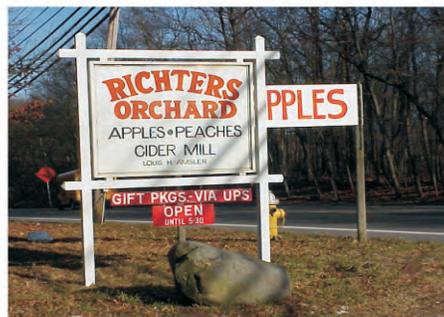


2015

SUFFOLK COUNTY AGRICULTURE & FARMLAND PROTECTION PLAN - 2015



December



PREPARED BY:
SUFFOLK COUNTY DEPARTMENT OF ECONOMIC DEVELOPMENT & PLANNING

*Suffolk County
Agricultural and Farmland
Protection Plan - 2015*

December 2015

Prepared by: Suffolk County Department of Economic Development and Planning

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COUNTY OF SUFFOLK



OFFICE OF THE COUNTY EXECUTIVE

Steven Bellone
COUNTY EXECUTIVE

Agriculture remains an important part of who we are in Suffolk County and is one of the defining attributes to our quality of life. Twenty years ago Suffolk County released its Agricultural and Farmland Protection Plan. Since then, agriculture in Suffolk County has undergone significant changes – we are now closer than ever to achieving the goal of protecting 30,000 acres of farmland with 20,000 acres protected; once dominant potato farms have transformed into wineries, greenhouses, nursery stock and sod; and Suffolk County leads New York State in the value of aquaculture products produced in New York State.

Despite these successes, challenges remain – most significantly the high cost of land and labor, that require new partnerships, commitment, and creativity to tackle complex policy issues and inspire the next generation of farmers.

This report documents the current state of agriculture in Suffolk, defines goals for the future, and outlines recommendations to increase the competitiveness and resiliency for this essential sector of our economy.

I'd like to thank the members of the Suffolk County Agricultural and Farmland Protection Board, especially Chairman Ken Schmitt, the Suffolk County Farmland Committee, the Long Island Farm Bureau, Cornell Cooperative Extension of Suffolk, Peconic Land Trust, the Suffolk County Legislature, town and local municipal staff and local farmers who participated in countless meetings and focus groups, and County staff who developed this report under the leadership of Deputy County Executive Joanne Minieri.

I look forward to working together to ensure that the future of farming in Suffolk is resilient and a productive part of our economy, environment, quality of life, and culture.

Sincerely,

Steven Bellone
County Executive

EXECUTIVE SUMMARY



Agriculture is a vital component of Suffolk County's economy. In fact, Suffolk County is one of the largest agricultural economies in New York State. In 2012, it ranked third in value of agricultural production in the state. It provides fresh, healthy foods, jobs and local sales revenue. Farming is also a way of life that strengthens the community identity and cohesiveness and provides a link to the historical development of Suffolk County. The rural and scenic landscape agriculture provides attracts residents, businesses and tourists. In order to protect the valuable agricultural industry in Suffolk County, the challenges facing the industry must be identified and actionable strategies must be provided to address these challenges.

This plan discusses the history and current state of agriculture in Suffolk County. It examines the 2012 Census of Agriculture for Suffolk County and how the County compares to other counties in New York State and across the nation. Agriculture in Suffolk County has undergone significant changes over the last century. Once home to over 100,000 acres of farmland, suburbanization has reduced that number to about 39,000 acres. Despite a significant loss in farmland in the past, farmland acreage in Suffolk County has remained stable since 1992 and even increased slightly in the last decade. Other changes within the industry include shifts in crops. Once an area known for potatoes, Suffolk County's dominant crops are now nursery stock and sod.

Aquaculture has bloomed within the last decade as an agricultural industry in Suffolk County. The adoption and initial implementation of the new Suffolk County Shellfish Aquaculture Lease Program in 2009 and 2010, respectively, has provided a means of secure access to underwater lands in the Peconic and Gardiners Bays for the cultivation of shellfish. In 2012, Suffolk County ranked number one in the state in the market value of aquaculture products sold. This plan describes the status of aquaculture in Suffolk County and the new Suffolk County Shellfish Aquaculture Lease Program.

An essential part of this plan came from public input comprised of a survey of farmers and focus group meetings. The results assisted in identifying the challenges farmers in Suffolk County are facing today. Some of these challenges include high production costs, high fuel costs, availability of farm labor and property taxes. Many farmers are also concerned about the future profitability of farming and the overall loss of farming in Suffolk County. This plan examines these challenges and concerns and proposes courses of action to address the causes. The feedback received from surveys and focus groups enabled appropriate goals and strategies to be set forth in order to protect and sustain the agricultural industry in Suffolk County

The vision, goals and objectives outlined in this plan build upon the goals and objectives set forth in the 1996 *Agricultural and Farmland Protection Plan* and focus on the preservation and strengthening of the farming industry and the preservation of farmland throughout Suffolk County. The vision is: ***To foster adaptable public policy along with the commitment and***

support of the farming community to protect, encourage and sustain agriculture as an industry for future generations in Suffolk County. The goals are: to preserve agriculture as an essential industry in Suffolk County; to continue to purchase the development rights to the remaining farms that are not protected; to incentivize farmers to implement best management practices; to retain the cultural continuity of farming as a link to the historical development of Suffolk County while attracting new farmers, and diversifying crops, markets, and methodologies; and to maintain the economic viability of the County's agriculture industry.

During the planning process the Suffolk County Division of Planning and Environment undertook an aerial photographic interpretation analysis to identify farmland throughout the County. This study provides vital information to understand the status of agricultural lands and will be used for a number of purposes, including creating a master list of farmland for future purchase of development rights acquisitions. It was found that there are approximately 39,000 acres of farmland in Suffolk County and nearly 20,000 acres are protected by municipal governments and not-for-profit organizations. This leaves approximately 19,000 acres of farmland with no protection. More than 18,000 of these acres are in active agriculture and should be potential prospects for future preservation efforts. The *Nassau-Suffolk Comprehensive Plan Summary* in 1970 recommended the preservation of 30,000 acres of farmland. With approximately 20,000 acres of farmland currently preserved, the goal of 30,000 acres seems attainable and should be strived for. The criteria for an updated rating system for the acquisition of farmland through the County PDR program was outlined in the report. This will assist in prioritizing the remaining farmland that is not protected.

Strategies to promote a viable agricultural industry in Suffolk County are discussed in Chapter 5 through the identification of challenges facing Suffolk County and courses of action to address them. The topics discussed range from the aging farming population to access to affordable land to branding, and direct marketing opportunities, to protecting Suffolk's ground and surface waters. It is an exhaustive discussion of many, if not most, of the critical issues that farmers are facing in Suffolk County today. Through acknowledgement of our challenges and a host of avenues to explore, this plan helps to guide and support Suffolk's agricultural industry into the future.

CHAPTER 1 – History of Agriculture in the County of Suffolk



- **Historic Summary**

Suffolk County occupies the central and eastern portions of Long Island, and has a land area of 912 square miles. The County is bounded to the north, east, and south by water and to the west by Nassau County and the adjacent New York City area. This geographic location with respect to New York City has had and continues to have an important influence on the development of Suffolk County.

Before the 18th century in Suffolk County, Native Americans and early colonists practiced subsistence agriculture. During the 18th and early 19th centuries, extensive commercial farming based on the production of grains and livestock dominated in Suffolk County. The latter part of the 19th century was a period of transition when many technological advances and great population growth in New York City influenced the beginnings of intensive commercial agriculture on Long Island. The advent of the Long Island Railroad in the 18th century and the automobile in the 20th century had a significant impact on agriculture in Suffolk. Potatoes became the main crop.

After World War II, significant large-scale residential development consumed tens of thousands of acres of farmland on Long Island. The eastward movement of population that occurred resulted in the decline and virtual extinction of farming in Nassau County, and then in western Suffolk County.

Due to the rapid suburbanization of Long Island and the significant loss of its farmland in the 1960s, Suffolk County saw the overwhelming need to protect its important agricultural industry and, in 1974, Suffolk created the first Farmland Development Rights Program in the Country. It is the oldest purchase of development rights program and one of the earliest programs to recognize that preservation of agricultural land is difficult without a public acquisition program. The legal interest in property acquired through this County program eliminates all development rights other than those uses necessary for agricultural production. Chapter 8 of the Suffolk County Code is the statute that governs this program and has been recently updated to keep step with the dynamic industry that farming has become in the last decade in Suffolk County.

Suffolk now has the largest population (1.5 million) of any county in New York State, excluding the counties within the City of New York. Even after decades of suburban style development, the County still has one of the largest agricultural economies in the State and more than 39,000 acres of farmland of which about 20,000 acres have been protected through programs such as the County's and now local government farmland protection programs, especially on its East End.

- **2012 U. S. Census of Agriculture**

- **Overview**

The [Census of Agriculture](#) is the leading source of facts and figures about American agriculture. Conducted every five years, the Census provides a detailed picture of U.S. farms and the people who operate them. It is the only source of uniform, comprehensive agricultural data for every state and county in the United States. Participation by every farmer, regardless of the size or type of operation, is vitally important. By responding to the Census, producers are helping themselves, their communities and all of U.S. agriculture.

The 2012 Census of Agriculture collected information concerning all areas of farming operations, including production expenses, market value of products, and operator characteristics. This information is used by everyone who provides services to farmers and rural communities - including federal, state and local governments, agribusinesses, and many others. Census data is used to make decisions about many things that directly impact farmers, including community planning, farm programs, and farm policies.

Table 1-1 displays some summary agricultural statistics for Suffolk County covering the years 1982 through 2012¹.

Table 1-1. Agricultural Statistics, Suffolk County, 1982-2012

	1982	1987	1992	1997	2002	2007	2012
Total Farm Acreage	49,898	41,799	35,353	35,858	34,127	34,404	35,975
Number of Farms	797	696	587	606	651	585	604
Average Acreage Per Farm	63	60	60	59	52	59	60
% of Land in Farmland	8.5%	7.2%	6.1%	6.1%	5.8%	5.9%	6.2%
Total Market Value of Agricultural Sales (\$millions)	\$93.0	\$115.2	\$133.8	\$178.4	\$201.2	\$242.9	\$239.8

Source: [U. S. Census of Agriculture](#)

Between 1950 and 1992, farmland acreage in Suffolk County decreased by 71%. In 2012, farmland in the County totaled 35,975 acres. This figure represents an increase of 1,571 acres or 4.6% since 2007.

