initially, the first alternate will have a two-year term, and the second alternate a one-year term. After completion of the initial terms, the terms shall be two year terms.

§ 26-4. Officers.

Initially, the Chair and Vice Chair shall be appointed annually by the Mayor for a one-year term. Thereafter, the Chair and Vice Chair shall be selected from the regular members and voted upon by the regular members for one-year terms.

§ 26-5. Administrative secretary.

An administrative secretary shall be appointed annually by the Township Committee. It shall be the secretary's responsibility to maintain minutes of the Committee's meetings and records of the proceedings of the Committee as well as any administrative duties as determined by the Committee. This shall be a paid position.

§ 26-6. Public meetings.

The Farmland and Open Space Preservation Committee shall hold public meetings on a regular basis, which shall be held in accordance with the Open Public Meetings Act¹ and upon appropriate notice of such meetings having been given.

§ 26-7. Powers and duties of Committee.

The Committee shall:

- A. Review on an annual basis the Township's Municipal Open Space, Recreation and Farmland and Historic Preservation Program as set forth in Chapter 27 of the Code of the Township of East Amwell.
- B. Advise the Township Committee on the financial needs of the various preservation plans and on the use of the funds in the Municipal Open Space Trust Fund as set forth in the Township's Open Space Trust Fund Ordinance (Chapter 27 of the Code of East Amwell Township).
- C. Develop and update for the Township Committee's approval criteria for the preservation of open space and farmland.

1. Editor's Note: See N.J.S.A. 10:4-6 et seq.

- D. Seek on behalf of the Township opportunities for the preservation of open space and farmland in the Township.
- E. Research funding from governmental and private sources as well as other means for preserving open space and farmland in the Township.
- F. Inform and educate residents about the Township's open space and farmland preservation programs and goals.
- G. Maintain an inventory of preserved lands and conservation easements in the Township.
- H. Monitor compliance with deed restrictions and easements in the Township.
- I. Perform such administrative duties as are necessary for the implementation of the Township's open space and farmland preservation programs and goals.

CHAPTER VI. ECONOMIC DEVELOPMENT

Consistency with NJ Department of Agriculture's Economic Development Strategies

The New Jersey Department of Agriculture's 2008 Economic Development Strategies reviews the State's agricultural sectors and provides economic development strategies to support each sector. In East Amwell field and forage crops, and equine are dominant sectors, while ornamental horticulture (nursery), wine, livestock and produce are secondary but important. The sectors of dairy and agri-tourism have more limited applications at present in East Amwell. Locally grown produce (organic and non-organic) and livestock are agricultural uses that can operate on smaller farm parcels, and provide important food supplies. Everyone eats and has a vested interest in agriculture.

(<http://www.nj.gov/agriculture/conventions/2008/08EcoStrategies.pdf>)

Field and forage crops

The field and forage crops sector, the dominant agricultural use in East Amwell, assists in supplying the Township's large equine sector as well as the smaller livestock sectors in the township. See Table V-2 in Chapter V for data on the Cropland and Pastureland in the Township. The Amwell Valley is well known for its working agricultural landscape. Acres of hay, soybeans, corn, and winter wheat are interspersed with equine farms for horse breeding, pleasure riding and boarding opportunities. Currently, the demand for hay to feed the equine sector exceeds the local and regional supply. Local farmers import hay from other states and in some years from Canada, to satisfy their customers' needs. Despite the current economic slump, the demand for field crops to provide animal feed is strong and is anticipated to continue into the future.

Members of the Agricultural Advisory Committee report that most hay produced in the Township is sold to local horse owners. The profit margin for hay sold locally is likely increased with reduced cost for delivery. The committee further reports that many farmers buy hay from other locations to meet demand from local customers.

Agricultural Advisory Committee members indicate that a large capital investment in equipment is required to shift to new commodity production. If a farmer wants to shift production from hay to wheat or corn or soybeans, an investment in new harvest equipment would be required. The need for specialized equipment for production of different crops makes changing farming enterprises difficult. This need for new equipment is also cited by the AAC for why they have not shifted to more fresh market vegetables to meet demand for food that is locally grown or to a Community Sponsored Agriculture (CSA) enterprise.

Local farmers contend that Federal government programs which pay farmland owners to let their land lie fallow contribute to the problem of insufficient local/regional market supply of field and forage crops. Farmers who cultivate their own lands and lands that they rent, find themselves in competition with these federal programs that offer landowners comparable funding per acre with the local market rents.

NJDA field crop strategies include improving production and yield per acre for corn, soybeans, small grains, grass hay, alfalfa hay, pasture and other alternative forage & feed crops. The East Amwell Agricultural Advisory Committee encourages local farmers to attend Rutgers Cooperative Extension and NRCS workshops on these subjects.

The NJDA strategy to support organic field crop production to increase the value of certified organic soybeans, corn and wheat has resonance with a few East Amwell farmers who are growing organic field crops on preserved farmland. Successful economic return will be the key factor in expanding organic production.

Sunflowers, a specialty crop, could become more attractive to farmers if it proves to be economically positive. It is currently grown in one location under contract to NJ Audubon for birdseed sales. Grassland habitat for birds, a dedicated part of one large farm holding, is being marketed as a positive economic return for farm owners under the New Jersey Agricultural Heritage SAFE project. The New Jersey Grassland SAFE project is being led by the Conserve Wildlife Foundation. Grassland is mowed/cut at prescribed times, enabling a forage crop to be taken for livestock feed. The economic return for the farmer will determine its future acceptance.

Equine industry

NJDA's economic development strategies for the equine industry include ensuring horse health, promoting the industry and improving right to farm protection. These strategies are supported by horse breeders and owners in East Amwell. The Amwell Valley Trail Association, an organization of horse owners and supportive community members, serves as an advocate and information source on equine issues. Its network of approximately 70 miles of mapped and maintained trails, the largest on private land in the Northeast, is important to the access of boarding stables. Its newsletter publishes the names of local farmers selling hay.

Vineyards

NJDA's strategies to enhance the economic development of vineyards include increasing grape production, supporting the wine industry at trade shows, and expanding the Jersey Fresh Wine Festival and retail outlets. In 2008 the two vineyards in the township were successfully sold to new owners. Both vineyards involve agri-tourism to which the new owners intend to bring new management and marketing plans. Unionville, the larger of the two vineyards, uses approximately 40% - 60% of their own vineyard grown grapes and grapes grown on neighboring parcels to currently produce approximately 4500 cases of wine per year. Unionville also buys grapes from two wineries in Finesville, NJ, one vineyard in Cape May, NJ, and has used only grapes grown in New Jersey since 2004. While approximately 60% - 70% of Unionville's sales are from on-site purchases, the new owners' marketing plans call for an increase in outside sales. The office of New Jersey Tourism highlighted Unionville in its brochures, posters and public relations events.

Ornamental horticulture

Ornamental horticulture is New Jersey's leading agricultural sector. Economic development strategies include ensuring plant health, increasing consumer awareness of Jersey Grown products, and promoting government agencies use of Jersey produced products. There are three nursery and ornamental horticulture operations in East Amwell meeting the growing need for their products and services. Sweet Valley Farm, one of two nurseries located on Route 202-31, farms its own horticultural stock on the family's farm land in the western part of the Amwell Valley. Sweet Valley Farm market continues to diversify its operations with a successful seasonal produce farm market that sells its own and locally grown tomatoes, peppers, squash, corn and pumpkins. It enjoys strong community customer support, as well as attracting passers-by and commuters on Route 202-31 for its well-known produce.

Organic industry

East Amwell's location in west-central New Jersey puts it in a "hot spot" for organic food with an increasing number of small organic farms that sell produce directly to consumers. Organic produce grown in the township is marketed off the local farm and at various farm markets in the area. The NJDA's strategy to promote cost-sharing to help offset organic grower certification costs, as well as to promote the marketing of organic agricultural products will be welcomed. The Association for New Jersey Environmental Commissions in May 2009 sponsored a forum in Lambertville on the potential for organic farming in the region. Presentations were made on behalf of a variety of organic farm operations in the area. This forum will be repeated in the fall or early spring, at a time more convenient for farmers.

Livestock and poultry industry

Llama and alpaca are raised in East Amwell for breeding stock and fiber. These specialties will continue if the economics continue to be positive. The township's livestock sector also includes beef, goat and sheep operations on both large and small farm operations. The land use trend to small farm parcels has been consistent and will continue. NJDA strategies include ensuring animal health and marketing efforts, encouraging the production of goat products and the production of grass-fed animals, promoting livestock sales, and supporting youth programs as 4-H. These are strategies welcomed by those in the township raising livestock.

Future growth of dairy farming in the township is questionable. There is one remaining dairy farm in East Amwell, located off Old York and Cider Mill roads in the northeastern section of the township.

Jersey Fresh Foods

There is a growing trend of locally owned restaurants in the area to advertise their support and use of local farm produce. Farm providers are listed in menus, and seasonal produce and meat and cheeses sources are identified. Customers appreciate the local connection by buying and supporting local agriculture in the restaurant and at farm markets.

A Community Supported Agriculture operation (CSA), Honey Brook Farm, is located in neighboring Hopewell Twp. on land owned by the Stony Brook-Millstone Watershed Association. This CSA is one of the most successful nationally, with a waiting list each year of prospective customers residing locally and extending into northern New Jersey. CSAs are a viable instrument to extend the markets and reach of local agricultural products, while promoting the appreciation and benefits of local farms to the residents of the state. CSAs serve as valuable employment training opportunities for those interested in working in agriculture. North Slope Farm in neighboring West Amwell Township is an organic operation that began as a CSA but is now focused on training interns to work on organic farms. East Amwell would be supportive of a CSA and is supportive of organic farming in the township.

Agricultural Industry Retention, Expansion and Recruitment Strategies

Hunterdon County Economic Development Strategies

Hunterdon County is actively involved in the administration of the county and state farmland preservation programs. However, the County is not involved in agricultural retention programs. While the CADB may support agri-tourism and community farmer markets, generally it does not prepare or promote these programs. However, in July 2009 CADB staff created a local farm market database, web link, and county-wide map of honor box farms, farm stands, regional and commercial farm markets.

Rutgers Cooperative Extension Service sponsors seminars on farming and disseminates educational information to farmers and the general public.

East Amwell Agricultural Advisory Committee

The Agricultural Advisory Committee is a standing committee with the responsibility of advising the Township Committee, Planning Board, Board of Adjustment, Environmental Commission and Farmland & Open Space Preservation Committee on positive means of enhancing agriculture in the township, as well as avoiding obstacles to agricultural viability. The AAC acts as a sounding board and works directly with the township's farmers to help solve problems. It serves as an important public information link between the NJDA, SADC, the agricultural community and the township's citizens. A member of the Township's AAC was appointed recently by the Freeholders to serve on the CADB.

East Amwell's AAC will continue to utilize the SADC's Farm Link Program as an important resource and referral center for queries from local farmers seeking access to land and farming opportunities, landowners seeking farmers and farmers working on estate and farm transfer plans.

The AAC uses the free East Amwell monthly volunteer newsletter (the VIP) as a means of communicating with East Amwell residents on programs of township-wide interest. For example, responding to questions received from members of the community about how farmland can be used after it is preserved. The AAC maintained a website *East Amwell Grows* but in the future will use the Township's new updated website. This will allow the AAC to post farmers' information and products for sale. Utilizing the Township's website will enable the AAC to expand communications between farmers and consumers.

The AAC will continue to work with the agricultural advisory committees of neighboring municipalities to coordinate and sponsor Farm Forums on issues of interest to farmers with large land holdings as well as those with smaller properties. The topics of Farm Forums have included the use of bio-diesel, solar and wind power, farmland preservation, farm financing, hay marketing, as well as the raising of specialty livestock. Future forums will consider pasture management, and the newly adopted state requirements on animal waste management. The forums sponsored on the local level enhances the work of the Rutgers Extension Service.

Public relations support of agriculture also is provided by the 4-H and Agricultural Fair located in East Amwell at the South County Park in the western part of the Amwell Valley. The focus of the Fair Organization, which sponsors the 4-H and Agricultural Fair, is to enhance the viability of agriculture on the local and county level. The Fair Organization promotes the future of agriculture by sponsoring events throughout the year that allow local residents to showcase their agricultural achievements to the general community. The Fair works directly with 4-H Clubs in the County, with the goal of developing the leadership and farming skills of youth in club activities. The East Amwell AAC and Environmental Commission sponsor information booths at the 4-H and Agricultural Fair, and can assist in public relations promoting these events.

East Amwell conducts bi-annual forums on farmland preservation and open space conservation. Speakers have represented SADC, Green Acres, the County and non-profits such as the D&R Greenway Land Trust, New Jersey Conservation Foundation, and Hunterdon Land Trust Alliance. Presentations that recommend estate planning to the township's landowners is always included in

these forums. Future programs also will inform residents on the positive effects of farmland preservation and open space conservation on their quality of life, as well as information on the location and availability of hiking trails open to the public on conserved land in the township.

East Amwell is located in the Crossroads of the American Revolution National Heritage Area, and the Township's Historic Preservation Committee is planning programs on the experience and role of township residents in the events of that important time in our country's history. This Committee in 2008 conducted a bus tour of the township featuring historic farm barns and houses. The tour was popular, attracting more participants than could be accommodated, and will be repeated this year.

The local municipality and the county depend on the state Department of Agriculture and agricultural organization advocates to provide the leadership that will enable the retention and expansion of the agricultural industry in the state. However, the roots of agriculture are in the local communities that value and support the industry. In a state that is densely populated and suburbanized, the needs and services that the agricultural industry requires receive short-shift when decisions are made on appropriating public resources. Agriculture (food) policy is important to all of us. **Everyone eats and has a vested interest in agriculture.**

Community Farmers Markets

The Hunterdon Land Trust Alliance's successful regional farm market on the preserved Dvoor Farm in Flemington operating from late May thru early November continues to attract an increasing number of customers. Participating farmers pay a low fee to make their goods available for sale to customers from a wide region, including Pennsylvania. Smaller farm markets operate during the summer in neighboring Delaware and West Amwell townships. On Wednesdays, throughout the year there is a farm market in neighboring Hopewell Borough which draws a consistent number of participants. East Amwell will use its website to publicize these farm markets.

Businesses

The Agricultural Advisory Committee reports that township farmers have ready access to suppliers for farm needs such as fertilizer and seed. There are several farm equipment dealers who sell smaller equipment and used equipment within the County. These dealers are D&R Equipment, the County Mechanic, Power Co., Smith Motors and Pennington Sales & Service, and others. Fertilizer and seed are available in bulk through suppliers such as Gro-Mark and Plant Food, or bagged as Rosedale Mills. Individual farmers sell seeds as a side business to their farming operations, with the delivery of these inputs directly to the farm.

Pennsylvania has many outlets for larger farm equipment and parts that are not available locally. The distance to these suppliers is not reported as a problem as overnight delivery services and direct delivery by suppliers can provide next day service.

Recently a new Tractor Supply store opened in Flemington on Route 202-31, providing equipment and bagged feed for small farm operations. Its sales and services appear to duplicate some of present-day Agway, which closed its long-established feed processing operation a number of years ago.

The closest grain processing operations are in Pennsylvania, and local farmers must make that trip. The only federally sanctioned livestock slaughterhouse in New Jersey is located in South Jersey. Livestock operations, whether small or large, must go there in order to be able to sell the meat to the public and to

restaurants. With a growing number of small farms raising livestock there is increased interest and advocacy for the services of a traveling abattoir. Chicken processing operations are also limited, unless a farm has a sufficient number of birds to make it economical to meet government health standards on-site.

Anticipated Agricultural Trends

Agriculture in East Amwell will follow the trend in Hunterdon County. There will be smaller, more intensive use farms. Part-time farmers will continue to dominate the industry. East Amwell and the County will continue to see the wide diversity in farming that has been a hallmark of the industry.

The overview of the agriculture industry in the Township is found in Chapter II of this Plan and documents how agriculture has evolved in this township. Field crops such as corn, soybeans and wheat continue to decline in acres planted. These crops take a large land base and do not work well on smaller farms. Production of hay continues to increase in order to support the more diversified livestock now in the Township. It is well known that dairy farming in East Amwell, the County and the State continues to decline. Horses continue to increase in number along with llamas and alpacas. Part-time farmers keep livestock requiring less intensive management and fewer head to accommodate their smaller farms. Part-time farmers who do not have the time or the land to plant enough hay or other feed for their livestock create a market for hay and grain farmers. Part-time farmers are also important because they keep land farmed and not developed.

Consumers will continue to demand fresh produce and many are aware of food safety issues. The trend to "buy locally" will present marketing and profit opportunities to farmers willing to grow quality produce and deal with the public in direct marketing.

The area of organic farming presents opportunities for economic growth. Organic farming spans the fresh produce, locally raised and processed meat, organic poultry and eggs, as well as grains. Hunterdon County has a population with high per capita income that can support these smaller, specialized enterprises.

East Amwell is fortunate to have a farm market, Sweet Valley Farm that is owned and operated by a township farm family that sells its own produce and that of neighboring farms at the market located on Rte 202-31. This market is beginning to offer some organic produce.

There are individual farmers in the township who are raising vegetable and fruit produce and selling their goods at roadside stands on their property. This is an allowed use.

The East Amwell Agricultural Advisory Committee holds annual farm information forums. The AAC is interested in co-sponsoring with the Association of NJ Environmental Commissions (ANJEC) a forum on organic farming. They plan to feature farmers in the area who will presentations on their experience growing and marketing organic products.

Agricultural Support Needs and Implementation

The Township has ordinances that broaden opportunities for farm-based businesses. These include:

- Allowing micro-breweries on a farm. This permits farmers to grow crops, and by processing them on the farm, convert a low value raw agricultural product into a retail product that can

be sold at much higher prices, improving profitability.

- Allowing the sale of a wide variety of products in a permitted Farm Market along the highway. These provisions allow the farm market to supplement the crops grown on the farm with non-farm products for greater income. In addition, an expanded farm market draws an increased number of customers, assists in maintaining the business during the off-season, and enables this operation to compete with other highway retailers. The Agricultural Advisory Committee notes that some local markets have started to offer farm made cheese and artisan breads as well as traditional produce. These expanded offerings of local products have increased the customer base as more and more residents make an effort to buy and consume locally grown products.
- Adopting a strong Right to Farm ordinance (with notices in homeowner's deeds as well as in a mailing with tax bills). The deed notification alerts homeowners to the primary objective in the area of retaining and expanding agricultural operations. It acknowledges to new residents that there may be agricultural practices, such as spraying and late night operations that must be respected, and it signals to homeowners that nuisance complaints against the farmers will not be tolerated.

The ordinance to allow micro-breweries on a farm was in response to a request from the farm community. To date there is no micro-brewery operation in the Township. Allowing the sale of a wide variety of products in a permitted Farm Market along the highway has contributed to one successful operation at this time. The Township's strong Right to Farm ordinance promotes the community's endorsement of agriculture. Right to Farm protections are extended to commercial farms including farms less than 5 acres in size as long as they produce agricultural products worth \$50,000 or more annually and are farmland assessed. East Amwell continues to encourage farming and recognizes farming as a long term land use in the Township.

The Agricultural Advisory Committee (AAC) supports the flexible fence regulations now in place. These regulations now allow deer fencing to be erected to a height of 12 feet. Members of AAC recommend that farmers be allowed to hang or install larger seasonal signs than are normally allowed by ordinance without having to go through the variance process.

While the ordinances and policies of the Township have worked to help maintain agricultural viability, members of AAC discussed the current tax structure as a major obstacle. Farm buildings such as dairy barns that are no longer in use continue to be taxed at the same rate as fully operational buildings. The tax assessor cannot change these rules and says that unless the barn is razed, the taxes will continue to be assessed. This is a policy matter that the State Department of Agriculture should address. The AAC also suggested that real estate taxes should be frozen as of the date a farm is preserved if the farm is owner-occupied and a full time farming operation is being conducted.

East Amwell Township continues to encourage agricultural industry and practices through streamlining permitting and application processes. Section 92-25 (e) of the East Amwell Township Land Management Code exempts farm buildings under 2,000 square feet from standard site plan review procedures and allows for minimal information to be submitted for construction permit approvals. In addition, applications for construction of farm buildings over

2,000 square feet are not held to the same standards for plan review as other development plans. Section 92-33 (B) exempts the sub-division of land for agricultural purposes if the resulting parcels are greater than five acres. The two code sections referenced here are included at the end of this chapter.

Table VI-1 found at the end of this chapter has four pages and shows the Area, Yard and Bulk Regulations of the East Amwell Land Management Code for the Amwell Valley Agricultural District (AVAD). The Code for the AVAD includes agriculture use and farm building regulations. Minimum yardage requirements are not applicable to agricultural use. Footnotes 2, 3 and 5 found on page 92:A-10 in Table VI-1 are directed to agricultural use. Agriculture is allowed on lots smaller than five acres but the benefits and privileges of a farm are not applicable. Accessory buildings on farms may be erected forward of the principal building.

Disputes or questions regarding non-conforming usage, placement or replacement of accessory buildings, and farm storm water drainage on CADB 'commercial' farms' are directed to the CADB. The County Agriculture Development Board 'trumps' municipal zoning and regulations regarding 'commercial' farms.

Questions regarding wineries are the responsibility of the State Alcohol Beverage Commission (ABC). The ABC rules govern but that State Agency sends its reports to the township for review.

The East Amwell Zoning Officer reports that farm signage has to be egregious, or a specific complaint registered for his office to respond.

Township farmers recently recommended that the Township Road Department re-institute the practice of early spring roadside mowing along farmed properties to contain weed seed infestation of crops. Planted fields can be seriously impaired and acres of crops damaged by weed infestation. The Township is now working to incorporate this suggestion for earlier mowing into its schedule for next spring.

Agricultural interests are represented on the Hunterdon County Chamber of Commerce by the Hunterdon County Board of Agriculture. The board is a member of the Chamber and contributes articles about agriculture on a regular basis to the Chamber newsletter. This has been helpful to bring greater awareness of the agricultural industry to the attention of other businesses in the County.

- (2) No construction permit shall be issued for any new structure or for an addition or alteration to an existing structure and no certificate of occupancy shall be issued for any change of use of an existing structure until the site plan has been reviewed and approved by the municipality except that:
- (a) A construction permit for a single-family detached dwelling unit or a two-family dwelling unit shall not require site plan approval.
 - (b) Any change of use from one permitted category of nonresidential use to another permitted category of nonresidential use may not require site plan approval if:
 - [1] Both the Construction Official and Zoning Official certify to the Board in writing that the existing site development meets the requirements of this chapter for the new use category;
 - [2] The new use category does not require an increase in the number of required parking spaces; and
 - [3] The Planning Board concurs with the findings of the Construction Official and Zoning Officer.
 - (c) Permitted accessory building to residential and agricultural/horticultural uses shall not require site plan approval.
 - (d) Building alterations shall not require site plan approval if the following conditions apply:
 - [1] There is no change of use.
 - [2] No additional parking is required.
 - [3] No more than 500 square feet of additional building area is proposed.
 - [4] No variance is required.
 - [5] There is no major change in circulation proposed such as drive-thru windows, ingress or egress drives, changes in internal circulation, loading or unloading, delivery or pickup of goods and services or trash.
 - [6] There are no major changes in a significant site facility or improvement such as a drainage facility, buffer or landscaping features and the like.
 - (e) Farm buildings. Notwithstanding the foregoing, for a proposed new farm building over 2,000 square feet in area but less than 4,000 square feet in the Sourland Mountain District, a sketch plan shall be submitted for Planning Board review and approval. Such sketch plan shall be neatly and accurately drawn at a scale of not less than one inch equals 50 feet, and shall indicate the zoning district, lot area, locations of natural and man-made features on site and within 200 feet, including streams, water bodies, buildings and other

this chapter is impracticable or will exact undue hardship because of peculiar conditions pertaining to the land in question.

§ 92-33. Subdivision approval required; exempt subdivision. [Amended 9-9-1999 by Ord. No. 99-21]

- A. Subdivision approval is required for any division of land within this Township considered a subdivision as defined in this chapter.
- B. The divisions of land not considered a subdivision as defined in this chapter shall be exempt from compliance with the requirements of this chapter only after affirmative action by the approving authority. Such action shall be taken following submission of documentation to the approving authority showing the division of land for agricultural purposes where all resulting parcels are five acres or larger in size; divisions by testamentary or intestate provisions; divisions of property by court order, including but not limited to judgments of foreclosure; consolidation of existing lots by deed or other recorded instrument; and the conveyance or one or more adjoining lots, tracts or parcels of land, owned by the same person or persons and all of which are found and certified by the administrative officer to conform to the requirements of the municipal development regulations and are shown and designated as separate lots, tracts or parcels on the Tax Map or atlas of the Township. Until exempted from the subdivision regulations by the approving authority, no person can transfer, sell or agree to transfer or sell, as owner or agent, any land which forms a part of a subdivision for which approval is required.

§ 92-34. Site plan approval required. [Amended 9-9-1999 by Ord. No. 99-21]

A site plan approval is required of all developments which do not meet the definition of "site plan, exempt" in Article III.

§ 92-35. Use variance applications. [Amended 7-15-2004 by Ord. No. 04-16]

Where an applicant is seeking simultaneous subdivision/site plan review and approval as part of a use variance, all applications shall be accompanied by plats plus other supporting documents as required for subdivision and site plan approval. If a use variance application is granted, and Board of Health approval has not yet been granted, six approved plat plans or maps must be submitted to the East Amwell Board of Health within 10 days of the approval, accompanied by a check payable to the Hunterdon County Department of Health, in accordance with its fee schedule, for the appropriate change of use and/or site plan, as applicable.

§ 92-36. Simultaneous review. [Added 9-9-1999 by Ord. No. 99-21]

The approving authority shall have the power to act upon subdivision, conditional uses, or site plans simultaneously without the developer making further application or the approving

LAND MANAGEMENT

CHART VI-1
page 1 of 4

Area, Yard and Bulk Regulations
Amwell Valley Agricultural District
Township of East Amwell

[Amended 9-11-1997 by Ord. No. 97-23; 9-9-1999 by Ord. No. 99-20; 3-8-2001 by Ord. No. 01-02; 12-30-2002 by Ord. No. 02-22; 3-13-2003 by Ord. No. 03-02]

	Minimum Lot			Minimum Yards			Maximum Building Height (feet)	Maximum Lot Coverage
	Area (acre)	Width (feet)	Depth (feet)	Front (feet)	Side (feet)	Rear (feet)		
Conventional Zoning								
Single-family dwelling	10	400	400	150	75	75	35	0.08
Permitted Zoning Options [§ 92-91H(2)]								
Single-family dwelling	1.5	125	200	50	30	50	35	0.08 for lots greater than 3 acres; 10,000 square feet maximum for lots 1.5 to 3 acres
○ Agricultural use ²	5	300	300	NA	NA	NA	60	0.08
○ Farm building	5	400	400	150	100	100	60 ³	0.08
Conditional Uses								
Second dwelling ¹	10	400	400	150	75	75	35	0.08
Tertiary dwelling ¹	20	400	400	150	75	75	35	0.08
○ Farm labor housing	20	300	300	75	50	60	35	0.08
Public utility	2	200	200	100	50	50	20	0.08
School	20	300	500	100	100	100	30	0.08
Fire house	2	200	200	100	50	100	20	0.08
House(s) of worship	10	400	400	200	100	200	30	0.08
Home occupation	Same as appropriate residential use.							
Veterinarian hospital	5	300	300	100	100	100	20	0.08
Flag lot ⁶	10	400	400	75	75	75	35	0.08

	Minimum Lot			Minimum Yards			Maximum Building Height (feet)	Maximum Lot Coverage
	Area (acre)	Width (feet)	Depth (feet)	Front (feet)	Side (feet)	Rear (feet)		
Accessory building ³								
Class I Same as principal residence					20	20	20	0.08
Class II Same as principal residence								
Class III Same as principal residence for all setbacks and requirements					Maximum 40 ⁷	Maximum 40 ⁷	20	0.08
Bed-and-breakfast; antique shop ⁴		200		100	75			0.08
Existing Under-Sized Lots								
At least 1.5 acres up to 3 acres				75	30	50	35	10,000 square feet
At least 3 acres up to 10 acres				75	50	50	35	8%

NOTES:

¹ The criteria for subsidized accessory apartments shall be as follows:

- 1) Each new subsidized accessory apartment created under the terms of this section shall be affordable to and rented by a qualified low-income household for a period of at least 10 years from the date a certificate of occupancy is issued for the new unit in accordance with the terms of Chapter 43, Affordable Housing, Article II, Affordable Housing Regulations.
- 2) No subsidized accessory apartment shall be created under the terms of this section unless an application has been submitted to and approved by the Housing Administrator and unless the creation of the subsidized accessory apartment is accomplished as part of the township's affordable housing compliance program and unless the subsidized accessory apartment is deed-restricted in accordance with the terms of Chapter 43, Affordable Housing, Article II, Affordable Housing.
- 3) No subsidized accessory apartment shall contain more than one bedroom.
- 4) The Board of Health shall certify the adequacy of the on-site well and septic system to accommodate the original dwelling plus the subsidized accessory apartment(s). Garbage disposals shall be prohibited in subsidized accessory apartments. All subsidized accessory apartments units shall meet the requirements of N.J.A.C. 5:23-2.4 and 5:23-2.5 following the completion of the conversion.
- 5) The property proposed for conversion shall be able to accommodate at least three off-street parking spaces having direct and unrestricted driveway access and not blocked by any other parking space.
- 6) The provisions of this section shall expire automatically when funds are no longer available to subsidize accessory apartment conversions.
- 7) A subsidized accessory apartment may be created only if the property contains the minimum acreage required for a second dwelling at § 92-91F and all other requirements set forth hereinabove can be met.
- 8) Up to two subsidized accessory apartments may be created only if the property contains the minimum acreage required for a tertiary dwelling at § 92-91F and all other requirements set forth hereinabove can be met.
- 9) Applicants for the creation of a subsidized accessory apartment shall submit to the Housing Administrator:
 - a) A sketch of floor plan(s) showing the location, size and relationship of both the accessory apartment and the primary dwelling within the building;

LAND MANAGEMENT

- b) Rough elevations showing the modification of any exterior building facade to which changes are proposed; and
 - c) A site development sketch showing the location of the existing dwelling and other existing buildings; all property lines; any proposed addition, along with the minimum building setback lines; the locations, size and extent of all underground utilities and the length, width and function of all rights-of-ways and easements on the property; the required parking spaces for both dwelling units; and any natural or man-made conditions which might affect construction.
- All plans and elevations shall be clear and concise and drawn to a scale of not less than one inch equals four feet for the floor plan(s) and elevation(s) and one inch equals 20 feet for the site development plan.
- 10) Alterations to the exterior of the existing dwelling, other than those to improve the maintenance and attractiveness of the dwelling, shall be minimized.
 - a) After creation of the subsidized accessory apartment, the building shall maintain the usual appearance of a single-family detached dwelling and shall remain compatible with the character of the surrounding neighborhood.
 - b) The converted dwelling shall not have more than the existing number of entrances along the front of the building. All other entrances to either the principal or accessory dwelling units shall be located on the side or rear of the building.
 - c) No new unenclosed exterior stairways shall be allowed on the front of the converted dwelling.
 - d) Necessary changes in the number or placement of windows to provide adequate light and air will be allowed but shall be minimized; any changes which occur must be done in a manner consistent with the architectural character of the dwelling.
 - 11) Additions to an existing dwelling designed to allow the creation of a subsidized accessory apartment within the dwelling shall not be permitted, except that small additions containing up to a maximum of 5% of the gross floor area of the existing dwelling or 100 square feet, whichever is less, may be permitted if the addition will facilitate the creation of the accessory apartment in a more logical manner, considering design, layout, access and safety factors.
 - 12) A subsidized accessory apartment shall not be created on any floor above the second floor except that space above the second floor may be used for storage or sleeping rooms for a second floor apartment. No subsidized accessory apartment shall be located in a below-ground basement where the exterior grade is more than half the height of the exterior wall, unless there is at least one exterior facade where the unit is at grade with the ground outside.
 - 13) Each subsidized accessory apartment unit shall meet the following minimum size requirements:
 - a) Minimum gross floor area of unit:
 - Efficiency: 450 square feet.
 - One-bedroom: 600 square feet.
 - b) A subsidized accessory apartment shall not contain a den or other extra room capable of being used as a bedroom, i. e. having a closet and a door separating the room from the remainder of the unit.
 - 14) The lot on which the subsidized accessory apartment will be located shall conform to the minimum lot area requirement for the zoning district in which it is located.
 - 15) Preexisting unauthorized accessory apartments may be legalized under this section without penalty to the property owner, provided that all of the foregoing criteria as well as the following criteria can be met:
 - a) The unit is currently vacant.
 - b) If the unit is currently in substandard condition, it can be brought up to standard condition before a certificate of occupancy is issued.

EAST AMWELL CODE

- c) The unit will be affirmatively marketed pursuant to Chapter 43, Affordable Housing, Article III, Affirmative Marketing Plan.
- d) The unit will be deed-restricted for occupancy by and will remain affordable to a qualified low-income household for a period of 10 years from the date a certificate of occupancy is issued for it, consistent with the requirements of Chapter 43, Affordable Housing, Article II, Affordable Housing Regulations, and the rules of the Council on Affordable Housing.
- 2) The minimum lot size for agricultural use is limited to exempt subdivision considerations (NJSA 40:55d-7 and § 92-31 of this chapter) and shall not prevent agricultural activities from taking place on lots smaller than five acres. However, such small lots with agricultural activities are not qualified for the benefits and privileges of a farm. Any lot having an agricultural use or farm use, which also has a dwelling, shall meet the minimum lot area and all other minimum requirements for a lot having a residential principal use.
- 3) Accessory buildings may not occupy an area totaling more than 25% of a required rear yard or a maximum of 2,000 square feet, whichever is smaller. Accessory buildings shall be erected only in the side or rear yard of a principal dwelling, except in the case of the farm. On farms, an accessory building may be erected forward of the principal building, provided it is set back a minimum of 150 feet from the street line. See also § 92-58I for bulk requirements for clustered lots. No accessory buildings greater than 2,000 square feet are allowed.
- 4) For both antique shops and bed-and-breakfast establishments, the building containing such use shall be at least 50 years old as of 12-30-1991. The front yard shall remain as it exists, with no new construction in it.
- 5) On farm lots with a lot area greater than 50 acres, the maximum height for a silo shall be 120 feet (rather than 60 feet).
- 6) The area and dimensional requirements apply to the body of the flag lot, exclusive of the access strip. On a flag lot, an accessory building shall be set back 75 feet from all property lines regardless of the location of the principal building.
- 7) For every 100 square feet increase in size from Class I, setbacks increase 20% to a maximum of 40 feet.
- 8) For a golf course/club, see § 92-91B(9).

VII. NATURAL RESOURCE CONSERVATION

Natural Resource Protection Coordination

The Natural Resources Conservation Service (NRCS), an agency of the United States Department of Agriculture, provides assistance to private land owners to conserve and manage soil, water, and other natural resources. NRCS also provides its services to local, state and federal agencies. Participation in its programs is voluntary. In New Jersey, NRCS's natural resource conservationists, soil scientists, planners, agronomists, biologists, engineers, and geologists work together with NJ Soil Conservation Districts to promote wise land use, reduce erosion and improve soil quality, improve water quality, conserve soil, water, and other natural resources, restore wetlands, improve wildlife habitat, maintain land in grass cover and improve pasture quality and promote energy conservation.

Soil Conservation Districts are special purpose subdivisions of the New Jersey Department of Agriculture. They are semi-autonomous political bodies which are locally governed and play a unique role in the protection of the state's natural resources. There are 15 soil conservation districts in the state; their jurisdiction follows county boundaries. One of their responsibilities is to implement the NJ Soil Erosion and Sediment Control Act on construction and development sites. Districts serve the agricultural community with supporting programs as developing conservation plans for farmland and providing general assistance to farmers dealing with a variety of technical and business issues.

Later in this section various ways are detailed in which East Amwell has worked to protect its natural resources and the relative success of its various programs where that can be measured. For the most part, the township's efforts have been carried out without significant interaction with federal, state and county agencies, with the vitally important exception of programs to help fund preservation and conservation easements, such as the New Jersey Farmland Preservation program.

It is likely that East Amwell landowners have made use of each of the above programs. Farmland Assessment records show that in 2005, 756 acres were in government programs rather than crop production. The tax assessor received information from the FSA that nine parcels totaling 354 acres are enrolled in the Conservation Reserve Program. Landowners probably have also sought assistance with regard to conservation plans and active measures to control erosion, manage animal waste, etc., but neither the NRCS nor the SCD make information available to the Township about such contacts, grants, and assistance.

A representative of the Farm Service Agency made a presentation to the AAC at a regularly scheduled meeting on March 16, 2009 which was attended also by three members of the Farmland and Open Space Committee and its administrative assistant. It appeared that this was an introductory meeting and was mostly devoted to describing the various programs which the NRCS offers. However, one of the members of the AAC, who grows hay on both his own land and leased land, voiced a significant concern that NRCS programs are reducing the acreage available to farmers in the township like him.

It generally makes sense when small parcels with clear applicability to the desired function are taken out of production to provide a buffer or a wildlife habitat, but the programs offer money which gives non-farming landowners a strong incentive to remove large parcels suitable for crops from production. The figures given above indicate that the parcels enrolled in the Conservation Reserve Program average roughly 40 acres each.

In East Amwell, where there are active crop farmers who rely on planting on the lands of neighboring non-crop-farmer landowners in return for facilitating farmland assessment, the programs have had negative impacts. Farmers cannot afford leases competitive with the Federal payments and depend on the good will of neighbors to make their lands available rather than opting for a set-aside program. The programs should be restricted to use only on marginal lands. The negative impacts are further exacerbated by an apparent failure to enforce the terms of the programs on some properties. Withdrawal from production in many cases simply results in land covered with thistle, multi flora rose, and autumn olive.

Other government programs have encouraged the production of crops such as milo which for the most part is not consumed locally, takes a large quantity of nutrients from the soil, and not only promotes the use of chemical fertilizers, but is energy intensive to process. In part because of the various incentives, not enough hay for the local market is being produced locally and it is shipped in from Canada.

The Hunterdon County Comprehensive Farmland Preservation Plan states that a conservation plan needs to be submitted for a farm going into the farmland preservation program, with assistance provided by the NRCS and the SCD within one year after the farm becomes preserved. It further states, however, that there is no need for the landowner to adhere to the plan after it has been approved and that only 25% of them do so. However, if farmers make changes on their farms, they must be consistent with the plan or the plan must be updated. Although implementation of these plans is not required, their creation and implementation should be encouraged.

It is the responsibility of the easement holder (in most cases the HCADB or SADC for state held easements) to ensure that annual monitoring occurs.

From the point of view of East Amwell Township, however, the SCD performs its most important conservation functions conscientiously and professionally. These are in regard to determining the soil disturbance to be caused by a proposed development and approving or disapproving the application on the basis of the impact of that disturbance. The burden of this function on the SCD has increased in recent years as the increase in average house size has necessitated including the inspection of individual single family lots within its purview. The Township's Planning Board relies on the SCD's determination of approvability in accepting the completeness of a development application and we are content if its other regulatory functions take a lower priority.

Natural Resource Protection Programs

SADC Soil and Water Conservation Grant Program

The SADC provides grants to eligible landowners (farms permanently preserved or enrolled in an eight-year preservation program) to fund up to 50% of the costs of approved soil and water conservation projects. Application is to local Soil Conservation Districts, which assist in developing farm conservation plans and ensure projects are necessary and feasible. Projects must be completed within three years of SADC funding approval.

Federal Conservation Programs

There are a number of federal grant programs available on a competitive basis to encourage landowners to conserve natural resources and wildlife habitats on their property.

- WHIP, the Wildlife Habitat Incentives Program, is designed to help landowners in targeted habitats to improve fish and wildlife habitat by providing technical and financial assistance to develop a wildlife habitat plan. WHIP is administered by the NRCS in cooperation with the New Jersey Division of Fish & Wildlife.
- CREP, the Conservation Reserve Enhancement Program, is designed to help farmers reduce impairment from sources of agricultural water runoff in an effort to improve water quality along both impaired and unimpaired NJ streams. Marginal pastureland or cropland is removed from agricultural production and converted to native grasses, trees, and other vegetation. The USDA Farm Service Agency provides financial incentives to participants to voluntarily enroll in CREP in contracts of 10-15 years.
- LIP, the Landowner Incentive Program, is an incentive program to support recovery or reduce threats to imperiled species. Native grass restoration has been at the forefront of this NJDEP Division of Fish & Wildlife administered program encouraging landowners to seed these native grasses.
- WRP, the Wetlands Reserve Program, provides technical and financial support to help landowners protect, restore, and enhance wetlands on their property. Eligible property includes former wetlands that have been drained for farming, pasture or timber production; lands adjacent to wetlands; and previously restored wetlands that need long-term protection. All lands must be restorable and suitable for wildlife benefits.
- EQIP, the Environmental Quality Incentive Program, provides technical, financial, and educational assistance for conservation practices addressing natural resource concerns, such as water quality. This includes integrated crop management, grazing land management, animal waste management facilities and irrigation systems among other practices.
- RC&D, the North Jersey Resource Conservation & Development Council, leverages federal grants to help farmers employ land management practices that reduce chemical inputs without compromising yields.
- FRPP, the Farm & Ranch Land Protection Program, protects agricultural lands by limiting non-agricultural uses. The program works in partnership with approved state, local and non-profit entities that arrange for the purchase of development rights through conservation easements on private lands, and hold and manage these conservation easements in perpetuity.

Recently there are three landowners, of which two own preserved farms, who have enlisted with LIP for native grass restoration. Another preserved farm owner has participated in EQIP to address natural resource concerns

With regard to all the agencies and programs referenced in the SADC staff review, East Amwell's Farmland and Open Space Committee has considerable questions about overlap and duplication of functions. It would be useful to have a comprehensive document from the SADC describing from its experience each organization involved with conservation functions, delineating their differences, and describing how and with what value added each performs particular functions of interest to a landowner.

The principal efforts to preserve the local environment have been home grown, with, as acknowledged above, vital assistance from the SADC and other governmental and non-profit sources, particularly with regard to funding land and easement acquisitions. Valuable financial and conservation initiatives and help have also been supplied by organizations not mentioned in our initial document or in the staff review, such as D&R Greenways, New Jersey Conservation, and the Hunterdon Land Trust.