Between 1950 and 1992, the number of farms also declined rapidly, from nearly 2,200 in 1950 to less than 600 in 1992. However, since 1992 the number of farms in Suffolk County has remained fairly stable and in 2012 there were 604 farms in Suffolk County. The average acreage per farm has also remained fairly steady in Suffolk County for the past 20 years and in 2012 the average size of a farm in Suffolk County was 60 acres, unchanged since 1992.

¹ 2012 is the most recent U. S. Census of Agriculture. The next Census of Agriculture will occur in 2017 and data from it is expected to be released in 2019.

The 35,975 acres of farmland in Suffolk County represent 6.2% of all land in the County. This figure has remained fairly stable since 1992. In 1982, farmland represented 8.5% of the total County land area.

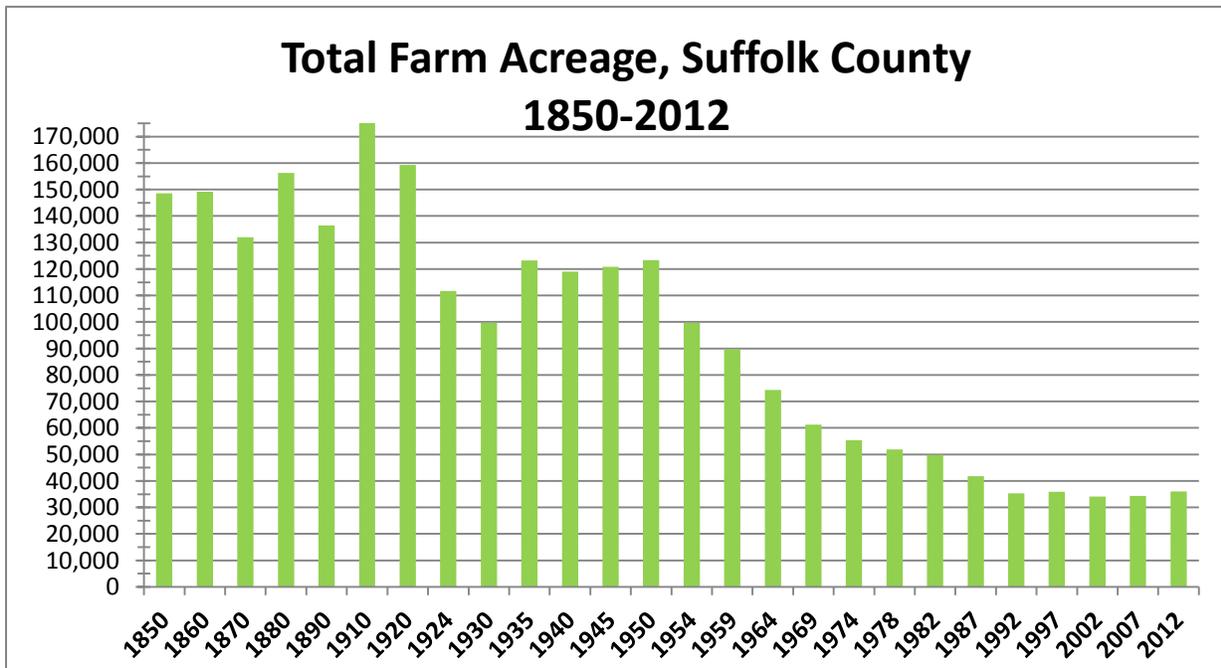
In Suffolk County in 2012, the total market value of agricultural products sold was \$239.8 million. This represented a decrease of 1.3% since 2007. This decrease occurred after significant increases in previous periods. The value of products sold increased by 161% between 1982 and 2007, despite a significant loss of farm acreage in that time period.

- **Farmland Acreage**

Of the 62 counties in New York State, Suffolk County ranked 49th in total farm acreage in 2012. At the same time, the County ranked 3rd in the value of its agricultural production. The relatively small acreage of farmland in the County produces relatively high value products.

The earliest data from the Census of Agriculture dates to 1850. In 1850, Suffolk County had 148,612 acres of farmland, approximately 25% of all land in Suffolk County. Farm acreage in the County remained above 100,000 acres until the 1950s, when a steady rapid decrease in farmland acreage began, lasting until the 1990s. Chart 1-1 displays the total farm acreage in Suffolk County between 1850 and 2012.

Chart 1-1. Total Farm Acreage, 1850-2012

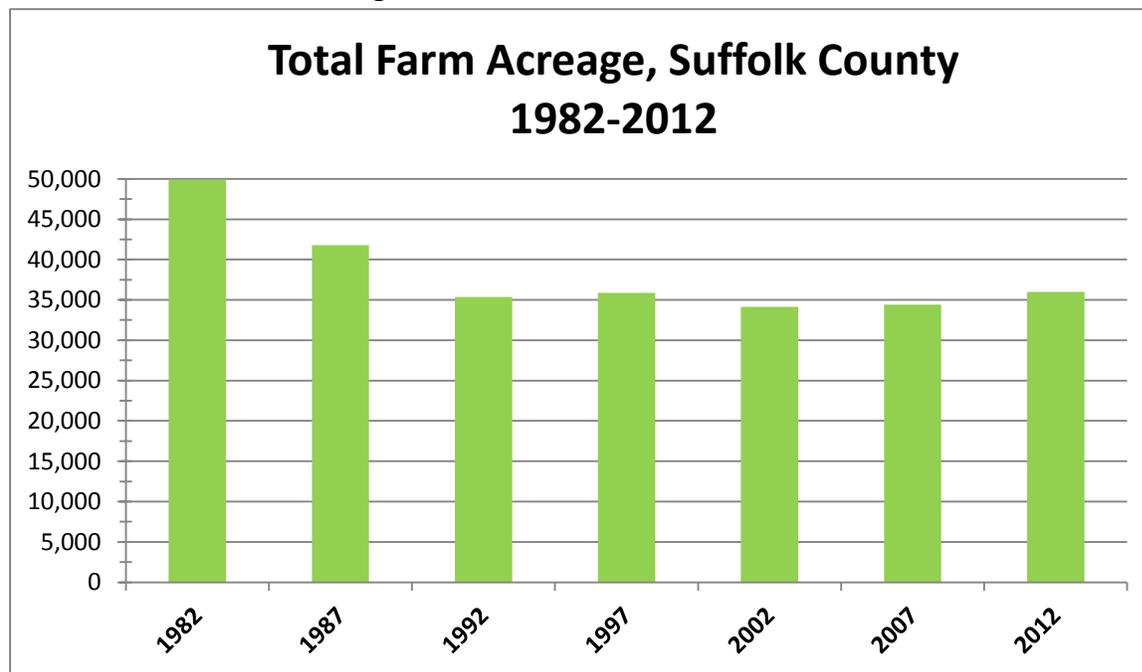


Source: U. S. Census of Agriculture

Between 1950 and 1992, Suffolk County experienced a rapid and significant decrease in the number of acres of land utilized for farmland. Between 1950 and 1992, land in farms decreased from approximately 123,000 acres to 35,000 acres. By 1992, there were 35,000 farm acres in the County, and 71% of the farmland in the County had been converted to other uses between 1950 and 1992.

However, after 1992 the pattern changed, and the number of acres of farmland in the County stabilized and has even increased slightly in the past decade. A closer look at the more recent data on farm acreage in Suffolk County is shown in Chart 1-2. Losses of farmland continued in the County in the 1980s, with a 16% decrease in farmland acres between 1982 and 1987, and a further 15% decrease between 1987 and 1992. Farmland acreage then increased by 1% between 1992 and 1997, decreased by 5% between 1997 and 2002, increased by 1% between 2002 and 2007, and increased by 5% between 2007 and 2012. Farmland acreage in Suffolk County is now 2% higher than it was in 1992.

Chart 1-2. Total Farm Acreage, 1982-2012



Source: U. S. Census of Agriculture

Although Suffolk County ranked 49th out of 62 counties in New York State in farmland acreage in 2012, it is still a leading county in acreage in numerous categories. In 2012, Suffolk County was ranked number one of all 62 counties in New York State in:

- Agricultural square footage under glass

- Acres of irrigated land, with Suffolk County containing 20% of all irrigated land in New York State

Moreover, in 2012 Suffolk County was ranked number one of the 62 counties in New York State in acreage utilized for:

- Sod, with Suffolk County containing 60% of New York State's sod acreage
- cantaloupes
- cauliflower
- pumpkins

Suffolk County ranked in the top ten counties out of the 62 New York State counties in acreage utilized for the following crops, with its 2012 rank in parenthesis:

- spinach (2)
- rye for grain (2)
- lettuce (2)
- peppers (2)
- herbs (3)
- tomatoes (3)
- grapes (3)
- peaches (3)
- broccoli (3)
- potatoes (4)
- cucumbers (4)
- strawberries (4)
- all vegetables (5)
- all berries (6)
- cabbage (7)
- corn (7)
- orchards (7)
- squash (8)

▪ **Farmland Acreage by Crop**

In the past 30 years, there have been noticeable changes in the composition of Suffolk County's farmland acreage. Selected larger crops are displayed on Table 1-2.

Table 1-2. Acreage of Farms by Selected Crop, Suffolk County, 1982-2012

Crop	1982	1987	1992	1997	2002	2007	2012
All Vegetables	7,492	6,912	6,250	5,868	4,762	6,679	6,177
Nursery Stock*	2,693	2,960	3,740	3,902	NA	3,317	3,393
Sod	995	NA	1,179	2,502	3,043	3,785	2,781
Potatoes	18,998	10,358	7,032	5,906	3,248	2,805	2,605
Grapes	NA	1,245	987	1,971	2,282	2,593	2,193

*Grown in the open, not under glass. In 1997 and previous censuses, called “Nursery Crops”. NA – Not Available.

Source: U. S. Census of Agriculture

All vegetables comprised 6,177 acres of farmland in the County in 2012, 17% of all farmland acreage, down 1% since 1992.

Nursery stock comprised 3,393 acres in 2012, but this figure decreased by 9% since 1992, perhaps as a result of more nursery stock shifting to greenhouse operations under glass.

Sod farms have increased in acreage in the past 20 years, with acreage rising by 136% between 1992 and 2012, to 2,781 acres.