The most important and effective environmental conservation action in East Amwell has been land preservation itself. The Township was early in taking advantage of the State's farmland preservation program, with the first of several long term bond issues approved in 1988 by 72% of the voters responding to a referendum question authorizing it, and with development rights on the first three farms acquired in 1989. Thirty-eight (38%) of the land area in the township is now permanently deed restricted against development through various programs, thereby forestalling significant disruption of soils and removal of vegetation. The township has reinforced its land preservation efforts with low density zoning ordinances, accompanied by bonus provisions for developments in the Amwell Valley Agricultural District (approximately 76% of the township) which cluster houses and deed restrict as open space at least 75% of the tract. Terracing, berms, and stream buffers are traditional features of farms in East Amwell, and these conservation features have remained in place rather than being removed for housing and road construction.

Water Resources

East Amwell Township has devoted at least as much attention to conservation of its water resources as to its farmland, open space, and wildlife habitat. The most conspicuous geologic feature of the township is the Sourland Mountain, a diabase ridge originally formed by a volcanic intrusion. The impervious nature of its rock poses problems in water supply and septic management and its altitude and slopes place it at the headwaters of stream systems flowing both north and south. Furthermore, its volcanic origin led to the baking of adjacent rock structures, creating less severe but still important water and septic constraints. These concerns, in combination with the fact that the entire township is dependant upon well water and individual septic systems, have been addressed by an unusually strong and active Board of Health. Furthermore, hydrogeologic studies have been important planning elements in establishing the township's zoning ordinances for the Mountain and Amwell Valley Agricultural Districts.

From a macro standpoint, East Amwell has a substantial supply of water. Since the township is in general at the source of the streams which run through it rather than receiving supply from adjacent areas, the overall availability is determined by the volume of rainfall, amounting to an annual average of over one million gallons of water on each of the township's roughly 18,000 acres, reduced to a small percentage of that amount by evaporation, transpiration, stream flow and migration through the aquifers. In the Mountain District runoff and the absence of a permeable aquifer are serious considerations. In the Amwell Valley Agricultural District, where the great majority of the township's farmland is located, the characteristics of the aquifer are healthy but not entirely predictable, since the underlying rock is not highly permeable like the sedimentary rock strata further to the south.

Water availability on any specific farm depends on its well productivity and the economics of pumping water for irrigation or livestock purposes. To date, there have been no indications of supply constraints on individual farms, given the varieties of agriculture practiced in East Amwell, most of which consists of non-irrigated row crops, hay, and pastured animals. There are farms in the township which grow nursery stock, fruit, vegetables, and other products which may require supplemental watering, but these at present comprise a small proportion of the land area, and none of them demands the intensive water usage of greenhouses, tomato farms, or racing stables.

The largest single consumer of water in the township is The Ridge at Back Brook, the single golf course permitted in East Amwell. In theory, it is roughly self-sustaining, since a calculation of the rainfall on its 300 acres which actually enters the aquifer approximates the maximum annual usage permitted by the NJDEP. In practice, of course, its water usage coincides with periods when rainfall is not replenishing the aquifer.

The Planning Board and the Board of Health worked actively with The Ridge to establish standards and practices which control its quantitative and qualitative impact on the aquifer. The most innovative of these is a skimming device which transfers water from Back Brook to a storage pond only at times when the stream flow is at levels which are so elevated as to be useless or potentially harmful downstream. The storage pond in turn is the basic source of water for irrigation of the golf course. Measures to monitor water quality were part of the building approval for the golf course. There are three monitoring wells on the property that are periodically tested to insure that chemicals used to maintain the greens have not entered the aquifer. In addition, the stream on the property is monitored periodically to track run-off levels, and its water quality is checked by resident volunteers in conjunction with the South Branch Watershed Association.

East Amwell Township provided information, water testing kits and resource information to residents in the Sourland Mountain area with naturally occurring arsenic in their well water supply. The Township played an active role in helping residents understand the issue and how to ensure that their well water is safe for drinking. East Amwell hosted meetings for residents to outline the issue. Various remediation systems were demonstrated and water testing kits were made available at a reduced price.

East Amwell began road salting in 2006. A group of homeowners have agreed to test their well water annually to determine if the salt run-off has entered the water supply. The Township provides free water kits for this purpose. The Township Environmental Commission is testing streams adjacent to roads that are salted.

As indicated above, water availability and quality is a constant concern of the government and citizenry of East Amwell. In addition, township characteristics which have been carefully maintained and furthered by the township government, as well as environmentally oriented programs and projects sponsored by both the township government and individual residents, have contributed to both land and water conservation. Among these are the following:

- land preservation, which provides an open surface for water absorption as well as multiple other benefits
- the entire township being dependant on individual well and septic systems, which means that all 'waste water' is recycled
- very low density zoning and strict limitations on clearing of trees in the Mountain District, which slows runoff and minimizes soil erosion
- a 75 mile network of marked, mapped, and maintained trails, all on private property (the largest such network in the Northeast), which has attracted horse owners to East Amwell, thereby providing both a primary local market for hay and non-developer buyers for substantial tracts of farmland without development when and if original crop farmers wish to cease production and sell their properties.

Many of the above processes feed on each other symbiotically: buyers for large parcels are attracted by the knowledge that land around them is preserved, landowners are more likely to opt for preservation if they have confidence that there will be buyers of their deed-restricted property in the event that they wish to sell, and farmers are more likely to continue farming if they are not hassled by the sorts of problems which neighboring developments frequently create.

Waste Management

The Township recently completed a project to dispose of thousands of tires accumulated over many years by a property owner who operated a junkyard. The Township obtained a grant from the State Department of Environmental Protection to partially fund the clean-up. The property is now free of tires and the Township is continuing efforts to determine if additional remediation is needed because of other junkyard items.

Many farms have small dumps, which may contain tires as well as old equipment. These dumps are usually out of sight on back land which is not suitable for production. None of them approach the scale or potential environmental hazards of the junkyard referred to above. The township does not have an active program for clearing these sites and is not aware of concern on the part of the landowners. However, tires may be breeding grounds for mosquitoes and the township would welcome consideration of possible clean-up programs.

Most livestock owners are aware of the attention currently being paid to animal waste management. The New Jersey Department of Agriculture developed animal waste management rules effective in March of 2009 to pro-actively address non-point source pollution that may

emanate from agricultural animal operations. Small animal operations are required to write and implement a voluntary Waste Management Plan for their farm.

Many local farmers have applied to attend the presentations sponsored by Rutgers Cooperative Extension to learn these new rules and receive guidance on writing these plans. Farmers must have a written plan on file with Cooperative Extension to receive the protection and benefit provided from the Right to Farm rules.

The State provides a website for farmers to access the latest information at <http://www.state.nj.us/agriculture/divisions/anr/agriassist/animalwaste.html>

County Solid Waste Efforts

Hunterdon County has several programs in place to provide citizens with safe ways to dispose of and/or re-cycle solid waste. These efforts compliment the Clean-Up Day sponsored by East Amwell Township. The Township annually sponsors a road side pickup of solid waste such as furniture, construction material, refrigerators and stoves. No electronic equipment is allowed and citizens depend on the County program to re-cycle these items.

The County has sponsored very successful re-cycling efforts for disposal of hazardous waste and electronics. These re-cycling efforts were held at the County Complex in Flemington. The hazardous collection allowed citizens to dispose of oil, paint and other hazardous liquids. Another recycling day was dedicated to collecting and recycling electronic equipment such as computers, television sets and printers. This effort was so successful the hours for collection were extended to accommodate the citizens waiting in line to dispose of these items. The County expects to sponsor these two solid waste collection efforts each year.

The County encourages the participation of each Township in its solid waste collection efforts through the Solid Waste Advisory Council formed under the provisions of the NJ Solid Waste Management Act. The Council has a member from each municipality who advise the County on matters related to solid waste in the County.

Alternative Energy

Residents of East Amwell have made use of a variety of projects using alternative energy. Many farms and residences have solar panels for the production of electricity, either free standing or on a house or barn roof, some of them installed by Advanced Solar Products which is based in the township. The township has been cooperative in issuing necessary approvals but has no program at present to encourage such installations.

The East Amwell Township Agricultural Advisory Committee (ACC) has joined with the AAC's of neighboring municipalities in sponsoring regional seminars that included presentations on available alternative energy generation. Seminars have been held annually over the past few years both regionally and township-wide with presentations provided by entrepreneurs in the field and various consultants.

These Farm Forums included presentations by New Jersey Solar Systems on solar electric and solar water systems for farms, Axios Energy on bio-diesel, Infinite Energy Company on solar power and Skylands Renewable Energy LLC on wind power. The Forums are well attended and have led to some farms investing in solar power and other alternative energy systems.

SADC has an informal policy with respect to energy generation on preserved farms. Alternative energy is an acceptable use, generally limited to approximate needs of the agricultural operation with no negative impact on the farm. The Agricultural Advisory Committee strongly supports production of alternative energy on preserved and unreserved farms as a means of saving fossil fuels and reducing farm energy costs.

CHAPTER VIII

AGRICULTURAL INDUSTRY SUSTAINABILITY, RETENTION AND PROMOTION

A. Existing Agricultural Industry Support

1. Right to Farm

New Jersey enacted a strong right-to-farm statute in 1983, amended in 1998, which is applicable statewide. East Amwell's Township Committee adopted a Right to Farm ordinance in November 1998 to recognize the state law and "to assure the continuation and expansion of commercial and home agricultural pursuits by encouraging a positive agricultural business climate and protecting the farmer against municipal regulations and private nuisance suits, where agricultural managements are applied and are consistent with relevant federal and state law and non-threatening to the public health and safety." The East Amwell Right to Farm Code Chapter 110 is included at the end of this chapter.

East Amwell's right to farm ordinance requires that the purchaser of any real estate in the Township be notified of the importance of our farming community and be provided with a copy of the ordinance. It further requires that the following language be included in the deed of any newly subdivided lot in the township:

"Grantee is hereby noticed there is, or may in the future be, farm use near the premises described in this deed, from which may emanate noise, odors, dust and fumes associated with agricultural practices permitted under the Right to Farm Ordinance of East Amwell Township."

The ordinance notes that the Township will take reasonable steps to inform real estate salespersons to provide similar notification to prospective purchasers of land in the township. The Municipal Clerk is instructed to maintain records of all farm properties within the township, listing the owners and farm locations which do and do not receive farmland assessment.

The zoning ordinance establishing the Amwell Valley Agricultural District included a restatement of the Right to Farm. It alerted owners, residents, and adjoining landowners in the District to be prepared to accept conditions arising from normal and accepted agricultural practices and operations. It provided official notice that the State's Right to Farm Act may bar obtaining a legal judgment against normal agricultural operations.

Hunterdon County's draft Comprehensive Farmland Preservation Plan (December 2007) reviews the State's Right to Farm Act, and the 1983 Agriculture Retention and Development Act creating the SADC and County Agriculture Development Boards (CADB's). The County's Plan explains the Hunterdon CADB's "Policy for Development and Recommendation of Site Specific Agricultural Management Practices" to resolve through fact finding and mediation disputes involving agricultural land use and operations.

2. Farmland Assessment

Hunterdon County's draft Comprehensive Farmland Plan describes the Farmland Assessment Act of 1964 as "a tax incentive which reduces property taxes on active commercial farmed land, thereby assisting farmers with a critical financial aspect in helping to keep land in farms."

The County Plan advocates sustaining and expanding tax incentives to keep land in farms, and encourages the development or extension of other tax incentives for the agricultural industry. Tax incentives will make agriculture more viable, and help to ensure a steady, permanent source of agricultural lands for the County's farmland sustainability efforts.

East Amwell Township assesses farmland according to the 1964 Farmland Assessment Act, subscribing to the Act's eligibility standards. These requirements are detailed in the County Plan. The Township currently has 11,384 acres under farmland assessment.

Farmland assessment is available on land only. In recent discussions with local farmers, many asked if this preferential tax rate could also be applied to farm buildings especially farm buildings no longer in use. Real estate taxes are a major annual expense for many farmers. The Agriculture Advisory Committee recognizes the importance of farmland assessment and acknowledges the role it has played to make agriculture a viable occupation. Members of the AAC note that the reduced taxes help farmers to be good stewards of the land. They use the additional funds available to spread lime, fertilizer, reseed and generally enhance the soils.

3. Rutgers Cooperative Extension

The Hunterdon County Extension Service office is located in Flemington. The County Agents there provide information on agriculture best practices and inform farmers about new methods, research results and innovative practices.

A recent seminar presentation titled Horse Barn Management Techniques was designed for those employed on the many horse farms in the area. A Pasture Management Workshop also attracted livestock owners in the County. The Animal Waste Management Training Workshops are now in progress to teach farmers about the new rules for manure management and how to write the required plans to comply with the new mandates.

The Snyder Experimental Farm is located in Hunterdon County. The farm was donated to Rutgers by Clifford and Melda Snyder and is operated by Rutgers Cooperative Extension. The farm provides a place for experimental plots and trials to test new farming techniques and methods. Included are several plots of apple and peach trees to determine best practices for planting density and arrangements, spraying frequency, pest management and pruning. Agriculture Agents currently are growing several plots of timothy hay. They are conducting spraying trials to determine how best to control the mite that has invested the crop and devastated the yield.

One of the most popular events on the farm is the Tomato Tasting in August. Several hundred people come to taste hundreds of tomato varieties of every shape, size and purpose.

Cooperative Extension works hard to support new agricultural enterprises. Organic beef production and meat goat production are examples of recent niche markets.

4. Financial Services

Farmers have access to various financial services to help manage their businesses. The Farm Credit Service has an office Lebanon and provides a variety of financial services to farmers. They make long term loans to finance farms and short term loans for equipment and crops. They also help farmers analyze their financial progress to determine which crops provide the most profit. A new program for young and beginning farmers makes it easier to qualify for a loan to begin a farming business.

Farm Credit also provides fee services such as estate planning, appraisals, recordkeeping, tax preparation and business transfer advice including ways to bring a younger family member into the farm business. Rutgers Cooperative Extension also provides help with recordkeeping through a computer program called FinPack.

Technical assistance from agricultural experts may significantly improve a farmer's competitive edge in the agricultural industry. Rutgers Cooperative Extension seems to be best positioned to provide this service but other organizations such as Farm Credit, Soil Conservation and NRCS may be equally qualified. Since every county in the state would benefit from a standardized approach to understanding markets and preparing farm plans, perhaps this technical assistance should be vertically integrated at all levels of government so that information is shared and distributed and not re-invented.

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

Hunterdon County's draft Comprehensive Plan includes a number of strategies to sustain, retain, and promote agriculture in the County. East Amwell is in accord with these recommendations, many of which require the County's leadership. Specifics for East Amwell follow.

Public Outreach

In the November 2007 election 63% of the 1496 East Amwell voters who went to the polls voted to support Public Question #3 for the Open Space and Farmland Preservation Bond. East Amwell's voter turn-out was 51% in comparison to the state average of about 32%. In November, 2009, a public question asking for continued funding for farmland, open space and historic preservation was again on the ballot. The question was approved in the Township by 61% of the voters. Fifty-two percent of the voters in the County supported the 2009 question. Farmland preservation and open space conservation resonate well with the voters in East Amwell. An active East Amwell campaign supporting both the 2007 and 2009

questions included 7 large wooden signs strategically located on major roads in the Township.

Resident support is based on the Township's history of agricultural land use, and respect for the dedication of the Amwell Valley farm families that continue farming. The preservation of large parcels of land and the scenic view sheds of the valley are as impressive to residents as non-residents traveling through.

East Amwell voters have overwhelmingly approved local ballot questions dedicating first 2 cents (1995) and then 4 cents (1998) per \$100 of their property tax to the Township's Open Space Trust Fund.

Assisting in the public outreach to inform residents of their responsibilities in an agricultural community is the work of the Amwell Valley Trail Association. The AVTA was organized in 1985 by a group of concerned residents desirous of preserving the Township's rural atmosphere and enjoying hiking, riding and cross country skiing. AVTA members, who number about 296, maintain and enjoy about 70 miles of trails. Most of the trails are along field edges, through woods and always where landowners request that they be routed. Members must respect the rights of the property owners who allow use of their land, and to make sure that no damage is done to farmed fields by staying on marked and mowed trails. Members are encouraged to support farmers by buying local hay and grain. Map VIII -A of the AVTA trails is included at the end of this chapter.

The properties of about 296 East Amwell residents receive farmland assessment. These include the large farm parcels, as well as the smaller acreages that involve equine, livestock, fiber animals, fowl, vegetable and woodlot operations. Individual owners host annual open houses for purposes of selling their animals or produce, as well as educating the public. This assists in providing residential support and contributes to maintaining the culture of an agricultural community.

Sweet Valley Farm is East Amwell's best known and visited local farm market. Located on Route 202-31, it is owned and operated by the multi-generation Perehynys family who own 130 acres in the western section of the township and farm 230 acres. The produce of their farm as well as other local farms are sold here. Sweet Valley Farm also sells landscaping materials, nursery stock and seasonal plants. The owners planned the site of this enterprise working cooperatively with the Planning Board in a win-win experience. East Amwell residents want to see Sweet Valley Farm continue to be a success story.

Agritourism is one form of public outreach and includes the popular annual 4-H Fair that has been held for the past 4 years at the County's new fairgrounds in the western section of East Amwell. The Fair Association, a countywide agricultural entity that owns the buildings on the County's land, organizes and manages the annual 4-H Fair as well as numerous agricultural events held at the new fairgrounds. The Fair Association has a full annual schedule of events, including a horse expo, a sheep and fiber show, sheep herding, a poultry show, and an alpaca show. Central to the Fair Association's mission to inform and educate the public on the importance of agriculture, is the support and encouragement it gives to 4-H

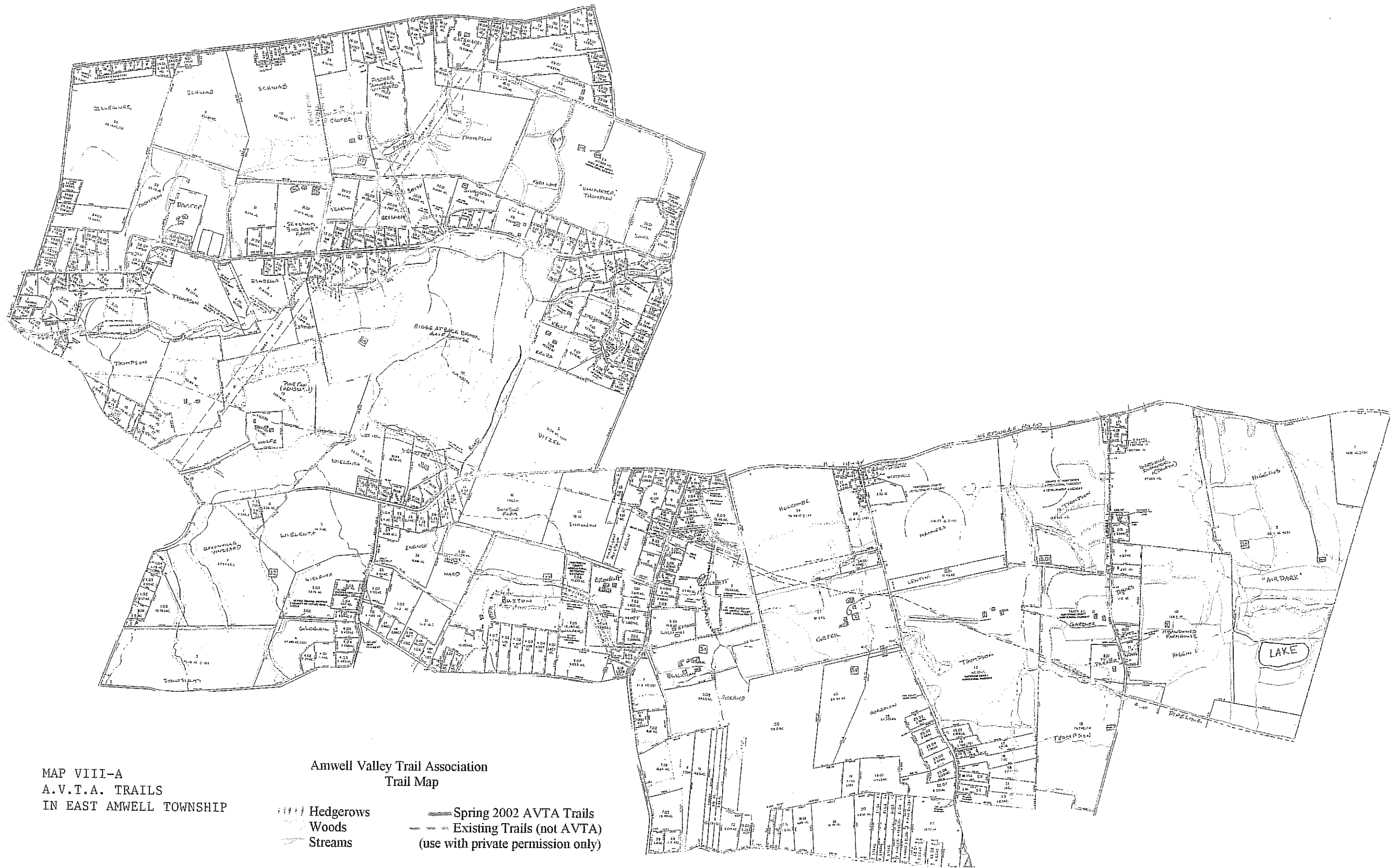
youth by providing the space and buildings for 4-H events including leadership programs and livestock projects. An increasing number of youth have participated in the state-wide 4-H dairy and Holstein shows at the fairgrounds over the past four years. Attendance is free for the 4-H events, with the Fair Association depending on parking fees from the general public to cover its expenses. Table VIII –1 The Fair Association 2007 schedule of events is included at the end of this chapter.

New Jersey State’s Travel and Tourism Office features East Amwell’s Unionville Vineyards in their Fall 2007 advertising campaign “Great Destinations”. Billboards advertising Ringoes as the vineyard site are located along out of state major highways leading to New Jersey. Agritourism ranks second to the Jersey shore in the Tourism Office’s advertising efforts.

East Amwell is the site of the Mid-Atlantic Equine Medical Center, located in the western part of the township on Frontage Road. This well regarded equine center is noted for its state-of-the-art diagnostic and therapeutic equipment. The University of Pennsylvania Veterinary School at New Bolton has utilized its facilities.

The East Amwell Agricultural Advisory Committee holds annual Farm Forums to present topics of interest to local framers, as well as soliciting their suggestions for information that they want discussed. A recent interest in raising animals for fiber prompted a presentation by a township resident who has an alpaca farm. presentations have included the marketing of crops and financial planning. This year the farm forum includes a NJ Department of Agriculture speaker on Motor Vehicle Regulations Affecting Farmers and Farm Building codes, as well as a township resident who reviewed Equine Law.

There is a four page chart at the end of Chapter VI (Chart VI-1) that outlines the East Amwell Code on Area, Yard and Bulk Regulation in the Amwell Valley Agricultural District. This specifies farm labor housing as a Conditional Use with reduced standards of lot width and setbacks. On farms of greater than 50 acres, the maximum height for a silo is 120 feet rather than 60 feet. The Township recognizes the need to reduce regulatory obstacles and fees in its agricultural sector. The Township does not collect a COAH fee for the construction of farm buildings.



MAP VIII-A
 A.V.T.A. TRAILS
 IN EAST AMWELL TOWNSHIP

Amwell Valley Trail Association
 Trail Map

- Hedgerows
- Woods
- ~ Streams
- Spring 2002 AVTA Trails
- - - Existing Trails (not AVTA)
 (use with private permission only)

Table VIII-1

Last Update: 10-Mar-10 HUNTERDON COUNTY 4-H & AGRICULTURAL FAIR, INC

2010 CALENDAR OF EVENTS

Week	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPT	OCTOBER	NOVEMBER
1 (1st-7th)				Dog Event 5/8		Dog Show 2nd	Sheep Dog Trials 5/6/7		
2 (8th-14th)					Dog Event 10/11		Sheep & Fiber Fest 11/12	Fair Picnic?	
3 (15th-21st)	Dog Event 20/21		Dog Event 15/16		Dog Event 17/18			Craft Show 16th/17th	Dog event 20-21
4 (22nd-end)		Dog Event 24/25	Craft Show 22-23	Antique Show 4H Leaders 20th Dog Event 26-27		FAIR 25th - 28th	Antique Show by 4H Leaders 19th Dog Event 18-19	4-H Trick or Treat 30th Dog Event 30th	Dog Event 26/27

KEY:	Agricultural	Non Profit	Parks
	Craft	Animal	4-H Event

Chapter 110

RIGHT TO FARM

§ 110-1. Purpose.

§ 110-2. Definitions.

§ 110-3. Activities considered agricultural uses.

§ 110-4. Nuisance.

§ 110-5. Notice of farm use.

[HISTORY: Adopted by the Township Committee of the Township of East Amwell 11-12-1998 by Ord. No. 98-22. Amendments noted where applicable.]

GENERAL REFERENCES

Flood damage prevention — See Ch. 81.

Land management — See Ch. 92.

§ 110-1. Purpose.

The purpose of this chapter is to recognize state law regarding the right to farm, such as the Right to Farm Act (N.J.S.A. 4:1C-1 et seq.) and to assure the continuation and expansion of commercial and home agricultural pursuits by encouraging a positive agricultural business climate and protecting the farmer against municipal regulations and private nuisance suits, where agricultural management practices are applied and are consistent with relevant federal and state law and nonthreatening to the public health and safety.

§ 110-2. Definitions.

For the purposes of this chapter, the following terms shall have the meanings set opposite to them:

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

COMMERCIAL FARM:

A. A farm management unit of no less than five acres producing agricultural or horticultural products worth \$2,500 or more annually and satisfying the eligibility

criteria for differential property taxation pursuant to the Farmland Assessment Act of 1964 (N.J.S.A. 54:4-23.1 et seq.); or

- B. A farm management unit less than five acres producing agricultural or horticultural products worth \$50,000 or more annually and otherwise satisfying the eligibility criteria for differential property taxation pursuant to the Farmland Assessment Act of 1964.

FARM MANAGEMENT UNIT — A parcel or parcels of land, whether contiguous or noncontiguous, together with agricultural or horticultural buildings, structures and facilities, producing agricultural or horticultural products and operated as a single enterprise.

FARM STAND — A facility for the wholesale or retail marketing of the agricultural output of a commercial farm, and products that contribute to farm income except that if a farm stand is used for retail marketing at least 51% of the annual gross sales of the retail farm stand shall be generated from sales of agricultural output of the commercial farm, or least 51% of the sales area shall be devoted to the sale of agricultural output of the commercial farm; provided, however, that if the retail farm stand is located on land less than five acres in area, the land on which the farm stand is located shall produce annually agricultural or horticultural products worth at least \$2,500.

NUISANCE — Any private action which unreasonably interferes with the comfortable enjoyment of another's property, which may be enjoined or abated and for which the injured or affected property owner may recover damages.

§ 110-3. Activities considered agricultural uses.

The right to engage in agriculture, as defined herein, shall be permitted in the East Amwell Township as permitted by zoning and other land use regulations and as permitted by state law, and such uses and activities, and structures in connection therewith, shall not constitute a public or private nuisance, provided that the operation conforms to agricultural management practices recommended by the State Agricultural Development Committee and adopted pursuant to the provisions of the Administrative Procedure Act (N.J.S.A. 52:14B-1 et seq.) or whose specific operation or practice has been determined by Hunterdon County Agricultural Development Board to constitute a generally accepted agricultural operation or practice. Agricultural use shall include the following activities but not be limited to them:

- A. The storage, processing, packaging and sale of farm products where produced.
- B. The use of irrigation pumps and equipment, aerial and ground seeding and spraying, trucks, tractors and other equipment.
- C. The application of manure, chemical fertilizers, insecticides, pesticides and herbicides in accordance with manufacturers' instructions.
- D. On-site disposal of organic agricultural waste.
- E. Installation of soil and water conservation practices in accordance with a Conservation Plan approved by the Hunterdon County Soil Conservation District.

- F. Transportation of slow-moving equipment over roads within the municipality.
- G. Utilization of tractors and other necessary equipment.
- H. The employment of farm laborers living on or off the farm.
- I. The creation of noise, dust, odors and fumes inherently associated with such uses.
- J. The conducting of farm practices at any and all times when necessary.
- K. Recreational use as permitted by the farm owner, with the provision that any recreational use of farm land that changes the underlying agricultural nature of the land shall be subject to the usual site plan review, variance application and all permits where otherwise required.
- L. Provisions for the wholesale and retail marketing of the agricultural output of the farm which include the building of temporary and permanent structures and parking areas for said purpose which all must conform with municipal land development standards.¹
- M. The raising and keeping of farm animals, including pets, pastoral farm animals (dairy and beef cattle, buffalo, sheep and goats), swine, fowl, ostriches, horses, ponies and mules, provided that proper sanitation standards, minimum acreage limits and boundary sizes between fencing or enclosures and joining properties are established.
- N. The control of vermin and pests, provided that such control is practiced under applicable state fish and game laws.
- O. Conducting agriculture-related educational and farm-based recreational activities, provided that the activities are related to marketing the agricultural or horticultural output of the commercial farm.
- P. Engaging in any other agricultural activity as determined by the State Agricultural Development Committee and adopted by rule or regulation pursuant to the provisions of the said Administrative Procedure Act (N.J.S.A. 52:14B-1 et seq.).

§ 110-4. Nuisance.

No agricultural activity, operation, or facility conducted or maintained for commercial purposes and in a manner consistent with relevant federal and state laws shall be or become a nuisance, public or private.

§ 110-5. Notice of farm use.

- A. The purchaser of any real estate in East Amwell Township should be notified of the importance of our farming community and be provided with a copy of this chapter.
- B. The following language shall be included in the deed of any newly subdivided lot in the township:

¹ Editor's Note: See Ch. 92, Land Management.

Grantee is hereby noticed there is, or may in the future be, farm use near the premises described in this deed, from which may emanate noise, odors, dust and fumes associated with agricultural practices permitted under the Right to Farm Ordinance of East Amwell Township.

- C. The Township will take reasonable steps to make it possible for real estate salespersons to provide notification to prospective purchasers of land in this township, using language similar to the deed notification described just above.
- D. The Municipal Clerk shall maintain records of all farm properties within the township which shall list names of the owners and the location of farms which do and do not receive differential property taxation pursuant to the Farmland Assessment Act of 1964 (N.J.S.A. 54:4-23.1).

- [2] Application fee for farm buildings: \$100. [Added 3-8-2001 by Ord. No. 01-02]
- [3] Escrow fee (per dwelling unit for residential uses or per acre in the tract or commercial/industrial or other uses.): \$500.

(b) Preliminary site plan:

- [1] Application fee: \$1,500, plus \$0.10 per square foot of building area.
- ~~[2] Application fee for farm buildings: \$100. [Added 3-8-2001 by Ord. No. 01-02]~~
- [3] Escrow fee (per dwelling unit for residential uses or per acre in the tract for commercial/industrial or other uses): \$1,000.

(c) Final site plan, major development:

- [1] Application fee: \$750.
- ~~[2] Application fee for farm buildings: \$100. [Added 3-8-2001 by Ord. No. 01-02]~~
- [3] Escrow fee: \$1,000.

(d) Final site plan, minor development:

- [1] Application fee: \$200.
- [2] Escrow fee: \$500.

(e) Site plan application fees and escrows for wireless telecommunications installations shall be as follows:

	Fee	Escrow
If no new tower is proposed	\$400	\$2,000
If a new tower is proposed	\$1,000	\$5,000

NOTE: If an escrow account falls below 30% of original amount, a request for additional funds will be made to bring escrow account up to 50% of original amount.

(3) Other approvals, variances or appeals:

- (a) Freestanding or lighted signs not included in other site plans: \$25.
- (b) Hear and decide appeals from administrative officer: \$50.
- (c) Conditional use application: \$500.

K. Swimming pool filling requirements. In order to protect limited groundwater supply and individual wells, all swimming pools shall be filled with water imported by truck from a source outside the Sourland Mountain region. Proof of compliance shall be demonstrated by a dated bill of sale or receipt from the supplier, before the certificate of occupancy or certificate of approval is issued. [Added 7-15-2004 by Ord. No. 04-15]

§ 92-90. (Reserved)³³

§ 92-91. Amwell Valley Agricultural District. [Amended 8-14-1997 by Ord. No. 97-18; 9-11-1997 by Ord. No. 97-20; 9-11-1997 by Ord. No. 97-23; 3-11-1999 by Ord. No. 99-03; 3-25-1999 by Ord. No. 99-06; 9-13-2001 by Ord. No. 01-19]

A. Purposes. The purposes of the Amwell Valley Agricultural District are:

- (1) To encourage land use patterns and development practices which enhance Township, county and state efforts to retain farmland and protect and preserve agricultural activity within the Township.
- (2) To protect and promote the continuation of farming in East Amwell Township where farming is a valuable component of the local economy.
- (3) To protect prime soils (SCS Classes I and II) and soils of state-wide importance (SCS Class III) for their long-term value as an essential natural resource in any agricultural or horticultural pursuit.
- (4) To permit limited nonfarm related residential development in a location and manner that will be consistent with the continuation of farming.
- (5) To support the preservation of existing farm operations and limit conflicts between agricultural and nonagricultural uses by encouraging the separation of residential development from active farms. [Amended 9-9-1999 by Ord. No. 99-20]
- (6) To impose lot suitability requirements upon residential lots in order to accommodate individual well and septic disposal systems, which are required in the Amwell Valley Agricultural District.
- (7) To implement the goals of the Amended Master Plan for the Amwell Valley Agricultural District by protecting agricultural lands and promoting agriculture as a valuable component of the local economy.

B. Permitted principal uses shall be as follows:

- (1) Detached, single-family dwelling.
- (2) Agricultural uses and farms.
- (3) Public parks. [Amended 9-11-1999 by Ord. No. 99-20]

33. Editor's Note: Former § 92-90, Stony Brook District, added 8-20-1992 by Ord. No. 92-09, as amended, was repealed 12-11-2003 by Ord. No. 03-20.

- (4) Subsidized accessory apartments as defined in Article III and in accordance with the provisions of Note 1 under § 92-91E hereinbelow. [Amended 9-11-1999 by Ord. No. 99-20]
- (5) Farm-based business (meeting the definition of such in Article III).
- (6) Bed-and-breakfast. See § 92-44.
- (7) Antique shop. See § 92-42.
- (8) Wireless telecommunications antennas on existing structures, subject to minor site plan approval. [Added 9-11-1999 by Ord. No. 99-20; amended 12-30-2002 by Ord. No. 02-22]
- (9) A golf course/club, subject to the following provisions (which shall not be construed as conditions of a conditional use): [Added 9-11-1999 by Ord. No. 99-20]
 - (a) The tract on which the golf course/club is to be constructed shall comprise at least 200 acres for 18 holes.
 - (b) The length of the golf course shall be not less than 7,000 yards.
 - (c) The golf course/club shall be the sole principal use on the tract. In particular (and without limiting the foregoing provision), there shall be no residential uses on the tract, whether in conjunction with the golf course/club or otherwise.
 - (d) No portion of any golf tee, fairway or green shall be located closer than 150 feet to any tract boundary or public road right-of-way, except that cart paths may be located no closer than 100 feet to such boundaries or roads.
 - (e) There shall be a direct driveway access to the golf course/club, over the tract, from a state or county road.
 - (f) A vegetated buffer at least one-hundred-feet wide, consisting of native trees, shrubs and ground covers, shall be provided and maintained between any turf area which will be treated with fertilizers or pesticides and the closest point of any one-hundred-year floodplain; or if there is no floodplain, the top of bank of any permanent, nonseasonal stream or open water body, on or off site, except

Chapter 27
OPEN SPACE TRUST FUND

§ 27-1. Trust fund established.

§ 27-3. Funding.

§ 27-2. Apportionment and allocation of fund.

§ 27-4. Sale of property.

[HISTORY: Adopted by the Township Committee of the Township of East Amwell 6-10-1999 by Ord. No. 99-18. Amendments noted where applicable.]

GENERAL REFERENCES

Powers of Environmental Commission concerning open space preservation — See Ch. 14, § 14-8. Land management — See Ch. 92.

§ 27-1. Trust fund established.

There is hereby established a reserve in the General Capital Fund which shall be known and designated as the "Municipal Open Space, Recreation and Farmland and Historic Preservation Trust Fund." A special bank account shall be opened and maintained for this purpose. Funds from the Municipal Open Space, Recreation and Farmland and Historic Preservation Trust Fund may, as directed by the Mayor and Township Committee, be utilized to acquire by gift, purchase or by eminent domain proceedings pursuant to N.J.S.A. 20:3-1 et seq. development easements, or other easements, vacant land, as well as land which has improvements upon it at the time of acquisition, where the principal purpose of the acquisition is for any or all of the following purposes, or any combination thereof.

- A. Acquisition of lands for recreation and conservation purposes;
- B. Development of lands acquired for recreation and conservation purposes;
- C. Maintenance of lands acquired for recreation and conservation purposes;
- D. Acquisition of farmland for farmland preservation purposes;
- E. Historic preservation of historic properties, structures, facilities, sites, areas, or objects, and the acquisition of such properties, structures, facilities, sites, areas, or objects for historic preservation purposes; or
- F. Payment of debt service on indebtedness issued or incurred by the Township of East Amwell for any of the purposes set forth in Subsections A through E above.

§ 27-2. Apportionment and allocation of fund.

The Mayor and Township Committee, annually, after the holding one public hearing thereon, shall apportion and allocate the use of such tax receipts among the purpose or purposes set forth in § 27-1A through F.

§ 27-3. Funding.

The Municipal Open Space, Recreation and Farmland and Historic Preservation Trust Fund shall be funded through the dedication to the fund of an amount of \$0.04 per \$100 of assessed valuation of each annual tax levy commencing with the year tax and budget year 1999. The fund shall also be permitted to accept donations and testamentary bequests. The accumulated receipts and deposits with the fund may be utilized for the purposes set forth in §§ 27-1 and 27-2 herein. Any and all interest accruing shall be retained in and used for the same purposes as established in accordance with §§ 27-1 and 27-2 herein. All moneys set aside for open space as of the effective date of this chapter shall be deposited into the fund.

§ 27-4. Sale of property.

- A. No property acquired with these funds shall be leased or sold, unless action has been authorized by the Mayor and Township Committee in a manner as prescribed by law.
- B. The Mayor and Township Committee, after at least one public hearing thereon, and upon a finding that the purposes of this chapter might otherwise be better served or that any land acquired by the Township of East Amwell pursuant to this chapter is required for another public use, may by ordinance convey, through sale, exchange, transfer or other disposition, title to, or a lesser interest in, that land, provided that the Township of East Amwell shall replace any land conveyed under this section by land of at least equal fair market value and of reasonably equivalent usefulness, size, quality and location to the land conveyed. Any money derived from the conveyance shall be deposited into the fund created thereunder.
- C. Any conveyance made pursuant to this section shall be made in strict accordance with the Local Lands and Buildings Law (N.J.S.A. 40A:12-1 et seq.). In the event of conveyance by exchange, the land or improvements thereon to be transferred to the trust shall be at least equal in fair market value and of reasonable equivalent usefulness, size, quality and location to the land or improvements transferred from the trust.

CONCLUSION

We conclude this Comprehensive Farmland Plan with the vision statements of the Township.

In August, 1998, the Planning Board adopted a new Land Use Plan amendment for the Amwell Valley Agricultural District, an area about two-thirds of the township encompassing approximately 12,000 acres. This plan stated

The long term vision of East Amwell is to retain farming as a central aspect of the Amwell Valley.

The KEY POLICY developed by the Planning Board is that **the land, an essential natural resource for farming, should be protected for continued agricultural use.**

This theme is re-confirmed in the 2006 Master Plan:

The first key objective is to maintain the community's prevailing agriculture character by promoting the industry of farming and preserving the productive agricultural land base.

Agriculture is important in East Amwell's history and its future, providing a rural lifestyle valued by farmers and non-farmers alike, while also contributing breathtaking scenic views, promoting the local economy and utilizing a valuable natural resource.

We believe the Farmland Preservation program in East Amwell has worked to meet these goals. The preservation program has maintained the land base, the farmers on the land and the scenic views that have historically made East Amwell an attractive place to work and live.

In Support of Chapter	Title of Appendix Reference
III-A	Planning for Farming in the Future of East Amwell (Part of 2006 East Amwell Master Plan: Pages 18-23)
III-B	Municipal Demographic & Housing Characteristics and Municipal Employment Projects (Pages 16-29)
III-C	East Amwell Code Section 92-91 Amwell Valley Agricultural District (Pages 174 and 175)
III-D	Feasibility Study for Hidden Valley On-Site Groundwater Discharge (Pages 1-11) (Figures 1-9) (List of Soil Logs & Chart)
III-E	East Amwell Township State Plan Implementation Project Funded by Matching Grant from ANJEC: May, 1977 Executive Summary and Pages 1-16 with additional attachments
V-A	East Amwell PIG Application to SADC: October, 1999
V-B	Hunterdon CADB County PIG Ranking Criteria as of 9/13/07
V-C	State Agriculture Development Committee (SADC) Policy P-14-E Ranking Criteria

APPENDIX IN SUPPORT OF CHAPTER III

Planning for Farming in the Future
of East Amwell

APPENDIX

REFERENCE CHAPTER III

Excēpts from

Planning for Farming in the Future of East Amwell
Land Use Amendment for the Amwell Valley District

Part of the 2006 East Amwell Master Plan
Adopted: August 27, 1998

Prepared by East Amwell Planning Board
with assistance from Banisch Associates

Land Use and Development Regulatory Techniques

Conventional Zoning

Conventional zoning involves the use of specified density and bulk criteria to shape land development. Lots are regulated by their area, width and depth and building placement on a lot is regulated by setback standards. In addition, the number of lots that can be created may also be governed by density regulations, which specify the number of dwellings per unit of area.

Often referred to as Euclidean zoning, after the Town of Euclid, Ohio, where zoning was first upheld as a valid exercise of the police power, conventional zoning also typically segregates land uses by type in separate districts.

Agricultural Zoning Approaches

In its review of farmland preservation approaches, the Planning Board reviewed the strength of East Amwell as a farming area. Comparing characterizations of strong, weak and moderate strength farming areas (Daniels, 1997), it was determined that East Amwell represents a moderate strength farming area. This is an area where farms still exist in relatively large blocks, non-farm development has not intruded significantly, and where there is continued farming of traditional grain crops and ready access to local equipment suppliers. Expanding direct marketing operations by entrepreneurial farmers, including several younger farmers, indicate a response to changing

conditions and new opportunities. However, the county has witnessed the loss of some farm infrastructure and there appears to be little optimism among older farmers that farming as they know it will continue.

It was recognized that if the farmland base is not protected in the near term, farming may decline sharply with a critical mass of farmland converted to non-farm uses. The Planning Board determined that its objectives for the Amwell Valley District, as outlined above, cannot be met if new development proceeds according to the current three acre density. Such zoning permits the entry of large numbers of non-farm residences and the conflicts they inevitably bring.