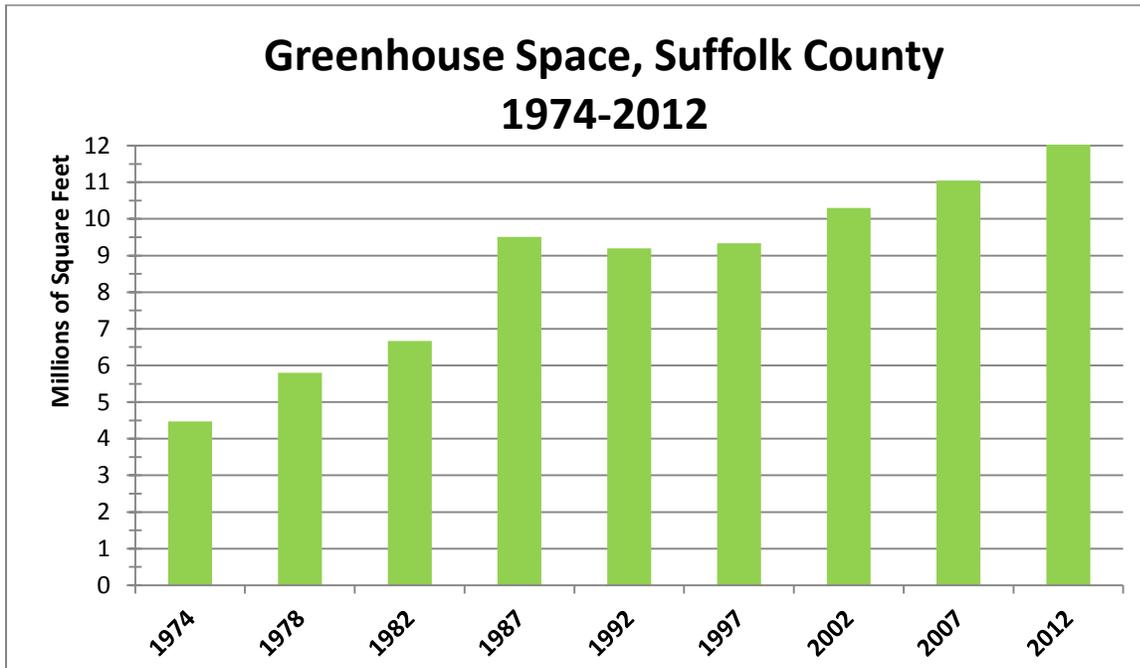
Potatoes were the dominant crop in the County for decades. In 1982, they comprised 38% of the farmland in Suffolk County, but that figure decreased to 2,605 acres in 2012, 7% of all farmland.

The acreage devoted to grapes increased significantly between 1992 and 2012 in Suffolk County. In 1992, grapes covered 987 acres, and that figure increased by 122% by 2012 to 2,193 acres.

▪ **Greenhouse Space**

Greenhouse space is significant in Suffolk County. It was first counted in the Agricultural Census of 1900. At that time, 315,000 square feet of greenhouse space existed in the County. That figure rose to 3.0 million square feet by 1940 and 4.5 million square feet in 1974. As of 2012, more than 12 million square feet of greenhouse space was situated in the County. This figure was a 9% increase over the 2007 figure, which increased 7% over the 2002 figure. Since 1997, greenhouse space has increased in Suffolk County by 2.8 million square feet or 30%. Chart 1-3 shows how greenhouse space has increased in the County since 1974.

Chart 1-3. Greenhouse Space, 1974-2012

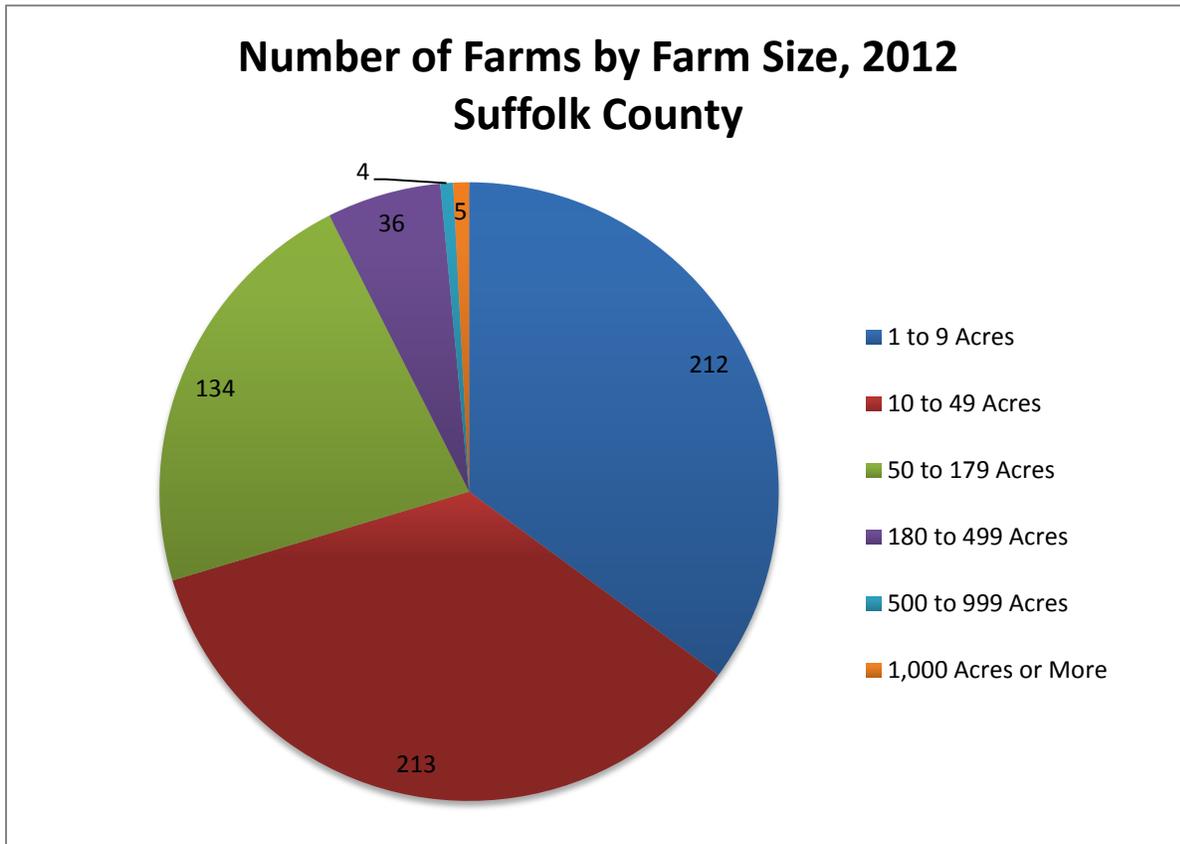


“Square Footage Under Glass or Other Protection.” Source: U. S. Census of Agriculture

- **Farm Size**

The composition of farm sizes in Suffolk County has not changed significantly in the 20 years since 1992. Most farms in Suffolk County are smaller than 50 acres in size. Chart 1-4 shows the distribution of farms in Suffolk County by size of farm in 2012.

Chart 1-4. Number of Farms by Farm Size



Source: U. S. Census of Agriculture

Small farms make up the greatest percentage of Suffolk County farms. Out of 604 farms in 2012, 35% were between one and nine acres in size and another 35% were between 10 and 49 acres in size. The median size of a farm in Suffolk County was 19 acres. Nine farms in the County were more than 500 acres in size, accounting for 1% of all farms but 23% of the farm acreage. Suffolk County’s farms tend to be smaller than farms across New York State as a whole, where farms between one and 49 acres comprised 32% of farms (compared to 70% of Suffolk County farms) and farms over 1,000 acres comprised 3% of all farms (compared to 1% of Suffolk County farms).

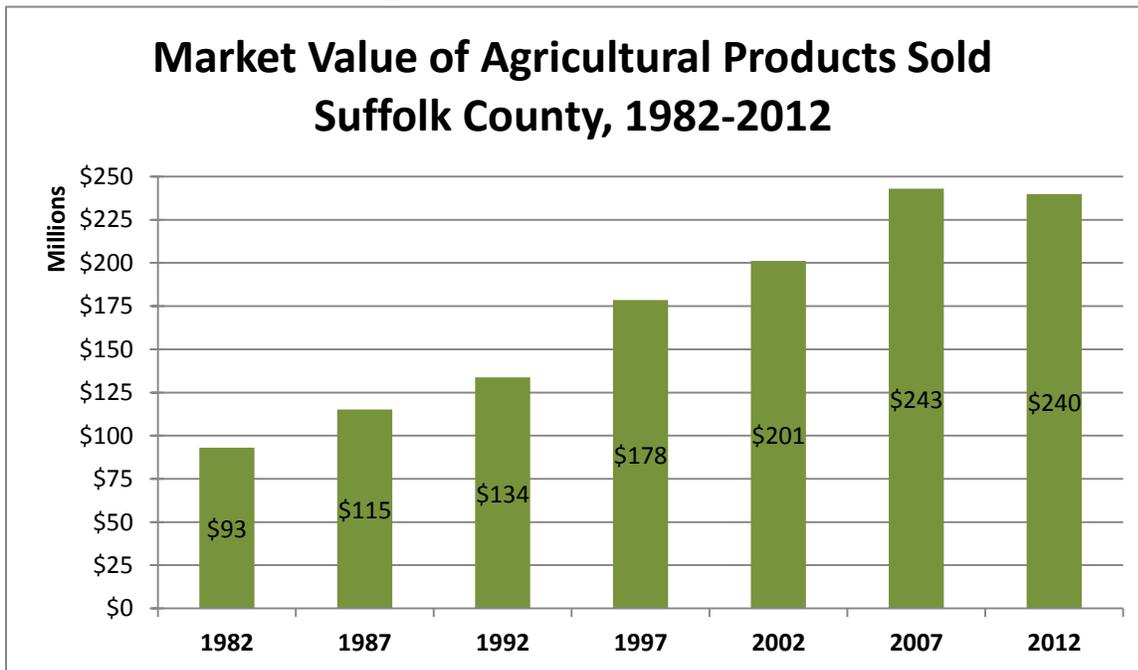
- **Market Value of Agricultural Products**

Suffolk County’s agricultural businesses are an important economic generator for the County and the State. In every agricultural census between 1939 and 2007, Suffolk County was the leading agricultural county in New York State in terms of the value of all agricultural products sold. The County continued to hold this title despite a 71% loss of farmland acreage in that period. However, in 2012, Suffolk County was ranked third of the 62 counties in New York State, behind Wyoming County and Cayuga County. (These two counties each produced more than

\$100 million in milk from cows.) Yet the value of Suffolk’s agricultural products sold still represented 4.4% of the New York State total in 2012.