Recommended techniques for preserving agriculture in moderate strength farming areas include comprehensive planning, agricultural zoning, maximum building lot sizes for non-farm development, (i.e., 2 acres), purchase and transfer of development rights and establishment of urban growth or village boundaries. A review of the professional literature indicates that a minimum lot size of 20 to 25 acres is appropriate agricultural zoning in a moderate strength farming area (Daniels, 1997), although such a proposal met with strong opposition when aired at public hearings in 1997. In addition, lot size averaging and off-site clustering can be particularly useful land use techniques, when the proper balance is achieved between permitted densities and lot area requirements.

Open Lands Ratio

The Township's Master Plan, like the plans of Hunterdon County and the State of New Jersey, prioritize the retention of the large contiguous masses of agricultural lands, which are required if agriculture is to have a viable future in New Jersey.

Open lands ratio zoning is a concept which first defines the portion of a tract to remain open and available for farmland or other resource use, and may require that these open lands meet minimum standards of soil quality and useable land. The remaining land is then planned to accommodate the permitted non-farm residential development.

The Municipal Land Use Law directs municipalities to provide "sufficient space in appropriate locations" for agriculture and open space. The MLUL also recommends "creative development techniques and good civic designs and arrangements" to preserve and enhance the visual environment. Notable among the primary objectives of the MLUL is the conservation of valuable natural resources and prevention of urban sprawl.

In reviewing these statutory directives, the Planning Board sought out guidelines that could assist in meeting the objective of retaining open lands. This concept was outlined in detail in the compendium of "Planning Standards and Guidelines" prepared by the New Jersey State Planning Commission in January 1989, but not adopted as part of the SDRP. A series of guidelines to "protect and preserve large contiguous tracts of natural land in an undisturbed condition" were contained in Policy 1.5 for tier 6 (now the Rural Planning Area, including:

- Maintaining agricultural regions around the state

- Maintaining agricultural areas, with a recommended minimum area of one square mile (640-acres).
- Maintaining agricultural sites by minimizing the impacts of non-agricultural development and maintaining minimum agricultural land units (consisting of one or more farms) of not less than forty acres.
- Encouraging non-agricultural development near existing non-agricultural development.
- Maintaining an open space ratio which preserves "at least 95% of the gross area of a development parcel in agricultural use and open space".

These guidelines should serve as a baseline for municipal action and provide the basis for the "Open Lands Ratio" concept as outlined in this plan.

Since its adoption, the State Development and Redevelopment Plan has called for a growth management strategy which channels development into compact centers, and seeks to protect the "Environs" which are New Jersey's countryside. The "Environs", which include the agricultural Amwell Valley, and lands east and west of Route 202/31, are highlighted for protection of "large contiguous areas" of farmland, open space, and forests.

The Preliminary State Development and Redevelopment plan, currently undergoing "cross-acceptance", defines "Large Contiguous Areas" as the amount of contiguous farmland necessary to permit normal farm operations on a sustained basis, or the undisturbed land required to maintain a desired community of plants and animals. East Amwell's Open Lands Ratio enables future land development patterns which can promote the objectives of the State, Hunterdon County and East Amwell.

East Amwell's proposed 75% Open Lands Ratio seeks to balance the equity concerns of land owners while at the same time discourage speculative tract development. While not as ambitious as the 95% ratio suggested by the State Planning Commission, the local strategy will preserve enough open land so that active farming operations can be continued or initiated without interference from incompatible neighboring development.

Cluster Zoning and Lot Size Averaging

These variations on conventional zoning have been developed to address special land use concerns such as the retention of agriculture, open space and environmentally sensitive areas. The inadequacy of conventional zoning to achieve specialized community goals has prompted the widespread use of these techniques in agricultural and environmentally sensitive areas.

Clustering or cluster zoning is designed to provide useful tracts of open space as a by-product of residential development. This approach generally permits a reduction in the minimum lot size in return for permanent commitments of open space areas. The MLUL provides that clustering may be permitted within a contiguous tract or by arranging development among non-contiguous tracts (NJSA 40:55D-65(c)). Non-contiguous clustering offers the potential to accomplish total

preservation of some sites, while allowing a greater measure of development on other sites. However, suitable areas for higher density development must be designated under this approach.

Lot size averaging, a variation on the cluster design concept, permits a reduction in the size of some lots provided that other lots exceed the minimum lot area requirements so that the average lot size meets or exceeds an ordinance standard. This technique has been found particularly useful for preserving farmland, woodland, or for wildlife conservation purposes. It retains the taxable status of all resulting lots and also eliminates questions about long-term maintenance of public open space and any related municipal responsibilities, as all properties remain in private ownership.

Lot size averaging should be designed to facilitate community planning objectives. For instance, municipal regulations could require that a certain proportion of the site be retained in large lots (e.g. - 20 acres or more) with the remaining permitted development on small lots. This can retain parcels of adequate size to permit continued farming to have economic utility. Conversely, without such a standard, lot size averaging can still assist resource conservation objectives by including environmentally sensitive lands in oversized lots.

As noted previously, while cluster zoning or lot size averaging can be useful for open space preservation and conservation of some rural character with three acre suburban densities, it clearly will fail to retain agriculture or provide for future agricultural development (Arendt, 1997). If design standards are developed to provide for new residential development at reduced densities away from the most productive agricultural lands and in locations where they will be least disruptive of farming activities, on- and off-site clustering and lot size averaging can minimize the impact of non-farm dwellings in the Amwell Valley District.

Transfer of Development Rights (TDR)

East Amwell's 1993 Master Plan suggested a development transfer approach which would cluster new development into village or hamlet locations. In furtherance of this objective, the Township pursued a grant from ANJEC under the State Plan Implementation Project to study a voluntary TDR approach. This concept has not been effectively integrated into the Development Regulations Ordinance because of a lack of suitable receiving areas and because of concerns about economic feasibility. Receiving areas studied previously were not found to be able to manage the wastewater demands of the substantial numbers of units which would result from a TDR program based on the current three acre zoning. It is notable that the nation's leading TDR program, in Montgomery County, Maryland, was made possible by a downzoning to one building lot per 25 acres (Daniels and Bowers, 1997). Residential density can be transferred under the Maryland program at a rate of one development right per five (5) acres.

After three years of analysis, the final report (Wolfe, et. al., 1997) concluded that if a voluntary program of transferable development rights is legally permissible, it is not currently a practical development alternative, chiefly because conventional development produces a greater residual profit for the developer. The density incentives required to sufficiently increase the residual profit from a voluntary TDR program would actually increase the gross build-out of the community. Under current zoning, this is an unacceptable consequence. Therefore, a voluntary TDR program

currently remains a theoretical, rather than a practical development alternative, resulting from the relative ease of development without transferable development rights and the complications associated with finding suitable receiving areas where public services can be provided and public acceptance can be achieved.

Because these concepts are an important alternative, in 1997 the Planning Board established a new TDR committee composed of members of the Planning Board, the Board of Health, the Agricultural Advisory committee, and Environmental Commission. This group has considered a wide variety of issues, and concluded that a form of transfer of development rights should be viewed positively as another tool for farmland preservation. The 1993 Master Plan identified two sites as potential locations for new hamlets - the Hidden Valley site off Route 179 and the Frontage Road site to the west of Ringoes. The new task force agreed that these two sites merit further investigation, and added a third possible site, on the Sergeantsville Road outside of Ringoes.

The committee has recommended that the maximum size of any new receiving site should be limited to 75-100 single family houses. These could be located on 1 ½ acres lots served by private septic systems and wells, or considerably smaller lots (1/2 - 3/4 acre) if wastewater treatment systems are approved. The sites suggested for further study meet the conditions of access to appropriate roads, level topography, and a general absence of limiting environmental factors.

Furthermore, such developments are more in keeping with the scale of existing settlements, less imposing on the landscape, less threatening to existing neighbors, and more easily serviced by community wastewater systems. The potential for a long term solution to waste water problems in the village of Ringoes is another important consideration.

The committee believes that the concepts of the non-contiguous transfer provisions of the Municipal Land Use law are also an appropriate form of development transfer that might work in East Amwell. This simplifies the concept to focus on one or two sites at a time, rather than identifying comprehensive sending and receiving zones. East Amwell could also function in a role to facilitate a transfer of units between two parcels, or pursue a transfer of units on a municipally owned parcel.

East Amwell's Agricultural Retention and Farmland Preservation Approach

This Master Plan Amendment includes policy, regulatory, and other approaches to agricultural retention and proposes the creation of a package of incentives to support the agricultural industry. The following is a summary of the components of this program.

Land Use Policy for the Amwell Valley District

The Planning Board recommends a minimum open lands zoning approach, with a 75% open lands standard, combined with a maximum area requirement for non-farm lots, to assure that new farm parcels are suitably sized for agricultural use and that non-farm dwellings consume as little land as reasonably possible. This zoning approach should be complemented by design standards for the

locations of new non-farm dwellings. Such design standards should locate non-farm uses away from prime agricultural soils and in perimeter or fringe locations where they will not be disruptive of existing and future agricultural activities. Off-site clustering, enabled under NJSA 40:55D-65(c), provides a surrogate for TDR without many of its complications, and should be utilized to the greatest extent possible to move non-farm development away from the agricultural heartland. Similarly, lot-size averaging holds considerable promise as a vehicle to achieve the desired open lands ratio. A density bonus can be a useful tool to maximize the open lands ratio.

The New Jersey Farm Bureau and others have suggested that advances in technology and production will make smaller farm parcels more useful. East Amwell's regulatory approach should provide for varying lot sizes to accommodate a variety of farming activities, including more intensive value-added crops which need less land, and the current large grain and beef or dairy operations, which require large acreage.

The Planning Board is concerned about the impact of regulations on land values for farmers and other landowners. Land development regulations should encourage farmers to sell small lots at retail prices to a new homeowner or builder, as opposed to wholesale pricing of large tracts to major subdividers. The large remaining parcels will have farmland values, which can help to make it possible for younger farmers to afford to buy land and expand or enter the business of farming.

Land development procedures should be structured to allow a landowner and the Planning Board to determine the pattern and layout of future development through a process that involves significant dialogue and discussion before requiring detailed engineering plans of drainage, grading, and utilities. This process would identify the portions of a parcel that will be devoted to agriculture, roads, open space, houses, and other uses.

The impact of new residential development on the productivity of farming operations and on the community character of East Amwell should be mitigated by encouraging it to follow development forms that reflect the rural character of the township through the application of flexible design standards and land use controls. A series of rural conservation design guidelines that could form the basis for ordinance standards are outlined below:

- locate construction to preserve the better quality soils for agriculture
- encourage construction on the edge of the fields and orient driveways along hedgerows and woodlands to minimize intrusion on agricultural lands
- encourage road design and layout to conform with the topography
- preserve prime woodlands and hedgerows
- encourage planted buffers using native species arranged to resemble existing woodland patterns
- locate new development to maintain significant views and vistas and the landscape's rural character
- encourage common driveways, particularly on wooded, or sloped terrain to minimize interruptions to traffic flow

APPENDIX IN SUPPORT OF CHAPTER III

Municipal Demographic and Housing Characteristics
and Municipal Employment Projects

Housing Plan Element and Fair Share Plan

Appendix A Municipal Demographic and Housing Characteristics and Municipal Employment Projections

Analysis of Housing Characteristics

The primary source of information for the inventory of the Township's housing stock is the 2000 U.S. Census. While the Census data was compiled in 2000, it remains the only source of information that provides the level of detail needed for this analysis. Since the housing inventory has increased by only 5% since 1990, the data provide a valid evaluation of the Township's housing stock.

According to the 2000 Census, the Township had 1,624 housing units, of which 1,581 (97%) were occupied. Table 1 identifies the units in a structure by tenure; as used throughout this Plan Element, "tenure" refers to whether a unit is owner-occupied or renter-occupied. While the Township largely consisted of one-family, detached dwellings (91.8% of the total, compared to 74% in the County), there were 132 units in attached or multi-family structures. The Township had a relatively low percentage of renter-occupied units, 13%, compared to 19.5% in Hunterdon County and 52% in the State.

Table 1: Units in Structure by Tenure

Units in Structure	Total Units	Vacant Units	Occupied Units		
			Total	Owner	Renter
1 detached	1,492	34	1,458	1,339	119
1 attached	28	0	28	12	16
2	40	5	35	16	19
3 or 4	51	4	47	6	41
5 to 9	13	0	13	0	13
10 to 19	0	0	0	0	0
20+	0	0	0	0	0
Mobile Home	0	0	0	0	0
Total	1,624	43	1,581	1,373	208

Source: 2000 U.S. Census, QT-H5 & QT-H10 (STF-3) for Township

Table 2 presents the data concerning the year housing units were built by tenure, while Table 3 compares the Township to Hunterdon County and the State. Approximately 63.7% of all the units in the Township have been built since 1960, 69.8% of the owner-occupied units were built after 1960. Interestingly, 25.7% of the occupied units built before 1960 were renter-occupied. The presence of an older housing stock is one of the factors which correlate highly with filtering. Filtering is a downward adjustment of

housing need which recognizes that the housing requirements of lower-income groups can be served by supply additions to the higher-income sections of the housing market.

Table 2: Year Structure Built by Tenure

Year Built	Total Units	Vacant Units	Occupied Units		
			Total	Owner	Renter
1990-2000	160	0	160	153	7
1980-1989	365	5	360	360	0
1970-1979	304	0	304	279	25
1960-1969	205	5	200	167	33
1950-1959	121	19	102	95	7
1940-1949	94	0	94	46	48
Pre-1940	375	14	361	273	88

Source: 2000 U.S. Census, STF-3QT-P1 for Township

Table 3 compares the year of construction for all dwelling units in the Township to Hunterdon County and the State. The Township had a larger percentage of units built between 1970-1990 than does the County or State, and a much smaller percentage of units built between 1950-1960 and 1990-2000. East Amwell had a larger percentage of units built pre-1940 than does the County or State, which lowers the median year built to 1971.

Table 3: Comparison of Year of Construction for Township, County and State

Year Built	%		
	East Amwell Township	Hunterdon County	New Jersey
1990-2000	9.9	17.1	10.5
1980-1989	22.5	22.4	12.4
1970-1979	18.7	15.1	14
1960-1969	12.6	10.2	15.9
1950-1959	7.5	9.1	17.1
1940-1949	5.8	4.2	10.1
Pre-1940	23.1	21.9	20.1
Median Year	1971	1973	1962

Source: 2000 U.S. Census, STF-3 DP-4 for Township, County and State.

Information reported in the 2000 Census concerning occupancy characteristics includes the household size in occupied housing units by tenure, and the number of bedrooms per unit by tenure; these data are reported in Tables 4 and 5, respectively. Table 4 indicates that renter-occupied units generally house smaller households, with 60.1% of renter-occupied units having 2 persons or fewer compared to 49.2% of owner-occupied units. Table 5 indicates that renter-occupied units generally have fewer bedrooms, with 56.7% having two bedrooms or fewer, compared to 14.9% of owner-occupied units.

Table 4: Household Size in Occupied Housing Units by Tenure

Household Size	Total Units	Owner-occupied Units	Renter-occupied Units
1 person	212	158	54
2 persons	588	517	71
3 persons	306	265	41
4 persons	322	296	26
5 persons	108	92	16
6 persons	26	26	0
7+ persons	19	19	0
Total	1,581	1,373	208

Source: 2000 U.S. Census, STF-3 H-17 for Township.

Table 5: Number of Bedrooms per Unit by Tenure

Number of Bedrooms	Total Units	(%)	Vacant Units	Occupied Units		
				Total	Owner	Renter
No bedroom	26	1.6	5	21	21	0
1 bedroom	43	2.6	0	43	16	27
2 bedrooms	270	16.6	11	259	168	91
3 bedrooms	678	41.7	22	656	575	81
4 bedrooms	504	31.0	0	504	495	9
5+ bedrooms	103	6.3	5	98	98	0

Source: 2000 U.S. Census, STF-3QT-H8 for Township.

Table 6 compares the Township's average household size for all occupied units, owner-occupied units, and renter-occupied units to those of the County and State. The Township's average household size for owner-occupied units was slightly higher than those of the County and State, while the average household size for renter-occupied units was between the County and State. The larger household size for owner-occupied units produced a larger household size for all units in the Township compared to the County and State.

Table 6: Average Household Size for Occupied Units for Township, County and State

Jurisdiction	All Occupied Units	Owner-occupied units	Renter-occupied units
East Amwell Township	2.8	2.9	2.1
Hunterdon County	2.7	2.8	2.0
New Jersey	2.7	2.9	2.4

Source: 2000 U.S. Census, STF-3 DP-1 for Township, County and State.

The distribution of bedrooms per unit, shown in Table 7, indicates a similar pattern for the Township, County, and State. The State had considerably more units with no or one bedroom, and two or three bedrooms, and considerably fewer units with four or more bedrooms, than the Township and County.

Table 7: Percentage of All Units by Number of Bedrooms for Township, County and State

Jurisdiction	None or one	Two or Three	Four or More
East Amwell Township	4.2	58.4	37.4
Hunterdon County	9.2	53.7	37.1
New Jersey	18.3	59.1	22.6

Source: 2000 U.S. Census, STF-3 QT-H10 for Township, County and State.

In addition to data concerning occupancy characteristics, the 2000 Census includes a number of indicators, or surrogates, which relate to the condition of the housing stock. These indicators are used by COAH in calculating a municipality's deteriorated units and indigenous need. The surrogates used to identify housing quality, in addition to age (Pre-1940 units in Table 2), are the following, as described in COAH's rules.

- Persons per Room* 1.01 or more persons per room is an index of overcrowding.
- Plumbing Facilities* Inadequate plumbing is indicated by either a lack of exclusive use of plumbing or incomplete plumbing facilities.
- Kitchen Facilities* Inadequate kitchen facilities are indicated by shared use of a kitchen or the non-presence of a sink with piped water, a stove, or a refrigerator.
- Heating Fuel* Inadequate heating is use of coal, coke, wood, or no fuel for heating.
- Sewer* Inadequate sewer services are indicated by a lack of public sewer, septic tank, or cesspool.

Water Inadequate water supply is indicated by a lack of either city water, or drilled well, or dug well.

Telephone Inadequate telephone is indicated by the absence of a telephone in a unit.

Table 8 compares the Township, County, and State for some of the above indicators of housing quality. The Township had less overcrowding than the County and State, and was similar to the County and State in the adequacy of plumbing and kitchen facilities. The Census data shows that the Township had higher numbers of units with inadequate heating and less inadequate sewer than the County and State.

Table 8: Housing Quality for Township, County and State

Condition	%		
	East Amwell Township	Hunterdon County	New Jersey
Overcrowding ¹	0	.4	11
Inadequate plumbing ²	.3	.4	.7
Inadequate kitchen ²	.3	.2	.8
Inadequate heating ¹	1.6	1.2	.6
No telephone ¹	0	.3	1.8

Notes: ¹The universe for these factors is occupied housing units.

²The universe for these factors is all housing units.

Source: 2000 U.S. Census, STF-3 QT-H4 for Township, County and State.

The last factors used to describe the municipal housing stock in the U.S. Census are the self-reported estimated values and rental values for residential units. The 1990 and 2000 Census shows the change of value of owner occupied units in the past 10 years (Table 9). In 1990, 63% of the Township's housing stock was valued under \$250,000 but in 2000 only 48% was valued under \$250,000. The median value went from \$225,600 to \$252,500 in 10 years.

Table 9: Value of Residential Units

Value	1990		2000	
	Number	%	Number	%
Less than \$19,999	1	0.1	0	0
\$20,000 to \$24,999	1	0.1	9	0.8
\$25,000 to \$99,999	25	2.8	0	0
\$100,000 to \$124,999	20	2	20	1.8
\$125,000 to \$149,999	41	4.1	51	4.6
\$150,000 to \$174,999	113	11.4	77	7
\$175,000 to \$199,999	151	15.2	151	13.7
\$200,000 to \$249,999	271	27.3	228	20.7

\$250,000 to \$299,999	200	20.2	286	26
\$300,000 to \$399,999	114	11.5	166	15.1
\$400,000 to \$499,999	47	4.7	49	4.5
\$500,000 to \$749,999	7*	0.7	45	4.1
\$750,000 to \$999,999	N/A	0	6	0.5
\$1,000,000 or more	N/A	0	13	1.2
Median (dollars)	225,600		252,500	

* 1990 Census categories break at the following \$500,000 or more.

Source: 1990 and 2000 Census SF-3 DP4

With regard to renter-occupied units, 191 of the 208 renter-occupied units in the Township, or 92%, reported rental values in the Census. The data in Table 10 indicate that approximately 40%, or 78 units, rent for less than \$750 per month, which provides additional moderate income housing opportunities in the Township allowing for a more diverse housing stock.

Table 10: Gross Rents for Specified Renter-Occupied Housing Units

Contract Monthly Rent	1990		2000	
	Number	%	Number	%
Less than \$399	15	9.5	0	0
\$400 to \$449	11	7.1	7	3.7
\$450 to \$499	10	6.5	0	0
\$500 to \$549	20	13	29	15.2
\$550 to \$599	11	7.1	0	0
\$600 to \$649	20	13	16	8.4
\$650 to \$699	12	7.8	9	4.7
\$700 to \$749	15	9.7	17	8.9
\$750 to \$799*	27	17.5	23	12
\$800 to \$899	N/A	N/A	19	9.9
\$900 to \$999	N/A	N/A	31	16.2
\$1,000 to \$1,499*	5	3.2	18	9.4
\$1,500 to \$1,999	N/A	N/A	7	3.7
\$2,000 or more	N/A	N/A	0	0
No cash rent	N/A	N/A	15	7.9
Median (contract rent)	\$615		\$772	

* 1990 Census categories break at the following \$750-\$999 and \$1,000 or more.

Source: 1990 and 2000 U.S. Census, STF-3 QT-H12 for Township

The data in Table 11 indicate that there were 53 renter households with an annual income less than \$35,000, which was the approximate income threshold for a three-person, moderate-income household in Hunterdon County in 2000. At least 26 of these households are paying more than 30% of their income for rent; a figure of 30% is considered the limit of affordability for rental housing costs. It should be noted that 15 households in the Township had reported incomes less than \$10,000 annually, which is classified as very low income.

Table 11: Gross Rent as a Percentage of Household Income in 1999

Income	Number of Households	Percentage of Household Income					Not computed
		0-19%	20-24%	25-29%	30-34%	35%+	
< \$10,000	15	0	0	0	0	15	0
\$10,000 - 19,999	5	0	0	0	0	5	0
\$20,000 - 34,999	33	7	0	13	0	6	7
\$35,000 - 49,999	33	16	0	9	0	0	8
\$50,000 - 74,999	47	38	0	9	0	0	0
\$75,000 - 99,999	9	9	0	0	0	0	0
\$100,000+	49	49	0	0	0	0	0

Note: The universe for this Table is specified renter-occupied housing units.
 Source: 2000 U.S. Census, STF-3 QT-H13 for Township.

Analysis of Demographic Characteristics

As with the inventory of the municipal housing stock, the primary source of information for the analysis of the demographic characteristics of the Township's residents is the 2000 U.S. Census. The data collected in the 2000 Census provide a wealth of information concerning the characteristics of the Township's population.

East Amwell Township has seen a relatively steady growth rate over the past 50 years, with a significant slow down in the last decade, as identified in the U.S. Census Records. The rate of growth has been maintained in the range of 25% to 35% per decade, however a decrease in population growth in the last ten years has placed the change at just under 3%. Hunterdon County has also seen a fairly steady growth rate over the last 50 years, with a slight decrease in the last 10 years. However the County growth rate in the 1990s was higher than that of the Township's.

Table 12: Population Trends 1950-2000

	1950	1960	1970	1980	1990	2000
Township	1,525	1,981	2,568	3,468	4,332	4,455
% Change		29.9	29.6	35	24.9	2.8
County % Change		26.6	28.9	25.3	23.4	13.2

Source: U.S. Census for years 1950 to 2000

The age distribution of the Township's residents is shown in Table 13. The younger age classes (0-5, 5-24) show more males than females, while females dominate in the 25-49 and females dominate in the 65+ classes.

Table 13: Population by Age and Sex

Age	Number			Percent		
	Total	Male	Female	Total	Male	Female
Total population	4,455	2,265	2,190	100	100	100
Under 5 years	269	149	120	6	6.6	5.5
5 to 9 years	303	172	131	6.8	7.6	6
10 to 14 years	339	196	143	7.6	8.7	6.5
15 to 19 years	294	157	137	6.6	6.9	6.3
20 to 24 years	159	84	75	3.6	3.7	3.4
25 to 29 years	169	76	93	3.8	3.4	4.2
30 to 34 years	254	119	135	5.7	5.3	6.2
35 to 39 years	370	170	200	8.3	7.5	9.1
40 to 44 years	438	207	231	9.8	9.1	10.5
45 to 49 years	442	220	222	9.9	9.7	10.1
50 to 54 years	420	213	207	9.4	9.4	9.5
55 to 59 years	361	192	169	8.1	8.5	7.7
60 to 64 years	182	98	84	4.1	4.3	3.8
65 to 69 years	124	67	57	2.8	3	2.6
70 to 74 years	115	53	62	2.6	2.3	2.8
75 to 79 years	97	49	48	2.2	2.2	2.2
80 to 84 years	67	27	40	1.5	1.2	1.8
85 to 89 years	36	13	23	0.8	0.6	1.1
90 years and over	16	3	13	0.4	0.1	0.6
Median age (years)	40.8	40.2	41.4	(X)	(X)	(X)

Source: 2000 U.S. Census, STF-3 QT-P1 for Township.

Table 14 compares the Township to the County and State by age categories. The principal differences among the Township, County, and State occur in the 20-34 age category, where the Township had a lower proportion than the County and State, and the 50-64 age category, where the Township's proportion was higher than the County and State. In the 5 to 19 age category, the school age category, the Township slightly exceeded the County and State.

Table 14: Age Distribution for Township, County and State (% of persons)

Age	East Amwell Township	Hunterdon County	New Jersey
0-4	6	6.6	6.7
5-19	21	20.9	20.4
20-34	13.1	15.5	19.8
35-49	28.1	32.4	24.3
50-64	21.5	14.6	15.5
65-84	9.1	8.9	11.6
85+	1.2	1.1	1.6
Median	40.8	38.8	36.7

Source: 2000 U.S. Census, STF-3 QT-P1 for Township, County and State.

Table 15 provides the Census data on household size for the Township, while Table 16 compares household sizes in the Township to those in Hunterdon County and the State. The Township differs from the County and State in terms of the distribution of household sizes by having fewer households of one person and more households of 3 and 4 persons.

Table 15: Persons in Household

Household Size	Total Units
1 person	210
2 persons	588
3 persons	307
4 persons	323
5 persons	109
6 persons	30
7+ persons	14
Total	1,581

Source: 2000 U.S. Census, STF-3 QT-P10 for Township.

Table 16: Persons in Household for Township, County and State (% of households)

Household Size	Township	County	State
1 person	13.3	20	24.5
2 persons	37.2	33.8	30.3
3 persons	19.4	17.2	17.3
4 persons	20.4	18.9	16
5 persons	6.9	7.5	7.5
6 persons	1.9	2	2.7
7 or more persons	.9	.7	1.7
Persons per household	2.8	2.69	2.68

Source: 2000 U.S. Census, STF-3 QT-P10 for Township, County and State.

Table 17 presents a detailed breakdown of the Township's population by household type and relationship. There were 1,306 family households in the Township and 275 non-family households; a family household includes a householder living with one or more persons related to him or her by birth, marriage, or adoption, while a non-family household includes a householder living alone or with non-relatives only. In terms of the proportion of family and non-family households, the Township had more family households than the County or State (82.6% for the Township, 75.2% for the County, and 70.3% for the State).

Table 17: Persons by Household Type and Relationship

Relationship	Number	%
Total population	4,455	100
In households	4,432	99.5
Householder	1,581	35.5
Spouse	1,166	26.2
Child	1,404	31.5
Own child under 18 years	1,058	23.7
Other relatives	136	3.1
Under 18 years	38	0.9
Non-relatives	145	3.3
Unmarried partner	59	1.3
In group quarters	23	0.5
Institutionalized population ²	19	0.4
Non-institutionalized population	4	0.1
Household By Type		
Total households	1,581	100
Family households (families)	1,306	82.6
With own children under 18 years	579	36.6
Married couple family	1,166	73.8
With own children under 18 years	522	33
Female householder, no husband present	89	5.6
With own children under 18 years	38	2.4
Non-family households	275	17.4
Householder living alone	210	13.3
Householder 65 years and over	89	5.6

Source: 2000 U.S. Census, SF-1 QT-P11 and QT-P12 for Township.

² People under formally authorized, supervised care or custody in institutions at the time of enumeration. Generally, restricted to the institution, under the care or supervision of trained staff, and classified as "patients" or "inmates."

³ Includes all people who live in group quarters other than institutions.

Table 18 provides 1999 income data for the Township, County and State which is the last full year of income before the 2000 Census questionnaires were distributed. The Township's per capita and median incomes were higher than those of the State and the County.

Table 18: 1999 Income for Township, County and State

Jurisdiction	Per-Capita Income	Median Income	
		Households	Families
East Amwell Township	\$37,187	\$85,664	\$90,000
Hunterdon County	\$36,370	\$79,888	\$91,050
New Jersey	\$27,006	\$55,146	\$65,370

Source: 2000 U.S. Census, SF-3 DP-3 for Township, County and State.

Table 19 addresses the lower end of the income spectrum by providing data on poverty levels for persons and families. The determination of poverty status and the associated income levels is based on the cost of an economy food plan and ranges from an annual income of \$8,501 for a one-person household to \$28,967 for an eight-person family for the year 1999. According to the data in Table 18, the Township proportionally had fewer persons qualifying for poverty status than did the County or State. However, the percentages in Table 18 translate to 74 persons, but 23 families classified in poverty status. Thus, the family households had a much larger share of the population in poverty status.

Table 19: Poverty Status for Persons and Families for Township, County and State
(% with 1999 income below poverty)

Jurisdiction	Persons (%)	Families (%)
East Amwell Township	1.7	1.8
Hunterdon County	2.6	1.6
New Jersey	8.5	19.4

Source: 2000 U.S. Census, SF-3 QT-H7 for Township, County and State.

The U.S. Census includes a vast array of additional demographic data that provides interesting insights into an area's population. For example, Table 20 provides a comparison of the percent of persons 5 years old and older who lived in the same house as in 1995; this is a surrogate measure of the mobility/stability of a population. The data indicate that the percent of the County and State residents residing in the same house as in 1995 exceeded that of the Township. This indicated a relatively mobile population.

Table 20: Comparison of 1995 Place of Residence for Township, County and State

Jurisdiction	Percent living in same house in 1995
East Amwell Township	47.3
Hunterdon County	55.5
New Jersey	59.8

Source: 2000 U.S. Census, SF-3 DP-2 for Township, County and State.

Table 21 compares the educational attainment for Township, County, and State residents over age 25. These data indicate that Township residents exceeded State and County residents in graduating from high school and slightly lower than the County in post secondary education but higher than the State.

**Table 21: Educational Attainment for Township, County and State Residents
(Persons 25 years and over)**

Jurisdiction	Percent (%) high school graduates or higher	Percent (%) with bachelor's degree or higher
East Amwell Township	92.2	39.6
Hunterdon County	91.5	41.8
New Jersey	82.1	29.8

Source: 2000 U.S. Census, SF-3 DP-3 for Township, County and State.

The 2000 Census also provides data on the means of transportation which people use to reach their place of work. Table 22 compares the Census data for the Township, County, and State relative to driving alone, carpooling, using public transit, and using other means of transportation. The Township had a relatively high percentage of those who drive alone, and a relatively low percentage of workers who carpool or use public transit. Of the .2% of workers who reside in the Township and use other means of transportation to reach work, 26 workers used the railroad and 20 workers walked to work.

Table 22: Means of Transportation to Work for Township, County and State Residents (Workers 16 years old and over)

Jurisdiction	Percent who drive alone	Percent in carpools	Percent using public transit	Percent using other means
East Amwell Township	81.8	5.7	1.4	.2
Hunterdon County	82.5	7.3	1.7	.7
New Jersey	73	10.6	9.6	.9

Source: 2000 U.S. Census, SF-3 DP-3 for Township, County and State.

Projection of Municipal Housing Stock

As part of the mandatory contents of a housing element, the township is required to produce “a projection of the municipality’s housing stock, including the probable future construction of low and moderate income housing, for the next ten years, taking into account, but not necessarily limited to, construction permits issued, approvals of applications for development and probable residential development of lands.” (N.J.S.A. 52:27D-310b.) Table 23 provides information concerning the issuance of building permits and Certificates of Occupancy for the past 8 years.

**Table 23: Residential Certificates of Occupancy for New Dwellings in East Amwell
Approved Applications 2000-2007**

Year	Certificates of Occupancy (Units)
2000	8
2001	9
2002	12
2003	8
2004	6
2005	6
2006	7
2007	2
Total	58

New Jersey Department of Community Affairs

The data in Table 23 provides a view of the Township's residential development from 2000 through the end of 2007. While the Township has averaged 7 residential CO's per year during the last 8 years, the average for the past 3 years is 5 new dwellings per year. This rate is expected to remain at this low level and to trend lower during the next several years, as the excess housing inventory of existing dwellings is significant.

The projected population and build out for East Amwell was provided by the Hunterdon County Planning Board as part of the 2005 Cross Acceptance report, and offers the following analysis in Table 24:

Table 24: Hunterdon County Population and Household Projections for East Amwell

2000 Population	4,455
2000 Households	1,581
2000 Persons/Households	2.80
2020 Projected Households	1,673
2020 Projected Population	4,712
Change in Households from 2000 to 2020	92

Municipal Employment Projections

As part of the mandatory contents of a housing element, the Township is to provide "an analysis of the existing and probable future employment characteristics of the community." (N.J.S.A. 52:27D-310d) In COAH's First Round (1987-1993), COAH used employment data, in terms of how many people worked within a municipal border, as an allocation factor for its affordable housing need allocations. In the Second Round (1993-1999) COAH changed this allocation factor to the value of non-residential ratables. Now in the revised Third Round rules, COAH is forecasting the growth in non-residential jobs

as a component of the growth share formula for the determination of a municipality's affordable housing obligation. Table 25 indicates the categories of non residential use for which certificates of occupancy were issued between January 1, 2000 and December 31, 2007.

Table 25
Certificates of Occupancy for Non-Residential Development 2000-2007 and Jobs

Year	Office	Retail	Industrial	Education	Storage	Use Group U
2000	0	0	0	0	5,700	--
2001	0	0	0	0	0	1,700
2002	6,550	0	0	0	0	850
2003	7,420	0	0	0	0	1,400
2004	27,834	0	0	0	4,506	--
2005	0	0	0	0	0	0
2006					14,000	
2007		2,784			9,600	
TOTAL SF	41,804	2,784	0	0	33,806	3,950
Jobs/1,000 sf	2.8	1.7			1.0	NA
Jobs	117	4.6			33.8	

Between 2000 and 2007, COs for nonresidential floor area resulted in over 95,000 square feet, as seen in Table 25. Applying COAH Appendix D job generation rates indicates that this growth would have produced 155 jobs in 8 years (19.4 jobs/year). Since the economic downturn has been so unpredictable to date, it is likely that future development will be slower than past development, at least during the next several years.

APPENDIX IN SUPPORT OF CHAPTER III

East Amwell Code Section 92-91
Amwell Valley Agricultural District

K. Swimming pool filling requirements. In order to protect limited groundwater supply and individual wells, all swimming pools shall be filled with water imported by truck from a source outside the Sourland Mountain region. Proof of compliance shall be demonstrated by a dated bill of sale or receipt from the supplier, before the certificate of occupancy or certificate of approval is issued. [Added 7-15-2004 by Ord. No. 04-15]

§ 92-90. (Reserved)³³

§ 92-91. Amwell Valley Agricultural District. [Amended 8-14-1997 by Ord. No. 97-18; 9-11-1997 by Ord. No. 97-20; 9-11-1997 by Ord. No. 97-23; 3-11-1999 by Ord. No. 99-03; 3-25-1999 by Ord. No. 99-06; 9-13-2001 by Ord. No. 01-19]

A. Purposes. The purposes of the Amwell Valley Agricultural District are:

- (1) To encourage land use patterns and development practices which enhance Township, county and state efforts to retain farmland and protect and preserve agricultural activity within the Township.
- (2) To protect and promote the continuation of farming in East Amwell Township where farming is a valuable component of the local economy.
- (3) To protect prime soils (SCS Classes I and II) and soils of state-wide importance (SCS Class III) for their long-term value as an essential natural resource in any agricultural or horticultural pursuit.
- (4) To permit limited nonfarm related residential development in a location and manner that will be consistent with the continuation of farming.
- (5) To support the preservation of existing farm operations and limit conflicts between agricultural and nonagricultural uses by encouraging the separation of residential development from active farms. [Amended 9-9-1999 by Ord. No. 99-20]
- (6) To impose lot suitability requirements upon residential lots in order to accommodate individual well and septic disposal systems, which are required in the Amwell Valley Agricultural District.
- (7) To implement the goals of the Amended Master Plan for the Amwell Valley Agricultural District by protecting agricultural lands and promoting agriculture as a valuable component of the local economy.

B. Permitted principal uses shall be as follows:

- (1) Detached, single-family dwelling.
- (2) Agricultural uses and farms.
- (3) Public parks. [Amended 9-11-1999 by Ord. No. 99-20]

33. Editor's Note: Former § 92-90, Stony Brook District, added 8-20-1992 by Ord. No. 92-09, as amended, was repealed 12-11-2003 by Ord. No. 03-20.

- (4) Subsidized accessory apartments as defined in Article III and in accordance with the provisions of Note 1 under § 92-91E hereinbelow. [Amended 9-11-1999 by Ord. No. 99-20]
- (5) Farm-based business (meeting the definition of such in Article III).
- (6) Bed-and-breakfast. See § 92-44.
- (7) Antique shop. See § 92-42.
- (8) Wireless telecommunications antennas on existing structures, subject to minor site plan approval. [Added 9-11-1999 by Ord. No. 99-20; amended 12-30-2002 by Ord. No. 02-22]
- (9) A golf course/club, subject to the following provisions (which shall not be construed as conditions of a conditional use): [Added 9-11-1999 by Ord. No. 99-20]
 - (a) The tract on which the golf course/club is to be constructed shall comprise at least 200 acres for 18 holes.
 - (b) The length of the golf course shall be not less than 7,000 yards.
 - (c) The golf course/club shall be the sole principal use on the tract. In particular (and without limiting the foregoing provision), there shall be no residential uses on the tract, whether in conjunction with the golf course/club or otherwise.
 - (d) No portion of any golf tee, fairway or green shall be located closer than 150 feet to any tract boundary or public road right-of-way, except that cart paths may be located no closer than 100 feet to such boundaries or roads.
 - (e) There shall be a direct driveway access to the golf course/club, over the tract, from a state or county road.
 - (f) A vegetated buffer at least one-hundred-feet wide, consisting of native trees, shrubs and ground covers, shall be provided and maintained between any turf area which will be treated with fertilizers or pesticides and the closest point of any one-hundred-year floodplain; or if there is no floodplain, the top of bank of any permanent, nonseasonal stream or open water body, on or off site, except

APPENDIX IN SUPPORT OF CHAPTER III

Feasibility Study for Hidden Valley
On-Site Groundwater Discharge

prepared by: Applied Wastewater Technology, Inc.

January, 1996



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FEASIBILITY STUDY FOR HIDDEN VALLEY
ON-SITE GROUNDWATER DISCHARGE

BLOCK 8.02, LOTS 25.01, 26, 26.01 & 29
EAST AMWELL TOWNSHIP
HUNTERDON COUNTY, NEW JERSEY

OES PROJECT #94018

AWT #95-1396

PREPARED FOR

EAST AMWELL TOWNSHIP ENVIRONMENTAL COMMISSION
1070 U.S. ROUTE 202
RINGOES, NEW JERSEY 08551-1051

JANUARY 1996

TABLE OF CONTENTS

	PAGE
INTRODUCTION	1
SITE LOCATION AND PROPOSED DEVELOPMENT	1
DISPOSAL ALTERNATIVES	1
PERMITTING	6
REVIEW OF AVAILABLE MAPS	7
SOIL AND GEOLOGIC CONDITIONS	9
ON-SITE EVALUATION OF SUBSURFACE CONDITIONS	9
CONCLUSION	10

FIGURES

1	TAX MAP
2	SOILS MAP
3	SOILS FOR COMMUNITY SEPTIC SUITABILITY
4	SEPTIC SUITABILITY
5	BEDROCK GEOLOGY
6	SURFICIAL GEOLOGY
7	CONTAMINATED WELLS AND PROBLEM SEPTIC SYSTEMS
8	WETLANDS MAP
9	USGS MAP
10	SOIL TEST LOCATION MAP

APPENDIX

1	SOIL LOGS
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INTRODUCTION

Applied Wastewater Technology, Inc. was contracted by the East Amwell Township Environmental Commission to conduct a feasibility study on the old theater site between Routes 179 and 202 on the western most side of the town. The Township is interested in determining the site's suitability for a community development project which would include a community wastewater treatment system to service both the proposed development and portions of the village of Ringoes.

SITE LOCATION AND PROPOSED DEVELOPMENT

The site under consideration is bound by U.S. Route 202, N.J. Route 179, and the Township line shared with West Amwell. Route 179 is also the border for East and West Amwell, so that the triangular site is bound by West Amwell on two of its three sides. The site encompasses a total of 168 acres, which is divided primarily into three large lots, two which are about 60 acres and the third which is approximately 40 acres. The three (3) lots include Lots 25.01, 26, and 29 of Block 8.02 (see Figure 1).

Two major features on the site are the Texas Eastern Transmission Corporation Pipe Line and a branch of the Alexauken Creek. Both of these run northeast across the property, which is roughly parallel with the two roads, though slightly closer to Route 179 than they are to Route 202. Because of the size and the number of lines Texas Eastern has crossing the property, there is a 120 foot wide easement associated with the pipeline.

Several conceptual sketches for development of the site have been prepared by the municipal planners, Coppola & Coppola. Overall, these plans contemplate approximately 336 dwelling units with some commercial and retail stores or businesses.

In addition to the wastewater generated from the contemplated development on the site, the Township desires to provide additional disposal capabilities to handle wastewater generated in the village of Ringoes. Currently, all wastewater in Ringoes is handled by individual septic systems. The wastewater generation rates are summarized as follows:

Proposed New Village = 336 du; 60,000-90,000 gpd

Including Village of Ringoes = 550 du; 150,000 gpd

DISPOSAL ALTERNATIVES

In general, two alternatives for wastewater disposal are possible for a given site. These alternatives are groundwater discharge and surface water discharge. Surface water discharge is possible when a stream, river or other body of water has the appropriate characteristics to handle the proposed discharge volume and quality. Groundwater discharge is possible when suitable soils and underlying fractured geologic conditions are present.

1. SURFACE WATER DISCHARGE

The general criteria for a surface water discharge is that the wastewater must not significantly impact the existing water body, either by flow or quality.

To evaluate a surface water body to determine the volume and concentration of wastes that can be discharged, the surface water flow and quality must be assessed. This information is evaluated over a sufficient length of time so that the varying flow and quality throughout the year can be considered. The most critical time is when the water body is experiencing its lowest flow, since less water exists for dilution with the wastewater.

The NJDEP has developed Surface Water Quality Standards and has categorized water bodies according to their clarity, color, aesthetic, ecological and water supply significance. The category of the water body will dictate how significant of an impact can be allowed with proposed discharges.

A tributary of the Alexauken Creek, which traverses the site, is classified as a fresh water category two (2), trout maintenance (FW2-TM) stream. This classification would not preclude its use for discharge; however, the anticipated low flow of the stream may restrict its use. The stream does not appear on the USGS map to be intermittent; however, its headwaters are on the site and the stream may be dry at times. This may require NJDEP to classify it as intermittent. Therefore, it is anticipated that any discharge would have very stringent limits, perhaps precluding its use.

Other sections of the Alexauken Creek appear to have considerable base flows which are more usable for wastewater effluent discharges. However, these sections are located in West Amwell Township and were not considered for this study.

2. GROUNDWATER DISCHARGE

The discharge of wastewater to the groundwater is the most common method of disposal in rural areas. This is primarily performed through the use of subsurface disposal beds (also called recharge beds) associated with septic disposal systems. Other groundwater disposal systems include infiltration/percolation ponds and spray irrigation.

A. Subsurface Disposal

The design of subsurface disposal systems that handle less than 2,000 gallons per day (gpd) and serve one realty improvement are regulated through the "Standards for Individual Subsurface Sewage Disposal Systems"¹. These regulations outline all aspects of the system design including soil testing procedures to determine site suitability, disposal system sizing

¹Standards for Individual Subsurface Sewage Disposal Systems, New Jersey Administrative Code (N.J.A.C.) 7:9A.

and construction, wastewater flows, setback distances from system components and the types of wastes that can be discharged.

For septic systems, the subsurface beds also provide treatment of the wastewater as well as disposal. The regulations require that a minimum of four (4) feet of an unsaturated sandy granular material be present to provide treatment through filtration to remove pathogenic organisms. In areas where the existing soil is not suitable to provide this treatment, a suitable sandy soil must be brought in from off-site for the construction of the bed. Depending upon the depth to the groundwater below the disposal bed, it may be necessary to mound the bed so that the four (4) foot unsaturated zone is provided. Typically, polyvinyl chloride (PVC) piping is utilized to provide an underground network to distribute the wastewater throughout the bed. This piping is surrounded by stone to further provide distribution of the wastewater. The piping can be designed for gravity flow so that the wastewater trickles into one end of the bed for distribution by gravity or for pressurized flow in which the wastewater is distributed throughout the entire bed through a pumping system.

In systems handling flows greater than 2,000 gpd, the "Standards for Subsurface Sewage Disposal Systems" are not applicable. Many of these larger systems are preceded by wastewater treatment systems capable of advanced treatment. Therefore, it is not critical that the disposal beds include the four (4) foot unsaturated zone for treatment. Consequently, in designing subsurface beds for large systems, the primary consideration is the hydraulic suitability of the soil or rock to accept the quantity of wastewater being discharged. The disposal beds will generally include the PVC piping surrounded by stone similar to the individual systems. Because of the size of these beds, they almost exclusively utilize pressure distribution systems.

The size of the disposal beds will depend on the volume of wastewater and the results of the soil testing performed at the proposed bed location. For individual disposal systems (less than 2,000 gpd), the size of the bed will be based on the criteria outlined in the standards. For larger systems, in addition to the flow and soil testing information, other factors must be evaluated in the siting of subsurface disposal facilities.

The configuration of the disposal bed plays an important part in the long term ability of the system to function properly. For example, a long narrow bed has a considerably larger perimeter than a square bed with equivalent overall square footage and, therefore, would be more efficient in dispersing the wastewater. A determination of this ability is calculated through a groundwater mounding analysis.

Groundwater mounding is one important factor in determining the configuration and placement of a disposal bed. The groundwater mound builds up until a steady state condition is reached. Factors evaluated in the determination of mound height include permeability, bed configuration, depth to groundwater or impermeable strata and groundwater (aquifer) properties such as transmissivity.

As a general rule, a loading rate between 0.5 and 1.0 gallons per day per square foot (gpd/sf) is utilized for large subsurface disposal systems. However, lower loading rates may be necessary for sites with poor permeability, shallow groundwater or other hydraulic limitations. Additionally, a standby disposal area of equivalent size is necessary in the event that problems occur with the primary disposal system. Based on this criteria, it would be necessary to provide between 2 and 4 square feet of disposal bed for each gallon of wastewater discharged.

B. Infiltration/Percolation

Infiltration/Percolation (I/P) ponds can also be utilized for groundwater recharge. I/P ponds work similar to a retention basin wherein water is discharged to a surface pond for percolating into the soil. Typically, I/P ponds are long and narrow, and are situated with their long axis parallel to the groundwater contours for more efficient dispersion of the wastewater. The treated wastewater is pumped to the pond where it is allowed to freely flow throughout the open pond.

Although the wastewater entering the ponds is treated and all pathogens are removed, a fence should be placed around the ponds to prevent unauthorized access. The water level in the ponds fluctuate with loading rates and is as clear as that found in most freshwater ponds. One of the advantages of I/P ponds is that normal operations include resting the ponds so that the soil interface can be scarified and rejuvenated periodically.

The application rate to I/P ponds is 6 to 8 times the application rate to subsurface disposal beds. Consequently, groundwater mounding below ponds is more significant than in a subsurface disposal bed. Therefore, for a site to be suitable for I/P ponds, it must have exceptional permeabilities and depths to groundwater.

C. Spray Irrigation

Spray irrigation is an alternative for wastewater disposal in areas where open space and agricultural uses are practical. Spray irrigation is limited to crops which are not used for direct human consumption such as turf grass, hay, field corn and other non-consumable crops. In general, wastewater will contain some nitrogen and phosphorus to partially satisfy the crop requirements. However, supplemental fertilizers will be necessary to completely support the crop growth.

The design of the irrigation system must consider water application at a rate equal to the evaporation and transpiration (plant uptake) of the crop area. The permeability of the soil is a factor; however, infiltration of the irrigated water into the groundwater is not considered in determining the water application rate. Buffer distances between the irrigation area and property lines, streams and occupied buildings are required. In addition, limits are placed on application during high winds and periods of inclement weather.

Typical buffers required for spray irrigation systems are:

Irrigation to existing dwellings - 400 ft.
Irrigation to stream - 100 ft.
Irrigation area to property line* - 100 ft.

*This includes new lots within the development. All proposed homeowners must be notified that spray irrigation of treated effluent is proposed, when separation distances of less than 400 ft. from the dwelling are proposed.

One of the major factors affecting the design of spray irrigation systems is that it cannot be carried out during the winter months. Therefore, consideration must be given to storing the treated effluent during these non-irrigation months.

In New Jersey, the spray irrigation "season" is normally considered to be the six month period from April 16 through October 14. Therefore, during the period from October 15 through April 15, the wastewater must be stored on-site in a pond.

Application rates for spray irrigation will vary with the season, precipitation, soil conditions and crop being grown. It is estimated that between 15 to 18 inches of effluent per year could be irrigated. With this application rate and the proposed 90,000 gpd and 150,000 gpd flows contemplated, a combined storage and irrigation area would consume 95 to 155 acres respectively.

It is estimated that of the 168 acres at the site, between 40-60 acres would be within the setback to property lines, existing dwellings or within setbacks to the stream. This leaves between 110 to 130 acres for irrigation and development. Considering the need for wastewater storage ponds, irrigation land, and land for development and infrastructure, the site is not capable of accommodating 90,000 to 150,000 gpd.

A more realistic volume for irrigation at this site would be 20,000 to 30,000 gpd. This would require a storage and irrigation area of between 30 to 40 acres. Consideration must be given to the type of crop to be grown along with the labor, management and administration that goes along with it. The exact gallonage and acreage would be highly dependent on the detailed soil conditions, topography and environmental constraints.

D. Deep Well Injection

This disposal option involves the discharge of treated effluent, usually under pressure, into a drilled well penetrating an aquifer which exhibits sufficient permeability (transmissivity) to allow the injected effluent to disperse into the aquifer. A general "rule of thumb" states that an injection well should have a yield of at least three times the flow rate of effluent to be injected. Usually, a multiple of wells are required, with one or more spare wells which can

be brought on-line if an operating well needs to be cleaned. A thorough and detailed geohydrological investigation and analysis is required for this option.

The use of injection wells for effluent disposal at this site is not feasible due to the following considerations. The nature of the Passaic formation, with its dependence on secondary porosity, (network of fractures) for permeability, means that at best, a large number of injection wells would likely be required. Also, given this geologic condition, it may be assumed that there is a limited volume of groundwater available for dilution of treated effluent. The second, and more serious concern is that since all of the water supply in this area comes from groundwater, the use of effluent injection wells into this aquifer poses a risk of groundwater contamination in the event of a treatment plant upset. Injection wells are most often used where the receiving aquifer is non-potable, or where the aquifer is very large and a very costly, high level of treatment, incorporating reverse osmosis, is used.

PERMITTING

Any alternative chosen for wastewater collection, treatment or disposal will require approval and/or endorsement of the local municipality. Planning Board review may be necessary to approve the placement of the wastewater treatment facility or disposal system (if groundwater discharge is chosen) on the site. Board of Health review may also be necessary to approve the method of disposal of the treated wastewater.

On the State level, several permits may be required by the New Jersey Department of Environmental Protection (NJDEP). Prior to the review for any of these permits, the Township must have an approved Wastewater Management Plan (WMP). The WMP outlines the type of disposal alternative that is acceptable for any given site within the Township. The NJDEP will not review any permit application for a community wastewater treatment or disposal system unless the system is compatible with the approved WMP.

A. **NJPDES-DGW: New Jersey Pollutant Discharge Elimination System - Discharge to Groundwater**

A NJPDES-DGW permit is required for any wastewater discharge greater than 2,000 gpd with a potential final disposal into the groundwater. This includes subsurface disposal, infiltration/percolation, spray irrigation and deep well injection. The permitting process includes the review of site hydrology, geology, soil structure and existing groundwater quality. Having obtained this information, the size and configuration of the disposal system can be determined as well as the quality of effluent to be allowed for discharge.

The water quality is based upon the groundwater standards. Background water quality samples must be obtained as part of the permit application. The permit specifies limits on both the volume and quality of discharge and specifies procedures to be followed for various contingencies with respect to the treatment and disposal systems.

The potable water standards are a major factor in these considerations because throughout most of New Jersey, groundwater is used as a prime source of potable water supply. In cases where individual wells are utilized, the water supply is generally without any treatment.

Nitrogen is the predominant contaminant found in wastewater which is a threat to groundwater potability. Nitrogen compounds convert into nitrate (NO_3) once in the soil environment and readily migrate into the underlying aquifer. The potable water limit for nitrate is 10 mg/l. The thrust of groundwater discharge permits is to avoid nitrate contamination beyond the potable limits.

Most NJPDES-DGW permits are handled on a completely individual basis. However, for the recycling type systems, the NJDEP has recognized the benefits associated with the treatment and recycling it achieves. Therefore, the NJDEP has a streamlined process in which a standardized 'General' NJPDES permit is customized for each recycling facility.

The NJDEP review process can take up to one year from the time the complete information is submitted to the time the permit is issued. The general NJPDES permit for a recycling type system can be obtained more rapidly than conventional NJPDES permits.

B. TWA: Treatment Works Approval

A TWA permit is required for all wastewater collection and treatment systems. The TWA is an engineering review of a completely designed treatment or collection system. The TWA serves as a construction permit for facilities required to fulfill the objectives of a NJPDES discharge permit.

The TWA permit is issued in three (3) stages. For the Stage I permit, the proposed treatment facility is reviewed to determine its ability to provide an effluent that complies with the Discharge permit. The Stage II permit authorizes the construction of the facility in accordance with the approved plans and specifications. The Stage III permit authorizes the operation of the facility. The Stage I and II review can only begin after the Discharge permit is issued and can take up to four (4) months. The Stage III review can only begin after the facility is constructed and can take up to four (4) months as well. For sewage pumping stations and collection systems, the Stage I permit is not applicable. The Stage II and III permits are issued similarly and require the same review period.

REVIEW OF AVAILABLE MAPS

Hintz Associates, Inc. previously prepared a series of maps for the Township, an endeavor which was funded, in part, by a grant by the New Jersey Department of Environmental Protection, Office of Environmental Services. The following is a list of those maps which were reviewed for the study. All maps are scale 1" = 1,000', and no date is given for any of them, except where indicated. Copies of the maps depicting the area of the site are presented as figures in this report.

1. Soils Map
2. Soils for Community Septic Suitability
3. Septic Suitability
4. Bedrock Geology
5. Surficial Geology
6. Contaminated Wells and Problem Septic Systems, 4/91

The "Soils Map" (figure 2) presents the soils mapped in the Hunterdon County Soil Survey superimposed on the Township Tax Map. The most prominent soil is the Penn Series which includes both the Penn shaley silt loam and the Penn-Bucks complex. The Penn-Bucks complex is mapped over approximately 66% or more of the site, primarily shown in a large continuous band to the north of the creek, but also in a smaller band closer to Route 179. Aside from the Penn shaley silt loam, which is the second most occurring soil, there are two small areas of Bucks silt loam, one along Route 179 and the other on the Township line parallel to Route 202. The only other soil mapped is the Abbottstown silt loam which is mapped parallel to the eastern most portion of the creek.

The "Soils For Community Septic Suitability Map" (figure 3) presents the same information that is shown on the "Soils Map". However, certain areas of Bucks soils have been outlined, presumably to indicate that they are more favorable for "community" disposal systems. However, the map legend does not indicate the reasons for the outlining of the soil.

The "Septic Suitability Map" (figure 4) outlines the limitations of each soil and the level of severity imposed by each limitation. These are the same as those offered in the Hunterdon County Soil Survey, and include Depth to Subsurface Bedrock, Depth to Seasonal High Water Table, Slopes and Flooding. Approximately 90% of the site was mapped with severe limitations. This encompasses all of the areas mapped as the Penn Series and was due to depth to bedrock and severe slopes. Most of the soils on this site were described by the Survey as having slopes between 2-6%. The areas mapped as Bucks soil were described as having moderate limitations due to subsurface bedrock and to the slope. The small area mapped as an Abbottstown soil was shown to have severe limitations for septic placement due to the Seasonal High Water Table. Nowhere on the site were there any areas mapped as having slight or no limitations.

The "Bedrock Geology Map" (figure 5) shows that the entire site is underlain by the Passaic Formation, which includes argillaceous red siltstone/shale. Fracture traces are depicted over most of the site. There are three pairs of fracture traces which are oriented northwest/southeast, one on each of the main three lots. In the center of the site, there are three fracture traces and the end of a fourth which crosses Route 202, oriented in a north to northeast direction. Fracture traces refer to vertical fractures in the rock. These types of fractures are typically associated with areas where groundwater availability for water supply wells are likely.

The only information obtained from the "Surficial Geology Map" (figure 6) is that portions of Route 202, near the Township line and by the intersection with Route 179, have been filled, presumably during the construction of Route 202.

The "Contaminated Well and Problem Septic System Map" (figure 7) indicated that there was at one time a malfunctioning septic system on the small lot located in the center of the site on Route 179.

The other two maps reviewed were the "Wetlands Map" (figure 8) prepared by the U.S. Department of the Interior for their National Wetland Inventory, and the "United States Geological Survey (U.S.G.S.) Topographic Map" (figure 9). Both maps show the topography over the site in 20' contours, and label the location of the old drive-in theater. No wetlands are mapped. The property is relatively flat and slopes towards the creek and the pipe line.

SOIL AND GEOLOGIC CONDITIONS

The property in question is underlain by argillaceous red siltstone shale of the Passaic Formation. Bedrock was encountered at depths ranging from 2 feet to 6 feet below grade. Overlying the bedrock is brown to reddish-brown silty clay and clay loam.

This shale typically has no primary porosity. Groundwater occurs, for the most part, in the closely spaced joints. Compared to other non-porous rocks, shale has a relatively high secondary permeability. Those areas where the joints and fractures have been enlarged by circulating groundwater will have better than average hydraulic conductivities.

Groundwater, typically, flows through the shale in nearly vertical fractures and joints and also along nearly horizontal bedding planes. Even though fractures and bedding planes are more open near the ground surface due to weathering, the fractures of the upper portion of the weathered zone frequently contain clayey residual material derived from the weathered shale. These clayey fillings tend to reduce the hydraulic conductivity of the upper portion of the weathered zone.

The shale can be expected to have a reduced hydraulic conductivity (permeability) due to the presence of the overlying silty clay to clay loam soils. The fractures in the upper most portion of the shale were observed to contain approximately 10% clay fillings. Additionally, these fractures became tighter towards the bottom of the excavations which would also tend to reduce the hydraulic conductivity.

These geologic characteristics limit the potential for subsurface disposal of wastewater. The soil and the underlying shale are hydraulically restrictive due to a significant percentage of silt and clay materials. Additionally, the fractures in the shale were observed to be tight and partially filled with clay, thereby limiting the rock's ability to transmit water.

ON-SITE EVALUATION OF SUBSURFACE CONDITIONS

The on-site subsurface investigation was confined to Lots 26 and 25.01. Several factors limited the extent of the subsurface investigation. They included the setbacks from the pipeline as a safety precaution, the request of the farmer on Lot 26 that no excavation be performed in his recently planted field, and the refusal of the owner of Lot 29 to allow any site investigation on his property.

The north most portion of the site, where Route 202 and Route 179 intersect, is the location of the old outdoor movie theater. Portions of the theater site were filled to create improved viewing areas.

These structures and improvements associated with the theater are all abandoned and overgrown. Around the theater there are grass fields and first generation forests. The center of the site, Lot 26, is cultivated fields, farmed by the property owner. Existing structures on this portion of the site include buildings related to the farming activities, and residential homes. The remaining portion of the site (Lot 29), was excluded from the site investigation at the owner's request.

In total, 14 soil logs were excavated with a backhoe and recorded. The written logs and a summary table are presented in Appendix 1. All logs were excavated with a Case 580 backhoe and dug to machine refusal. A map showing the approximate location of these test pits is presented in Figure 10.

A fractured red shale substratum was identified in all of the logs excavated. The shale was encountered at depths varying from 19" to 76", with the average depth being 38". In general, there was relatively shallow refusal to further excavation with the backhoe. The average depth to refusal was 73", with depth ranging from 36" to 100". Mottles were encountered in eight of the logs, varying from 15" to 57" deep. In only two instances were mottles observed at a depth less than 24". Groundwater was noted in six of the soil pits at depths varying from 48" to 89".

CONCLUSION

Overall, the areas tested do not exhibit characteristics favorable for a community groundwater discharge system. The prevalence of shallow refusal to excavation with the backhoe is typically an indicator that there is limited permeability at greater depths. Also, in many of the soil logs, mottles or evidence of groundwater was noted at depths less than five (5) feet.

Because of the expected slow permeability of the material and the shallow depth to groundwater, it is anticipated that very little wastewater could be discharged to a given area without a significant groundwater mound being developed.

Typically, groundwater disposal systems are appropriate in areas with groundwater depths exceeding ten (10) feet and moderate to rapid permeabilities. Neither of these conditions exist in the areas tested at the subject site.

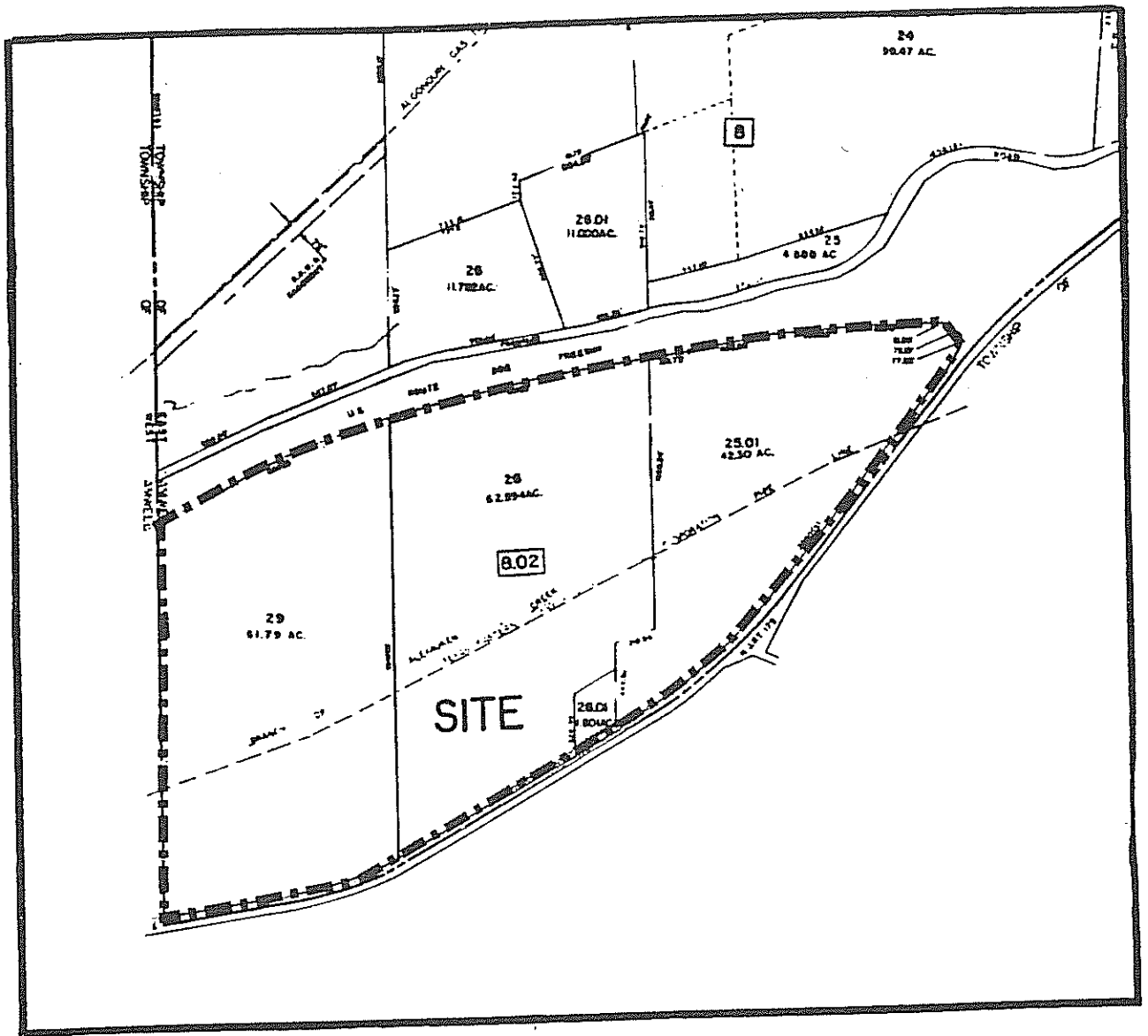
Although a significant portion of lot 26 and all of lot 29 were not tested as previously stated, subsurface conditions not unlike those encountered in our excavations would be expected. This is based on the similarity of the soils listed in the soil survey, mapped geologic conditions and visual observations of surficial conditions. It is, therefore, expected that further testing in those areas would not yield greatly differing results. However, due to the large size of the site and the large area untested, it is possible that there would be some areas with soil characteristics suitable for groundwater discharge. In venturing an estimate, it is expected that sufficient area could be found to dispose of 5,000 to 10,000 gpd of wastewater. This could only be confirmed by additional testing in those areas previously unexplored.

Spray irrigation would consume between 95 to 155 acres of the land proposed for development to accommodate the 90,000 to 150,000 gpd flows proposed. Realistically, 20,000 to 30,000 gpd of treated effluent could be accommodated on 30 to 40 acres of land. With this, area remains available

for development. With spray irrigation, management of the crop under irrigation must be considered. This would include tillage, planting, cultivating and harvesting as well as administration.

Surface water discharge would require a study of the stream's quality and quantity. It is anticipated that the stream is dry at times and that any discharge would have to meet very stringent background water quality limits. Due to the very stringent limits, no new wastewater facilities in New Jersey have been permitted or operated to meet in-stream conditions. Although such discharges cannot be ruled out, it is unlikely that stream discharge is a viable option for this site.

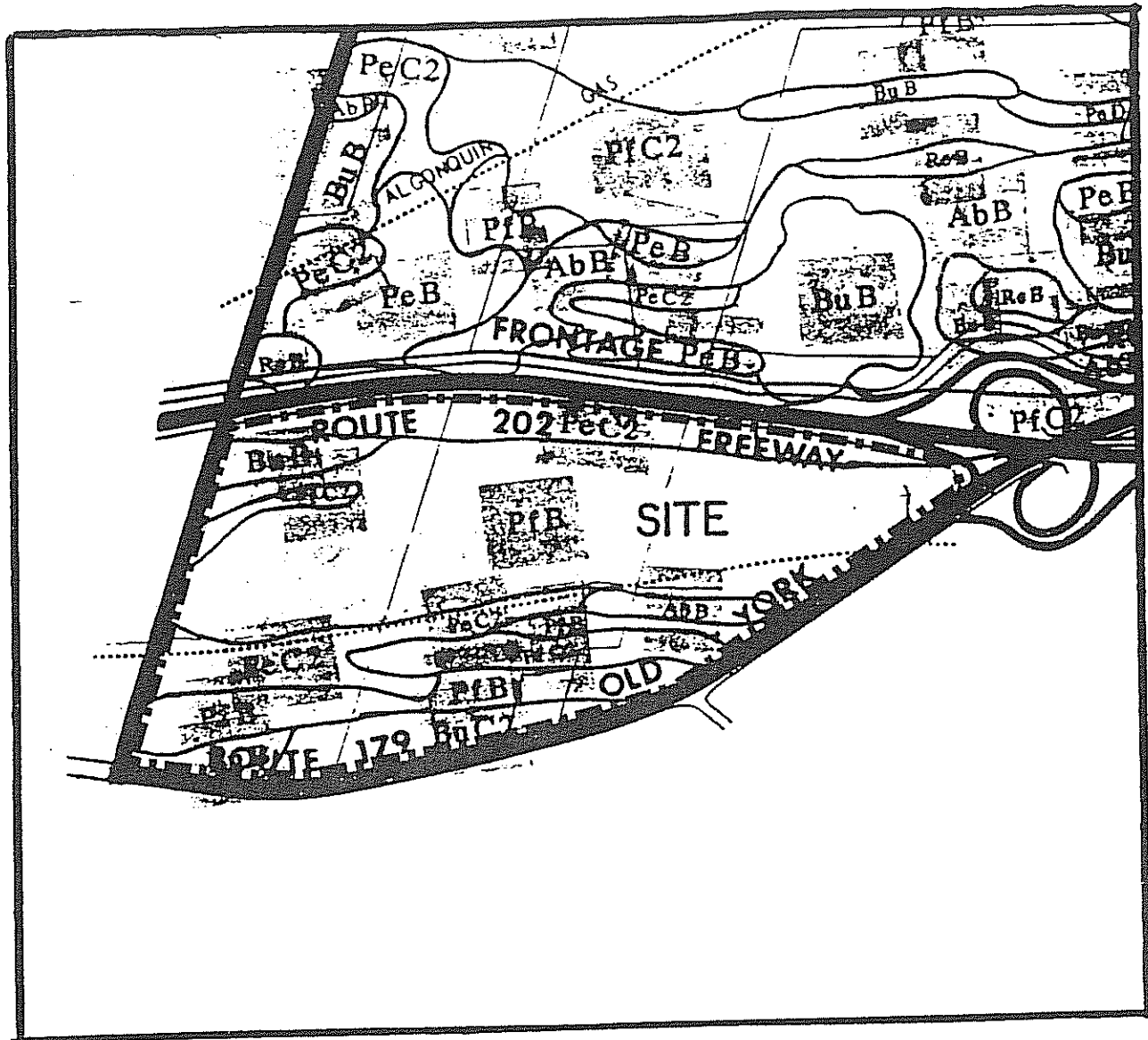
* * *



TAX MAP

EAST AMWELL TOWNSHIP, HUNTERDON COUNTY, NEW JERSEY
 DATED JAN. 1962, LAST REVISION NOV. 1. 1976

FIGURE 1



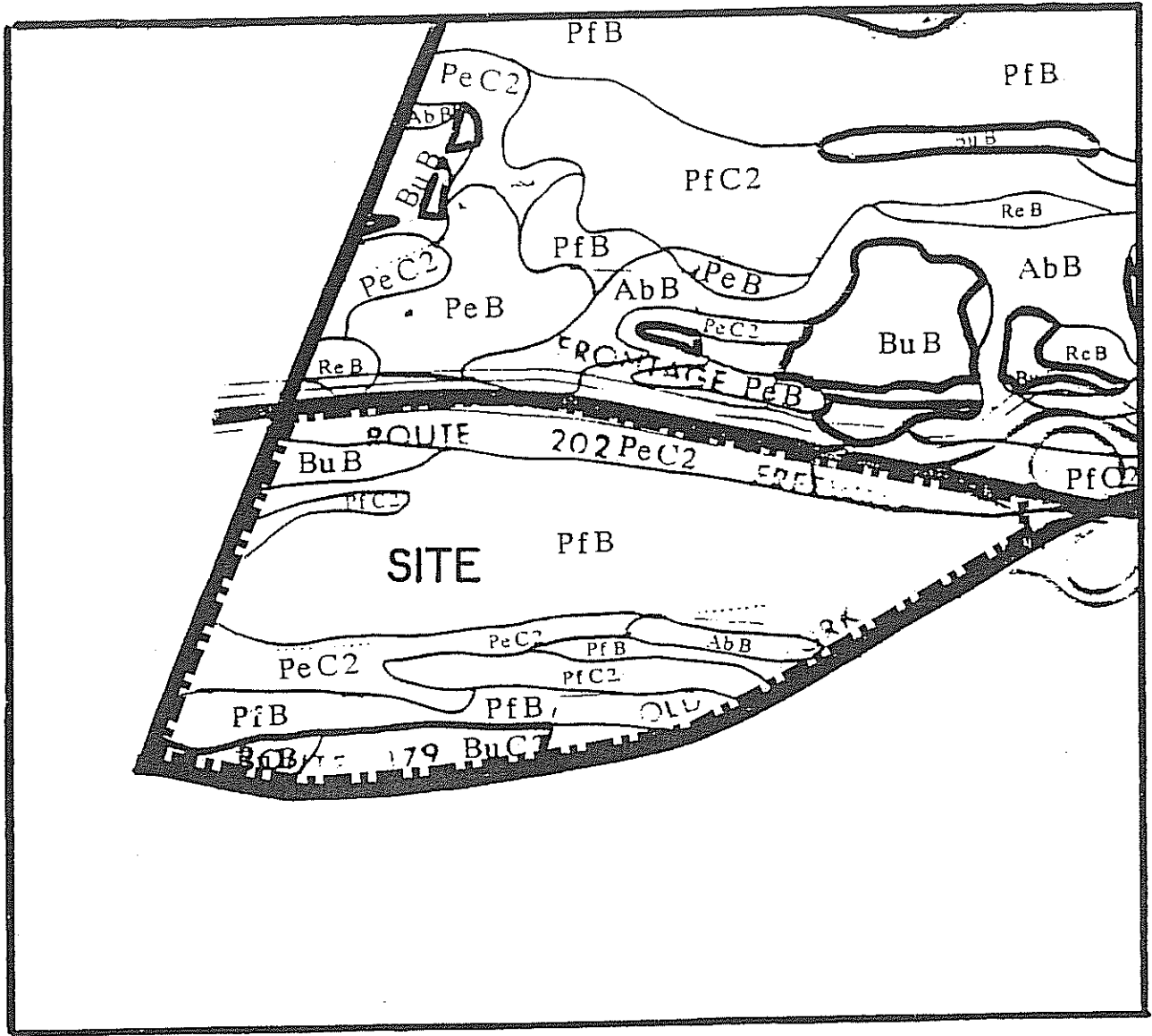
SOILS MAP

TAKEN FROM:
 "SOILS MAP" BY HINTZ ASSOCIATES, INC.

LEGEND:

BuB	BUCKS SILT LOAM, 2 TO 6 PERCENT SLOPES
PeC2	PENN SHALY SILT LOAM, 6 TO 12 PERCENT SLOPES, ERODED
PIC2	PENN-BUCKS COMPLEX, 6 TO 12 PERCENT SLOPES, ERODED
PIB	PENN-BUCKS COMPLEX, 2 TO 6 PERCENT SLOPES
BuC2	BERKS SHALY LOAM, 6 TO 12 PERCENT SLOPES, ERODED
AbB	ABBOTTSTOWN SILT LOAM, 2 TO 6 PERCENT SLOPES

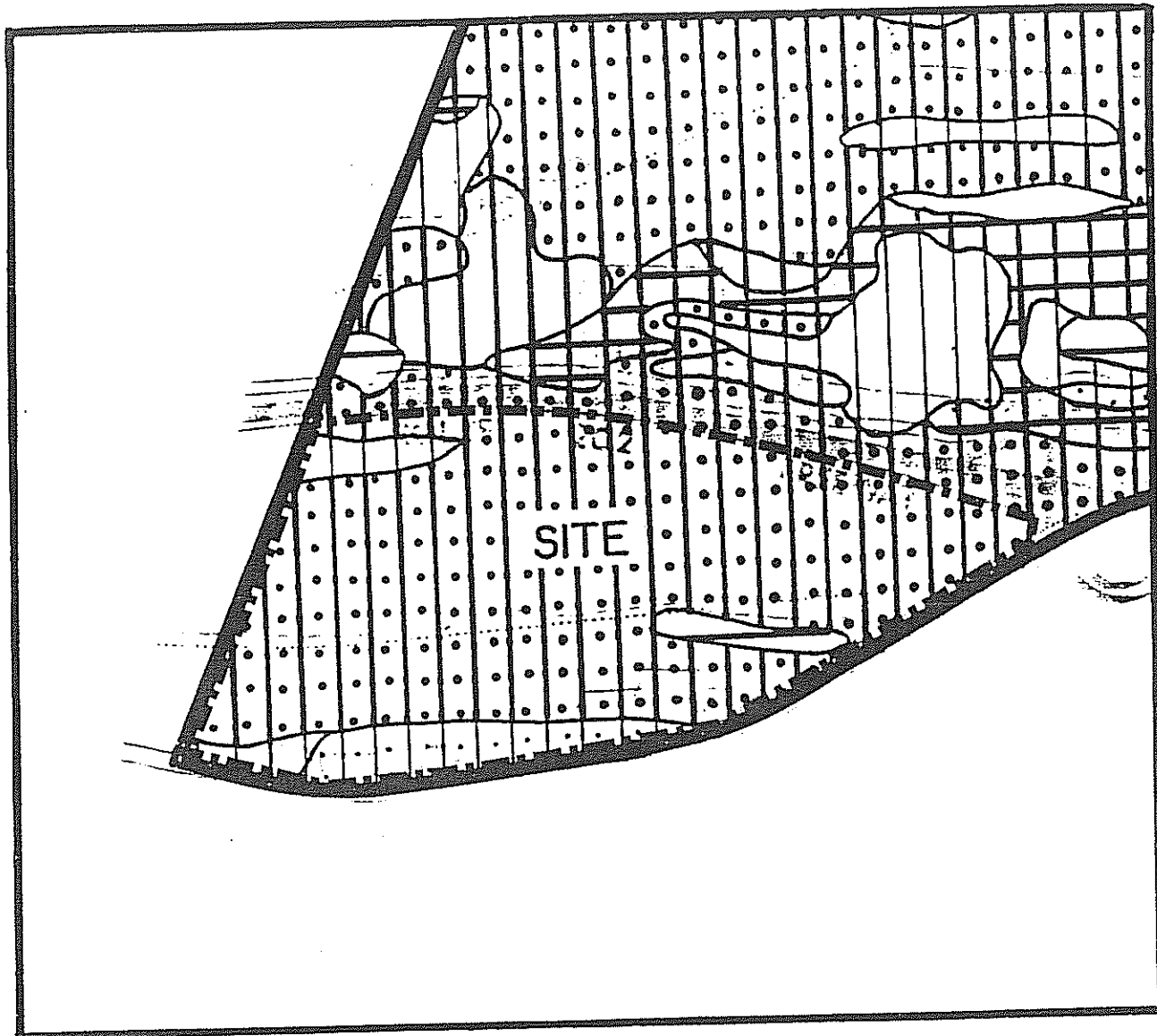
FIGURE 2



SOILS FOR COMMUNITY SEPTIC SUITABILITY

TAKEN FROM:
 "SOILS FOR COMMUNITY SEPTIC SUITABILITY"
 BY HINTZ ASSOCIATES, INC.

FIGURE 3



SEPTIC SUITABILITY

TAKEN FROM
 "SEPTIC SUITABILITY" BY HINTZ ASSOCIATES, INC.

LEGEND

LIMITATIONS BY SOIL TYPES FOR
 ONSITE DISPOSAL OF SEWAGE EFFLUENT

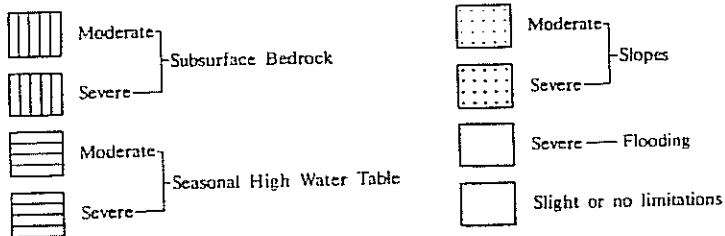
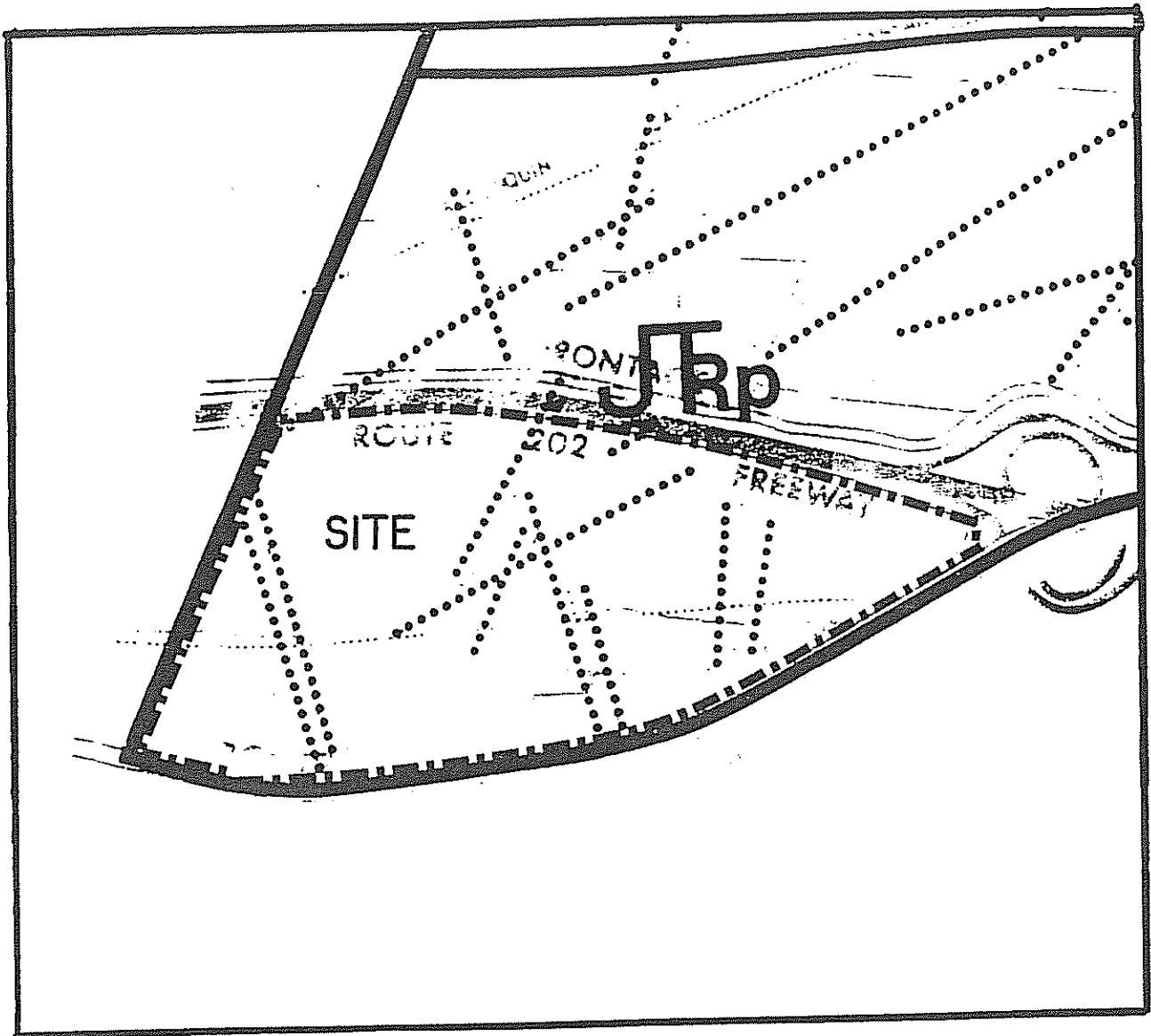


FIGURE 4



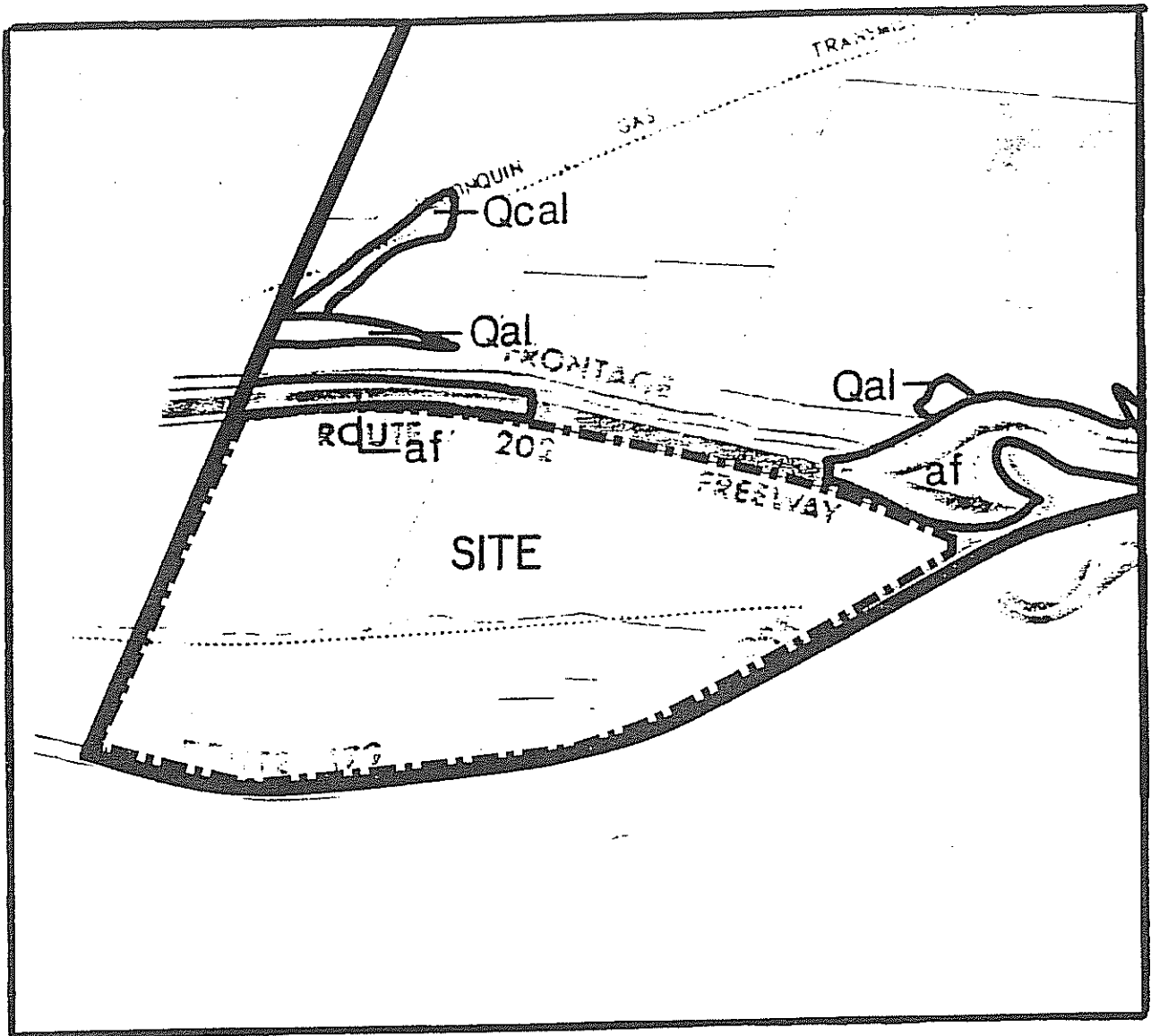
BEDROCK GEOLOGY

TAKEN FROM:
 "BEDROCK GEOLOGY" BY HINTZ ASSOCIATES, INC.