Chart 1-5 graphically shows the market value of all agricultural products sold in Suffolk County for the years 1982 through 2012. In 2012, Suffolk’s total market value of agricultural products sold was \$239.8 million. This figure declined by 1.3% in the five years since 2007, when the total value was \$242.9 million. This decrease followed steady increases in every agricultural census data release since 1969, including an increase of 21% between 2002 and 2007, and an increase of 13% between 1997 and 2002.

Chart 1-5. Market Value of Agricultural Products



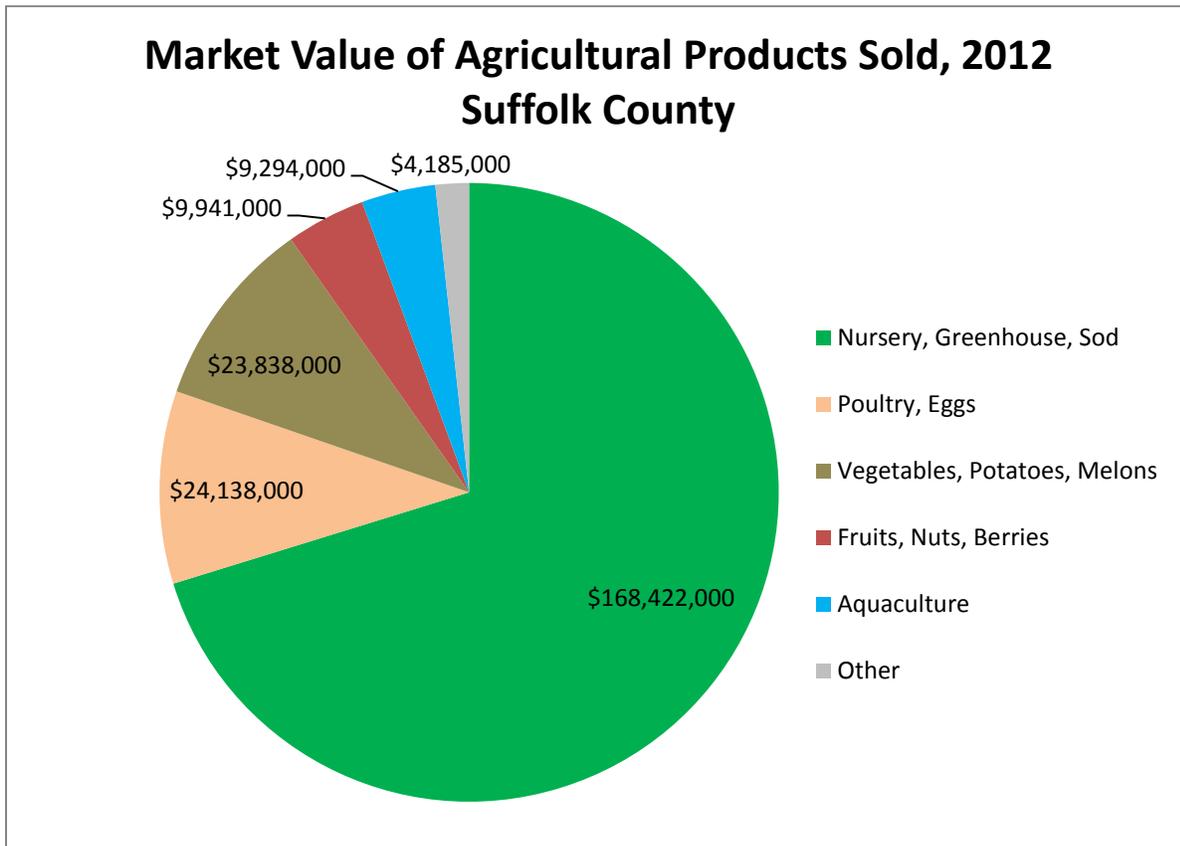
Source: U. S. Census of Agriculture

Suffolk County’s *sales per acre of farmland* are significantly higher than other counties in New York State and the state average. In 2012, Suffolk County had \$6,666 in agricultural sales per each acre of farmland, more than eight times the New York State average of \$754 in agricultural sales per acre of farmland. Wyoming and Cayuga counties, the two counties in New York State that had higher total agricultural sales than Suffolk in 2012, had sales per acre of \$1,410 and \$1,231, respectively. These statistics further demonstrate the high productivity and value of production of the farmland in Suffolk County.

Of all farms in Suffolk County, 36% had annual sales of less than \$10,000 in 2012, compared to 51% of all farms in New York State. In Suffolk County, 32% of farms had sales of more than \$100,000, compared to 20% of farms in New York State.

The largest agricultural product category in Suffolk County remains “nursery, greenhouse, and sod,” valued at \$168.4 million in 2012. This figure represented more than 70% of the total value of all agricultural products sold in the County. Chart 1-6 displays the market value of agricultural products sold in 2012, by major product category.

Chart 1-6. Value of Agricultural Products Sold, by Product



Source: U. S. Census of Agriculture

The second largest category in Suffolk County in 2012 was poultry products, valued at \$24.1 million. This category includes ducks sold. The category with the next highest value in Suffolk County in 2012 was vegetables, potatoes, and melons, with a value of \$23.8 million. This category was once Suffolk County’s largest and most valuable crop. The next largest category was fruits, nuts, and berries, which includes grapes. Production in this category totaled \$9.9 million in 2012. Aquaculture (the farming of aquatic organisms such as fish, clams, shrimp, and lobsters) was the next largest category, with production value of \$9.3 million in 2012.

Suffolk County’s agricultural output has changed in the past 30 years. The most significant change is the dramatic increase in the value of nursery, greenhouse, and sod, which was four times greater in 2012 than in 1982. There was also dramatic growth in the category of fruits,

nuts, and berries, with the emergence of the wine industry in Suffolk County. The category was five times greater in 2012 than in 1982. Table 1-3 shows the major agricultural categories in Suffolk County and their corresponding production values since 1982.

Table 1-3. Market Value of Agricultural Products Sold, Suffolk County, 1982-2012

Category	\$ in millions						
	1982	1987	1992	1997	2002	2007	2012
Nursery, Greenhouse, Sod	41.8	67.3	90.3	126.0	143.0	182.9	168.4
Poultry, Eggs	14.9	15.8	12.7	10.0	15.1	9.9	24.1
Vegetables, Potatoes, Melons	32.0	27.0	25.3	24.7	23.7	26.8	23.8
Fruits, Nuts, Berries	1.7	2.8	3.4	4.1	9.3	13.8	9.9
Aquaculture	NA	NA	NA	NA	7.7	7.6	9.3
Other	NA	NA	NA	NA	2.4	1.9	4.2
Total	93.0	115.2	133.8	178.4	201.2	242.9	239.8

NA – Not Available. Source: U. S. Census of Agriculture

Nursery and greenhouse products represent 70.2% of the total value of all Suffolk County agricultural products sold in 2012, with sales totaling \$168.4 million. Suffolk’s production of nursery and greenhouse products was more than five times the next highest county in New York State and accounted for 40.8% of the New York State nursery and greenhouse total. Of more than 3,000 counties nationwide, Suffolk was ranked 10th in the value of nursery, greenhouse, and sod production in 2012.

Between 2007 and 2012, the value of Suffolk’s nursery, greenhouse, and sod production decreased by 8% (\$14.5 million). This decline was comprised of a \$22.5 million decline in bedding and garden plants, an \$11.4 million decrease in sod production, and a \$7.9 million decrease in potted flowering plants, despite an increase of \$13.7 million in nursery stock.

Suffolk County ranked number one in the state in the market value of poultry & poultry products sold in 2012, \$24.1 million. In particular, Suffolk ranked number one in New York State in the number of ducks sold (1.9 million). Of more than 3,000 counties nationwide, Suffolk was ranked 5th in the production of ducks in 2012.

Suffolk County also ranked number one in the state in the market value of aquaculture products sold in 2012, \$9.3 million. This figure represented 51.5% of the entire New York State total.

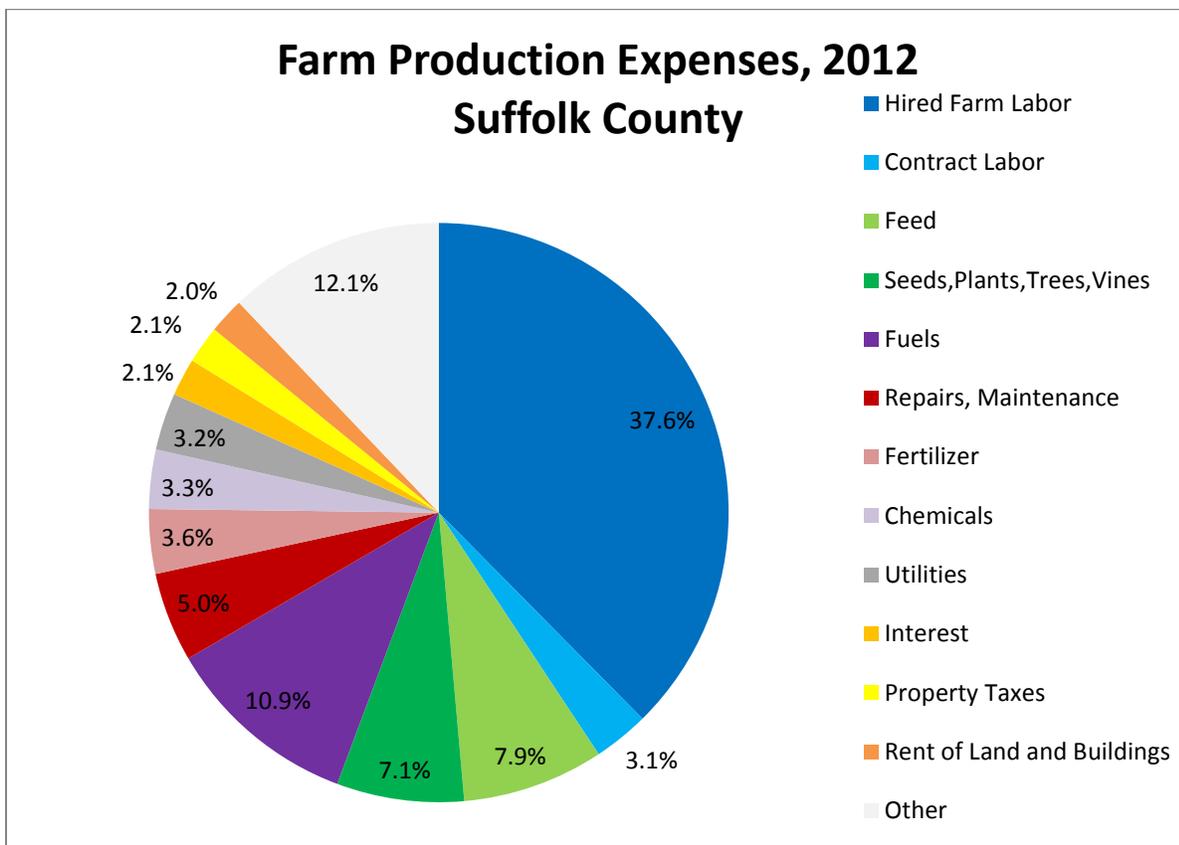
In 2012, Suffolk County was ranked number one of all 62 counties in New York State in the value of products sold directly to individuals (primarily at farm stands), with sales of \$8.9 million. This figure represented 8.9% of the total for New York State.