LEGEND

- | | |
|---|--|
| <p>Jd Diabase</p> <p>JRp Passaic Formation—Argillaceous Red Siltstone/Shale</p> <p>JRpg Passaic Formation—Argillaceous Gray Siltstone</p> | <p>Fi Lockatong Argillite</p> <p>..... Hornfels Contact</p> <p>----- Fracture Trace</p> <p>- - - - - Normal Fault Line</p> |
|---|--|

FIGURE 5



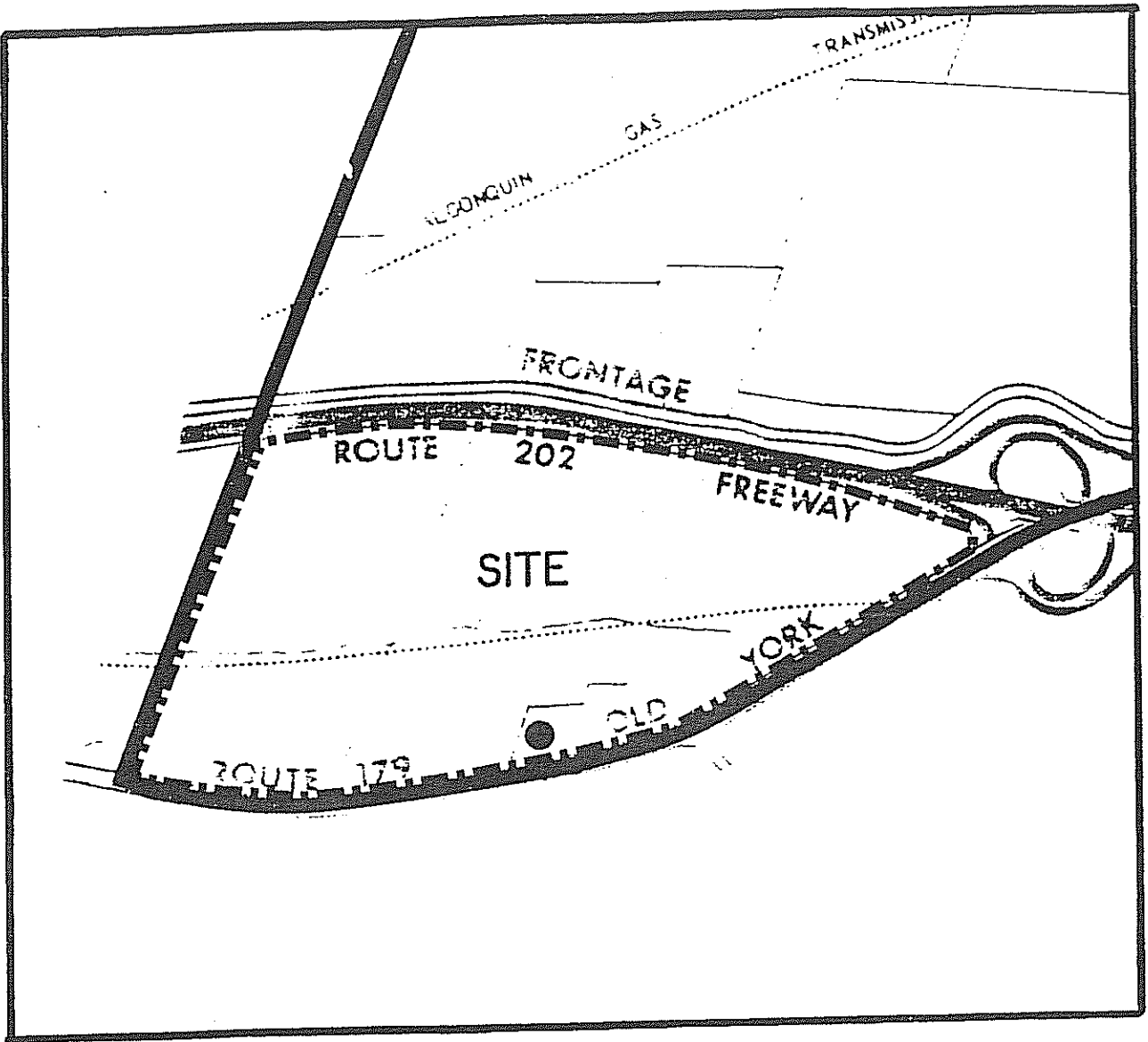
SURFICIAL GEOLOGY

TAKEN FROM:
 "SURFICIAL GEOLOGY" BY HINTZ ASSOCIATES, INC.

LEGEND

af Fill	Qcd Diabase Colluvium
Qaf Alluvial Fan Deposits	Qcld Diabase Colluvial Lag
Qal Alluvium	Qcls Siltstone Colluvial Lag
Qald Diabase Alluvial Lag	Qcs Siltstone, Shale & Sandstone Colluvium
Qcal Alluvium & Colluvium, Undivided	Qst Stream Terrace Deposits
	[Pattern] Rock Cut Bench or Terrace

FIGURE 6



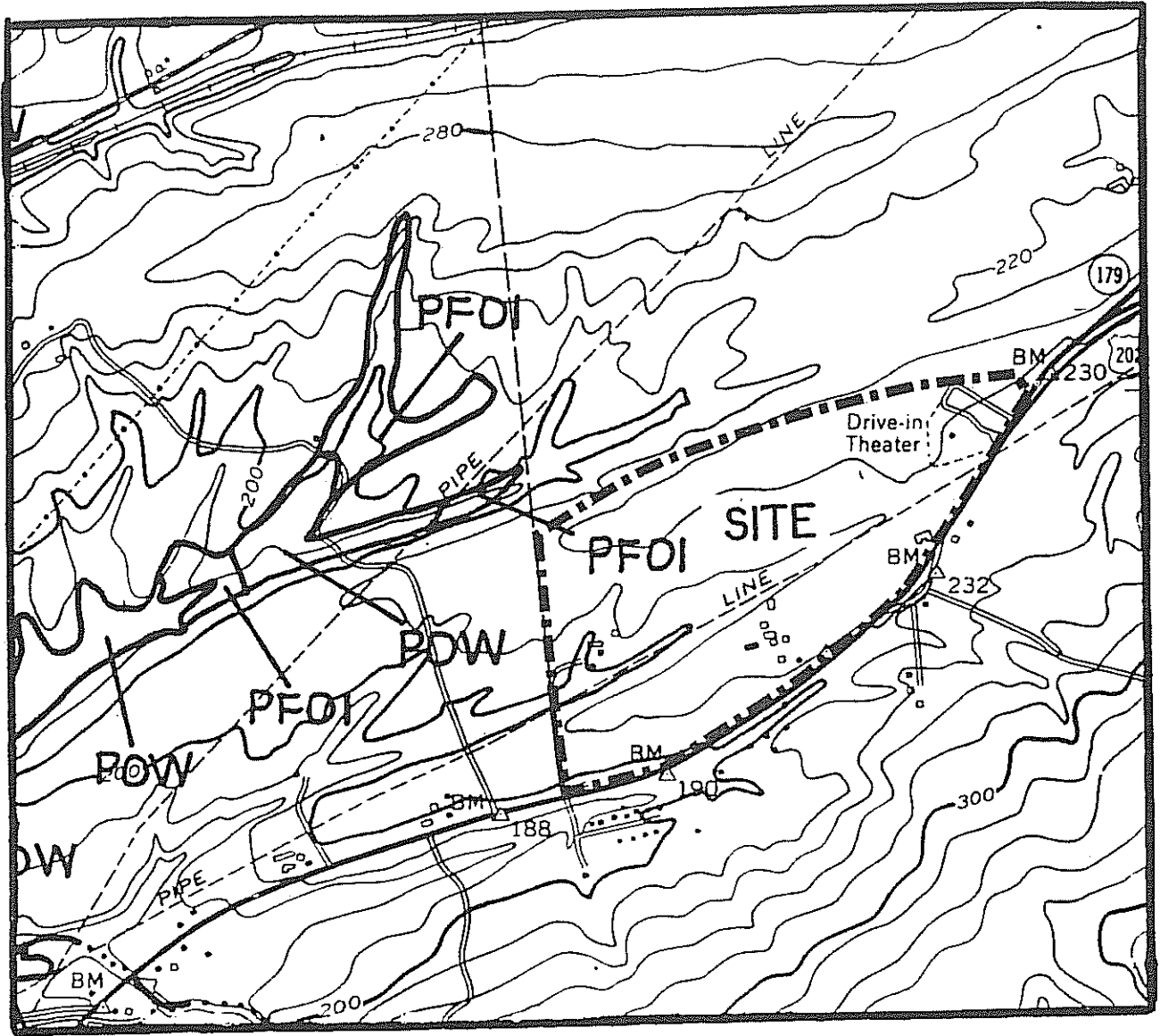
CONTAMINATED WELLS AND PROBLEM SEPTIC SYSTEM

TAKEN FROM:
 "CONTAMINATED WELLS AND PROBLEM SEPTIC SYSTEMS
 DATED 4/91, BY HINTZ ASSOCIATES, INC.

LEGEND

- Septic System Malfunctions
- ★ Contaminated Wells

FIGURE 7



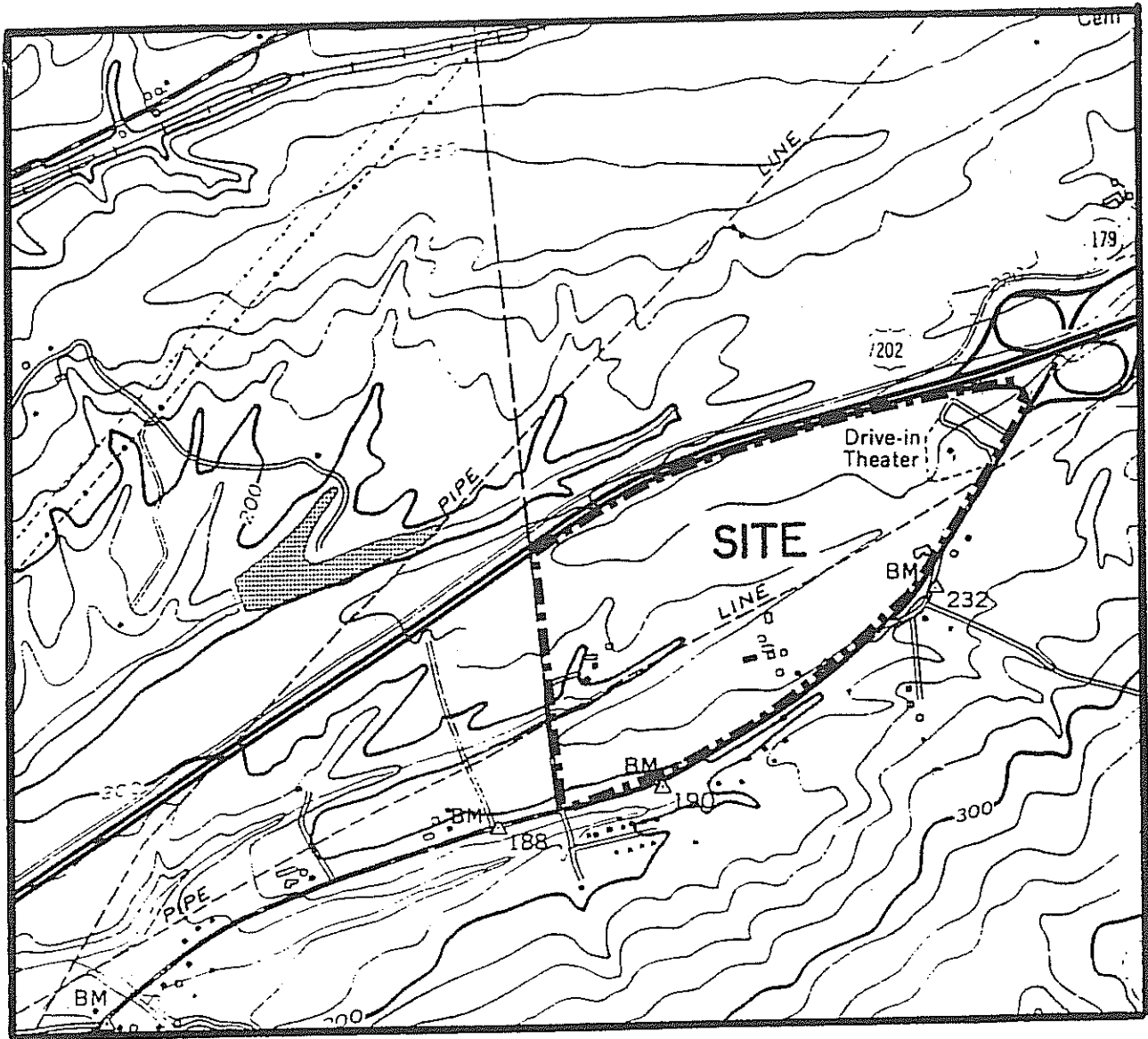
WETLANDS MAP

STOCKTON QUADRANGLE

SCALE: 1:34080 ±

FIGURE 8

95-1396

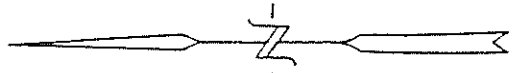


U.S.G.S. MAP

STOCKTON QUADRANGLE

SCALE: 1:34080 ±

FIGURE 9



▲ SLJ020-8

▲ SLJ020-7

▲ SLJ020-5

▲ SLJ019-1

▲ SLJ020-6

▲ SLJ019-2

▲ SLJ019-4

25.01
42.30 AC.

▲ SLJ020-2

▲ SLJ020-1

▲ SLJ019-3

▲ SLJ020-3

▲ SLJ020-4

FREIGHTWAY

ROUTE 208

ROUTE 208

208

20

62.594 AC.

8.02

▲ SLJ019-5

26.01
1.50 IAC

▲ SLJ019-6

CREEK

ALEXAKEN
TEXAS EASTERN CORPORATION PIPE LINE

N. J. RT 179

OF

SOIL LOGS

Date Performed: 10/19/95

SL 1019-1

- 0 - 12" 10YR 4/3 brown/dark brown silt loam topsoil; weak subangular blocky, moist, friable plow layer. Smooth boundary.
- 12 - 24" 7.5YR 4/4 brown/dark brown silty clay; strong angular blocky, moist, plastic with 10% coarse fragments.
- 24 - 68" Non-Soil. Fractured red shale; pieces to cobble in size with 40% silty clay loam fillings.
- 68 - 96" Non-Soil. Fractured red shale; pieces medium to large in size with 10% fillings. Tighter with depth to refusal, common mineral staining.
- >96" Refusal. No mottling. No groundwater.

Date Performed: 10/19/95

SL 1019-2

- 0 - 12" 10YR 3/4 dark brown silt loam topsoil; plow layer.
- 12 - 52" 10YR 4/3 brown/dark brown silty clay loam; moderate subangular blocky, moist, slightly plastic with 5% coarse fragments. Common medium distinct mottles of 10YR 7/1 (light gray) at 26-52". Wavy boundary.
- 52 - 89" Non-Soil. Fractured red shale; pieces medium to large in size with 10% fillings. Common mineral staining, tighter with depth.
- >89" Refusal. No groundwater.

Date Performed: 10/19/95

SL 1019-3

- 0 - 12" Silt loam topsoil; plow layer.
- 12 - 21" 10YR 4/3 brown/dark brown silty clay loam; weak subangular blocky, moist, slightly plastic with 5% coarse fragments. Wavy boundary.
- 21 - 45" 5YR 3/4 dark reddish brown shaley loam; moderate subangular blocky, moist, firm in place with 30-35% gravel sized shale, wavy boundary.
- 45 - 78" Non-Soil. Fractured red shale; pieces medium to large in size with 10% fillings. Common mineral staining.
- >78" Refusal. No mottling. No groundwater.

Date Performed: 10/19/95

SL 1019-4

- 0 - 12" Silt loam topsoil; plow layer.
- 12 - 20" 10YR 4/3 brown/dark brown silty clay; moderate subangular blocky, moist, plastic, wavy boundary.
- 20 - 76" 5YR 3/4 dark reddish brown silty clay; moderate subangular blocky, firm, moist, plastic with few medium distinct mottles of 10YR 7/2 (light gray) at 45-55". Wavy boundary.
- 76 - 90" Non-Soil. Fractured red shale; hard and tight, 10% fillings.
- >90" Refusal. No groundwater.

Date Performed: 10/19/95

SL 1019-5

- 0 - 12" Silt loam topsoil; plow layer.
- 12 - 31" 10YR 4/3 brown/dark brown silty clay; moderate subangular blocky, moist, plastic with common medium distinct mottles of 10YR 7/2 (light gray) at 25-33".
- 31 - 48" Non-Soil. Fractured red shale; pieces small to medium in size. Tight, common mineral staining.
- >48" Refusal. Slight groundwater at bottom.

Date Performed: 10/19/95

SL 1019-6

- 0 - 9" Silt loam topsoil.
- 9 - 23" 10YR 4/3 brown/dark brown silty clay; moderate subangular blocky, moist, plastic, wavy boundary.
- 23 - 64" Non-Soil. Fractured red shale; pieces small to medium in size with 10% fillings, hard and tight.
- >64" Refusal. No mottling. Slight groundwater at bottom.

Date Performed: 10/20/95

SL 1020-1

- 0 - 13" 10YR 3/2 very dark grayish brown silty clay loam topsoil; weak subangular blocky, moist, slightly plastic, wavy boundary.
- 13 - 21" 10YR 6/3 pale brown silty clay; moderate subangular blocky, moist, plastic wavy boundary.
- 21 - 60" Non-Soil. Fractured flaggy red shale; pieces medium to large in size with 10% fillings. Common mineral staining, tighter with depth.
- >60" Refusal. Slight groundwater at bottom.

#95-1396

Date Performed: 10/20/95

SL 1020-2

- 0 - 9" 10YR 3/2 very dark grayish brown silty clay loam topsoil; weak subangular blocky, moist, friable, wavy boundary.
- 9 - 31" 5YR 3/4 dark reddish brown shaley clay; strong subangular blocky, moist, slightly plastic with 30-35% gravel sized shale.
- 31 - 60" Non-Soil. Fractured red and purple shale; pieces medium to large in size with 10-15% fillings. Hard and tight. -
- >60" Refusal. No mottling. Slight groundwater from bottom.

Date Performed: 10/20/95

SL 1020-3

- 0 - 11" 10YR 3/2 very dark grayish brown silty clay loam topsoil; weak subangular blocky, moist, friable, wavy boundary.
- 11 - 19" 10YR 6/3 pale brown silty clay moderate subangular blocky, moist, plastic, with common medium distinct mottles of 10YR 6/1 (light gray/gray) at 15-25", wavy boundary.
- 19 - 36" Non-Soil. Fractured red shale; pieces medium to large in size with 5% fillings, common mineral staining.
- >36" Refusal. No groundwater.

Date Performed: 10/20/95

SL 1020-4

- 0 - 9" 10YR 3/2 very dark grayish brown silty clay loam topsoil; weak subangular blocky, moist, friable, smooth boundary.
- 9 - 21" 7.5YR 4/6 strong brown silty clay; moderate subangular blocky, moist, plastic, wavy boundary.
- 21 - 50" Non-Soil. Fractured red shale; pieces medium to large in size with 5% fillings, hard and tight.
- >50" Refusal. No mottling. No groundwater.

Date Performed: 10/20/95

SL 1020-5

- 0 - 10" 10YR 3/2 very dark grayish brown silty clay loam; weak subangular blocky, moist, friable, smooth boundary.
- 10 - 21" 10YR 6/3 pale brown silty clay; moderate subangular blocky, moist, plastic with few medium distinct mottles of 10YR 7/1 (light gray) at 20-29". Wavy boundary.
- 21 - 62" Non-Soil. Fractured red shale; pieces medium to large in size with 5% fillings. Common mineral staining.
- >62" Refusal. No groundwater.

#95-1396

Date Performed: 10/20/95

SL 1020-6

- 0 - 8" 10YR 3/2 very dark grayish brown silt loam topsoil; weak subangular blocky, moist, friable, smooth boundary.
- 8 - 33" 7.5YR 4/6 strong brown silty clay; moderate subangular blocky, moist, plastic with few fine faint mottles of 10YR 7/1 (light gray) at 29-34".
- 33 - 64" 5YR 3/4 dark reddish brown silty clay; moderate subangular blocky, moist, plastic with 10-15% coarse fragments, wavy boundary.
- 64 - 74" 5YR 3/4 dark reddish brown shaley clay loam; moderate subangular blocky, moist, slightly plastic with 35-40% shale pieces.
- 74 - 100" Non-Soil. Fractured red shale; pieces small to large in size with 10% fillings.
- >100" Refusal. Rapid groundwater at 89".

Date Performed: 10/20/95

SL 1020-7

- 0 - 14" 10YR 3/2 very dark grayish brown silt loam topsoil.
- 14 - 58" 10YR 6/3 pale brown silty clay; moderate subangular blocky, moist, plastic with few medium distinct mottles of 10YR 7/1 (light gray) at 47-57". Wavy boundary.
- 58 - 96" Non-soil. Fractured red shale; pieces small to large in size with 10% fillings. Hard and tight.
- >96" Refusal. No groundwater.

Date Performed: 10/20/95

SL 1020-8

- 0 - 9" Silt loam topsoil.
- 9 - 36" 10YR 6/4 light yellowish brown silty clay; moderate subangular blocky, moist, plastic with common medium distinct mottles of 10YR 8/1 (white) at 25-42". Wavy boundary.
- 36 - 96" Non-Soil. Fractured red shale; pieces small to large in size with 10-15% fillings. Common mineral staining.
- >96" Refusal. Rapid groundwater at 80".

#95-1396

AWT FIELD TEST AND USDA SOIL SURVEY DATA FOR
 EAST AMWELL TWP., BLOCK 8.02, LOTS 25.01, 26, 26.01

Soil Log	Total Depth	Mottles	Depth to Rock	Depth to Ground Water	USDA Mapped Type
1019-1	96" (R)	NE	24"	NE	PfB, PeC2
1019-2	89" (R)	26-52"	52"	NE	PfB, PeC2
1019-3	78" (R)	NE	45"	NE	PfB, PeC2
1019-4	90" (R)	45-55"	76"	NE	PfB
1019-5	48" (R)	25-33"	31"	48"	PfB
1019-6	64" (R)	NE	23"	64"	PfC2
1020-1	60" (R)	NE	21"	60"	PfB
1020-2	60" (R)	NE	31"	60"	AbB
1020-3	36" (R)	15-25"	19"	NE	AbB
1020-4	50" (R)	NE	21"	NE	PfB
1020-5	62" (R)	20-29"	21"	NE	PfB
1020-6	100" (R)	29-34"	74"	89"	PfB
1020-7	96" (R)	47-57"	58"	NE	PfB
1020-8	96" (R)	25-42"	36"	80"	PfB

(R) = machine refusal
 NE = not encountered

APPENDIX IN SUPPORT OF CHAPTER III

East Amwell Township State Plan Implementation Project
Funded by a Matching Grant from ANJEC: May, 1977

Executive Summary and Pages 1-16 with additional
attachements

EAST AMWELL TOWNSHIP

STATE PLAN IMPLEMENTATION PROJECT

FUNDED BY MATCHING GRANT FROM ANJEC

FINAL REPORT - MAY 1997

Written by Barbara B. Wolfe and the Members of the ANJEC Committee

ACKNOWLEDGMENTS

Thanks to the Association of New Jersey Environmental Commissions (ANJEC) for their generous funding of this project, and their patience because the project has extended for a longer period of time than planned. Their funding made possible a comprehensive study of important planning alternatives as well as valuable public education materials. None of these would have been accomplished without ANJEC's support.

Mimi Upmeyer, our ANJEC liaison, has been extremely generous with her time, attending numerous meetings, offering advice, making contacts with resource people, helping with public education activities, and sharing her perspectives gained from her work on similar projects throughout the state.

Caroline Armstrong and Suzy Hess, Hunterdon County Planning Board staff, have both made contributions too numerous to mention, in general staff support, analysis of TDC programs and ordinance features, implementation of the GIS system and analysis of various factors for determining sending credits in a TDC formula.

Dr. Kenneth Maugle, East Amwell Planning Board chairman in 1994, 1995 and 1996, also served as chair of the ANJEC grant committee in 1994 and 1995, tallied and analyzed the extensive data from the Ringoes survey, and initiated the effort to bring GIS capabilities to East Amwell.

Committee members Nancy Cunningham, Diane Griffith, Will Harrison, Joe Nyce, Lora Olsen, John Paulmeno, Mick Schaible and Peter van Wallendael learned about various innovative planning concepts in order to steer the project through numerous phases, and also did a variety of activities to complete the project's work and to facilitate public education. In particular, Mick Schaible's leadership of the analysis of Economic Feasibility should be noted.

Planners Cindy Coppolla and Francis J. Banisch III offered guidance at critical stages of the project.

Tom Dallessio and Dave Hojsak of the Office of State Planning staff participated in our deliberations and kept us informed of relevant state issues.

Finally, thanks to Michael Furda and Joyce Corboy, who prepared minutes after each meeting and provided all the secretarial support for the project.

EXECUTIVE SUMMARY

East Amwell Township received a matching grant from ANJEC to explore planning and zoning alternatives which would help foster the Township's Master Plan goals and policy of farmland preservation and be consistent with State Plan goals of concentrating future growth in "centers" while protecting the "environs". East Amwell's current zoning density of 0.3 units/acre in the Amwell Valley District and current cluster provisions that permit 1 ½ acre lots, produce a land use pattern that is the equivalent of suburban sprawl. Given the paucity of well drained soils, with existing zoning density, community wastewater systems would be necessary to accomplish a tighter residential development pattern. A voluntary Transfer of Development Rights (TDR) program could be even more effective in preserving higher ratios of farmland, if an appropriate receiving site or sites could be identified, and if the economic and market feasibility of a TDR program could be demonstrated. A TDR Bank could facilitate the transactions of buying and selling development credits. While a TDR program may never offer an opportunity to retire the development potential of most land in East Amwell, it offers an additional use right which can support continued agricultural use of productive farmland.

Community wastewater systems, essential to tightly clustered neighborhoods (i.e., 1/3 to ½ acre lots), might not work in East Amwell Township primarily because of limiting environmental conditions but also because of political considerations and questionable public support. Obstacles for developers including higher initial capital costs and lengthy regulatory processes. Without introducing community wastewater systems, a reduction in the potential number of houses allowed by gross zoning density will be another means that will assure the long term retention of agriculture and the municipality's rural character.

FINAL REPORT

INTRODUCTION

East Amwell Township received a matching grant from ANJEC to explore planning and zoning alternatives which would foster development in the Township that would be compatible with and contribute to the Township's Master Plan goals and policy of farmland preservation and be consistent with State Plan goals of concentrating future growth in "centers" while protecting the environs. The project has spanned three and a half years, (January 1994 through June 1997). Because of major contributions of time from volunteers and county planning staff, the budget has been able to support selected use of professional experts; allow thorough study of many related issues; and fund a significant amount of public education. The project has been managed by a sub-committee of the Planning Board with additional citizen members and staff from Hunterdon County Planning Board and the Office of State Planning.

This document is the final report of the multi-year project. It addresses the issues which have been studied by the ANJEC grant committee in 1996 and 1997. The report is organized by major activities undertaken in 1996 and 1997, and presents the findings, advantages or disadvantages of different options. Recommendations are offered where the Committee has developed them. The small balance of funds remaining in the budget for the project will be applied to the development of zoning ordinances that are consistent with the project's goals.

BACKGROUND AND PURPOSE OF THE PROJECT

Current zoning in East Amwell's Amwell Valley District, an active agricultural area, allows 0.3 units/acre with a clustering option to 1 ½ acre lots. Neither the typical development on 3 acre lots nor cluster development with 1 ½ acre lots accomplish the Master Plan goal of preserving productive farmland. Both development patterns will contribute toward the eventual suburbanization of East Amwell Township and increasing conflict between residential neighbors and agriculture. In the course of the ANJEC project, the grant committee studied other zoning techniques, toured sites for first-hand experience, weighed their pros and cons, and developed

recommendations for implementation or further study by the Planning Board.

The hierarchy of zoning tools is as follows:

- typical large lot (3 acre) development
- clustering on smaller (1 ½ acre) lots with individual septic systems and wells
- * simultaneous planning of non-contiguous sites (off-site clustering)
- * tighter cluster of single family homes on smaller lots (1/5 to ½ acre) with community wastewater system
- * optional and voluntary overlay zones using Transfer of Development Rights (TDR)
- * mandatory sending and receiving zones using Transfer of Development Rights (TDR), authorized only in Burlington County as a pilot project

Note: In the list above, “-” denotes zoning tools already permitted in the East Amwell Development Regulations Ordinance, and “*” denotes the tools to be considered for future implementation.

The emphasis of the committee work has been on the implications of tighter clustering and of TDR. At the current zoning density, tighter clustering or a voluntary TDR program will save meaningful amounts of farmland only if community wastewater systems are authorized. Therefore, the committee investigated many issues pertaining to community wastewater systems. The committee did not study the simultaneous planning provision in the MLUL. The Planning Board should address the relevance of this provision for East Amwell and adopt provisions in the ordinance that allow use of this technique. The ANJEC committee has not determined the amount of future growth that should be allowed in East Amwell.

PREVIOUS PHASES OF THE PROJECT

The 1994 project work focused on the Village of Ringoes as a potential location for some concentrated development as described by the "center" concept in the SDRP. Results of a survey of resident opinion were tabulated and reported in a document titled "Ringoes Survey". Furthermore, Angelo Alberto, AIA, Alberto & Associates, was commissioned to conceptualize some design alternatives for the center of the Village. Ed Clerico, President of Applied Wastewater Technologies, prepared a report "Review of Wastewater Alternatives for Village of Ringoes". These three issues were presented in a town-wide public meeting in November 1994.

A comprehensive "1995 Year-End Progress Report" was produced at the end of the first half of the project. That report covered significant work completed in 1995 on the design factors for a neo-traditional village which was being considered as an overlay zone for the Hidden Valley site. The 1995 report also summarized the initiatives to acquire the ArcView/GIS software for use in analyzing natural resource data, such as soils types.

1996 PROJECT ACTIVITIES

HIDDEN VALLEY ON-SITE GROUND WATER DISCHARGE EVALUATION

An Office of Environmental Services (OES) grant obtained by the Environmental Commission was used to contract with Applied Wastewater Technology, Inc. to study feasibility of installing a community wastewater system at the Hidden Valley site. The preliminary assumptions were that this site of approximately 168 acres would accommodate 300 - 350 households as a receiving district overlay zone. The project included actual on-site soil testing. The results of the study were reported in January 1996. The full report is on file in the Planning Board office; the cover page is Attachment I.

Key findings include the following:

“Overall, the areas tested do not exhibit characteristics favorable for a community groundwater discharge system. . . . Because of the expected slow permeability of the material and the shallow depth to groundwater, it is anticipated that very little wastewater could be discharged to a given area without a significant groundwater mound being developed.” (Page 10)

“In venturing an estimate, it is expected that sufficient area could be found to dispose of 5,000 to 10,000 gpd of wastewater.” . . . using a groundwater disposal system such as a community septic field. . . (Translates to 20 - 40 homes @ 250 gpd)

With spray irrigation, “ Realistically, 20,000 to 30,000 gpd of treated effluent could be accommodated on 30 to 40 acres of land.” (Translates to 80 - 120 homes)

CONCLUSION: because of unfavorable soils, high groundwater table and other limiting environmental attributes, the Hidden Valley site should no longer be considered as an optional TDR overlay zone for a new village of 300 - 350 homes. The Hidden Valley site should be deleted from the Master Plan and the wastewater management plan as a potential site for a new village. The site might have potential for a smaller hamlet, with lower requirements for community wastewater processing.

The ANJEC committee was interested in replicating the study on the Frontage Road site, the other site specifically identified by the Planning Board as a potential TDR overlay zone for a “hamlet” of 80 - 100 houses. Mapping data of soils and geology suggest that the Frontage Road site may have similar environmental limitations as the Hidden Valley site. While a proposal and cost estimates were obtained from Applied Wastewater Technology to evaluate the site, the landowner decided not to grant permission for the study.

The issues pertaining to community wastewater processing systems are directly relevant to any consideration of more compact alternative uses of land. However, environmental attributes of East Amwell Township may be too limiting to accommodate cost efficient community wastewater systems. While the ANJEC committee continued to investigate community wastewater systems, the ANJEC committee did not try to identify alternate sites with favorable environmental characteristics that could become TDR overlay zones. The committee felt that the Planning Board was the appropriate body to set such policy.

HUNTERDON COUNTY TOUR

On June 7, 1996, the ANJEC committee toured five sites in Hunterdon County to observe the physical characteristics of alternative lot sizes, densities and design detail, including setbacks, lot dimensions, and cartway width. The sites visited were the following:

Hedgerow Estate, Readington Township
 Lake Cushetunk Wood, Whitehouse Station
 Center Street, Clinton Town
 King's Crossing, Clinton Township
 Shy Creek, Alexandria

Photographs were taken of all sites and incorporated into a permanent exhibit for future reference. Photos document lot sizes, densities, architecture, set backs and street designs/layouts. One project had a density of 5 units per acre; lot sizes of ½, 1 and 2 acres were employed in the other developments. Four sites had sewers or community wastewater systems which made it possible to build on smaller lots and set aside and preserve 50% to 75% of the original tract.

Findings:

--smaller lot sizes were preferred over larger lots, because the latter consumed much of the initial tract and left little farmland

- diverse setbacks from the street, such as found in Clinton, were preferred
- lot width sufficient to locate the garage on the side was preferred
- narrower cartways were preferred

CONCLUSION: Planning Board should consider allowing tighter clustering than our current 1 ½ acre minimum lot size, to preserve meaningful amounts of farmland. These developments should be located in areas of the Valley with adequate environmental attributes, as they will require community wastewater systems. Both planning techniques of clustering and simultaneous planning of non-contiguous parcels can result in tight conservation design development patterns. Lot size alone does not necessarily create a desirable, attractive development with a “sense of community”. The design, layout, land uses and architecture are all very important considerations.” Note: The term “clustering” as used here means single family homes on 1/3 to ½ acre lots, not townhouses or condominiums.

ADVANTAGES

With existing base density, tighter clustering uses less land for equivalent residential development, and therefore preserves more land for active agriculture.

DISADVANTAGES

Community wastewater systems are necessary, so issues of environmental safety, economic liability, ability to contain their capacity and not stimulate additional growth need to be resolved. Management by a qualified entity can minimize many of the perceived disadvantages.

COMMUNITY WASTEWATER SYSTEMS

The issue of community wastewater systems is complex. Environmental limitations may preclude the use of this technology in many areas of the Township. However, without a community system, land use patterns will continue to require the minimum 1 ½ acre lot for

adequate spacing of private septic systems and wells to minimize any potential contamination of groundwater supply. The ANJEC committee asked the Hunterdon County Alternative Wastewater Committee to provide information about limiting capacity, financial structures, environmental impacts, the regulatory process, etc. (Reference: memo dated November 6, 1996, re: Planning Issues for Alternative Wastewater Systems, see Attachment II.)

ADVANTAGES:

- allow development to occur on smaller lots, therefore save additional farmland
- with professional maintenance, their longevity surpasses private septic systems where maintenance is not guaranteed, so they may be safer for the environment in the long run
- capacity can be limited, and development can surround the system, so that no additional development can be supported with the system

DISADVANTAGES:

- requires additional time for developers to obtain approvals from DEP.
- requires up front capital investment by developers to construct system in advance of first home sales; may be difficult to borrow the amount of money needed; banks perceive it as higher risk
- public is not familiar with these systems; has concern about potential long term burden to all taxpayers and worries that these systems might stimulate uncontrollable growth
- the cost to users may exceed the cost of individual septic systems

CONCLUSION: use of community wastewater systems is one of the ways to limit loss of farmland to future residential development. The committee realizes the complexity of community wastewater systems, but believes that the disadvantages which are often cited can be controlled through proper planning and management.

RINGOES VILLAGE

Ringoes Village was developed historically on small lots with individual septic systems. Most people agree that there will need to be some community wastewater processing system in Ringoes at some future date, simply to assure that the quality of the water supply is not being harmed by failing and antiquated septic systems. Economies of scale suggest that additional residential units would be needed in and around Ringoes to justify the costs of a community system, and to encourage private sector investment in a community system. Most Ringoes residents do not want additional growth concentrated in or around the edges of Ringoes, and believe that such growth would destroy the Village's historic character and its relationship to the countryside.

A small task force studied the question of Ringoes infill, to determine what growth potentially could happen within the Village if infrastructure were available. Their analysis concluded "that the total number of potential infill units was negligible (most probably, significantly less than 50 units)." This task force also attempted to address the potential capacity of parcels contiguous to the Village of Ringoes, but realized that other analyses, such as acreage needed for a wastewater system, were required first. (Task Force memo of August 1, 1996 on "Ringoes Infill" is Attachment III)

RECOMMENDATION: the task force recommended that the Township acquire the appropriate professional guidance or expertise regarding community wastewater treatment facilities, in order that assumptions can be made pertaining to the

physical and economic requirements and characteristics of such a facility. . . . then the analysis of development of parcels contiguous to the Village of Ringoes can be resumed.

PUBLIC EDUCATION AND FEEDBACK

Autumn in East Amwell Exhibit

One of the objectives of the grant program was to build awareness of and support for alternative development patterns that also protect farmland. In 1996, the ANJEC committee commissioned a planner/architect (Bob Brown, Brown & Keener Urban Design) to graphically display three alternative development scenarios: current zoning with large lots, cluster developments with preserved land, and a single village which would implement a transfer of development credits program. Each scenario assumed the same acreage and the same number of houses would be built.

The exhibits were displayed at the Autumn in East Amwell fall festival on October 6, 1996. People visiting the booth were asked to participate in an informal poll indicating their preference for future development patterns in East Amwell Township. The findings are summarized in a memo dated October 9, 1996, "Results of Autumn in East Amwell Display", Attachment IV.

The exhibits were then displayed in the municipal building for several weeks in the fall, with the informal poll continuing. Because this survey was conducted informally, the data should be used only as an indication of people's perceptions. The results were:

large lot zoning - 141 (2 ½ - 3 acre lots shown)

cluster - 108 (½ acre lots shown)

single village - 151 (1/5 acre lots shown)

CONCLUSION: 65% of the responses expressed a preference for an alternative to the large lot (three acre) zoning which produces suburban sprawl and consumes the most farmland. From the feedback received, it appears that the residents desire that future development patterns should conserve more farmland than the large lot zoning.

RECOMMENDATION: The Planning Board should consider alternative zoning techniques which will achieve better ratios of conserved farmland to developed land.

Flyer Mailed to All Residents

To continue the public education, the exhibits were reduced to small scale, and text was developed to incorporate the information into a flyer, which was mailed in early 1997 to all Township residents. (A copy of the flyer "Alternative Visions for East Amwell's Future" is Attachment V.) While very little feedback was received, by having distributed this information to the entire community, we believe that our citizens are better informed about the development alternatives that could be considered in the future.

TRANSFER OF DEVELOPMENT CREDITS PROGRAM

Development patterns that evolve in a municipality are the cumulative result of individual decisions by landowners to sell and by developers to buy land. Local governments can use zoning and development regulations to motivate private landowners and developers to pursue development patterns that are compatible with the community's vision. The concept of voluntarily transferring development credits (TDR) is an optional zoning technique that a municipality can use to designate the locations where higher density development should proceed, through an overlay zone, and to designate other tracts of land which should be preserved. Because of this potential for guiding future land use patterns, the TDR technique has been considered extensively by the ANJEC committee. While the technique is complicated, it offers potential for

preserving farmland in large contiguous parcels, in keeping with the goals of the Master Plan and the SDRP. As noted above, the 1995 focus of the ANJEC committee was design considerations for a new village, that would be created as a receiving district. During 1996 and 1997, the ANJEC committee focused on the issues of economic feasibility, the policy and legal framework for a TDR program through an ordinance, and different formulae to assign credits to parcels of land in the sending districts.