○ **Financial Characteristics of Farms**

According to the 2012 Census of Agriculture, the largest farm production expense of Suffolk County farms was for hired farm labor, \$84.4 million or 37.6% of all expenses. The next largest expense was for gasoline and fuels, which were 10.9% of all expenses. Property taxes were the 11th largest expense category for Suffolk County farms, totaling 2.1% of all expenses. Between 2007 and 2012, property taxes paid on farmland decreased by 23% from \$6.0 million to \$4.6 million.

Chart 1-7 displays the relative sizes of the various farm production expenses in Suffolk County in 2012.

Chart 1-7. Farm Production Expenses, Suffolk County, 2012

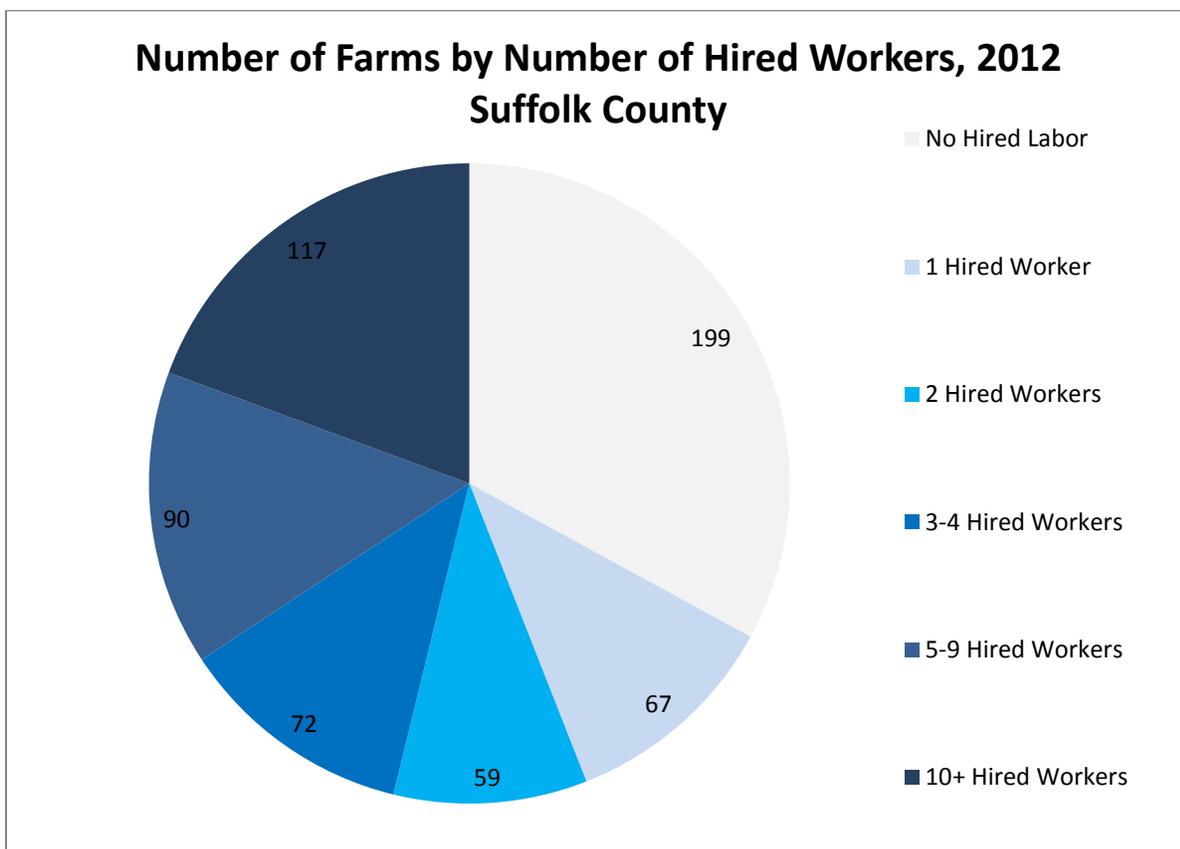


Source: U. S. Census of Agriculture

Suffolk County’s \$84.4 million in farm payrolls represented 11.6% of all farm payrolls in New York State in 2012. There were 5,056 hired farm workers on payrolls in Suffolk County in 2012. This figure represented 8.3% of all hired farm workers in New York State. In Suffolk County in 2012, there were 375 migrant farm workers, and 436 unpaid farm workers. Unpaid workers include non-operator partners and family members.

Of the 604 farms in Suffolk County in 2012, one-third (33%) or 199 of them had no hired workers. This figure is similar to all of New York State, with 29% of farms having no hired labor. Chart 1-8 shows the distribution of Suffolk County farms, by the number of hired workers.

Chart 1-8. Number of Hired Workers, Suffolk County, 2012



Source: U. S. Census of Agriculture

In 2012 Suffolk County had 117 farms with 10 or more hired workers. These larger operations comprise a larger share of all farms in Suffolk County (19%) than in New York State as a whole, where 4% of farms had 10 or more hired workers.

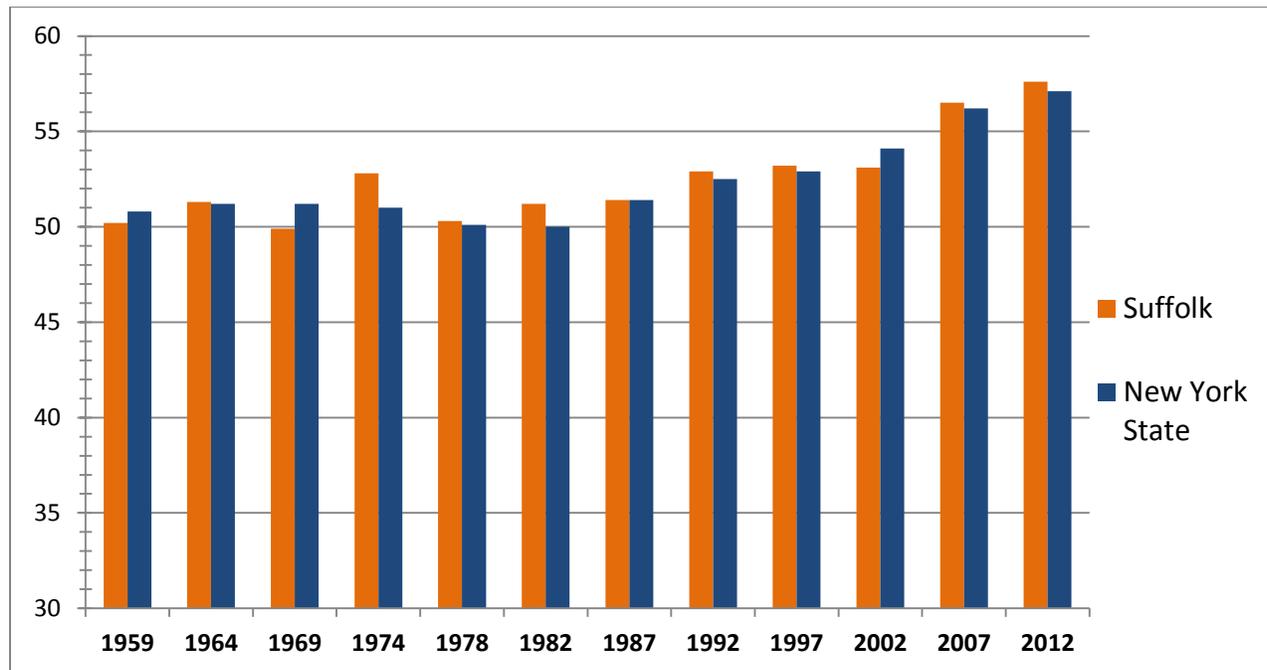
○ **Farm Demographics**

The percentage of farmland that is rented in Suffolk County was 18.1% in 2012, up from 7.0% in 2007. In comparison, the percentage of farmland that was rented in all of New York State was 3.3% in 2012, up from 2.7% in 2007.

Out of the 604 farms in Suffolk County, farming was the primary occupation of 418 (69%) of the farms in 2012. This figure increased from 64% of farms in 2007 and 63% of farms in 2002, and was higher than the New York State percentage of 57% whose primary occupation was farming in 2012.

The average age of the principal farm operator has been increasing in Suffolk County, as well as in New York State. In 2012, the principal operator of the farm was age 55 and older for 60% of the farms in Suffolk County (compared to 49% in all of New York State). Chart 1-9 graphs the average age of the principal farm operators in Suffolk County compared to New York State for the years 1959 through 2012.