Economic Feasibility

The economic feasibility of a TDR program is one of the most important considerations, because without sufficient economic incentive a voluntary TDR program will never be successful. The ANJEC committee spent significant time understanding the complex variables which determine economic feasibility, such as marketability, costs, potential revenues, timing, and profitability. Because of the importance of economic feasibility, especially in a voluntary program, a separate report addresses these issues. (See Attachment VI - "Summary of Discussions and Conclusions of the Economic Feasibility of Transferrable Development Credits in East Amwell Township".) The conclusions indicate that in the short run with the current real estate market, a voluntary TDR program that the ANJEC committee studied employing current zoning densities without bonus provisions or similar incentives would probably not be economically feasible in East Amwell Township, i.e., the profit that a developer might expect to realize would not be sufficient to motivate him to participate in a voluntary TDR program. Nevertheless, in the long run, market conditions and legal status might change.

RECOMMENDATION: Since changes in market forces or a legislative mandate might make TDR economically feasible in the future, the Planning Board should continue to study the TDR concept and eventually implement an enabling ordinance, so that in the event of such changes, the development of a TDR community would be an available alternative.

Soils Analyses and TDR Credit Formula

The maximum number of houses that can be built on a parcel of land is governed by the permitted gross density as well as the environmental limitations of the site. Some parcels will be able to achieve a high yield, while parcels with significant wetlands, steep slopes, or other limiting features, will achieve a much lower yield or percent of maximum allowed density. The purpose of a TDR formula is to award development credits in some relationship to the actual number of houses that could be built on a particular sending parcel. If credits were awarded solely on the basis of the gross zoning density, more credits would be created than houses would be permitted with current standards. This would result in creating extra growth in the municipality. Analyses of two formulas for assigning credits were undertaken to see if a formula could approximate the environmental characteristics of a site and therefore approximate the number of houses that might be built on that site.

The first formula was based on the acreage of each site in the soil classes rated Class I, II, III, IV, V, VI, and VII. A soils map was produced using the GIS database. Data from the Natural Resources Conservation Service on "Interpretive Groupings", giving map symbols/types of soils, was used to determine the types of soils in each Class. The formula multiplied the acres in each soils class times a factor as follows: 1.25 for Class I, to award a 25 % bonus density for the best soils, as some incentive for transferring credits from the most productive farmland, 1.0 for Class II, 0.75 for Class III, and 0.1 for Class IV, V, VI, and VII, to reflect minimal credit for wetlands that could not have houses built on them.

Agricultural soils formula

$$\# \text{ TDR credits} = [(\# \text{ acres in Class I} \times 1.25 \times 0.3) + (\text{Class II} \times 1.0 \times 0.3) + (\text{Class III} \times 0.75 \times 0.3) + (\text{Class IV} \times 0.25 \times 0.3) + (\text{Class V} + \text{Class VI} + \text{Class VII} \times 0.1 \times 0.3)] - 1$$

TDR per existing house

Debate about this formula noted that it favored soils which were more productive for agriculture, and might not indicate the total number of houses which the land could support. Application of

this formula to 49 parcels of land greater than 50 acres in the Valley zone (more than 4300 acres) indicated that approximately 920 credits would be produced by formula, which is roughly 70% of the 1300 credits, the theoretical maximum number of units which could be developed at the permitted density of 0.3 units/acre.

The other formula tested used categories of septic suitability, with differential factors for slight, moderate, or more severe limitations. The definitions are as follows: Class I - soils with slight limitations for septic suitability; Class II - slight to moderate; Class III - slight to moderate/severe; Class IV - moderate; Class V - moderate to severe; Class VI - severe; Class VII - unclassified, assumed to be severe. While this formula uses factors that approximate the potential for construction of houses, when tested on ten parcels, the formula yielded only 25% of the total maximum number of potential units allowed by gross density.

Septic Suitability formula

$$\# \text{ TDR credits} = \{[(\text{Class I} \times 0.3) + (\text{Class II} \times 0.225) + (\text{Class III} \times 0.225) + (\text{Class IV} \times 0.15) + (\text{Class V} \times .085) + (\text{Class VI} \times .085) + (\text{Class VII} \times 0.02) + (\text{Class VIII} \times 0)] - 1 \text{ TDR per existing house}\} \times 1.1 \text{ density bonus}$$

CONCLUSION: If a TDR program is introduced, a formula will be necessary to assign credits, so that the credits issued have some relationship to carrying capacity and likely potential development on a particular site. The formula based on soil classifications appears to have a better relationship to development potential than the septic suitability formula, and should be pursued further at the appropriate time.

Provisions of Programs and Considerations for Ordinance

The committee spent considerable time reviewing the provisions of active TDR programs in Lumberton Township, Burlington County, NJ, and Buckingham Township, Bucks County, PA. The Lumberton TDR program uses a formula based on septic suitability to issue credits to parcels

in the sending area, then records, tracks and monitors the use of these credits in a development application. An appeals process is available for landowners. The Buckingham program awards credits based on current allowed zoning density and has fewer provisions regarding monitoring and tracking the use of the credits in a development. While ANJEC committee members agree that simplicity is desirable to the extent possible in a complicated program, they preferred the more specific methodology used in Lumberton as a model for East Amwell to follow.

The first step that would be required to implement a voluntary TDR program would be a Master Plan amendment to set up the structure for the program including criteria for identifying possible "receiving" sites or locations, general discussion of provisions of implementing the program, zoning and density issues, and site design guidelines. The second step is the zoning ordinance itself which would contain the detailed steps for implementation of the program, such as how credits are issued, tracked, monitored, and used. Finally, a wastewater management plan would be necessary, especially if the density in the receiving sites required a community wastewater system, for DEP review and approval. (All of the factors related to implementing a TDR program are listed in Attachment VII "TDR Program Components to Consider".)

RECOMMENDATION: Because market conditions may change in the future, making a TDR program more economically viable, the committee recommends that the Planning Board continue to develop and implement provisions for a TDR program. The Planning Board should develop specific criteria to use in identifying selected areas or sites within the Amwell Valley District which would be appropriate for development as "receiving" sites. Generalized site design standards which would have broad applicability should be developed, using the work on design standards completed in 1995. If a specific site is identified, then design standards should be tailored to that site. In both cases, design standards need to be economically feasible. The Planning Board should decide whether a "receiving" site will be residential use only or mixed use. Public education will need to be continued as specifics of the program are developed further.

CONCLUSION

Under current zoning, East Amwell's productive farmland will be converted to suburban housing over a period of time that will be determined by the real estate market, the economy and the individual decisions of landowners to sell. The current provisions for clustering require that all houses are built with individual septic systems. Even with clustering, the amount of each site required for development will consume most of the farmland, leaving only a small portion of a site available for permanent preservation and compromised in its agricultural utility.

One alternative for preserving farmland explored by the ANJEC committee includes the use of community wastewater systems, so that several tighter clusters could be built. Another alternative is a TDR program so that future growth could be concentrated into hamlets, a single new village, or added to the edges of the existing village. In either case, the issue of wastewater processing is paramount. As long as overall density is unchanged, then community wastewater systems will be necessary if meaningful amounts of farmland are to be protected in the context of development of each site. Before adopting a policy to allow more compact development patterns supported by community wastewater systems, the issues that the Planning Board must address include:

- developing criteria for site selection, and identifying sites where more compact forms of development would be allowed with community wastewater systems
- determining the appropriate management structure for effective administration of a community wastewater system, including the role of the Township, so that such a system can be physically confined to prevent unwanted future growth
- evaluating and deciding on financial policies, including who pays what portions of initial capital costs and ongoing operating and maintenance costs

--revising the wastewater management plan to reflect the policy and to identify the sites,
and

-- adopting amendments to the Master Plan and a zoning ordinance to implement this new
direction.

TDR is a zoning technique that should be considered by the Planning Board as an alternative option, particularly if economic conditions or legal mandates change or if inquiries about the availability of funding through a State TDR Bank produce positive results. Issues that would need to be addressed, in addition to a formula for calculating sending credits and ordinance provisions discussed in this report, include overall gross density, number of credits that would be created, location of sites for the hamlets or village, and potential number of credits that would be absorbed.

If the overall gross density is lowered, and the potential number of units is reduced from current standards, then clustering patterns to 1 ½ acre lots without community wastewater systems might achieve significant protection of the valuable farmland.

LIST OF ATTACHMENTS

I. Title page for report "Feasibility Study for Hidden Valley On-Site Groundwater Discharge", January 1996, by Applied Wastewater Technology, Inc.

II. November 6, 1996 memo to Hunterdon County Alternative Wastewater Committee re: "Planning Issues for Alternative Wastewater Systems"

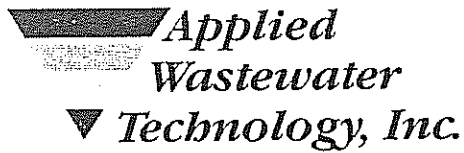
III. August 1, 1996 memo on "Ringoes Infill"

IV. October 9, 1996 memo re: "Results of Autumn in East Amwell Display"

V. Flyer, February 1997, "Alternative Visions for East Amwell's Future"

VI. "Summary of Discussions and Conclusions of the Economic Feasibility of Transferable Development Credits in East Amwell Township", April 1997

VII. TDR Program Component to Consider



2 Clerico Lane
P.O. Box 1079
Belle Mead, NJ 08502-1079
908/359-5501
FAX: 908/359-8286

P.O. Box 1506
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FEASIBILITY STUDY FOR HIDDEN VALLEY
ON-SITE GROUNDWATER DISCHARGE

BLOCK 8.02, LOTS 25.01, 26, 26.01 & 29
EAST AMWELL TOWNSHIP
HUNTERDON COUNTY, NEW JERSEY

OES PROJECT #94018

AWT #95-1396

PREPARED FOR

EAST AMWELL TOWNSHIP ENVIRONMENTAL COMMISSION
1070 U.S. ROUTE 202
RINGOES, NEW JERSEY 08551-1051

JANUARY 1996

MEMORANDUM

TO: Suzy Hess and Hunterdon County Alternative Wastewater Committee

FROM: Barbara Wolfe, East Amwell ANJEC Subcommittee on Alternative Futures

DATE: November 6, 1996

SUBJECT: Planning Issues for Alternative Wastewater Systems

Earlier this year, when I met with the Hunterdon County Alternative Wastewater Committee, I described the planning project jointly funded by ANJEC and East Amwell Township to consider alternative patterns of development that are more compatible with the goals of the state plan. We continue to study and plan for alternative forms of development that consume less land than our current zoning authorizes, but the first obstacle is waste water treatment and soil conditions. This memo will provide you with a brief status report and request your help so that we can take the next steps.

For purposes of public education and feedback, we commissioned graphic designs that showed three alternative development patterns for a hypothetical 1000 acres with 300 units allowed by gross zoning density: current permitted development (sprawl) pattern requiring individual wells and septic tanks and minimum 1 ½ acre lots; several hamlets of 50 - 60 units on ½ acre lots with a community wastewater system; a single village of 300 units, using a TDC system to transfer density from surrounding farmland with a community wastewater system. The results of this field survey suggest significant public support for exploring tighter forms of development such as hamlets or a village. Therefore, we need to take the next steps regarding the waste water processing issues.

By way of background, the East Amwell Master Plan (Dec. '93) describes two possible overlay zones where development credits would be concentrated into a hamlet or small village and community wastewater and well water systems would be utilized. The East Amwell Waste Water Management plan (1993) supports the concept of a "community septic system" for a site between Rts 179 and 202, but it does not refer to other sites. However, the Waste Water Management Plan was never submitted, as Caroline Armstrong learned upon a telephone inquiry to the DEP. The ANJEC grant has funded two reports on various waste water processing issues prepared by Applied Wastewater Technology, Inc.

- Village of Ringoes, Review of Wastewater Alternatives, October 1994

-Feasibility Study for Hidden Valley On-Site Groundwater Discharge, January 1996

To continue to make progress toward implementing any development pattern that uses a

community wastewater system, we need to convince the public and to understand the developer's requirements.

The public raise the following questions:

- What forms of financial structures can be put in place that buffer the non-users from any long term financial liability should the system fail? What has replaced the earlier requirement that a municipal government be a co-permittee? How iron-clad are these systems?

- How are community systems sized and located within a development? Can such plants be limited in capacity or expanded? There is widespread distrust that a community system can be extended as a sewer system could, bringing with it continuing higher density development where previously there was none.

- What are environmental impacts of alternative waste water systems, perhaps compared to environmental uncertainties of private septic systems?

From the developer's perspective, there are probably the following questions and issues:

- How much land is required for discharge to ground water for 50 - 60 units? Does this vary by types of soil conditions? (We assume from previous reports that 50 is the minimum size for break even. Is there an optimum maximum number of units to be served by a community system?)

- How do costs of installation for a community system compare to costs of individual septic systems for 50 - 60 units? How do costs vary given different soils types and ground conditions?

- Are there soils and environmental conditions on certain sites that simply would preclude any community wastewater system, but individual septic systems would be feasible?

- Should the township have prequalified sites where community systems would be permitted by actual field testing, or should the developer be expected to perform all on-site testing?

- What about the regulatory process? How much more burdensome and time-consuming is it to obtain permits for community systems vs. individual septic systems, and what steps might be taken by a town to help mitigate this?

From the Township's perspective:

- What steps should East Amwell follow next - submit Waste Water Management Plan, adopt ordinances, etc? Are there any sample ordinances available? What provisions need to be included? What is an estimated time line for review and approval of the Waste Water Management Plan, and what can be done to put this on a fast track?

- How can the Township estimate the number of lots which could actually be developed with private septic systems, based on existing ground conditions, wetlands, steep slopes, etc? Is it possible to limit the development approvals to that same number of lots?

- What types of incentives might be necessary for a developer to alter plans from traditional septic systems and large lots to a community system with smaller lots? Do you believe these would be marketable in our part of Hunterdon County?

Finally, what other relevant policy questions and implementation steps have we not mentioned and should consider?

While it is a Planning Board subcommittee that has been taking the lead in pursuing these issues, we would like to invite a few members of the County's alternative wastewater committee to speak to a larger East Amwell audience on the issues raised in this memo. The East Amwell attendance would include Planning Board, Board of Health, Township Committee, and members of the public. Please let me know if some members of your committee would be available for this type of discussion. Initial possible dates include most Wednesday evenings between now and the end of the year, at your convenience.

Thank you very much! We really need your help!!

Date: August 1, 1996

Memorandum For: ANJEC Committee Members

From: ANJEC Subcommittee on Ringoes Infill (Lora Olsen, Nancy Cunningham, Mick Schaible)

Discussion: **Mandate:** Study the potential for development, as follows: 1) Ringoes infill (additional development in the Village Zone), and 2) development of parcels contiguous to the Village of Ringoes in residential zones. This study is warranted based upon the potential benefits to the residents of Ringoes, two of which may be: 1) eventual hook-ups for the existing properties in the Village of Ringoes to a sewer system (sewerage treatment plant to be constructed by the developer of the contiguous property in exchange for bonus development density); and 2) preservation of farmland through the transfer of development credits from designated sending areas to the contiguous receiving area. In both cases, consideration was given to the 1994 Study of Ringoes survey of the Village of Ringoes residents.

Infill in the Village Zone of Ringoes was considered based on the following assumptions: 1) development of vacant parcels would be allowed based on a maximum density of 1 DU/.25 acres; 2) development of improved parcels would be allowed on the remaining acreage at a density of 1 DU/.25 acres subsequent to the set aside of the existing improvements on 1.50 acres; 3) parcels known to be wetlands or floodlands were deleted; and 4) the potential number of development parcels was reduced by approximately one-half, since it is likely that the physical characteristics of these lots would prohibit development (inadequate setbacks, etcetera), and since it is probable that most existing owners would not consider such a subdivision.

This analysis revealed that the total number of potential infill units was negligible (most probably, significantly less than 50 units).

Development of parcels contiguous to the Village of Ringoes in residential zones was considered. Bonus densities (development density in excess of current maximum allowable zoning density) were assumed in order to provide an incentive to the developer to build a sewerage treatment plant with capacity not only for the units to be developed, but sufficient to provide capacity for all of the existing properties in the Village of Ringoes. And, the potential preservation of farmland was considered by transferring development credits from a designated sending area to the contiguous receiving development site.

However, this analysis was postponed due to the lack of expertise of the subcommittee members regarding the calculation of the acreage required to support the envisioned sewerage treatment facility. As a result of not knowing the acreage required for such a sewerage treatment facility, it was not possible to calculate the total acreage contiguous to the Village required for such a development, the number of units that such acreage would support, the potential bonus densities that might be awarded, and the acreage of farmland that might be preserved (if indeed the construction of enough units would be feasible in order that farmland, if any, would be preserved).

Recommendation: The subcommittee recommends that the ANJEC Committee acquire the appropriate professional guidance or expertise regarding sewerage treatment facilities, in order that assumptions can be made pertaining to the physical and economic requirements and characteristics of such a facility. Subsequent to this acquisition, the analysis described above can be resumed.

MEMORANDUM

TO: ANJEC COMMITTEE
 PLANNING BOARD
 BOARD OF HEALTH
 TOWNSHIP COMMITTEE

FROM: Barbara B. Wolfe

DATE: October 9, 1996

SUBJECT: Results of Autumn in East Amwell Display

The Autumn in East Amwell display was quite successful. We filled two sections of the tents with the following exhibit materials: the three graphics produced by Bob Brown showing current zoning with large lot development pattern, cluster development pattern, and single village development; two build-out maps, showing current development and projected build-out in 30 years; Take Pride in your Township - a large East Amwell map - citizens were invited to label their favorite locations on the map. The booth also showed the photo album from the ANJEC committee field trip in June, several hand-outs from the State Planning Commission, and a one-page description of the ANJEC project (attached).

Caroline Armstrong and I were there all day, and other committee members stopped by for short periods of time. The booth was quite busy all day long, and many residents stayed to discuss the issues in some depth. The feedback technique to have residents drop a card in the bucket of their preferred build-out scenario was simple, easy to explain, and worked quite well. Its results are as follows:

Large lot zoning -- 11 votes
 Cluster development pattern -- 34 votes
 Single village -- 18 votes

Votes by road name are listed on the next page.

Other comments offered during conversations with visitors to the booth included the following:

- no more development please
- let's buy as much farmland as we can
- concern that the preserved open space wouldn't have permanent protection and might eventually be developed, so favored large lots
- is down zoning to reduce the overall density a possibility?
- concern that with the introduction of "sewers" the township would lose control over development, and too much growth at too high a density would be stimulated

- which option would have lowest impact on local tax rates?
- interest in assuring the equity for the landowner's whose farms would be preserved
- "not in my backyard", especially for the cluster and village options
- need information about the environmental consequences of package treatment plants
- how would locations for the cluster or village be decided?

ROAD NAMES OF THOSE WHO PREFERRED LARGE LOT ZONING OPTION

N = 11

2 - blank votes, Cider Mill Rd., Linvale Rd., 3 - Old York Rd., 2 - Boss Rd., Sandra Rd., Rosemont-Ringoes Rd.,

ROAD NAMES OF THOSE WHO PREFERRED CLUSTER ZONING OPTION

N = 33

2 - blank votes, 4- Mountain Rd., 2 - Van Lieus Rd., 2 - Welisewitz Rd., 2 - Michael Lane, 3 - Route 31, 3 - Old York/ Amwell Rd., 2 - Linvale Rd., 2 - Fox Hunt Rd., Larsen Rd., Back Brook Rd., Rainbow Hill Rd., Rileyville Rd., Larison Lane, Haines Rd., Lindbergh Rd., Cider Mill Rd., Dutch Lane, Hart Lane, John Ringo Rd., Rte. 518

ROAD NAMES OF THOSE WHO PREFERRED VILLAGE ZONING OPTION

N = 18

2 - blank votes, 2 - Haines Rd., 2 - Rte. 31, 2 - North Hill Rd., 2 Mountain Rd., 2 - Linvale Rd., Rte. 518, Welisewitz Rd., Van Lieus Rd., John Ringo Rd., Danberry Drive, High Mowing Rd.

PLACES LABELED ON THE "TAKE PRIDE IN YOUR TOWNSHIP" DISPLAY MAP

Eiref (Hill) farm, Totten farm, Kinderman farm, Manners farm, Van Marter farm, Gordeuk farm, Iron Horse farm, Sowsian farm, Spencer farm, , Carousel Deli, Peacock's Store, Karen's Ice Cream, old Baptist Church on Wertsville Road, Highfields, house - "Queen of the Valley", Unionville Vineyard, home on John Ringo Rd, Haines Rd, Magic Meadow, McBurney Woods, Sourland Mtn woods, wooded landscape along Back Brook Rd, rocky woods on the mountain, unpaved section of Stony Brook Rd, open beautiful farmland views on Van Lieus Rd, Manners Rd, and Cider Mill Rd, Cider Mill, view of the Valley from the top of Van Lieus Rd and the top of Rileyville Rd, open space along Ridge Rd

ALTERNATIVE VISIONS FOR EAST AMWELL'S FUTURE

February, 1997

Dear East Amwell Township Resident:

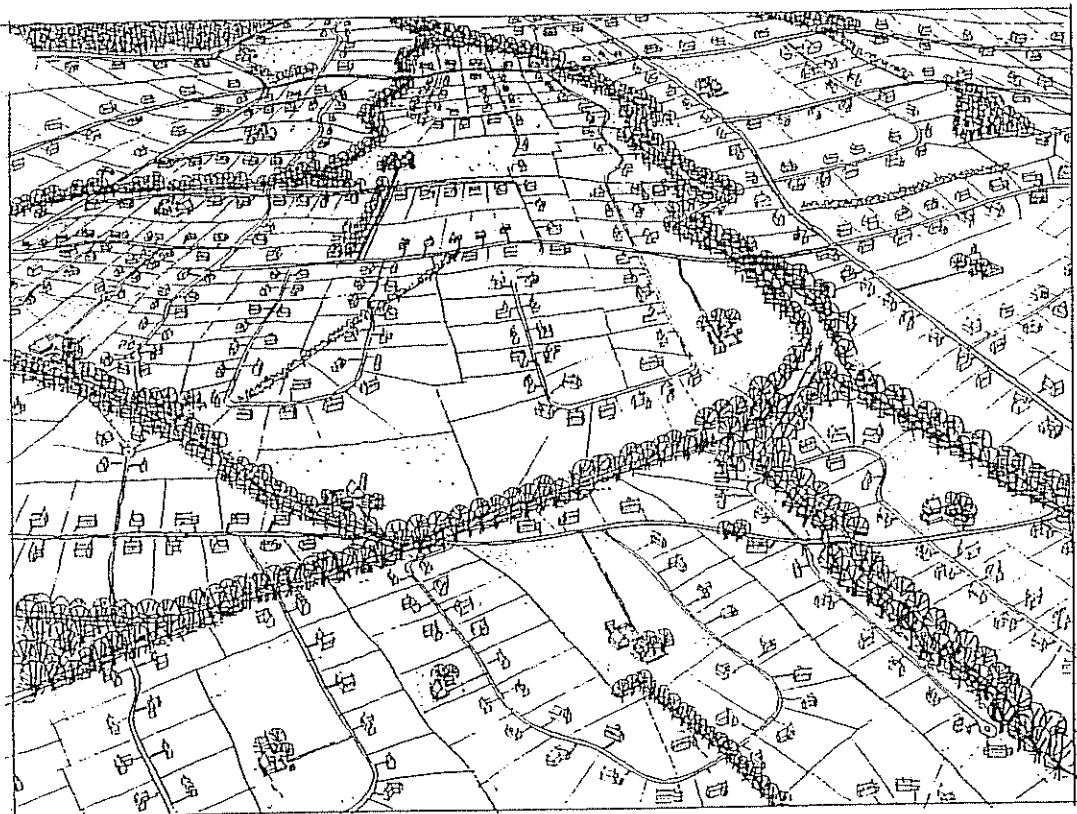
The East Amwell Township ANJEC Committee, a subcommittee of the Planning Board, is pleased to provide you with this informational brochure. Over the past three years, the Committee has been studying future alternative land use patterns and their implications, and it is interested in sharing this work with the community.

As East Amwell Township residents, we are all fortunate to live in a such a beautiful, rural community. However, we also live within a county facing tremendous growth pressures which are bound to affect us at some point. While we hope that the Township continues participating in the State's farmland preservation program, we can't rely on public funding alone to assure continued preservation of our rural heritage. The purchase of all remaining large farms would simply be cost-prohibitive.

It is the Planning Board's job to adopt a Master Plan and develop land use ordinances to implement the master plan vision. Our current zoning in the Amwell Valley calls for 3 acre residential lots. Clustering to 1.5 acre lots and larger is permitted. Both require individual wells and septic systems.

A possible future build out scenario of this currently permitted land use pattern is shown below, for a hypothetical 1,000 acres. It is the Committee's belief that this development pattern will not adequately preserve productive farmland or maintain an agricultural economy -- key elements of our current Master Plan vision.

CURRENT ZONING: LARGE LOTS



Total Possible Development on
1,000 acres: 300 dwelling units

Residential	(290 new units)
Development:	675 acres
Average Lot Size:	2.33 acres
Roads:	75 acres
Creeks & Wetlands:	50 acres
Farmettes:	200 acres
(10 @ 20 acres)	
Treatment Plants:	0 acres
Preserved	(0 farms)
Farms:	0 acres

Total = 1,000 acres

IMPLICATIONS OF CURRENT ZONING:

- *No change in zoning is needed
- *Land use pattern is known
- *Septic systems may pollute groundwater over time

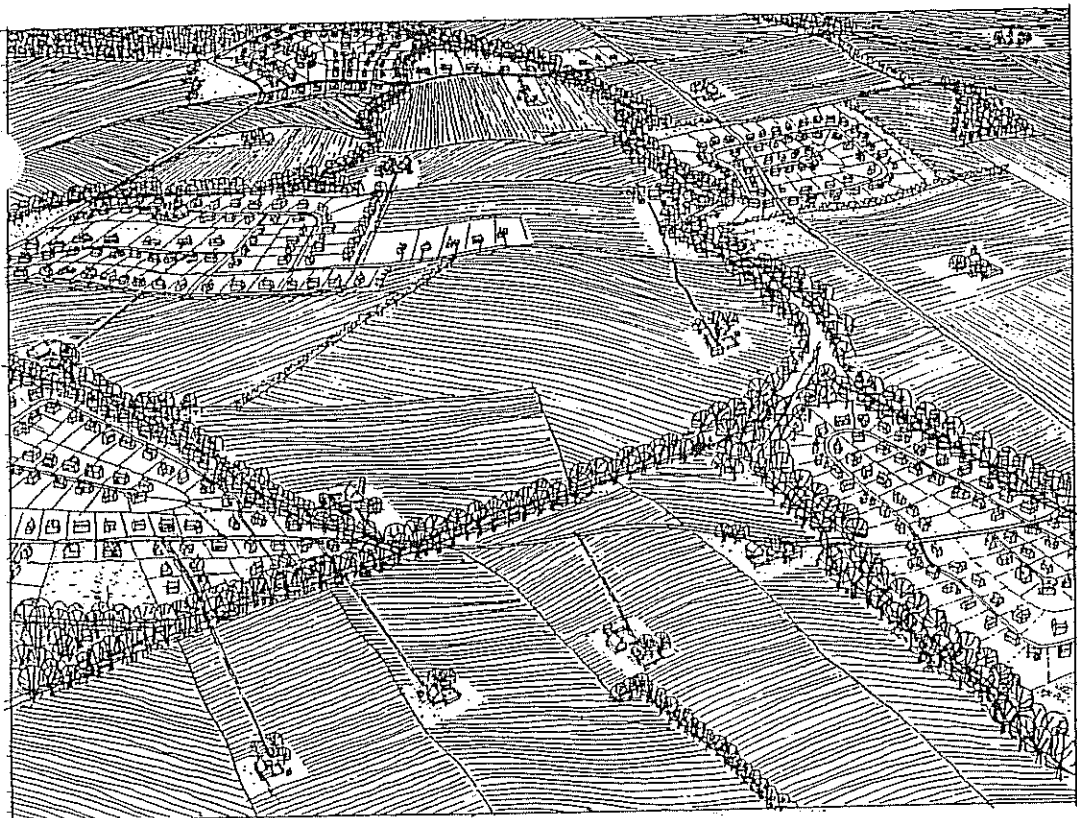
- *Public must purchase development rights to preserve productive farmland
- *Development patterns produce large expensive homes

the course of the Committee's work, members toured several developments throughout Hunterdon County, new and old, to look at the variety in design, layout, and scale. From this, the Committee concluded that if East Amwell is to strive toward farmland preservation through tighter development patterns such as "clusters" or "villages," then community wastewater systems, sized to serve only these designated places, are absolutely essential. The reason is that septic systems will not adequately treat wastewater on smaller lots. Without changing the overall zoning density, "clustering" will permit a site to be developed with the same number of residential units, but on smaller lots, thereby preserving open space.

There are two alternative development scenarios shown below on the same 1,000 hypothetical acres, together with their associated implications -- zoning, wastewater treatment, farmland and open space preservation, housing types, etc. Think about which scenario, if either, best reflects your preferred vision of our future land use patterns, assuming additional growth will inevitably occur.

20 20 20 20 20

CLUSTER DEVELOPMENTS WITH PRESERVED LAND



Total Possible Development on 1,000 acres: 300 dwelling units

Residential Development:	(290 new units) 150 acres
Average Lot Size:	0.5 acres
Roads:	50 acres
Creeks & Wetlands:	50 acres
Farmettes:	0 acres
Treatment Plants:	50 acres
Preserved:	(10 farms)
Farms:	700 acres

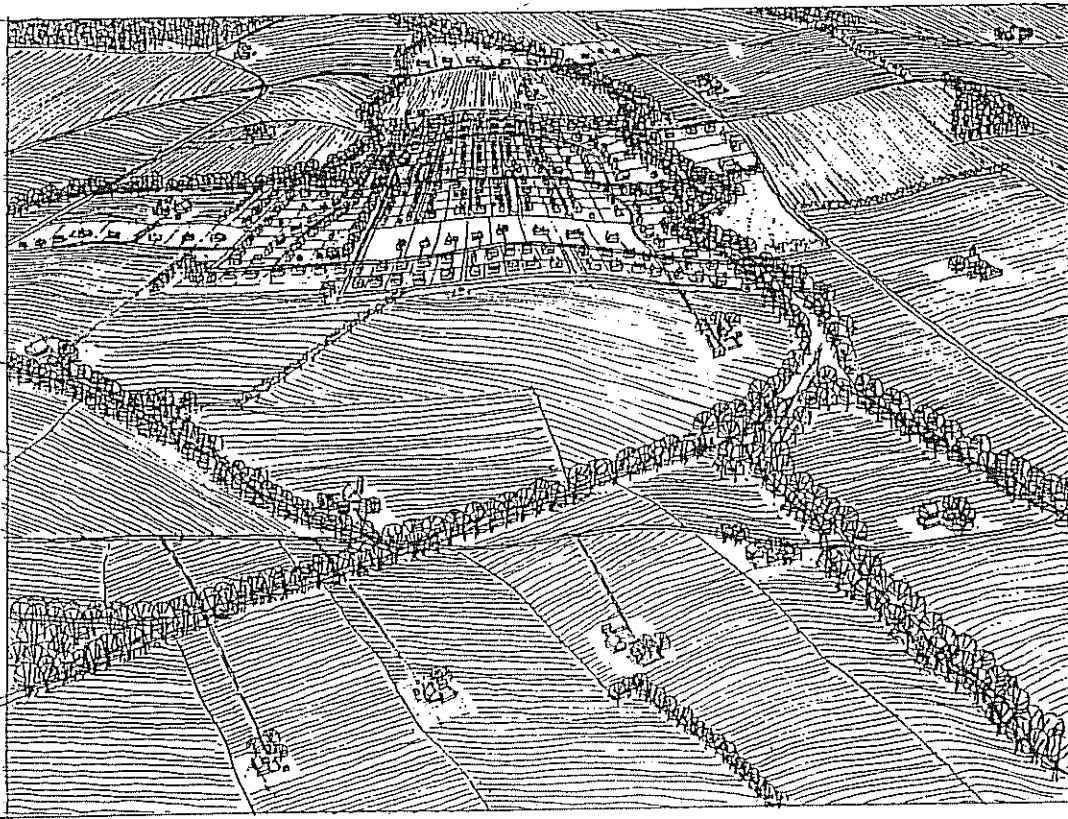
Total = 1,000 acres

IMPLICATIONS OF CLUSTER DEVELOPMENTS WITH PRESERVED LAND:

- *Requires modifications to zoning
- *Development clusters would be scattered throughout the Township
- *Each cluster requires dedicated wastewater treatment plant

- *Productive farmland is preserved without public investment
- *Conflicts may arise between farmland and new development
- *Cluster developments can produce a single housing type

SINGLE VILLAGE WITH PRESERVED LAND



Total Possible Development on
1,000 acres: 300 dwelling units

Residential (290 new units)
Development: 60 acres
Average Lot Size: 0.2 acres

Roads: 20 acres
Creeks &
Wetlands: 50 acres
Farmettes: 0 acres
Treatment Plants: 20 acres
Preserved (10 farms)
Farms: 850 acres

Total = 1,000 acres

IMPLICATIONS OF SINGLE VILLAGE WITH PRESERVED LAND:

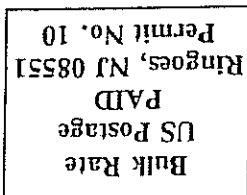
- *Requires major zoning changes to allow for transfer of development credits
- *Requires a wastewater treatment plant
- *Incentives to developers may be necessary
- *Some local retail and civic uses would be provided

- *Productive farmland is preserved without public investment
- *A variety of housing sizes and prices would be provided

28 28 28 28 28

The issues presented in the above scenarios are very complex and interrelated. Our Planning Board must fully consider the implications of various development options before deciding on an appropriate direction to take in the future. A large part of this consideration involves hearing what residents have to say. So, as residents serving on the ANJEC Committee, we urge you to think about some of these issues as you compare the first scenario, showing what our current zoning allows, with the two alternative development scenarios.

We welcome your letters, comments or questions at Planning Board as well as ANJEC Committee meetings. Please call the Municipal Offices at 782-8536 for meeting dates.



East Amwell Township ANJEC Planning Board Subcommittee
Municipal Building
1070 Route 202
Ringoes, New Jersey 08551-1051

We are seeking your input in developing alternative visions for East Amwell's future.

This brochure was created by the East Amwell Township ANJEC Committee. The ANJEC Committee, formed by the Township Planning Board, was charged with developing innovative planning and zoning recommendations that preserve our rural character and environment. The Committee was awarded a grant by the Association of New Jersey Environmental Commissions (ANJEC) to carry out its mission.

Thank you very much,

East Amwell Township ANJEC Committee

East Amwell ANJEC Committee Members

Barbara Wolfe, Chair, 1996, 1997

Ken Maugle, Chair, 1994, 1995

Nancy Cunningham

Diane Griffith

Joe Nyce

Lora Olsen

Mick Schaible

**SUMMARY OF THE DISCUSSIONS AND CONCLUSIONS OF THE ECONOMIC
FEASIBILITY OF TRANSFERABLE DEVELOPMENT RIGHTS (TDR)
IN EAST AMWELL TOWNSHIP**

The transfer of development rights (TDR) concept is based on a zoning strategy which shifts development from a preservation district (aka the sending area) to a development district (aka the receiving area). TDR programs can be voluntary or mandatory, and are traditionally used to preserve agricultural or environmentally sensitive land, open space, historic buildings and/or sites, and scenic features. Landowners in the preservation district are assigned development rights which they cannot use to develop their own land, but can sell to landowners in the development districts. Once the development rights are sold, the land is permanently restricted from further development.

TDR programs have been implemented in many areas across the United States since the mid-1970s; however, very few have been successful. Voluntary TDR programs are currently legally permissible throughout New Jersey, but mandatory programs are permissible only in Burlington County. In order to study the potential for success of a voluntary TDR program in East Amwell Township, the economic feasibility of such a program was studied.

Economic feasibility is defined as an investment's ability to produce sufficient revenue to pay all expenses and charges, and to provide a reasonable return on and recapture of the money invested. Variables affecting the Economic Feasibility of a voluntary TDR program in East Amwell were analyzed, and are identified and summarized as follows:

I. Variables Affecting Economic Feasibility

A. Marketability (i.e. the salability of the specific product, or concept, being offered)

1. Marketability of the TDR Concept to the residents of East Amwell Township (particularly including, but not limited to, the following groups: policy-makers, residents of sending areas, residents of receiving areas, residents adjoining both sending and receiving areas, and large-tract landowners in both sending and receiving areas)
2. Marketability of the Receiving Area/s to Developers and End-users (i.e. future residents)
3. Marketability of the Transferrable Development Credits

CONCLUSION OF THE ECONOMIC FEASIBILITY OF TDR IN EAST AMWELL (Continued)

4. Marketability of the Residential (and Commercial) Products and Components of the TDR Community

B. Expenses Associated with TDR Development

1. Cost to the Residents of the Sending Areas
2. Cost to the Residents of the Receiving Areas
3. Cost to (impact on) Residents of Properties Adjoining Both the Sending and Receiving Areas
4. Cost of the Receiving Site
5. Cost of the Coordination and Acquisition of Development Credits
6. Cost (and availability) of Infrastructure (water, sewer, roads, schools, etc.) -- Both On- and Off-site to the Township and the Developer
7. Soft Costs to the Developer (approvals, administrative, legal, engineering, sales, financing, etc.)
8. Cost of Building Improvements
9. Costs to East Amwell Township

C. Revenues/Benefits Associated with TDR Development

1. Potential Revenues/Benefits to the Residents in the Sending Area
2. Potential Revenues/Benefits to the Residents in the Receiving Area
3. Benefits to Properties Adjoining Both the Sending and Receiving Areas
4. End-unit Values of the Residential Units (and of potential Commercial Components)
5. Benefits to East Amwell Township

D. Timing/Staging

1. Time Required to Acquire All Necessary Approvals
2. Time Required to Acquire the Receiving Site
3. Time Required to Acquire the Development Credits
4. Time Required to Install the Infrastructure (*)
5. Time Required to Construct the Improvements (*)
6. (*) Impact of Municipally Imposed Staging on Development
7. Time Required to Market and Sell All Residential and Commercial Units

E. Profitability (A Test of Economic Feasibility)

1. After establishing positive marketability, and after forecasting all relevant costs, all potential revenues, and after factoring in the time required to approve, build and market the development, is there sufficient residual profit remaining to motivate a developer/entrepreneur to undertake this type of development?

CONCLUSION OF THE ECONOMIC FEASIBILITY OF TDR IN EAST AMWELL (Continued)

Subsequent to the identification and analysis of each of the variables which affect economic feasibility, the impact of these variables on the three components of the development of a TDR community were analyzed. The three components of the development of a TDR community are identified and summarized as follows:

II. Three Components of the Development of a TDR Community

- A. The Receiving Area/Areas
- B. The Sending Area
- C. The Development of the TDR Community

The study of the variables which affect economic feasibility and their impact on the three components of the development of a TDR community provides insight into the impact of a TDR community on the Township of East Amwell. This impact was examined within the framework of the **four factors which create value** and the **four forces that influence the value** of real property. These factors and forces are identified and summarized as follows:

III. Four Factors Which Create Real Property Values

All four factors¹ must be present for a property to have value:

- A. Utility: the ability of a product to satisfy a want, need, or desire.

1. The benefits of real property ownership derive from the bundle of rights that an owner possesses. Restrictions on ownership rights may inhibit the flow of benefits and, therefore, lower the property's value. Similarly, a property can only achieve its highest value if it can legally perform its most useful function. Environmental control regulations, zoning regulations, deed restrictions, or any other limitation on the rights of ownership can enhance or detract from a property's utility and value.

¹ Definitions of the four factors are taken from The Appraisal of Real Estate 9th Edition, 1987, American Institute of Real Estate Appraisers, Chicago, Illinois, pp 22-23.

CONCLUSION OF THE ECONOMIC FEASIBILITY OF TDR IN EAST AMWELL (Continued)

B. Scarcity: the present or anticipated supply of an item relative to the demand for it.

1. If demand is constant, the scarcity of a commodity makes it more valuable. Land, for example, is still relatively abundant; but useful, desirable land is relatively scarce and therefore, has greater value. Real property cannot have value unless scarcity is coupled with utility.

C. Desire: a purchaser's wish for an item to satisfy needs...or individual wants beyond essential life support needs.

1. Desire, along with utility and scarcity, is considered in relation to purchasing power.

D. Effective purchasing power: the ability of an individual or group to participate in a market -- that is, to acquire goods and services with cash or its equivalent.

1. The consideration or estimate of the value of real property includes an accurate judgement of the market's ability to pay for the property.

The implementation of a TDR program must consider the complex interaction of the four factors that create value. The program, its sending and receiving areas, and the TDRs must have utility (usefulness), scarcity (limitations on availability), desire (demand), and effective purchasing power (a price which is affordable to interested parties). Without the presence of these factors, the TDR program and its components will have no value.

IV. Four Forces Which Influence Real Property Values

A. Social Trends

1. Population Demographics (how will a TDR community change East Amwell's demographics?)
2. Crime/Litter
3. Perceived Quality of Life

CONCLUSION OF THE ECONOMIC FEASIBILITY OF TDR IN EAST AMWELL (Continued)

B. Governmental Controls and Regulations

1. Provision, Quality, and Extent of Public Services (fire and police, utilities, refuse, transportation, schools, recreation, etc.)
2. Political (potential for the concentration of political power in new residents in denser development)
3. Impact on Tax burden

C. Economic Circumstances

1. Impact on Property Values in Sending Areas
2. Impact on Property Values in Receiving Areas
3. Impact on Property Values of Adjoining Properties
4. Impact on Property Values in the Community
5. Potential Benefits to Residents of the Municipality
6. Hard Costs to the Municipality
7. Risks and Liabilities to Municipality
8. Availability of Qualified Developers/Financiers
9. Supply/Demand for TDR Community Housing
10. Employment Opportunities and Purchasing Power of TDR Residents

D. Environmental Conditions

1. Impact on Natural Resources (streams, ground water, viewsheds, wildlife, etc.)
2. Impact of Traffic
3. Environmental Impact on Properties Adjoining the Receiving Area

V. Conclusions of the Study of Economic Feasibility

The study of the economic feasibility of a voluntary program of transferrable development rights in East Amwell Township produces the conclusion that if the development of a TDR community were legally permissible, it is not currently economically feasible. Nevertheless, changes in market forces or a legislative mandate might make it feasible in the future. Therefore, it seems prudent to continue to study the TDR concept and eventually implement an enabling ordinance so that, in the event of such a change, the development of a TDR community would be a permissible alternative.

CONCLUSION OF THE ECONOMIC FEASIBILITY OF TDR IN EAST AMWELL (Continued)

The study of economic feasibility revealed a number of recommendations, should an enabling ordinance be considered. To be viable, a TDR program must consider many factors, some of which are listed below:

- The public and all affected parties must be involved in the planning process. The inclusion and education of all stakeholders is paramount.
- Strong enabling legislation must exist. Municipal ordinances, zoning, and master plans must be supported by all regional and state regulatory agencies.
- A TDR program should be simply designed without regulatory complexities. The TDR program should fit the needs of all of those involved in the planning of the development process -- the regulatory agencies and the landowners and developers.
- The TDR program should be easily understood and flexible.
- The TDR program should be promoted and facilitated. A specific individual should be available to answer questions and to assist in the approval/education process.
- The TDR program should be periodically reviewed and updated in order to monitor, and adjust if necessary, the market performance of the program.
- Development and design standards should not discourage development.
- The cost and time required for the permit and approval process must not be more burdensome than the process for conventional development (if possible, they should be less).
- Demand for housing (particularly, higher density housing than that which is allowed by existing zoning) must outweigh existing supply.
- The receiving area should be ready for immediate development.
- Development densities must be sufficient to attract a developer.
- Adequate and affordable sources of water and disposal of sewerage effluent must be available (public water and sewer lines must be available in the case of denser development).

CONCLUSION OF THE ECONOMIC FEASIBILITY OF TDR IN EAST AMWELL (Continued)

- In a voluntary TDR program, incentives such as downzoning with bonus densities for TDR program participation, will improve the program's chances for success.
- In both mandatory and voluntary programs, the operation of a TDC Bank will facilitate the development process, and the likelihood of the program's success.
- A receiving area must be carefully chosen, so that it is marketable and will create sufficient demand from both developers and end-users.
- An equitable formula for the assignment of TDCs must be carefully structured, implemented, and periodically monitored. While land which would not be developable under a conventional development scenario should not receive development credits, marginal land must not be penalized to the degree that TDR program participation is discouraged.
- The value of TDCs must be monitored and be kept at equitable levels. A proper balance must be maintained between the supply of available credits in the sending area and the available development density in the receiving area. An over-supply in the sending area will reduce TDC value, and vice versa.

The recommendations outlined above are a summary of some of the factors which would facilitate a viable TDR program. However, as stated above, the study of the economic feasibility of a voluntary program of transferrable development rights in East Amwell Township produces the conclusion that if the development of a TDR community were legally permissible, it is not currently economically feasible.

This conclusion is based on a number of factors. Firstly, the marketability of the TDR concept is questionable to all stakeholders: the municipality, the residents and large-landowners in the sending and receiving areas, the residents adjacent to these areas, and to developers and financiers. Secondly, the sufficiency of the level of demand for housing -- particularly, for housing at densities which are higher than that which are currently permitted by existing zoning -- is questionable in the East Amwell market. Thirdly, there is not sufficient infrastructure available in East Amwell Township. More particularly, there are no public water or sewer

CONCLUSION OF THE ECONOMIC FEASIBILITY OF TDR IN EAST AMWELL (Continued)

systems, and cursory examination of the physical characteristics of the land in East Amwell² reveals that the land's capacity to absorb sewage effluent is limited (especially when considering development densities which are greater than that which is currently allowed by existing zoning). Fourthly, the construction of such a community would outstrip the current capacity of existing public services in East Amwell Township. And finally, as a result of all of the above factors, and other lesser factors, development of such a community would not produce a residual profit sufficient to motivate a developer/entrepreneur to undertake such a project, at the present time.

After all of the above analysis, it is clear that the successful implementation and operation of a voluntary TDR program is dependent on the four factors which create real property value, the four forces which influence the real estate market, and on the variables which affect the economic feasibility of the real estate development process. If TDR development is not economically feasible, then developers will not be motivated to undertake it. Therefore, for TDR development to be a practical development alternative, a TDR program must provide for higher-density development than that which is otherwise permissible which is served by sufficient infrastructure, in an environment which is characterized by strong positive marketability, with decreased costs and risks, with a streamlined approval process, and with a higher comparative residual profit. Until these conditions are present, voluntary TDR development will remain a theoretical, rather than practical, development alternative.

VI. Maximal Productivity

Subsequent to the consideration of the Economic Feasibility of a voluntary TDR program in East Amwell Township, the question of maximal productivity must be addressed from both the developer's and the Township's perspective. Maximal productivity considers the most productive method of accomplishing a goal, when a number of alternatives are present.

² Re: Study done at the Hidden Valley site, and limitations which are known regarding the soils which are found throughout the Township.

**CONCLUSION OF THE ECONOMIC FEASIBILITY OF TDR IN EAST AMWELL
(Continued)**

From a developer's perspective, maximum profitability is the goal, and the question of maximal productivity becomes "which form of development will produce the highest level of profitability?" Therefore, even if it is economically feasible to develop a TDR community, it may be more productive to develop a conventional community. If the Township's mandate is to make voluntary TDR a practical and realistic development alternative, it must also plan so that TDR is not only economically feasible, but so that it is also the most productive form of development for a developer.

From the Township's perspective, preservation of agricultural land and open space is the goal, and the question becomes "how will preservation be accomplished at the most affordable cost?" Therefore, even if it is economically feasible for the Township to permit TDR development, the cost of it may be greater than the cost of other preservation alternatives (i.e. TDR development might not be the most productive method of agricultural and open space preservation).

TDR PROGRAM COMPONENTS TO CONSIDER

- I. **MUNICIPAL MASTER PLAN PROGRAM GUIDELINES**
 - *program purpose and rationale
 - *proposed method for program implementation
 - *desired locations/composition of sending and receiving areas indicated on proposed land use map and proposed zoning changes map
- II. **DEP-APPROVED WASTEWATER MANAGEMENT PLAN**
 - *proposed types of sewerage facilities, projected flows, and ownership
 - *proposed sewer service areas
 - *consistency between sewerage service areas and zoning
- III. **IMPLEMENTING REGULATIONS**
 - *credit allocation mechanism
 - *zoning map showing sending and receiving districts
 - *schedule of zoning limitations
 - *zoning regulations (district purposes and provisions regarding permitted and conditional uses)
 - *procedures for credit transfers, recordation, administration
 - *coordination with standard development review process
 - *schedule of review/administrative fees (if any)
 - *open space standards and guidelines for receiving districts (required amount, permitted uses, ownership/maintenance requirements, design standards)
 - *architectural and site design standards for receiving districts (building materials, landscaping, streetscapes, stormwater management)
- IV. **SAMPLE APPLICATION FORMS, DEED RESTRICTIONS, ETC.**

APPENDIX IN SUPPORT OF CHAPTER V -

PIG Application to SADC
October, 1999

APPLICATION FOR
PLANNING INCENTIVE GRANT

SUBMITTED TO

HUNTERDON COUNTY
AGRICULTURAL DEVELOPMENT BOARD

AND

STATE AGRICULTURAL DEVELOPMENT COMMITTEE

FROM

EAST AMWELL TOWNSHIP

HUNTERDON COUNTY, NEW JERSEY

OCTOBER 1999

CONTENTS OF PLANNING INCENTIVE GRANT APPLICATION

Cover Letter from Mayor Hamilton

Executive Summary of Farmland Preservation Plan and Planning Incentive Grant Request

FARMLAND PRESERVATION PLAN, element of East Amwell Master Plan

Scheduled for adoption at Public Hearing on October 20, 1999
Resolution Of Planning Board Adoption Of Master Plan Element
(to be forwarded on October 21, 1999)

Includes the following sections, as required by law, by the CADB or the SADC

- An inventory of farm properties
- A map of East Amwell Project Areas, including preserved farms
- Discussion of municipal ordinances promoting agriculture
- Discussion of dedicated funding source and exhibits of five year financial plan
- Discussion of East Amwell's Agricultural Advisory Committee

ATTACHMENTS – HUNTERDON COUNTY ONLY

Contractual Status Of Each Property (Copies Of Contracts, Agreements, Etc)

Easement Purchase Applications



Municipal Offices
1070 Route 202/31
Lingoes, NJ 08551-1051
(908) 782-8536
Fax (908) 782-1967

October 8, 1999

Mr. Peter Melick, Chairman
Hunterdon County Agricultural Development Board
County Administration Building
One East Main Street
Flemington, NJ 08822

Dear Mr. Melick, *Peter*

East Amwell is pleased to submit an application for your consideration under the new Planning Incentive Grant program. As you know, East Amwell has been a very active participant in farmland preservation for more than a decade. Our current farmland preservation initiatives constitute the mid-point of a long term plan to preserve most of the farmland in our community. Through advancing 100% of the funds to landowners, we have been able to offer the landowners a quick schedule to closing date and to assure the community that those farms will be preserved forever. Nevertheless, we are still a small town, and we cannot afford to preserve farmland without the significant help of state and county cost sharing.

The opportunity for the municipality to be reimbursed quickly through the auspices of the PIG program is very attractive. Several of the farms included in the PIG application have also been ranked in the top ten of the Hunterdon CADB 2000A round. If these farms are funded through the PIG, then they will be removed from the list of finalists for 2000A, allowing other farms from other towns to move into the top places in the easement purchase program. In 1998, before we changed our zoning, our offer of the "Equity Protection Program" (which is described in detail in the Farmland Preservation Plan) was very well received. Five landowners accepted this offer, and separate preservation contracts have been reached with the Kanach family and a group of the Amwell Valley Conservancy, with landowners Bond and Everitt. Therefore the total dollar amount of our request for PIG funding is over \$6.8 million.

Our PIG application is based on our own history of farmland preservation and our current needs, as well as our conversations with the legislation's sponsor Assemblywoman Connie Myers and the staffs of SADC and CADB. We recognize that the application is a large one. We hope that you are able to accept and approve the

application as it is submitted. However, if considerations such as competitive demand for PIG funding from other municipalities makes this impossible, we would appreciate an opportunity to meet with you to discuss ways that our application might be modified to fit into your program rather than having our application rejected because of its size. For example, we could discuss which farms should be funded through PIG and which farms would stay in the easement purchase program. We also could discuss the proposed scheduling of Phases I and II for state and county payments. Finally, we could discuss the East Amwell cost share. However, East Amwell has made commitments to many landowners for fixed prices, which means that East Amwell's real cost share will be more than the proposed 18% if appraisals are lower than East Amwell's promise to landowners. These offers were absolutely necessary to convince landowners to accept farmland preservation, since developers were and are still willing to bid prices that may appear more attractive to many landowners.

We applaud the new PIG program, and hope that we will be one of the first municipalities to be awarded a PIG grant. And we expect that we will return in a few years for additional PIG funding for more farms, such as the ones targeted for future preservation as shown on our Maps. Our goals are broader than the preservation of scattered individual farms; we are working to preserve farming as the essential nature of East Amwell Township for the long term. Thank you for your consideration.

Sincerely,

A handwritten signature in cursive script that reads "Les Hamilton".

Les Hamilton, Mayor

EXECUTIVE SUMMARY

EAST AMWELL'S APPLICATION FOR A PLANNING INCENTIVE GRANT

This application package includes the requirements for a Planning Incentive Grant of the Hunterdon County Agricultural Development Board and the State Agricultural Development Committee. The Farmland Preservation Plan is considered to be the primary document of the application.

The Farmland Preservation Plan with Maps and Exhibits has been approved by the Agricultural Advisory Committee, the East Amwell Township Committee, and the Planning Board. It is scheduled for a Public Hearing and adoption as an element of the Master Plan on October 20, 1999. Proper public notice has been given to advertise this date.

The Farmland Preservation Plan meets the statutory requirements of the Planning Incentive Grant legislation. It contains background information about East Amwell's history of farmland preservation, and it describes the role of the Agricultural Advisory Committee and the local ordinances which support farming as a business. It also discusses the recent "Equity Protection Program", identifies two East Amwell Project Areas, and proposes farms to be preserved with Planning Incentive Grant funds and other farms which will be preserved through easement purchase or other programs.

Farmland preservation activities currently being pursued include 1769 acres of farmland, owned by 16 different families. Of this total, the Planning Incentive Grant (PIG) application includes 1224 acres at an estimated total cost of \$6.8 million. These are identified and described in Exhibits II and III.

East Amwell proposes that funding for the PIG farms be divided into two phases. Furthermore, it assumes that the SADC cost share would be approximately 65% and proposes that the CADB cost share be 17%, with the Township taking an 18% cost share. Where East Amwell has previous contractual commitments with landowners, East Amwell's actual cost share would include any extra amount above the final appraised value. The first phase of SADC funding would occur in 1999, and the second phase of SADC funding would occur in 2000. The two phases of CADB funding would be spread over four calendar years: Phase I in 2000 and 2001, and Phase II in 2002 and 2003. This phasing schedule and respective cost shares for SADC and CADB are shown in Exhibit IIIB.

No phasing or cost shares for East Amwell are presented in Exhibit III B, because in most cases, East Amwell has advanced or will be providing 100% funding to the landowner at an earlier closing date. PIG funding offers an opportunity for East Amwell to be reimbursed for the state and county cost shares which will help to reduce the local debt burden, which is now near 80% of capacity.

FARMLAND PRESERVATION PLAN

An Element of the East Amwell Master Plan

Adopted: October 20, 1999

Prepared by Members of the Planning Board, the Agricultural Advisory Committee,
and the Township Committee
With assistance from Banisch Associates, Inc.

TABLE OF CONTENTS

STATEMENT OF PURPOSE	1
<u>BACKGROUND</u>	1
A DECADE OF PARTICIPATION IN FARMLAND PRESERVATION.....	1
AGRICULTURAL BASE STUDY.....	2
“PLANNING FOR FARMING IN THE FUTURE OF EAST AMWELL”.....	4
MUNICIPAL ORDINANCES THAT SUPPORT AGRICULTURE AS A BUSINESS	4
AGRICULTURAL ADVISORY COMMITTEE.....	5
<u>FARMLAND PRESERVATION INITIATIVES</u>	6
1998 EQUITY PROTECTION PROGRAM	6
OUTREACH TO LANDOWNERS.....	7
TWO EAST AMWELL PROJECT AREAS	8
EAST AMWELL – EAST PROJECT AREA	8
EAST AMWELL – WEST PROJECT AREA.....	10
<u>FINANCIAL PLAN</u>	11
DEDICATED TAX AS A SOURCE OF FUNDING FOR FARMLAND PRESERVATION	11
FARMS INCLUDED IN THE PLANNING INCENTIVE GRANT APPLICATION.....	12
OTHER FINANCIAL MECHANISMS FOR FARMLAND PRESERVATION	12
FIVE-YEAR FINANCIAL PLAN.....	13
CONCLUSION	13

EXHIBITS

- I. MAPS OF EAST AMWELL FARMLAND PRESERVATION PROJECT AREAS AND FARMS TO BE PRESERVED
- II. INVENTORY AND CHARACTERISTICS OF FARMS
- III. FIVE YEAR FINANCIAL PLAN
Notes to Exhibit IIIA and IIIB
IIIA - Summary Data re: Farms being Preserved
IIIB – Five Year Financial Plan with State and County Timelines
- IV. FINANCING EAST AMWELL’S DEVELOPMENT RIGHTS ACQUISITIONS
- V. BROCHURE – “A GREEN TOMORROW”

FARMLAND PRESERVATION PLAN

EAST AMWELL TOWNSHIP

STATEMENT OF PURPOSE

This document has been prepared as a Farmland Preservation Plan element and amendment to the East Amwell Master Plan. The document provides the information specified in legislation adopted in June 1999, P.L. 1999 – Ch.. 180 4:1c – 43.1, which established the farmland preservation Planning Incentive Grant program.

A farmland preservation plan element, which shall include: an inventory of farm properties and a map illustrating significant areas of agricultural land; a statement showing that municipal ordinances support and promote agriculture as a business; and a plan for preserving as much farmland as possible in the short term by leveraging monies made available by P.L. 1999 – Ch. 152 13:8c-1 – 13:8C-42 (Garden State Preservation Trust Fund) through a variety of mechanisms including, but not limited to, utilizing option agreements, installment purchases and encouraging donations of permanent development easements.

In addition, it provides a history of East Amwell Township's farmland preservation program, and describes the most recent farmland preservation initiatives sponsored by the Township, known as the Equity Protection program, one of the strategies in the August 1998 Land Use Plan amendment titled "Planning for Farming in the Future of East Amwell."

BACKGROUND

A DECADE OF PARTICIPATION IN FARMLAND PRESERVATION

East Amwell Township has been one of the more active municipalities in the State of New Jersey in the Farmland Preservation program for the past decade. In 1988, 72% of township voters approved a \$2 million bond referendum question, authorizing the first stable source of municipal funding for farmland preservation. During this period, many farmers applied directly to the Hunterdon County Agricultural Development Board (CADB) for selection into the farmland preservation program. While not all applicants were successful, owners of ten farms totaling 1,223 acres were accepted, and this farmland was preserved. In addition, during the first decade of participation, the State Agricultural Development Committee (SADC) acquired one property (150 acres) under the fee simple program, and owners of three properties (205 acres) preserved their farms through donation of their land or development easements. Ten other farms, totaling 352 acres, were enrolled in the Eight Year program; however,

TABLE A

EAST AMWELL TOWNSHIP
PERMANENTLY PRESERVED FARMLAND

<u>OWNER</u>	<u># ACRES</u>	<u>PRICE/ACRE</u>	<u>TOTAL COST</u>	<u>E. AMWELL COST</u>	<u>DATE</u>
Manners	123	\$11,775	\$1,426,965	\$142,696	1989
Hill/Eiref	131	\$10,000	\$1,294,770	\$129,477	1989
Totten	136	\$10,000	\$1,347,200	\$134,720	1989
Kinderman	57	\$2,875	\$165,970	\$74,636	1990
Thompson	163	\$5,229	\$834,790	\$125,218	1991
Thompson	123	\$5,664	\$677,352	\$101,602	1991
Gulick	215	\$4,900	\$1,016,370	\$203,274	1993
DuFosse	130	\$4,600	\$602,521	\$167,658	1995
Weeden	79	\$3,541	\$279,314	\$100,966	1995
Mack/Garrett	66	\$3,400	\$224,400	donation of local share	1998
TOTAL	1,223		\$7,869,652	\$1,180,247	
<u>FFF SIMPLE</u>					
Van Marter/Thompson	146	\$9,734	\$1,421,200	SADC fee simple purchase	1997
<u>DONATION OF EASEMENTS</u>					
Denton/Denton	104	DONATION			1994
Rosenborg	46	DONATION			1997
Gardner	55	DONATION			1998
<u>PENDING CLOSING*</u>					
Sowsian (note a)	150	\$5,000	\$750,000	\$190,000	1997
Schwab (note b)	146	\$5,750	\$838,350	\$223,074	1998
Nemeth (note c)	60	\$4,800	\$288,000	\$45,600	1999
TOTAL	1,930		\$11,167,200	\$1,638,291	

* East Amwell has closed with Sowsian and Schwab, but has not held its closing with SADC or CADB to be reimbursed for their cost shares.

Note a - Easement on Sowsian farm purchased by East Amwell Township and closing was held with landowner in 1997.

Note b - Easement on Schwab farm purchased by East Amwell Township, and closing was held with landowner in 1998.

Note c - Nemeth farm was submitted by owner and ranked in top group by Hunterdon CADB in 1998 and by SADC in spring 1999.

VR, BBW 9/15/99

MASTER PLAN AMENDMENT - LAND USE ELEMENT
"PLANNING FOR FARMING IN THE FUTURE OF EAST AMWELL"

The long term vision of East Amwell is to retain farming as a central aspect of the Amwell Valley. In August 1998, the Planning Board adopted a new Land Use Plan amendment for the Amwell Valley Agricultural District, an area about two-thirds of the township encompassing approximately 12,000 acres. The key policy developed by the Planning Board is that the land, an essential natural resource for farming, should be protected for continued agricultural use.

Too often, towns have watched passively as their agricultural land is converted slowly or quickly from farms into residential housing, strip malls, office parks and other commercial development. The challenge for the Planning Board was to devise new strategies to retain these important lands and viable farming opportunities. Three coordinated strategies were developed, including:

- a land use and zoning approach focusing on a new concept of "open lands ratio" zoning - implemented through new zoning adopted in March 1999;
- incentives for farm-related businesses and other opportunities for farmers to improve profitability, including a strengthened Right-to-Farm ordinance;
- financial strategies to accelerate the preservation of farmland through the NJ Farmland Preservation program. (which can now be implemented through Planning Incentive Grant funding as well as the traditional farmland preservation program).

MUNICIPAL ORDINANCES THAT SUPPORT AGRICULTURE AS A BUSINESS

One of the three strategies for preserving farming in East Amwell is to provide incentives for farmers to seek additional opportunities for income, beyond the cultivation of crops or raising of animals. The business of farming is subject to risks of weather, commodity markets, and government regulated pricing policies. Even though agricultural yields have increased over time, the costs of seed, fertilizer, equipment, fuel and labor have usually increased faster than the income derived from sale of agricultural products. Therefore, a community that seeks to preserve its farmland must also be prepared to support its farmers. Farmers of the future will need to be creative entrepreneurs to improve their profitability. A municipal government will need to support these entrepreneurial farmers and permit them to develop new business opportunities to enhance their income. East Amwell has been committed to supporting the business of farming as well as to preserving farmland. The adopted Land Use Plan amendment includes the following as a goal statement:

Recognize agriculture as a significant economic industry in the community and encourage economic opportunities in this industry.

Three ordinances that were adopted during the past several years broaden opportunities for farm-based businesses, including :

- allowing micro-breweries on a farm. This permits farmers to grow crops, and by processing them on the farm, convert a low value raw agricultural product into a retail product that can be sold at much higher prices, improving profitability.
- allowing the sale of a wide variety of products in a permitted Farm Market along the highway. These provisions allow the farm market to supplement the crops grown on the farm with non-farm products for greater income. In addition, an expanded farm market draws an increased number of customers, assists in maintaining the business during the off-season, and enables this operation to compete with other highway retailers.
- adopting a strong Right to Farm ordinance (with notices in homeowner's deeds as well as in a mailing with tax bills). The deed notification alerts homeowners to the primary objective in the area of retaining and expanding agricultural operations. It acknowledges to new residents that there may be agricultural practices, such as spraying and late night operations that must be respected, and it signals to homeowners that nuisance complaints against the farmers will not be tolerated.
- In addition, the Agricultural Advisory Committee, working with the Planning Board, is developing a new farm-based business ordinance, which seeks to permit diverse business opportunities on farm properties for additional household income. This will allow farmers to make productive use of underutilized land and buildings. It will decrease the farmer's reliance solely on sales of farm products by providing additional sources of income, and it will permit compatible uses that also provide services to township residents.

AGRICULTURAL ADVISORY COMMITTEE

The Agricultural Advisory Committee, first appointed in East Amwell Township in the mid-1980s, gives members of the farming community a recognized role and voice in the farmland/farming issues before the municipal government. The members of the Agricultural Advisory Committee have included full-time working farmers as well as part-time farmers with such backgrounds as real estate or banking. Committee membership is currently five members; however, in some years, the committee has had as many as nine members. The Township Committee generally appoints one person to serve as a liaison between the Planning Board and the Agricultural Advisory Committee with membership on both boards. This gives the farming community a voice on Planning Board business. East Amwell named its first Farmland Preservation Coordinator in 1988, to serve as a liaison with the Hunterdon County Agricultural

Development Board. The coordinator is usually a member of the Agricultural Advisory Committee or works closely with them.

The Agricultural Advisory Committee offers advice and comment on all farmland-related issues under consideration by the Planning Board, the Environmental Commission, the Board of Health, and the Township Committee. These include individual applications for residential development and policy issues, such as stream corridor protection and woodlot and forestry management practices. They also comment on land use ordinances proposed by the Planning Board, the Environmental Commission or the Township Committee.

While the recommendations of the Agricultural Advisory Committee are not always the final policies adopted, the influence of the Agricultural Advisory Committee is far-reaching, and decisions are significantly shaped by advice of members of this committee. Finally, the Agricultural Advisory Committee encourages local participation in the farmland preservation program, and it plays a major leadership role in developing financial terms and offers to farmers. These efforts serve to accelerate the pace of farmland preservation in East Amwell.

FARMLAND PRESERVATION INITIATIVES

1998 EQUITY PROTECTION PROGRAM

In 1997, when the Planning Board was beginning to develop the new Master Plan and discuss possible future changes in zoning, the Mayor appointed a small committee, consisting primarily of farmers and major landowners, to develop some alternatives that could preserve a lot of farmland and also protect farmer's equity with land values based on the previous (then current) three acre zoning density. Using financial tools to preserve farmland is one of the three key strategies proposed in the Master Plan amendment, adopted in August 1998, "Planning for Farming in the Future of East Amwell". Because some farmers expressed concerns that property values might be reduced if zoning density was lowered, the township decided to offer compensation to all farmers interested in preserving their land at the appraised values prior to a zoning change. Thus, it was named "Equity Protection Program". A similar feature has now been incorporated into State law in the Garden State Preservation Trust Act, by using zoning density in place as of November 1998 as the basis for appraisals.

The working group considered various financing alternatives, and it concluded that leverage from debt financed through municipal bonds was the best approach. An overview of the different alternatives and an explanation of this decision are contained in Exhibit IV - "Financing East Amwell's Development Rights Acquisitions". Ultimately, the committee agreed to recommend the traditional, familiar and legal mechanisms of farmland preservation through direct and simple municipal acquisition of the development easements, with the closings scheduled either now or in the future. An important consideration was that this type of preservation could be implemented

immediately, whereas there might be a time lag of several years to develop legal authorization for more innovative concepts. For those farmers who were willing to defer the closing into the future, an option alternative was offered. The option program commits the land to be preserved in the future with a small annual payment to the landowner.

The Township Committee agreed to acquire development rights on as many parcels of farmland as there were interested sellers. East Amwell committed to advance 100% of the purchase price for development rights to landowners, giving the landowners a much earlier closing date than if they applied independently through the easement purchase program. East Amwell always planned to submit these properties to the CADB and the SADC for permanent preservation and cost sharing under the auspices of the State and County easement purchase programs.

Specific details of the Equity Protection program were developed as follows:

- \$5,500 per acre for development rights or the appraised value, whichever is higher. (Hunterdon CADB was using an option price of \$4,500 per acre which was well below recent appraisal values)
- An option to defer the closing for three to five years. The landowner would receive 1% payment per year as an option payment, and at closing, the final price of the development rights would be increased by 4% per year.

OUTREACH TO LANDOWNERS

In early 1998, a brochure describing these financial offers was mailed to all eligible landowners (over 50 acres and in the Amwell Valley zone). See Exhibit V - "A Green Tomorrow". Landowners were invited to a meeting and follow-up phone calls and appointments were made. Through the balance of 1998, a final list of farm properties which would be preserved was developed, and an appraiser was hired to conduct appraisals of the land values. These appraisals were based on three-acre zoning, which remained the law until March 25, 1999.

Landowners who decided to enroll in farmland preservation with East Amwell's Equity Protection program include Battle, McLarty, Hill, Menchek and Scibilia. Preservation of the Kanach farm had begun earlier. Preservation of the Bond/Everitt farm on Frontage Road includes the Amwell Valley Conservancy as a partner. Halstead accepted an option agreement, with option payments to be made in the four years 1999 - 2002, and a closing in 2003.

Contract negotiations between these landowners and the Township have been underway since 1998, and appraisals were also conducted in 1998. Contracts have been signed with several landowners. Closings with the landowner and the township are scheduled, in most cases, to be held during 1999. The landowner will receive 100% of the value of the development rights from East Amwell at these closings. These farms are

included in the request for Planning Incentive Grant funding. They are discussed in the following sections, and their characteristics are included in Exhibit II.

The new Planning Incentive Grant program enables East Amwell to be reimbursed for its advances of state and county cost shares in a timely manner. As East Amwell receives these funds, it will have borrowing capacity available for additional negotiations and transactions in the future. New legislation adopted in 1999 authorizes installment purchases, eliminating one of the problems with this method that was identified in 1998 (see Exhibit IV for further explanation). Installment purchase transactions will be proposed to landowners in the future, under the auspices of this new legislation.

TWO EAST AMWELL PROJECT AREAS

Agricultural Development Areas (ADA) are the target areas mapped by the Hunterdon County Agricultural Development Board as locations for preserving farmland permanently. The Amwell Valley Agricultural District, a zoning district, comprises about two-thirds of the township with approximately 12,000 acres of farmland. The zoning district and East Amwell's ADA are almost identical. As US Route 202/31 bisects East Amwell, the Township proposes to establish two project areas: East and West, with the highway as the logical dividing line. Exhibit I - (map) "East Amwell Preserved Farmland and Project Areas" shows the Agricultural Development Areas (ADA) and the two project areas.

Preservation of farmland in the Amwell Valley Agricultural District is of strategic importance on the western side of Hunterdon County and the State. East Amwell remains a largely agricultural community, and it serves as a buffer from the development pressures further north, east and south of the Township. East Amwell's agricultural district merges into agricultural areas to the north and west in West Amwell and Delaware Townships. To the south, the northern portion of Hopewell Township also contains much agricultural land. By building a solid block of agricultural land in this part of Hunterdon County, East Amwell can be a catalyst for further agricultural preservation in this region. This critical mass of viable farmland is also essential for maintaining a strong farming industry.

EAST AMWELL - EAST PROJECT AREA

Description: This project area encompasses the bulk of the Amwell Valley. It is bordered by Old York Road and Raritan Township on the north, Rainbow Hill Road and Hillsborough township on the east, the southern slope of the Sourland Mountains to the south and Route 202/31 to the west. Soils in the East project area are primarily Class II and Class III. Soil types include Penn, Bucks, and Reaville, with pockets of Lehigh and Chalfont. Back Brook and the Neshanic River cross the East project area, and there are some wooded areas along these stream corridors.

Past Preservation: Over the past ten years, many farm properties have been preserved in the East project area. These farms have been preserved through the traditional program of easement purchase, through donation of a farm in fee simple to a non-profit, through donation of the development rights to the SADC, through partial donations of some of the value of preservation, and through a fee simple purchase by the SADC. Several properties are also enrolled in the eight year program.

Kanach Family Farms: The single most important farmland preservation accomplishment for East Amwell has been arriving at a signed contract for the successful preservation of the Kanach family farm, a 485 acre block of farmland along both sides of Manners Road. Although this property had been under contract for a golf course and housing development in the late 1980s, in 1996, the Kanach family decided to try to preserve the farm. After more than two years of negotiations with representatives from SADC, CADB, Hunterdon County Parks Board, and East Amwell Township, an agreement was reached with the family under which they will sell the development rights on more than 300 acres of farmland to the Township and sell 170 acres in a fee simple transaction to Hunterdon County. During the negotiation, new buyers for some of the deed-restricted farmland became part of the transaction. East Amwell will be closing on the property in the fall of 1999, following two years of contract negotiations. Planning Incentive Grant (PIG) funds are requested for the Kanach family farms. One parcel requires definition of subdivision lines before the final closing can take place; this is included in the group of farms PIG Phase II.

Current Preservation: Current plans for farmland preservation in the East project area, in addition to the Kanach farm, include direct acquisition of easements by East Amwell Township on five properties, and traditional application for easement purchase by the landowner through the CADB on four other properties. One of the easement purchase applicants (Nielsen/Galloway) is also included in the PIG application. One other farm, currently owned by two families, is included in the request for Planning Incentive Grant funding. Each family owns a small property, but through farmland preservation, the Ruberto family intend to acquire and merge with the adjacent piece of farmland, creating a total of 70 acres which will be preserved and farmed. In addition, an option for long-term preservation has been reached with one property owner, and discussions are occurring with two property owners about the possibility of a bargain sale/partial donation of their development rights. A description of each property in the project area currently planned for farmland preservation is shown in Exhibit II - Inventory and Characteristics of Farms. Planning Incentive Grant funds are requested for six properties (plus Kanach) in the East project area - Battle, Hill, McLarty, Menchek, Nielsen/Galloway, and Ruberto. Landowner Battle plans to subdivide two small lots, and landowner Hill needs to identify the location of the RDSO. These details will be worked out over the next several months, therefore these two properties are included in the group of farms PIG Phase II.

Future Preservation: Over the next ten years, during the life of the Garden State Preservation Trust fund, future plans for farmland preservation in the East project area

include owners of several larger parcels who have expressed an interest in one of the preservation alternatives. These include the following:

FUTURE PRESERVATION IN THE EAST PROJECT AREA

<u>LANDOWNER</u>	<u>ACRES</u>
Holcombe	96
Petrolino	39
Reiter	100
Van Doren	145
Weilenta	100
Zuegner	80

The total acreage of these properties for future farmland preservation is 560 acres. With an estimated value of development rights at \$6,000 per acre, the total estimated cost of preserving these farms would be about \$3,360,000.

EAST AMWELL – WEST PROJECT AREA

Description: The West project area is bounded by Route 202/31 on the east, and lies adjacent to the village of Ringoes. The boundaries of Delaware Township and West Amwell Township lie along the northwest and southwest borders of the West project area respectively. All of the West project area is included in the Agricultural Development Area, as shown on Map I. Soils in the West project area are prime agricultural soils, primarily Class II and Class III, predominantly of the Bucks and Penn varieties. Most of the farmland in the West project area is large open fields.

Past Preservation: Prior farmland preservation in the West project area includes the first donation of development rights in the State by the Rosenborg family in 1997, as well as smaller properties enrolled in the eight year program. While some of the larger farms had been applicants in the traditional ranking program in previous years, for various reasons, such as low appraisal values and competitive ranking, the larger farms have not yet been preserved.

Current Preservation: The preservation of a 339 acre parcel, owned jointly by Bond and Everitt, is the highlight of the current preservation plans for the West project area. This parcel is adjacent to land being preserved by the Amwell Valley Conservancy in West Amwell Township. Amwell Valley Conservancy (AVC) is a partner with East Amwell in preserving this tract. East Amwell is buying the development rights, and AVC is buying the deed restricted land. Another farm, the home of Whistle Stop Nursery, a successful vegetable and nursery business, is being preserved directly by East Amwell. A third property is enrolled in the traditional easement purchase program. The characteristics of these farms are presented in Exhibit II – Inventory and Characteristics of Farm

Properties. Planning Incentive Grant funds are requested for two of the three properties which are being preserved in the West project area (Bond/Everitt/AVC and Scibilia).

Future Preservation: The West project area has excellent soils and several large active working farms. The West project area will be a priority for future farmland preservation activity in East Amwell Township. Several farmers have indicated an interest in possible farmland preservation in the future. These include:

FUTURE PRESERVATION IN THE WEST PROJECT AREA

LANDOWNER	ACRES
Case	94
Perkovich	111
Perehynys	275
F. Rynearson	80
H. Rynearson	85
Stahl	160

The farms noted above are a total of 805 acres. At values of \$6,000 per acre for development rights, the estimated total cost of preserving these farms would be \$4,830,000.

FINANCIAL PLAN

DEDICATED TAX AS A SOURCE OF FUNDING FOR FARMLAND PRESERVATION

In 1988, East Amwell voters authorized a non-binding referendum for up to \$2 million of local tax dollars to fund farmland preservation. This was the funding source for the first ten years of East Amwell's farmland preservation activity. Short term debt was issued to provide funds at each closing, and then several years of short term debt were combined for issuance of a long term bond. Two long term bonds were issued in 1993 and 1998.

While there were still uncommitted balances remaining of the \$2 million bond authorization, the general approach throughout the State to funding of land preservation shifted from bonding to a dedicated tax. Accordingly, in 1998, the Mayor appointed a task force to recommend the appropriate level of a dedicated tax. After considering the level of funding necessary to pay for all of the farms under contract, and considering the voter's willingness to support additional taxes, the committee recommended a referendum question regarding a dedicated tax of \$0.04 per \$100 of assessed valuation be placed on the November 1998 ballot. This ballot question passed with a 62% majority. A \$0.04 dedicated tax will raise about \$148,800 per year, at current assessed valuations. Actual municipal expenditures for farmland preservation have exceeded this amount in recent years.

The combination of long term borrowing with principal and interest payments from an annual appropriation in the municipal budget, plus the funds that will be raised annually through a dedicated tax, enables East Amwell to minimize the expense to the taxpayer while maximizing the amount of preserved acreage. By using leverage, which is achieved through short and long term borrowing, we stretch payments out over time. Payments of principal and interest are made over a long period of time, generally 20 years, to the holders of the bonds. In East Amwell's case, the total borrowing through 1999 includes \$1.2 million for our local share of farms preserved in the past, plus \$1.6 million of commitments to preserve Sowsian and Schwab, farms where we expect partial reimbursements from county and state, and an additional \$6 million of commitments represented by the farms in our Equity Protection program. This multi-million dollar commitment is funded through an annual appropriation of approximately \$444,000 in 1999.

FARMS INCLUDED IN THE PLANNING INCENTIVE GRANT APPLICATION

In the 1998 Equity Protection program, East Amwell committed to advance 100% of the funding to landowners who agreed to participate. Although this initiative predates the Garden State Preservation Trust fund, the Planning Incentive Grant legislation, and the installment purchase legislation, East Amwell believes that its Equity Protection program initiative is representative of the type of pro-active planning for farmland preservation that is intended through the Planning Incentive Grant program. Therefore, East Amwell has included those farms with which it has contracts under its own Equity Protection program in the Planning Incentive Grant. These farms have been identified and described previously, and Exhibit III A indicates their status. East Amwell has already held or will be holding closings with these landowners in 1999 or early 2000. Therefore, East Amwell will be ready to hold its closings with the state and county as soon as those agencies are prepared. By East Amwell stepping in to "front" 100% of the funds to the landowner, the landowner has received payment, and the farm has been preserved. East Amwell is anxious to receive the state and county cost shares for these properties as soon as possible to reduce the municipal debt load, which is near 80% of capacity.

OTHER FINANCIAL MECHANISMS FOR FARMLAND PRESERVATION

Other financial mechanisms are also being pursued with regard to preserving farms in East Amwell Township. Several properties have enrolled directly in the traditional program, CADB round 2000 B, and will not be receiving the 100% advance from East Amwell. Descriptions of these properties are included on Exhibit II Inventory and Characteristics, and they are listed on Exhibit III, but funding for them will come from the traditional easement purchase program. In addition, there are two properties which may be preserved through an arrangement with a non-profit organization; the landowner would accept a 50% value and donate the balance, under a transaction called a "bargain sale". These bargain sale transactions are under discussion

now, and landowners prefer anonymity, however the properties have been included in Exhibits II and III.

FIVE-YEAR FINANCIAL PLAN

The total farmland preservation plan in the two project areas includes 1769 acres of farmland, owned by 16 different families. The total cost to preserve all of this land is more than \$8 million. Of this total, 1224 acres at an estimated cost of \$6.8 million are included in the Planning Incentive Grant request. Because of the magnitude of the numbers, East Amwell proposes a multi-year schedule of participation by the SADC and CADB. Please refer to Exhibits III A and III B with Notes of Explanation, which present a five-year plan for state and county cost sharing through the PIG program. East Amwell proposes that the SADC share be approximately 65% of appraised values, with state cost sharing divided into two phases over two calendar years. East Amwell proposes that the county cost share be 17% with two phases of county cost sharing spread out over four years. The farms listed for state cost sharing (Phase I) in 1999 are those where East Amwell has closed or is about to close, therefore, most of the preparation and other background work have been completed. East Amwell's share will be 18% of appraised values, as well as any difference between East Amwell's contractual price with the landowner and the appraised value.

CONCLUSION

In conclusion, East Amwell's Farmland Preservation Plan shows past successes, present commitments, and future possibilities. East Amwell requests funding for its present commitments through the Planning Incentive Grant program from the CADB and the SADC. Contracts and agreements with landowners are already in place, and appraisals have been conducted. Public support for farmland preservation funding has been demonstrated repeatedly, including the most recent approval of a 4c dedicated tax.

East Amwell has protected a very sizable area of farmland through its investment in farmland preservation over the past decade, as well as the current unprecedented municipal outreach to preserve farmland through the "Equity Protection" program. It makes good sense to add to an existing large project area, as this consolidated farmland area improves the climate for continued agriculture. The additional investment of farmland preservation dollars will be supported by a local government with pro-agriculture business policies. There will be people willing and wanting to farm in this area in the future, even if a farmer in the future may be different than a farmer of yesterday or today. With such a significant mass of preserved farmland, East Amwell will be attractive to those people who want to pursue farming with minimal intrusions from conflicting residential land uses. The community has been a leader in the farmland preservation program for more than a decade, and it plans to continue as an active, viable and diverse farming community into the next century.