Chart 1-9. Average Age of Farm Operator



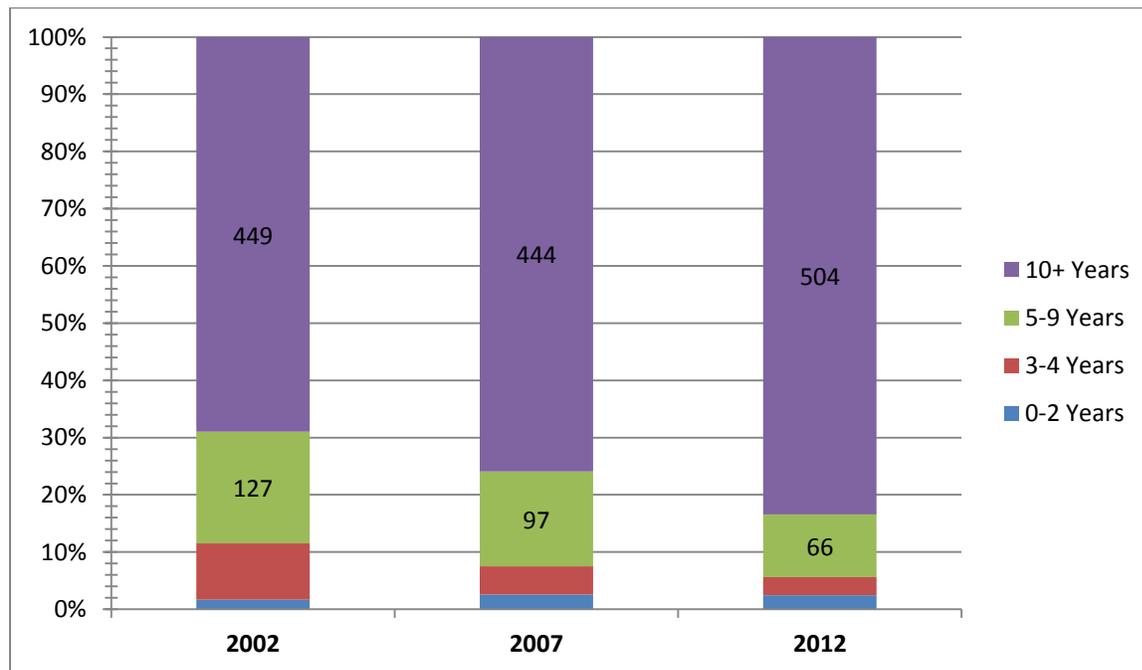
Source: U. S. Census of Agriculture

The average age of the principal farm operators in Suffolk County in 2012 was 57.6, compared to 57.1 for all of New York State. These averages have both been slowly increasing since the late 1970s.

Only 4% of farms in Suffolk County had a principal farm operator under age 35 in 2012, compared to 6% of all farms in New York State. At the same time, 26% of principal farm operators were age 65 and older in Suffolk County, compared to 29% in all of New York State.

Farmers in Suffolk County are not only aging, but they are becoming more experienced. The principal operator of farms in Suffolk County has usually occupied the present farm for more than 10 years. Chart 1-10 shows that 83% of principal operators have occupied the present farm for more than 10 years, up from 69% in 2002.

Chart 1-10. Tenure of Principal Operator, Suffolk County

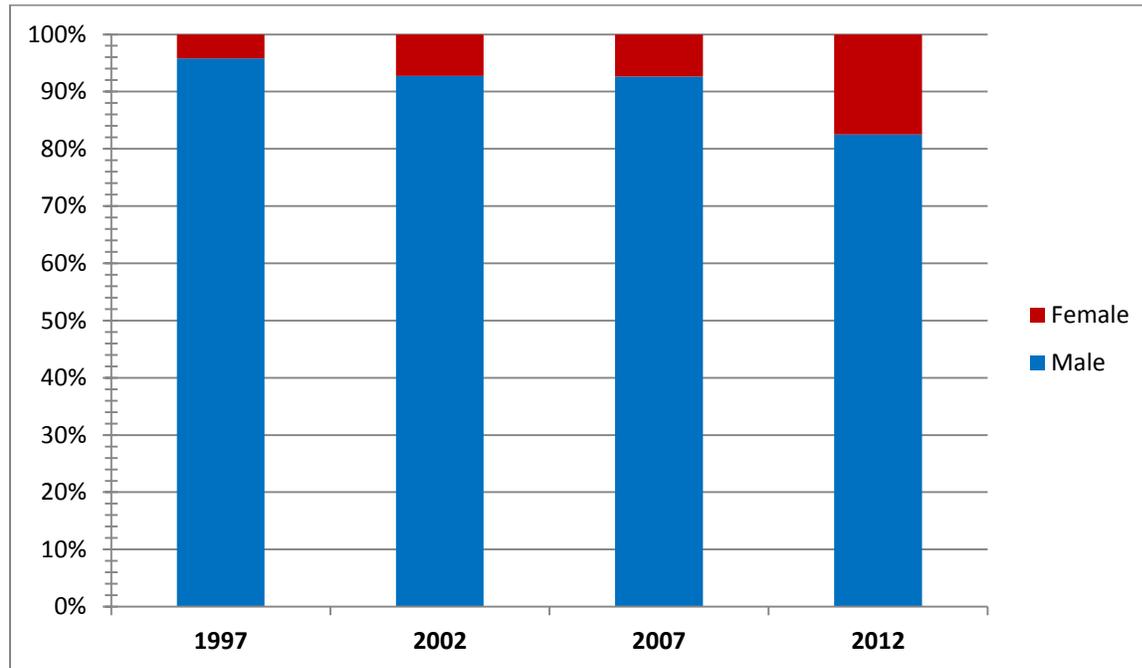


Source: U. S. Census of Agriculture

Principal farm operators in Suffolk County have occupied their present farm for an average of 23.4 years in 2012, up from 21.9 years in 2007. These figures were similar to those of New York State as a whole, where the average was 23.2 years in 2012 and 22.6 years in 2007.

While still predominantly male, the gender composition of farm operators has changed somewhat. In 2012, of the 604 farms in Suffolk County, the principal operator of 133 farms was female (22%). This figure compares to 19% for all of New York State. In terms of acreage, farms with a female principal operator comprised 6,297 farm acres in Suffolk County in 2012 (18% of the total), compared to 7% in 2007 and 4% in 1997. Chart 1-11 shows the percentage of farmland in Suffolk County, broken down by male and female principal operators.

Chart 1-11. Percentage of Farmland Acreage by Gender of Principal Operator, Suffolk County



Source: U. S. Census of Agriculture

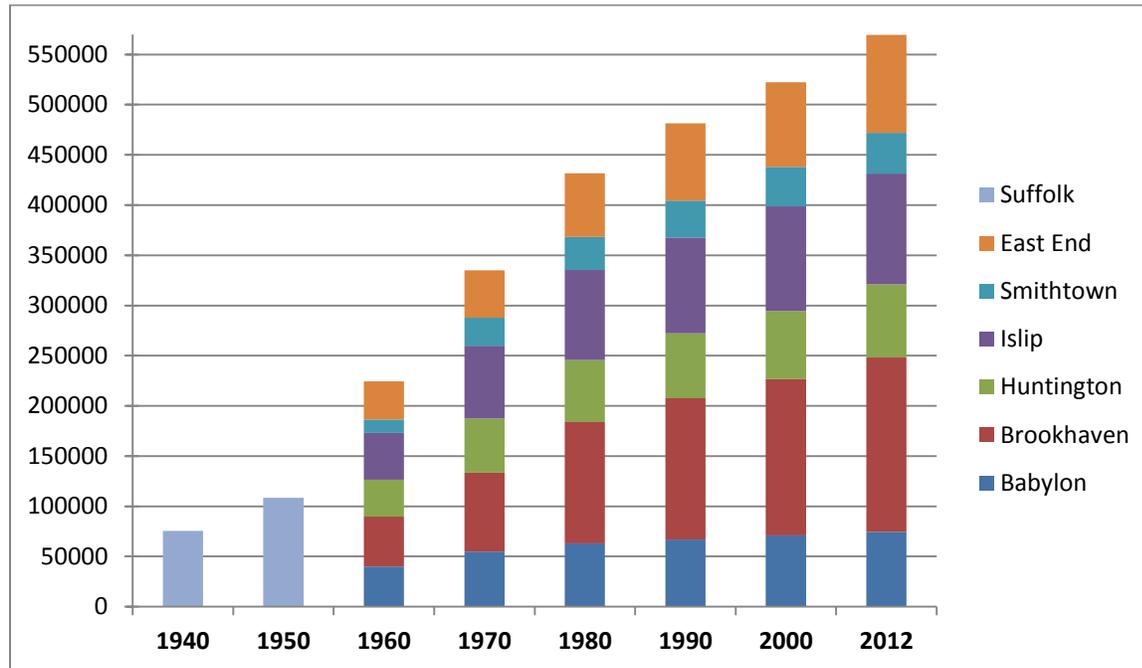
The farm acreage with a female principal farm operator increased from 1,676 acres in 1997 to 6,297 acres in 2012, a 276% increase.

- **Demographic Trends**
 - **Housing Construction**

After World War II, Long Island experienced a dramatic increase in housing construction, as the wave of suburban development pushed outward from New York City. Much of this development came in the form of single family homes. The total number of housing units in Suffolk County in 1950 was slightly more than 108,000 but by 1960 that number doubled to 224,000, and the number of housing units increased by another 110,000 in the 1960s. Many of these housing units were constructed on land that was previously farmed.

The number of housing units have continued to steadily increase in the decades since 1970, although the growth rate has slowed. By 2012 there were 569,000 housing units in Suffolk County. Chart 1-12 displays the growth of housing in Suffolk County by town for the years 1940 through 2012.