EXHIBIT II

INVENTORY AND CHARACTERISTICS OF FARMS IN PROCESS OF PURCHASE OF DEVELOPMENT RIGHTS

Name	Program	Block/Lot	Acres	% Tillable	Agricultural Use	Soils (%)
PROJECT AREA WEST						
Kanach, G. and J.	PIG - Phase I	20/23, 02	53	99%	Field Crops, Beef Cattle	A-19%, D-49%, C-31%
Kanach, J. and M.	PIG - Phase I	20/22	52	92%	Field Crops, Beef Cattle	B-56%, D-43%
Kanach, J. and G.	PIG - Phase I	18/18	74	97%	Field Crops, Beef Cattle	A-7%, B-40%, C-19%, D-31%
Kanach, S. J. and M.	PIG - Phase II	20/24, 20/24, 02, 20/6	130	81%	Field Crops, Beef Cattle	A-15%, B-23%, C-30%, D-12%
Battle	PIG - Phase II	18/23	79	85%	Field Crops, Beef Cattle	A-8%, B-54%, C-30%, D-5%
McLarty, Richard	PIG - Phase I	25/9	91	85%	Field Crops, Equine	A-5%, B-26%, C-31%, D-19%
Halsead	PIG - Future	20/17, 07, 20/18	109	72%	Field Crops, Nursery, Vegetables	A-13%, B-59%, C-8%, D-21%
Hill	PIG - Phase II	21/19	50	76%	Field Crops	B-70%, C-28%
Ruberto/Peabody/Manners	PIG - Phase II	24/11, 08, 24/11	70	92%	Field Crops, Equine, Dairy	A-27%, B-49%, C-17%
Ménchek	PIG - Phase I	30/16, 30/12	49	98%	Field Crops, Plants	D-60%
Nielsen/Galloway	PIG - Phase II	32/1	88	98%	Field Crops, Grapes	A-21%, B-47%, C-18%, D-12%
Russell	2000B	27/47, 31/3	97	74%	Field Crops	B-7%, C-33%, D-28%
Geils	2000B	27/7	49	82%	Field Crops	B-10%, C-71%
Hookenbury	2000B	18/3	64	99%	Field Crops	A-3%, B-42%, D-52%
Anwell Road	Other	21/2, 2, 03	170	88%	Field Crops	B-29%, C-59%
Anwell Road	Other	18/1	109	96%	Field Crops	A-72%, B-29%
PIG Total or Average			845	89%	Field Crops, Beef Cattle	A-14%, B-42%, C-24%, D-27%
Total or Average			1334	84%	Field Crops, Beef Cattle	A-19%, B-36%, C-31%, D-28%
PROJECT AREA EAST						
Bond/Everitt/AVC	PIG - Phase I	7/6, 8/4, 8/24, 8/1, 8/24, 03	339	99%	Field Crops	A-31%, B-44%, C-24%
Seiblin	PIG - Phase I	11/37	40	72%	Vegetables, X-mas Trees	A-95%, D-5%
Everitt	2000B	3/1, 3/2, 02	56	91%	Field Crops	A-25%, B-36%, C-22%, D-18%
PIG Total or Average			379	86%	Field Crops, Vegetables	A-63%, B-44%, C-24%, D-5%
Total or Average			434	87%	Field Crops, Vegetables	A-50, B-40%, C-23%, D-12%
GRAND TOTAL OR AVERAGE						
PIG Total or Average			1224	88%	Field Crops, Beef Cattle	A-39%, B-43%, C-24%, D-16%
Total or Average			1769	86%	Field Crops, Beef Cattle	A-35%, B-38%, C-27%, D-20%

HHC 10/01/99

EXHIBIT IIIA

FIVE YEAR FINANCIAL PLAN FOR PURCHASING DEVELOPMENT RIGHTS OF EAST AMWELL FARMS

OWNER	CADB RANK	ACRES	STATUS	PROGRAM FOR COST SHARING	ESTIMATED TOTAL COST	SADC %	IOIALS CADB%	EA %
PROJECT AREA EAST							17	18
Kanach, G. and J.	2	53	1999 closing	PIG - Phase I	\$318,000	\$206,700	\$54,060	\$37,240
Kanach, J. and M.	15	52	1999 closing	PIG - Phase I	\$312,000	\$202,800	\$53,040	\$56,160
Kanach, J. and G.	6	74	1999 closing	PIG - Phase I	\$444,000	\$288,600	\$75,480	\$79,920
Kanach, S., J. and M.	n.a.	130	1999 closing	PIG - Phase II	\$780,000	\$507,000	\$132,600	\$140,400
Ballie	9	79	2000, subdivision	PIG - Phase II	\$474,000	\$308,100	\$80,580	\$85,320
McLarty	11	91	1999 closing	PIG - Phase I	\$546,000	\$354,900	\$92,020	\$98,280
Halstead	14	109	option until 2003 *	PIG - Future	\$436,000	\$283,400	\$74,120	\$78,400
Hill	40	50	2000, exception	PIG - Phase II	\$264,000	\$171,600	\$44,680	\$47,520
Ruberlo	n.a.	70	In discussion, 2 year payout	PIG - Phase II	\$385,000	\$250,250	\$65,450	\$69,300
Menchek	17	49	closed on 8/25/99	PIG - Phase I	\$294,000	\$191,100	\$49,980	\$52,820
Nielson/Galloway	2000B	88	applicant 2000B	PIG - Phase II	\$484,000	\$314,600	\$87,120	\$87,120
Russell	2000B	97	applicant 2000B	traditional	\$533,500	\$346,775	\$90,695	\$96,030
Gellis	2000B	49	applicant 2000B	traditional	\$269,500	\$175,175	\$45,815	\$48,510
Hockenbury	2000B	64	applicant 2000B	traditional	\$352,000	\$228,800	\$59,640	\$63,360
Arnwell Road	n.a.	170	non-profit, donation	to be determined	\$0	\$0	\$0	\$0
Arnwell Road	n.a.	109	bargain sale discussion	to be determined	\$0	\$0	\$0	\$0
TOTAL - EAST		1334			\$5,892,000	\$3,829,000	\$1,001,640	\$1,060,560
PROJECT AREA WEST								
Bond, Everitt, AVC	5	339	closing on 3/31/2000	PIG - Phase I	\$1,054,500	\$4,211,925	\$316,955	\$335,610
Scibilia	10	40	1999 closing	PIG - Phase I	\$240,000	\$156,000	\$40,800	\$43,200
Everitt	2000B	56	applicant 2000B	traditional	\$308,000	\$200,200	\$52,360	\$55,440
TOTAL - WEST		435			\$2,412,500	\$1,568,125	\$410,125	\$434,250
GRAND TOTAL		1769			\$8,304,500	\$5,397,925	\$1,411,765	\$1,494,810
PIG TOTAL		1224			\$6,841,500	\$4,446,875	\$1,163,055	\$1,231,470

* option @ 1% per year for 4 years, full payment in 2003

Refer to Notes of Explanation, which provide necessary information to interpret this Exhibit.

EXHIBIT III B

FIVE YEAR FINANCIAL PLAN: PLANNING INCENTIVE GRANT FUNDING FOR PURCHASING DEVELOPMENT RIGHTS OF EAST AMWELL FARMS

OWNER	ESTIMATED TOTAL COST	TOTALS		1999		2000		2001		2002		2003	
		SADC %	CADB% EA %	SADC \$\$\$	CADB \$\$\$	SADC \$\$\$	CADB \$\$\$	SADC \$\$\$	CADB \$\$\$	SADC \$\$\$	CADB \$\$\$	SADC \$\$\$	CADB \$\$\$
PROJECT AREA EAST													
Kanach, G. and J.	\$318,000	65	\$54,060	\$57,240	\$206,700	\$27,030	\$27,030	\$27,030	\$27,030	\$27,030	\$27,030	\$27,030	\$27,030
Kanach, J. and M.	\$314,000		\$53,040	\$56,160	\$202,800	\$26,520	\$26,520	\$26,520	\$26,520	\$26,520	\$26,520	\$26,520	\$26,520
Kanach, J. and G.	\$444,000		\$75,480	\$79,920	\$286,600	\$37,740	\$37,740	\$37,740	\$37,740	\$37,740	\$37,740	\$37,740	\$37,740
Kanach, S., J. and M.	\$780,000		\$132,860	\$140,400	\$507,000	\$507,000	\$507,000	\$507,000	\$507,000	\$507,000	\$507,000	\$507,000	\$507,000
Balle	\$474,000		\$80,560	\$85,320	\$308,100	\$308,100	\$308,100	\$308,100	\$308,100	\$308,100	\$308,100	\$308,100	\$308,100
McLarty	\$546,000		\$92,820	\$98,260	\$354,900	\$46,410	\$46,410	\$46,410	\$46,410	\$46,410	\$46,410	\$46,410	\$46,410
Halslead (note 1)	\$436,000		\$74,120	\$78,480	\$283,400	\$171,600	\$171,600	\$171,600	\$171,600	\$171,600	\$171,600	\$171,600	\$171,600
Hill	\$264,000		\$44,880	\$47,520	\$171,600	\$250,250	\$250,250	\$250,250	\$250,250	\$250,250	\$250,250	\$250,250	\$250,250
Ruberto	\$385,000		\$65,450	\$69,300	\$250,250	\$24,990	\$24,990	\$24,990	\$24,990	\$24,990	\$24,990	\$24,990	\$24,990
Manchek	\$294,000		\$49,860	\$52,920	\$191,100	\$191,100	\$191,100	\$191,100	\$191,100	\$191,100	\$191,100	\$191,100	\$191,100
Nielsen/Galloway	\$484,000		\$82,280	\$87,120	\$314,600	\$314,600	\$314,600	\$314,600	\$314,600	\$314,600	\$314,600	\$314,600	\$314,600
Russell	traditional												
Gatts	traditional												
Hockenbury	traditional												
Amwell Road	bar gain sale												
Amwell Road	discussion												
PIG TOTAL	\$4,737,000		\$805,290	\$852,860	\$3,079,050	\$1,244,100	\$1,244,100	\$1,244,100	\$1,244,100	\$1,244,100	\$1,244,100	\$1,244,100	\$1,244,100
PIG Phase I Total	\$1,914,000		\$325,380	n. a.	\$1,244,100	\$1,244,100	\$1,244,100	\$1,244,100	\$1,244,100	\$1,244,100	\$1,244,100	\$1,244,100	\$1,244,100
PROJECT AREA WEST													
Bond, Everitt, AVC	\$1,864,500		\$316,865	\$335,610	\$1,211,925	\$158,483	\$158,483	\$158,483	\$158,483	\$158,483	\$158,483	\$158,483	\$158,483
Scibilla	\$240,000		\$40,800	\$43,200	\$156,000	\$20,400	\$20,400	\$20,400	\$20,400	\$20,400	\$20,400	\$20,400	\$20,400
Everitt	traditional												
PIG TOTAL	\$2,104,500		\$357,765	\$378,810	\$1,367,925	\$1,367,925	\$1,367,925	\$1,367,925	\$1,367,925	\$1,367,925	\$1,367,925	\$1,367,925	\$1,367,925
PIG Phase I Total	\$2,104,500		\$357,765	n. a.	\$1,367,925	\$1,367,925	\$1,367,925	\$1,367,925	\$1,367,925	\$1,367,925	\$1,367,925	\$1,367,925	\$1,367,925
PIG TOTALS	\$6,841,500		\$1,163,055	\$1,231,470	\$4,446,975	\$2,612,025	\$2,612,025	\$2,612,025	\$2,612,025	\$2,612,025	\$2,612,025	\$2,612,025	\$2,612,025

Note 1 - Halslead option terms: East Amwell pays \$6,000 per year for option; closing in 2003

Refer to Notes of Explanation, which provide necessary information to interpret this Exhibit.

NOTES OF EXPLANATION FOR EXHIBIT III A AND III B

Exhibit III A

This exhibit provides list of all farms by project area. East Amwell is divided into two project areas: East and West. PIG funding is sought for the purchase of development rights on some farms in both the East and West project areas, with some farms in both areas to be preserved through the traditional easement purchase program.

CADB RANK: Most of these farms were applicants in the CADB 2000A round of funding. Their CADB rank order is shown. If they are funded through PIG, then they will drop off the list of ranked farms, allowing other farms to move up in the ranking. Several other farms are new applicants for the 2000 B round of funding.

STATUS: "1999 closing" status means that East Amwell has or expects to hold a closing with landowner in 1999. East Amwell plans to provide 100% of the value of development rights to landowner at this closing. Necessary paperwork has been completed, i.e., contract, appraisal, and survey. Subsequent closings between the SADC and CADB and East Amwell will be to reimburse East Amwell for cost shares from state and county programs.

Program for Cost Sharing: PIG Phase I and PIG Phase II groups are based on expected date of East Amwell closing. The PIG Phase I group are expected to close with East Amwell during calendar year 1999. PIG Phase II group needs some additional paperwork, however these should be ready to close in 2000. Neilsen/Galloway and Ruberto are not under contract with East Amwell. Farms listed as "traditional program" will continue to be ranked through the 2000B round. East Amwell has not committed to a closing with these farms.

Estimated Total Costs: These costs are from Hunterdon CADB July 21, 1999 ranking worksheet. As appraisals are completed and certified values are finalized, the total costs, and therefore cost shares for CADB and SADC will change. In many cases, East Amwell has a previous contractual commitment with landowner regarding price for development rights. Where East Amwell's price differs from (is greater than) the final appraised value and certified price, East Amwell's share will include that difference in price plus its calculated 18% cost share of the certified value.

Exhibit III B provides the five-year financial plan for the PIG farms only.

SADC funding - It assumes SADC funding would be divided into two calendar years. It assumes that 100% of the SADC cost share would be paid to landowner at closing date (or to East Amwell if East Amwell has held a prior closing with the landowner.)

CADB funding - It assumes that the CADB funding would be spread over four years. It assumes that 50% of the CADB cost share would be paid to the first group of farms in each of the two years 2000 and 2001, and that 50% of the CADB cost share would be paid to the second group of farms in each of the two years 2002 and 2003, except Halstead. When option is exercised, on or before 2003, Halstead would receive all of SADC and CADB funds directly at closing.

Exhibit IV - Financing East Amwell's Development Rights Acquisitions

CADB and SADC memos regarding Planning Incentive Grants provide for preferential treatment for applications that use innovative financial methods to leverage available funds. East Amwell has been a leader in local efforts to identify and make use of such mechanisms because of the magnitude of our past and present acquisitions and our future preservation opportunities. This section describes our investigations, details what we have learned from them, and explains why East Amwell has, to date, made use only of public tax exempt financing and option agreements for purchases of development rights.

East Amwell's current preservation efforts may be limited because the debt that the Township has incurred or has committed to for the purpose of farmland preservation amounts to about 80% of the township's allowable limit. Furthermore, nearly half the municipal tax levy (\$0.12 out of \$0.26) is now directed to acquisition of development rights or debt service on previous acquisitions, not including a major acquisition commitment for the year 2000.

The township has researched both the economic and legal implications of various methods of funding such purchases, including

- purchases funded by issuing tax exempt bonds or notes,
- level payment installment purchases,
- long term purchase commitments with minimal up-front payments,
- option agreements, and
- landowner agreements not to develop for a period of time in return for various monetary and non-monetary considerations.

Considerable effort has also been devoted to encouraging donations, bequests and bargain sales, instances of which in the past ten years account for 662 acres of preserved land in the township.

In cases where a full or partial donation has not been possible, the township has to date used only two of the above listed mechanisms: tax exempt financing to fund immediate purchase and option agreements enabling the township to purchase development rights within a five year period. The advantages and disadvantages the township considered in making this selection are outlined below.

Tax Exempt Financing offers the following characteristics:

- (1) in the year of issuance, the municipality must have budgeted 5% of the face amount; no other payment is required in that year;
- (2) as long as the debt is kept in short term notes, the current interest rate is approximately 3% and no principal payments are required; this appears attractive now, but would pose risks if rates rise;
- (3) debt service costs for 20 year bonds, including both principal and interest, are about 8% of face value per annum; and

(4) some costs related to the land transaction may also be included in the borrowing, further reducing the immediate pressure on the municipal budget. Such financing obviously offers significant leverage in that upwards of 20 times the amount of development rights can be acquired in the initial year for the same money that would be expended without any financing mechanism, but the cost is recurring and increases when the debt is funded long term.

Level Payment Installment Purchases offer characteristics similar to those of tax exempt financing, but appear to be less attractive to both landowners and the municipality. Specific disadvantages include:

- (1) the landowner is unlikely to accept as long a term of years as the public market, resulting in higher annual principal payments;
- (2) related costs must be paid out of the current budget rather than included in a borrowed total; and
- (3) the rate of actual or implied interest paid to the landowner is normally taxable and therefore likely to be about 50% higher than in the tax exempt market. Even if the installment agreement could be structured so that the interest payments were tax exempt, it is unlikely that a farmer with relatively low taxable income would be willing to accept the same rate as a high bracket bond investor.

Long Term Purchase Commitments initially appeared to be an attractive way of leveraging resources, but for practical purposes they offered little difference from level payment installment purchases. If the budget impact could have postponed to some future year when the property might have been accepted in the state program, shorter terms and higher rate assumptions, compared to tax exempt financing, could have been accepted. However, municipal finance rules provided that such a future commitment must be funded in the current budget as if actual installment payments were due and counted against the township's debt limit. These rules completely negated the apparent advantage of deferring actual payment.

Option Agreements have represented East Amwell's way of postponing the principal payment to the landowner, while avoiding the necessity to make annual provisions for it in current budgets. These agreements were offered to a number of landowners after the 1999 budget for immediate acquisitions through debt financing was stretched as far as deemed reasonable. Under such an agreement, the township has the right to acquire development rights at any time over a five year period for a base price of \$5500 per acre or the appraised value, whichever is higher, plus an escalation of 4% per year in lieu of part of the interest component. The township also offered a cash payment of 1% of the base amount per year, which the landowner would keep whether or not the transaction was ultimately completed.

To avoid the problem of making installment provisions in the current budget, the agreement cannot place any obligation on the township to exercise the option. The landowners were advised that the present members of the township committee were all personally committed to exercising such options, but could not guarantee the action of any future committee. Several landowners considered the option agreement seriously.

One, the owner of a 100+ acre farm, signed up. Another was willing, but decided instead to submit his farm directly into the state program on his own. The others were unwilling to make the one way commitment and tie up their development rights for five years.

Deferral Agreements, under which the landowner would pledge not to develop for a period of years in return for considerations such as reduction or elimination of taxes and insulation from possible zoning changes, were not seriously considered after initial exploration. In part, this was because too many of the provisions that might have been attractive to both township and landowner are prohibited under state law.

While it is possible that additional imaginative approaches might have enabled East Amwell to increase its success ratio and preserve even more farmland, the "keep it simple" principle should be remembered. The state, with all its resources, has for years had only one plain vanilla program for the purchase of development rights and has done very well with it. It has taken an enormous effort for a small township to reach out individually to all owners of more than 50 acres, negotiate seriously with about 20 of them, reach agreements with 8, and complete all the work necessary for closing. Throughout, there was the risk of significant and destructive confusion, which might well have been aggravated if we had attempted to use additional alternatives.

We believe that East Amwell has in fact been innovative through

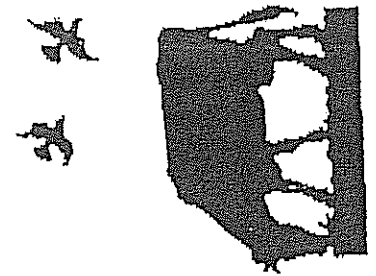
- taking an active initiative to encourage preservation,
- underwriting the purchase of development rights,
- guaranteeing values based on prior zoning before this provision was incorporated into state law,
- providing for subdivision of one or two undersized lots contingent upon more than 50 acres remaining to be preserved, and
- developing the option alternative.

It does not appear appropriate for too much emphasis to be placed on local governments coming up with new techniques. The process of coming to an agreement with a landowner to sell his or her development rights is not an easy area for experimentation. However, any thoroughly developed turn-key mechanisms that the state or county can provide to increase the ability of townships to preserve farmland would be valuable.

Lastly, while it is important to encourage municipalities that have not been proactive to become so, it is also important to enable municipalities that have stretched their financial resources by being proactive, to continue on a course that has proven to be productive. The large contiguous tracts of productive farmland that are a principal objective of the SDRP, SADC, and CADB, are most likely to be achieved by building on the prior initiatives of towns like East Amwell

TRANSFER OF DEVELOPMENT CREDITS

Landowners sells development credits to a private investor who uses them to build houses on another parcel of land at a price negotiated privately.



These are proposals for discussion

A GREEN TOMORROW

Economic Incentives for East Amwell's Farms



Put together by the Agricultural Incentives Subcommittee

March 1998

Township of East Amwell
Agricultural Incentives Sub.
Municipal Offices
170 U.S. Route 202
Langlois, New Jersey
8551-1051

ALTERNATIVES FOR PURCHASING DEVELOPMENT EASEMENTS OR WHOLE PARCEL

Landowner applies directly to the State Program.

East Amwell purchases the Development Easements directly from the landowner. East Amwell applies to the State Program.

East Amwell purchases the Development Easements directly from the landowner and the landowner receives an annuity over a period of years.

LANDOWNER DONATIONS

A landowner donates his/her development easements to the State or some conservation organization.

PURCHASING IN THE FUTURE

East Amwell leases development easements or parcel at an agreed upon price per acre for a certain amount of time. At the end of such time period, East Amwell purchases the development easements or parcel at today's prices plus the average rate of land value growth (based on 3 acre zoning).

Sell development easements or parcel to East Amwell at some time in the future for payment. In the interim East Amwell would pay only interest on the amount.

PARTIAL PURCHASE

If a landowner needs to raise extra money East Amwell buys a small percentage of landowner's development easements.

East Amwell purchases the property from the landowner; deed restricts it, then sells the property to a new owner. East Amwell applies to the State Program to recoup some of the value of the easements.

East Amwell purchases the property, splits off a small percentage of the land for development on areas designated by the planner and engineer of minimal disruptive impact and sells the balance of the property (deed restricted) to a new owner. East Amwell applies to the State Program to recoup some of the value of the easements.



APPENDIX IN SUPPORT OF CHAPTER V

Hunterdon County Planning Incentive
Grant Requirements

Easement Purchase Criteria

APPENDIX IN SUPPORT OF CHAPTER V

Hunterdon County Planning Incentive
Grant Requirements

**Hunterdon County Agriculture Development Board
 Farmland Preservation Program
 County Planning Incentive Grant (PIG)
 Easement Purchase Criteria
9/13/07**

The Hunterdon County Agriculture Development Board (CADB) adopted the following criteria on September 13, 2007 for reviewing County Planning Incentive Grant applications in accordance with the Agricultural Retention and Development Act N.J.S.A. 41C-11 et seq. The summary of the criteria with their relative weights is shown below. For more information on the rules and regulations governing County easement purchase criteria, please contact the CADB office at 908.788.1490.

Summary

Factors which determine the degree to which the purchase would encourage the survivability of the municipally approved program in productive agriculture. (N.J.S.A. 4:1C-31b.(3))

1.0 SOILS	Weight 30
2.0 BOUNDARIES AND BUFFERS	Weight 20
3.0 LOCAL COMMITMENT	Weight 13
4.0 SIZE AND DENS	Weight 24
5.0 SOIL CONSERVATION AND FARM PRACTICES MANAGEMENT	Weight 18

Degree of imminence of change of the land from productive agriculture to nonagricultural use (N.J.S.A. 4:1C-31b.(3))	Weight 6
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Ranking process for preliminary approval	n/a
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Exceptions	Weight +3 to -25
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	Total Weight	89 to 114
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County Planning Incentive Grant Criteria

Encouraging the Survivability of Productive Agriculture

1.0 SOILS - Weight 30

NOTE: Any application receiving a soil score less than 10.0, will be assessed a five point deduction from its soil score.

Formula:	
% Prime soils x 30	=
% Statewide soils x 20	=
% Unique soils x (0 or 25*)	=
% Local Soils x 10	=

Total weight = the sum of the categories

**If a designated unique soil is not being used for its unique purpose, no points will be assigned.*

2.0 BOUNDARIES AND BUFFERS - Weight 20

The weights reflect differences in the permanence of agricultural buffers and the effectiveness of other buffers in reducing the negative impacts of nonagricultural development.

The following weights have been assigned:

1. Deed restricted farmland (permanent)	20 points
2. Deed restricted wildlife areas, municipal, county, or state owned parcels	18 points
3. Streams (perennial) and wetlands	18 points
4. Cemeteries	16 points
5. Parks (passive recreation)	14 points
6. Military installation	14 points
7. Golf Course (public)	14 points
8. Eight year programs and EP applications	13 points
9. Highways (limited access)/Railroads	10 points
10. Farmland (unrestricted)	6 points
11. Woodlands	6 points
12. Parks (high use)	5 points
13. Residential developments (less than six acre lots)	0 points
14. Commercial	0 points
15. Industrial	0 points
16. Schools	0 points
17. Other (Value determined on a case by case basis)	0 points

Formula: The weight of each buffer is multiplied by its percentage of the entire perimeter of the farm. All of the individual scores are totaled for a final score.

3.0 LOCAL COMMITMENT - Weight 13

Priority will be given where municipal, county, regional and state policies support the long term viability of the agricultural industry. Factors indicating support:

- 3.1 Municipal actions that promote agricultural preservation and agricultural viability.
- a. Farm businesses/agritourism are promoted in the municipal master plan (1 point)
 - b. Municipality has previously approved eight year programs. (1 point)
 - c. Development easements have been purchased in the municipality. (1 point)
- 3.2 There is sewer or other growth leading infrastructure serving the premises.
- Yes _____ (0 points)
No _____ (1 point)
- 3.3 Right to Farm Ordinances
The Right to Farm Ordinance requires a developer and/or landowner who plans to build or sell a dwelling in an agricultural area to inform through their agent, prospective purchasers of the existence of the Right to Farm Ordinance and the protection it grants to agricultural operations. This notification is included in the deed and recorded.
(4 points) (Liaisons are required to provide a copy of the ordinance).
- 3.4 The municipality actively supports the reduction of animal damage to farmland by having an animal damage control plan or other means to control wildlife damage.

(0 to 5 points)

The municipality shall identify all municipally owned parcels, greater than 5 acres, by block and lot number and explain the type of animal damage control plan for each parcel (if applicable).

4.0 SIZE AND DENSITY - Weight 24

Individual applications are scored on both size and density with a maximum score of 12 points awarded for size and a maximum of 12 points awarded for density for a maximum total combined score of 24.

4.1 Size (12 points)

Points are based on the size of each individual application relative to average farm size in the respective county according to the latest U.S. Census of Agriculture. Points will be awarded for size up to a maximum of 12 as follows:

$$\text{Points Awarded} = 12 \times \frac{\text{Size of individual application}}{(2 \times \text{county average farm size})}$$

The factor "2" encourages counties to enroll farms above average in size.

4.2 Density (12 points)

The density score will be awarded based on the following:
The application which is not reasonably contiguous (within one-half mile linear distance) with another development easement purchase application approved by the Board and received by the Committee, lands where development easement have already been purchased, other permanently deed restricted farmlands, farmland preservation programs and municipally approved farmland preservation programs in the project area will receive (0) points. One point (1) will be allocated for each reasonably contiguous (within one-half mile linear distance) farmland preservation program or municipally approved farmland preservation program. Two (2) points will be allocated for each of the other above noted lands in the project area which are determined to be reasonably contiguous (within one-half mile linear distance) with the subject application and each other not to exceed a maximum score of 12 points.

5.0 SOIL CONSERVATION AND FARM MANAGEMENT PRACTICES - Weight 18

5.1 Percent of total land actively cropped or actively used for grazing
(Percentage X 2) (Max 2 points)

5.2 Soil conservation measures, other than having land in grass and hay

- S.C. Management Plan on file (*must be filed or updated during the past 15 years up to the application deadline*) (Maximum 1 point)
- Percent of Plan implemented, or if no plan on file with district, physical evidence of on-site S.C. practices such as: terracing, tiling waterways, diversions (Maximum 3 points)
- On-site evidence of good maintenance of installed S.C. practices (Maximum 2 points)

5.3 Good farm management practices employed
Examples: Fertilizing, liming, crop rotation, contour farming, clipping and weed control cover cropping, woodland management.
(Maximum 5 points)

5.4 On-site investments indicating a serious commitment to continue

farming (includes permanent structures, liquid manure, nursery stock underground irrigation systems, etc. The conditions of the buildings will also be considered. Farm equipment will not be considered.)
 (Maximum 5 points) Degree of Imminence of Change - Weight 6

Although the CADB intends to avoid approving applications in areas where the likelihood of suburbanization is high; the likelihood that a farm (application) will be converted to a non-agricultural use will either receive additional points or lose points, according to its degree of imminence of change. *The degree of imminence of change is measured as follows:*

- Farms with less than 50 feet of road frontage -5 points
- Farms with difficult access, such as steep slopes, streams or any other environmental constraints that affect access to the parcel -2 points
- Farms with preliminary subdivision approval +3 points
- Farms owned by an estate or institution and/or filing for bankruptcy +3 points

Ranking Process for Preliminary Approval

The CADB reserves the right to give special considerations to applications in order to accomplish program objectives. This may alter the numerical ranking of the applications. A copy of the program objectives are available at the CADB office.

Exceptions - Weight +3 to -25

Severable Exceptions

Exceptions are portions of an applicant's property not included in the easement purchase application. In general, the Hunterdon County Agriculture Development Board discourages severable exceptions. Factors for determining if there is an adverse effect to the applicant's agricultural operation are as follows:

- \$ severability potential from the premises
- \$ number requested
- \$ size
- \$ percent of premises
- \$ right to farm language
- \$ negative impact on the agricultural operation

No negative points are assessed if the severable exception is for open space purposes.

Criteria for Severable Exceptions

Points

- Each severable exception requested points -5
- The severable exception exceeds the minimum lot size for a dwelling - each lot -1 point
- The landowner restricts the severable exception to only one residential unit +1 point
- Total severable exception acreage exceeds 5% of the tract acreage -1 point

Right to farm language required on the deed of the exception +1 point

X If the CADB determines that the severable exception has a significant negative impact on agricultural productivity, the CADB reserves the right to limit or deny the exception.

NONSEVERABLE EXCEPTIONS

Criteria for Nonseverable Exceptions

The CADB encourages nonseverable exceptions around existing dwellings and principal farm buildings. Nonseverable excepted areas are not separate lots but simply a designated area on the farm that does not receive farmland preservation funding and is not subject to the restrictions in the deed of easement. Nonagricultural uses, in accordance with municipal zoning, would be permitted within this area. The CADB will allow only one per application.

Nonseverable exception around dwelling and principal farm buildings +3 points

If the applicant requests a nonseverable exception on a property that has no dwelling and is not eligible for an RDSO, the CADB encourages such an exception. There is no effect on the applications score. 0 points

For more information, please contact:

Hunterdon County Agriculture Development Board
County Administration Building #1
PO Box 2900
Flemington, New Jersey 08822-2900
908.788.1490
www.hunterdon.nj.us/cadb.htm

12.23.02

APPENDIX IN SUPPORT OF CHAPTER V

State Agriculture Development Committee

Policy P-14-E

Ranking Criteria

STATE AGRICULTURE DEVELOPMENT COMMITTEE

- - POLICY

PRIORITIZATION OF PROJECT AREAS AND INDIVIDUAL APPLICATIONS

I. Purpose

To establish a priority ranking of individual applications to direct the expenditure of farmland preservation bond funds dedicated for the purchase of development easements.

II. Authority

N.J.A.C. 2:76-6
N.J.S.A. 4:1C-31

III. Supersedes

Policy: P-14-A dated 12/15/88
Policy: P-14-A dated 9/21/89
Policy: P-14-A dated 1/18/90
Policy: P-14-B dated 3/25/93
Policy: P-14-C dated 9/28/95
Policy: P-14-D dated 12/19/96

IV. Definition

As used in this Policy, the following words and terms shall have the following meanings.

“Agricultural Development Area, hereafter referred to as ADA, means an area identified by a board pursuant to the provisions of N.J.S.A. 4:1C-18 and certified by the State Agriculture Development Committee.

“Exceptions”, means portions of the applicant’s land holdings which are not to be encumbered by the deed restriction contained in N.J.A.C. 2:76-6.15.

“Project area” means an area identified by a board or the Committee which is located within an ADA and is comprised of one or more development easement purchase applications approved by the board and received by the Committee, lands where development easements have already been purchased, other permanently deed restricted farmlands, farmland preservation programs and municipally approved farmland preservation programs.

“The degree to which the purchase would encourage the survivability of the municipally approved program in productive agriculture” means the degree to which the purchase of a development easement on the farm would encourage the survivability of the project area in productive agriculture.

V. Summary Policy for Ranking Individual applications and Project Areas

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

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

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

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

The Prioritization Policy is organized in accordance with statutory requirements identified in the Agricultural Retention and Development Act N.J.S.A. 41C-11 et seq. and criteria described in N.J.A.C. 2:76-6.16. Listed below is a summary of the major criteria with their relative weights.

A. FACTORS WHICH DETERMINE THE DEGREE TO WHICH THE PURCHASE WOULD ENCOURAGE THE SURVIVABILITY OF THE MUNICIPALLY APPROVED PROGRAM IN PRODUCTIVE AGRICULTURE (N.J.S.A. 4:1C-31b. (2))

1.0	SOILS	Weight 15
1.1	TILLABLE ACRES	Weight 15
2.0	BOUNDARIES AND BUFFERS	Weight 20
3.0	LOCAL COMMITMENT	Weight 20
4.0	SIZE AND DENSITY	Weight 20
5.0	CADB PRIORITIZATION (HIGHEST RANKED APPLICATION)	Weight 10

B. DEGREE OF IMMINENCE OF CHANGE OF THE LAND FROM PRODUCTIVE AGRICULTURE TO NONAGRICULTURAL USE (N.J.S.A. 4:1C-31b. (3))

Weight 10

C. RELATIVE BEST BUY (N.J.S.A. 4:1c-31b. (1))

VI. Specific Methodology for Ranking Project Areas and Individual Applications.

A. FACTORS WHICH DETERMINE THE DEGREE TO WHICH THE PURCHASE WOULD ENCOURAGE THE SURVIVABILITY OF THE MUNICIPALLY APPROVED PROGRAM IN PRODUCTIVE AGRICULTURE.

1.0 SOILS Weight 15

The New Jersey Important Farmlands Inventory prepared in 1990, by the U.S.D.A., Natural Resource Conservation Service is used as the reference to identify soil quality -Prime, Statewide, Unique or Locally Important. A percentage figure for each of these four soil categories is calculated for both the individual application and the project area.

The acreage of each Important Farmland Classification shall be to the rounded to the nearest whole number.

Formula:

% Prime soils x 15= _____
% Statewide soils x 10= _____
% Unique soils x (0 or 12.5*) = _____
% Local soils x 5 = _____

Total weight = the sum of the categories.

* If a designated "unique" soil is not being used for its unique purpose, no points will be assigned. If points are to be awarded for unique soils, the county must provide justification.

1.1 TILLABLE ACRES Weight 15

The Committee shall evaluate tillable acres which emphasize the importance of land use and productivity. Priority will be given to the proportion of land deemed tillable. Factor to consider will be lands devoted to cropland, harvested, cropland pasture and permanent pasture. The following weights have been allocated in the land use classifications below.

Formula:

% Cropland Harvested x 15 = _____
% Cropland Pastured x 15 = _____
% Permanent Pasture x 2 = _____

The following definitions shall be used for evaluating tillable acres.

"Cropland harvested" means land from which a crop was harvested in the current year. Cropland harvested shall include the land under structures utilized for agricultural or horticultural production.

"Cropland pastured" means land which can be and often is used to produce crops, but its maximum income may not be realized in a particular year. This includes land that is fallow or in cover crops as part of a rotational program.

"Permanent pasture" means land that is not cultivated because its maximum

economic potential is realized from grazing or as part of erosion control programs. Animals may or may not be part of the farm operation.

2.0 BOUNDARIES AND BUFFERS: Weight 20

The weights reflect differences in both permanence and the buffers' effectiveness in reducing the negative impacts of nonagricultural development.

The following weights have been assigned:

Deed restricted farmland (permanent)	20
Deed restricted wildlife areas, municipal county or state owned parcels	18
Eight year programs and EP applications	13
Farmland (unrestricted)	6
Streams (perennial) and wetlands	18
Parks (limited public access)	14
Parks (high use)	5
Cemeteries	16
Golf course (public)	14
Military installations	14
Highways (limited access), Railroads	10
Residential Development	0
Other: (landfills, private golf courses)	*

* Value to be determined on a case by case basis at the time of review.

Formula:

$$\text{Weight of buffer} \times \frac{\% \text{ perimeter of project area affected by buffer}}{100} = \text{Total Weight per buffer}$$

Total of all the individual buffer scores = Total boundary and buffers score.

2.1 Negative Consideration:

EXCEPTIONS Weight (Up to -10)

The Committee shall evaluate all exceptions. Factors for determining if there is an adverse effect to the applicant's agricultural operation are as follows:

- * Severability potential from the Premises
- * Number requested
- * Size
- * Percent of Premises
- * Right to Farm language
- * Location and use (negative impact)

NOTE: Each county is responsible for future monitoring of each exception for ensuring compliance with restrictions placed upon the exception.

No negative points are assessed if one or both of the following pertain to the application.

1. The exception is for county and/or municipal farmland preservation and/or open space purposes.
2. The exception cannot be severed from the restricted premises unless associated with an agriculturally viable parcel pursuant to the terms of the Deed of Easement.

If one (1) or two (2) above do not apply, proceed with the following:

A. Number Requested:

For each exception requested: (-2 points)

B. Size:

The size of the individual exception exceeds local zoning requirements to construct one single family residential dwelling.

For each building lot, or portion thereof, in excess of the local zoning requirements: (-1 point)

Note: **If the exception exceeds the local zoning requirement but the landowner agrees to restrict the exception to permit only one residential dwelling, then no negative points shall be assigned.**

C. Percent of Premises:

The total acreage of the exception(s) exceeds 10% of the total acreage. (-1 point)

D. Right to Farm Provisions:

Approved Right to Farm language will be incorporated in the deed of the exception. (1 point)

E. Location and Use:

The location and/or use of the exception has a significant negative impact on the premises. (Max. - 10 points)

NOTE: Each county is responsible for ensuring compliance with restrictions placed upon exceptions.

3.0 LOCAL COMMITMENT: Weight 20 Max.

Priority will be given where municipal, county, regional, and state policies support the long term viability of the agricultural industry. Factors indicating support:

- 3.1 Zoning requiring an average minimum lot of at least three acres with clustering and/or mandatory buffering to provide separation between development and existing agricultural operations and/or use of other measures such as transfer of development credits, sliding scale, very low density zoning and/or any other equivalent measures which discourage conflicting nonagricultural development.

5 points

- 3.2 There is sewer or other growth leading infrastructure serving the premises or within hook-up distance.

Yes ___ 0 points

No ___ 3 points

- 3.3 The purchase of a development easement is consistent with municipal, county, and state plans.

Yes ___ 2 points

No ___ 0 points

3.4 Municipal commitment to actively participate in the Agriculture Retention and Development Program;

- A. Active Municipal Liaison with CADB
- B. Planning board actions regarding nonagricultural development support farmland preservation. (Ex. Planning board requests CADB review of applications for subdivision approval within ADAs.)
- C. Municipal governing body actions regarding nonagricultural development support farmland preservation.
- D. Municipality has previously approved eight year programs.
- E. Development easements have already been purchased in the community.

1 point each

3.5 Right to Farm ordinances

- A. A township that has a "Right to Farm" ordinance.

4 points

- B. The Right to Farm ordinance requires a developer and/or landowner who plans to build or sell a dwelling in an agricultural area to inform through their agent, prospective purchasers of the existence of the Right to Farm ordinance and the protection it grants to agricultural operations. This notification is included in the deed and recorded.

1 point

3.6 Community financial support for the project area/individual application.

Financial support is construed as strong local commitment. Generally, if municipal/private dollars are invested in a project, there is greater care taken by the community to protect the area from the negative effects resulting from the nonagricultural development. The method to compare the many diverse municipalities with respect to their direct financial support for farmland preservation is to measure their total dollar contribution per thousand dollars of current equalized (100%) assessed value for the municipality.

The local contributions include the total of all passed municipal bond referenda and/or allocations from the budget, private or corporate contributions, and funding from any other sources since January 1, 1980 with the exception of landowner donations, county, state, and federal contributions. Landowner donations will be considered under the Relative

Best Buy criterion.

The current Equalized Assessed Value for the municipality will be the one in effect on January 1 of the current year expressed in thousands of dollars.

The assessment of points will be based on an index derived from the following ratio:

Formula:

$$\frac{\text{Total locally committed dollars since Jan. 1980}}{(\text{State Equalized valuation}/\$1,000)^*} = \text{Index}$$

* for the specific municipality

This Equalized valuation figure is listed in the most recent Annual Report of the Division of Local Government Services, prepared by the Department of Community Affairs or may be obtained by contacting the local tax office.

Example 1.

Benefit Township has committed \$1.8 million toward Farmland within the past five years. The State equalized valuation figure divided by 1,000 is 80,120.

The index is calculated as follows:

$$\frac{\$1,800,00}{\$ 80,120} = 22.47$$

Based on the scale, listed below an index of 22.4 is awarded 5 points.

Example 2.

In Harrow Township \$150,000 has been set aside for Farmland Preservation. The state equalized valuation figure divided by 1,000 is \$1,290,839.

The index is calculated as follows:

$$\frac{\$150,000}{\$1,290,839} = .12$$

Based on the scale listed below, an index of .12 is awarded 1 point.

Points will be allocated based on the following scale:

Index of greater than 10	5 points
Index between 7 and 10	4 points
Index between 5 and 7	3 points
Index between 2 and 5	2 points
Index greater than 0 but less than 2	1 point

Discretion may be used in the assignment of points, based on whether or not actual funds have been expended for farmland preservation.

4.0 SIZE AND DENSITY Weight 20 Max.

4.1 Individual Applications:

Individual applications will be scored on both size and density with a maximum of 10 points awarded for density for a maximum total combined score of 20.

4.1(2) Size (Max. 10 points)

Points are based on the size of each individual application relative to average farm size in the respective county according to the latest U.S. Census of Agriculture. Points will be awarded for size up to a maximum of 10 as follows:

$$\text{Points Awarded} = 10 \times \frac{\text{Size of Individual application}}{(2 \times \text{county average farm size})}$$

The factor 2 encourages counties to enroll farms above average in size.

4.1 (3) Density (Max. 10 points)

The density score will be awarded based on the following:

An application which is not reasonably contiguous (within one-half mile linear distance) with another development easement purchase application approved by the board and received by the Committee, lands where development easements have already been purchased, other permanently deed restricted farmlands, farmland preservation programs and municipally approved farmland preservation programs in the project area will receive (0) points. One (1) point will be allocated for each reasonably contiguous (within one-half mile linear distance) farmland preservation program or municipally approved farmland preservation program. Two (2) points will be allocated for each of the other above noted lands in the project area which are determined to be reasonably contiguous (within one-half mile linear distance)

Township Comparisons (relative indices):

1. Township Single Family Unit Permits for 3 years:
(1 pt. max.)
2. Township Farmland Assessed cropland acre loss for 10 years:
(1 pt. max.)
3. Township Farmland Assessed cropland percent loss for 10 years:
(1 pt. max.)

Farm-specific indicators:

1. Subdivision approval (final): 2 pts.
2. Estate situation: 2 pts.
3. Bankruptcy/Foreclosure: 2 pts.

II. Factors considered for evaluation the impact of the farmland Conversion

State Comparisons (relative indice):

1. Combined SADC Quality Scores for size, boundaries, and buffers and density: (0.5 pt. max.)

County Comparisons (relative indice):

1. Combined SADC Quality Scores for size, boundaries and buffers and density: (0.5 pt. max.)

MAXIMUM FOR CATEGORY: (10 POINTS)

The above indices will be updated annually and provided to CADB Staff.

C. RELATIVE BEST BUY (STATUTORY FORMULA)

This criterion will only be evaluated at the time of final Committee review.

$$\frac{\text{Nonagricultural development value} - \text{agricultural development value}}{\text{agricultural landowner asking price}} = \text{formula} = \text{index}$$

“Landowner Asking Price” means the applicant’s per acre confidential offer for the sale of a development easement.

D. FUNDING PRIORITY

1. The Committee's funding priority will be given to those applications which have a higher numeric values obtained by the application of the following formula:

applicant's
quality score + (formula index x 200) = final score

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