Chart 1-12. Housing Units, Suffolk County, 1940-2012

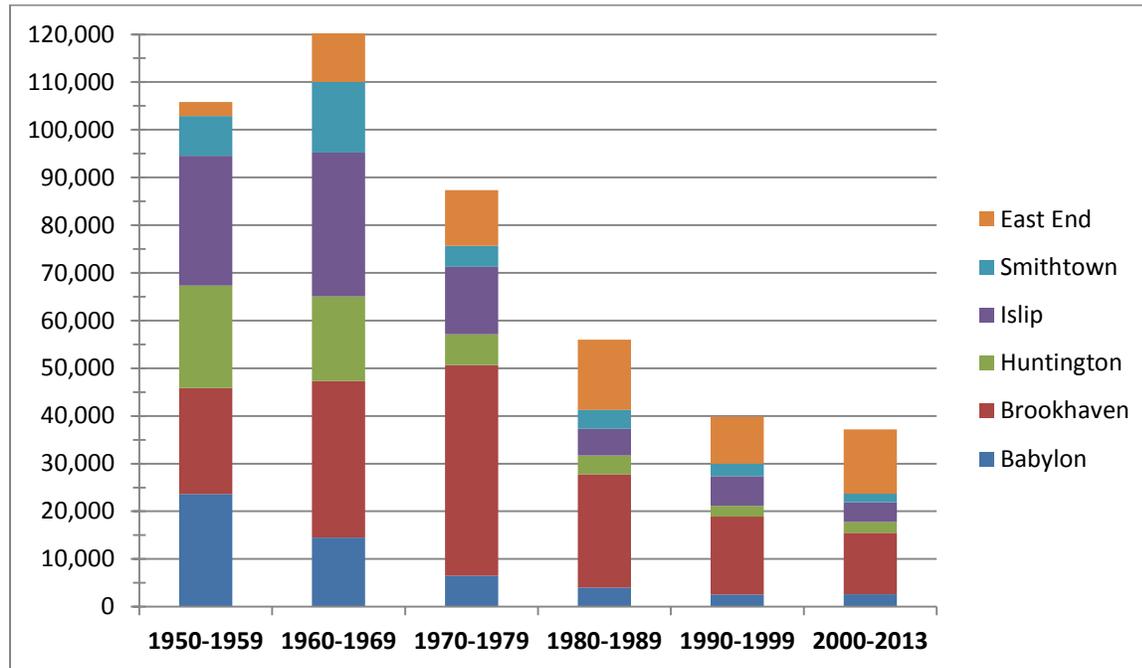


Source: U. S. Census Bureau

The explosion in the construction of housing units coincided with the decline in the number of farmland acres in Suffolk County. The number of residential building permits issued in Suffolk County in the 1950s was 105,000, followed by 122,000 permits in the 1960s. In the 1950s and 1960s, Suffolk County lost roughly 50% of its farmland. By 1970, most of the farmland in western Suffolk County had been converted to residential uses. In the 1970s and 1980s, much of the new residential development occurred in Brookhaven Town on previously wooded lands, and not on farmland. Losses of farmland in the 1970s and 1980s were less significant.

Since 1980, most of the new residential construction in Suffolk County has taken place on the East End of the County and in the Town of Brookhaven. The number of permits issued has declined in each successive decade as available land has decreased. Chart 1-13 displays the number of building permits issued in Suffolk County by town for the years 1950 through 2013.

Chart 1-13. Building Permits, Suffolk County, 1950-2013



Source: U. S. Census Bureau, Suffolk County Planning

New residential construction in Suffolk County slowed down considerably after the financial crisis of 2008. Between 2010 and 2013, the number of building permits in the County was 4,270, about one-third the rate of permits that were issued in the 2000-2009 period. The number of new housing units authorized by building permit totaled 1,396 in 2008, declined to 971 units in 2010, and 856 units in 2011. In 2012, the number of building permits for new housing units increased to 1,061, and increased 30% in 2013 to 1,382 units. Housing construction has rebounded slightly but is still far below the levels seen before 2008.

- **Development**

Suffolk County has undergone extensive suburban development over the past 60 years. The decrease in farmland between 1950 and the 1990s in the County coincided with the rapid development of large scale single family residential subdivisions on previously agricultural lands. Since the 1990s, the amount of farmland acreage has remained somewhat stable in the County.

Despite the recent stabilization of agricultural land use in Suffolk County, there is still development pressure for conversion of farmland to residential uses and other uses. Farmland is desirable for development because it is cleared and flat. In eastern Suffolk County, many agricultural areas are zoned for 2-acre or 5-acre residential lots. Larger lot sizes reduce the

potential number of additional residential units, but large lots also consume large acreages of farmland for residential uses.

In 1962, less than half the land in Suffolk County was considered developed, preserved, or farmed. In other words, in 1962, more than half the land in the County was vacant and undeveloped. By 2012, close to 95% of all land in the County was developed, preserved, or farmed. There is relatively little land remaining to be developed. As land available for development becomes scarcer, there could be additional pressure to develop the remaining unprotected farmland.

The urbanized area² in Suffolk County includes almost all of the western towns of Babylon, Islip, Huntington, and Smithtown. In Brookhaven, most of the Town is considered urbanized except for the extreme eastern parts of the Town. Most of the other eastern Suffolk Towns (Riverhead, Southold, Southampton, and East Hampton) are considered rural. All of the Town of Shelter Island is considered rural. These rural areas contain the preponderance of the agricultural land in Suffolk County. Large areas of residential development now lie adjacent to significant swaths of farmland in Suffolk County, especially in the Town of Riverhead.

² The Census Bureau's urban areas represent densely developed territory, and encompass residential, commercial, and other non-residential urban land uses.

CHAPTER 2 – Vision, Goals and Objectives



- **Background**

In June 2012, Suffolk County submitted an application to New York State Agriculture & Markets for \$50,000 to write and develop an Agriculture and Farmland Protection Plan Update. In September 2012, the grant was awarded to Suffolk County. An in-kind match of a \$40,000 was a requisite of the contract to be provided by the County with a \$10,000 cash match contribution provided by the Long Island Community Foundation. This \$10,000 grant was paid to the Peconic Land Trust for consultant work and outreach assistance.

In May 2013, Suffolk County Executive Steve Bellone signed Resolution 342-2013, accepting and appropriating \$50,000 in grant funding from New York State Department of Agriculture and Markets to Suffolk County to update its 1996 "*Agricultural and Farmland Protection Plan*".¹

The Suffolk County Department of Economic Development and Planning assembled a large, inclusive coalition of farmers, advocacy agencies, agriculture educators, agricultural committees, government agencies, town municipalities, environmental groups, and community organizations to develop the new Suffolk County Agriculture and Farmland Protection Plan. These groups included, but were not limited to:

- The Long Island Farm Bureau
- Peconic Land Trust
- Cornell Cooperative Extension of Suffolk County
- The Long Island Wine Council
- Farm Credit East
- The Long Island Community Foundation
- Sustainable Long Island
- Suffolk County Farmland Committee
- Suffolk County Agricultural and Farmland Protection Board
- Suffolk County Soil & Water Conservation District
- The Town of Brookhaven
- The Town of East Hampton
- The Town of Riverhead
- The Town of Southampton
- The Town of Southold

¹ The executed contract was signed in May 2013 and was scheduled to be conducted between 9/21/12 and 8/31/14. On October 14, 2014, the Department of Economic Development and Planning received a grant extension to November 30, 2015.

- **Survey of Farmers**

The first significant outreach effort was the development of an “Agriculture Producer Survey” that the County, with partner assistance, began to distribute in-person at the January 2013 Long Island Agricultural Forum. Additionally, surveys were distributed to Long Island Farm Bureau members, Cornell Cooperative Extension subscribers, and Peconic Land Trust members through physical mail and e-mail. The County also distributed surveys electronically via e-newsletters and social media. In the end, 143 surveys were returned and an analysis was undertaken. The findings of those surveys were released in a separate report, “*The State of the Suffolk County Agriculture Industry*” in December 2013. The results of that survey and the findings are the basis for the recommendations contained in Chapter 5 and can be found in this report using the following link:

http://www.suffolkcountyny.gov/Portals/0/planning/Publications/SCAgriculture_Industry_Report_2013_r.pdf

As an additional component of our outreach efforts, five separate focus group meetings were held across Suffolk County in 2013. The meeting times, locations, and schedules were carefully coordinated with our partner organizations and local municipalities. The focus groups were held as follows:

- Tuesday, Nov. 12th @ Cornell Cooperative Extension -
423 Griffing Avenue, Suite 100, Riverhead, NY - 25 Attendees
- Wednesday, Nov. 13th @ Brookhaven Town Hall –
One Independence Hill, Farmingville, NY - 9 Attendees
- Monday, Nov. 25th @ H. Lee Dennison Building –
100 Veterans Highway, Hauppauge, NY - 5 Attendees
- Wednesday, Dec. 11th @ Peconic Land Trust –
300 Hampton Road, Southampton, NY - 11 Attendees
- Wednesday, Dec. 18th @ Southold Town Meeting Hall –
53095 Route 25, Southold, NY - 14 Attendees

- **Results of the Survey and Focus Group Meetings**

The surveys and subsequent focus group outreach determined the following:

- 59% percent of farmers are very concerned about the future profitability of farming.
- 42% are very concerned about access to affordable land.
- 60% are very concerned about the overall loss of farming in Suffolk County.

The most pressing challenges identified by agricultural producers were:

- 1) High Production Costs
- 2) High Fuel Costs
- 3) Availability of Farm Labor
- 4) Property Taxes
- 5) Extreme Weather Events/Climate Change.

Environmental regulations, the prevalence of pests (deer, insects, birds, etc.), residential encroachment, and land use regulations (zoning) were also frequently cited.

Despite these challenges, Suffolk County farmers are cautiously optimistic. Nearly three-quarters of our survey respondents have reached gross sales equal to or exceeding pre-recession levels and incumbent farmers are expecting to increase, rather than decrease, the size of their operation by a 2 to 1 margin. Additionally, Suffolk County farmers are increasingly familiar with government policies structured to assist farmers. They are taking advantage of trends favoring increased agri-tourism and direct marketing opportunities. Leveraging these opportunities, and paying close attention to the changing needs of the agriculture industry in Suffolk County, will help ensure Suffolk's status as the reigning market leader in New York State agriculture sales.

- **Vision, Goals and Objectives:**

The Vision, Goals and Objectives of this 2015 Plan is to update, build upon and refine the stated Goals and Objectives of the 1996 Plan. All the Goals and Objectives respect present-day challenges and quality-of-life concerns.

The Vision is:

To foster adaptable public policy along with the commitment and support of the farming community to protect, encourage and sustain agriculture as an industry for future generations in Suffolk County. Agriculture is a dynamic industry that constantly evolves. Local public policy should strongly support our economic environments where agriculture can flourish. In addition, public policy must anticipate new challenges to Suffolk's farming community and be flexible enough to embrace new solutions when needed.

Within that Vision, the following Goals apply:

- To preserve agriculture as an essential industry in Suffolk County as it provides fresh food and horticultural products, particularly for our residents. Agriculture preserves the

quality of life in Suffolk County while generating the economic activity needed to sustain important complementary industries such as tourism.

- To continue to purchase the development rights to the remaining farms that are not protected by municipal governments and/or not-for-profit organizations. Despite increasing land prices in Suffolk County, some of which are the highest values in the state, almost 20,000 acres have been protected. This plan update renews the 1970 Nassau-Suffolk Comprehensive Plan Summary recommendation to preserve 30,000 farmland acres. This momentum can be maintained given appropriate municipal government and not-for profit organization support.
- To incentivize farmers to implement best management practices that protect our ground and surface waters, prevent erosion, preserve soil health, and increase farmers' resilience to climate change and extreme weather events, particularly hurricane occurrences.
- To retain the cultural continuity of farming as a link to the historical development of Suffolk County while attracting new farmers, and diversifying crops, markets, and methodologies. Farming is a way of life that strengthens our community identity and cohesiveness, economic development, provides historic perspective, and contributes to Suffolk's value as a destination for tourism.
- To maintain the economic viability of the County's agriculture industry. Suffolk County's suburban landscape can be a challenging environment to raise crops and livestock.

Within these Goals, the following Objectives apply:

- Support public policy that protects the public health, safety and welfare of the community and environment without hindering the farm economy or discouraging agricultural operations.
- Leverage and attract additional public investment in infrastructure, supporting new and emerging farmers, funding environmental stewardship research efforts, expanding marketing opportunities, increasing access to capital, adopting new technologies, and preserving farmland.
- Provide a nurturing environment of public/private interest in diversification of produce, adapting best management practices, educational and scientific support, technological innovation and experimentation.
- Identify agricultural industry challenges and provide actionable strategies to address these challenges.

- Develop long-term agricultural strategies to protect ground and surface waters and preserve prime agricultural soils and soil health.
- Identify opportunities for new crops, new methods of production, and new avenues of sales and direct marketing.
- Maintain preserved farmland in active commercial production.
- Maximize Federal, State, County, and Town farmland preservation funds to support the strong local efforts that have been made to protect Suffolk's farmland.

CHAPTER 3 – Inventory of Suffolk County’s Agricultural Resources and Local Efforts to Protect Agricultural Lands



- **Agricultural Land Use Methodology**

To adequately determine farming activities throughout the County, the Suffolk County Division of Planning and Environment undertook an aerial photographic interpretation analysis to ascertain land use information, specifically farming activities. The following sources of information were used to identify all current farmland within Suffolk County:

- 2012 Suffolk County Existing Land Use Map and associated database which identified farmland properties by parcel identification
- 2013 digital aerial mosaic from NYS Office of Information Technology Services
- Google Earth 7.1.2.2014.
- Farmland data or databases from each of the 10 towns within Suffolk County

Each parcel of farmland identified on the 2012 Suffolk County Existing Land Use Map was reviewed and updated to determine the following: active agriculture; fallow; not active/abandoned fields/successional woodlands; vacant; or developed. A parcel was identified as active farmland if it had an agricultural use, such as row crops, vineyards, sod, equestrian, greenhouses, nurseries, etc., on 50% or more of the parcel. There were also agricultural categories of fallow and not active/abandoned fields/successional woodlands. Agricultural fallow land was identified as either minimal or undeveloped fields, having little or no visible signs of bushes or trees. Not active/abandoned fields/successional woodlands were identified as land that had the characteristics of first successional grassland or forest growth such as low-lying bushes, Autumn Olive and Red Cedar trees. Farmland that was classified as vacant or developed was removed from the 2015 Inventory of Farmland. Aerial photographs were also used to identify parcels that were in agricultural production, but were not listed in the 2012 database. These parcels were then added to the 2015 Inventory of Farmland. (The acreage information for parcels that were updated or added to the 2015 Inventory of Farmland was ascertained from the Suffolk County Real Property Tax Agency AREIS (Advanced Real Estate Information System).) The new 2015 Inventory of Farmland list was then compared to each town's database of farmland properties. The town's data also assisted in determining the type of protection on each farmland parcel. A parcel was categorized as protected if it had a County, Town or other not-for-profit type of protection that was specific to farmland. If land was preserved for either open space or open space/agriculture, but was not currently being farmed, it was not added to the 2015 Inventory of Farmland list.

- **Agricultural Land Use Results**

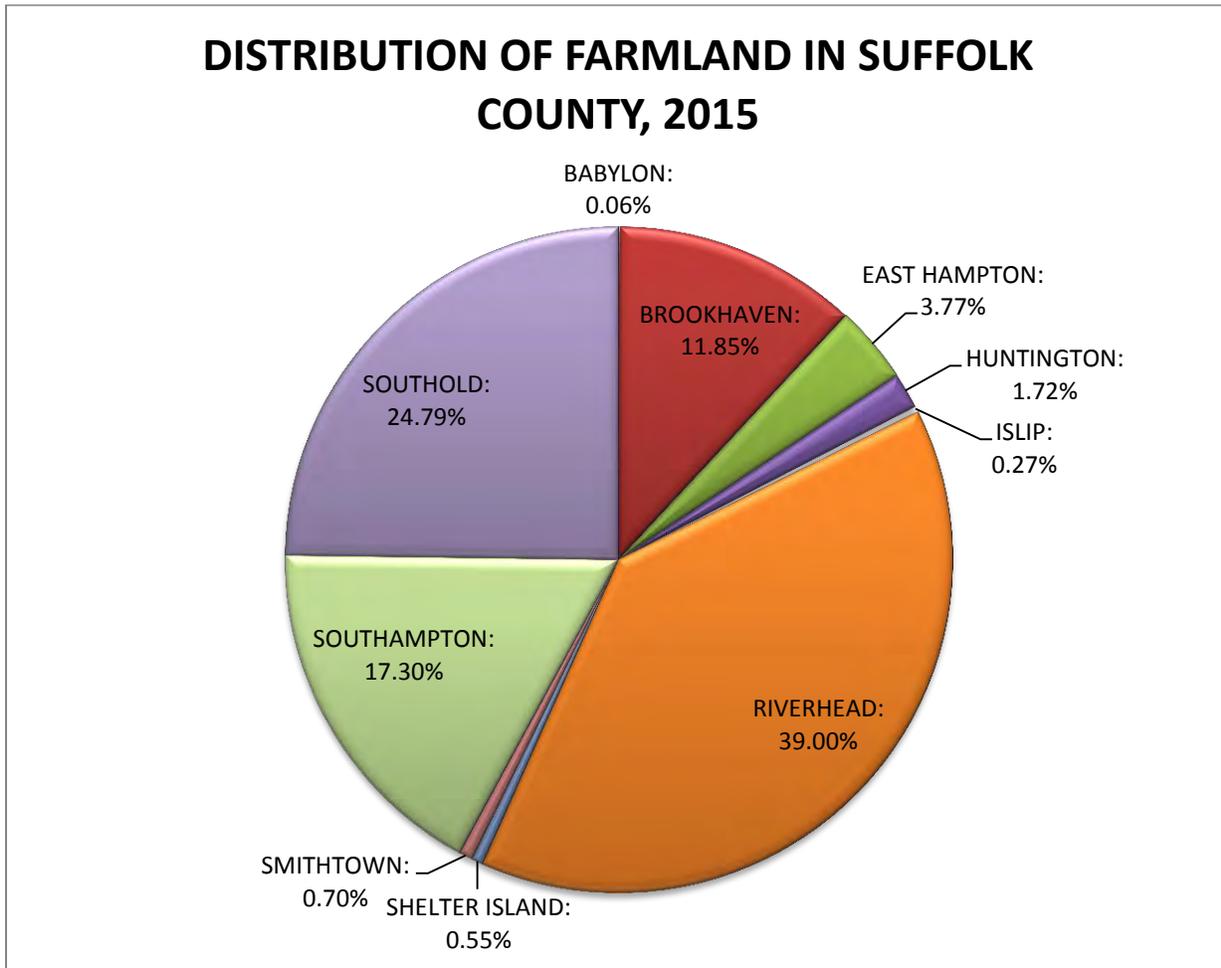
The ten towns in Suffolk County cover 583,362 acres of land. According to our aerial photographic interpretation analysis, 38,979.52 acres or approximately 7% are presently in agricultural use. This figure differs slightly from the 2012 Census of Agriculture figure of 35,975

acres of farmland. The difference can be attributed to different factors such as how farmland is defined. The Census of Agriculture primarily identifies active farmland, whereas the 2015 Inventory of Farmland provided a more detailed analysis which included additional categories identifying fallow farmland and not active/abandoned fields/successional woodland. Furthermore, the 2012 census data is now several years old and new farms may have come into operation. All of these reasons contributed to the differences between the two figures.

Suffolk County's 38,979.52 acres of farmland host a diverse assortment of commercial agricultural operations. The farms located in the west end towns of Babylon, Huntington, Islip and Smithtown exhibit such uses as field crops, horse farms, greenhouses and nurseries. The east end towns of East Hampton, Riverhead, Shelter Island, Southampton and Southold and the town of Brookhaven have a greater variety of agricultural uses such as a dairy farm, orchards, vineyards, bees and honey, livestock, including cattle, sheep, buffalo and poultry, as well as traditional field crops, horse farms, greenhouses and nurseries.

The highest concentration of farmland is found in the eastern part of the County, as the four west end towns are mostly developed and account for less than 3% of the County's total farmland. The greatest amount of farmland is found in the Town of Riverhead, which makes up 39% of the farmland in the County (see Chart 3-1). Second is the Town of Southold with 24.79% of the farmland in the County. Combined, these two towns account for 63.79% of the farmland in Suffolk. Riverhead has 15,201.87 acres of farmland and Southold has 9,661.30 acres (see Table 3-1).

Chart 3-1. Distribution of Farmland in Suffolk County, 2015



Source: Suffolk County Department of Economic Development and Planning, Division of Planning and Environment

The Town of Southampton has the third largest amount of farmland with 6,744.86 acres. East Hampton has 1,470.43 acres of farmland. The smallest town, Shelter Island, has a total of 212.54 acres of farmland which counts for 2.74% of the land use in the Town. In the middle of the County is the Town of Brookhaven, the largest town in both in size and in population. It has 4,618.15 acres of farmland. Most of the farmland in Brookhaven is concentrated along its eastern portion as the western portion is more developed. The Town of Babylon has the smallest amount of farmland with only two agricultural operations totaling 25.06 acres. Just east of Babylon is the Town of Islip with 103.86 acres of farmland. The two northwestern towns, Smithtown and Huntington, have slightly higher amounts of farmland with 270.98 acres and 670.47 acres, respectively. These four western towns make up only 2.75% of the total farmland in Suffolk County.

Table 3-1. Suffolk County Farmland Acreage by Town, 2015

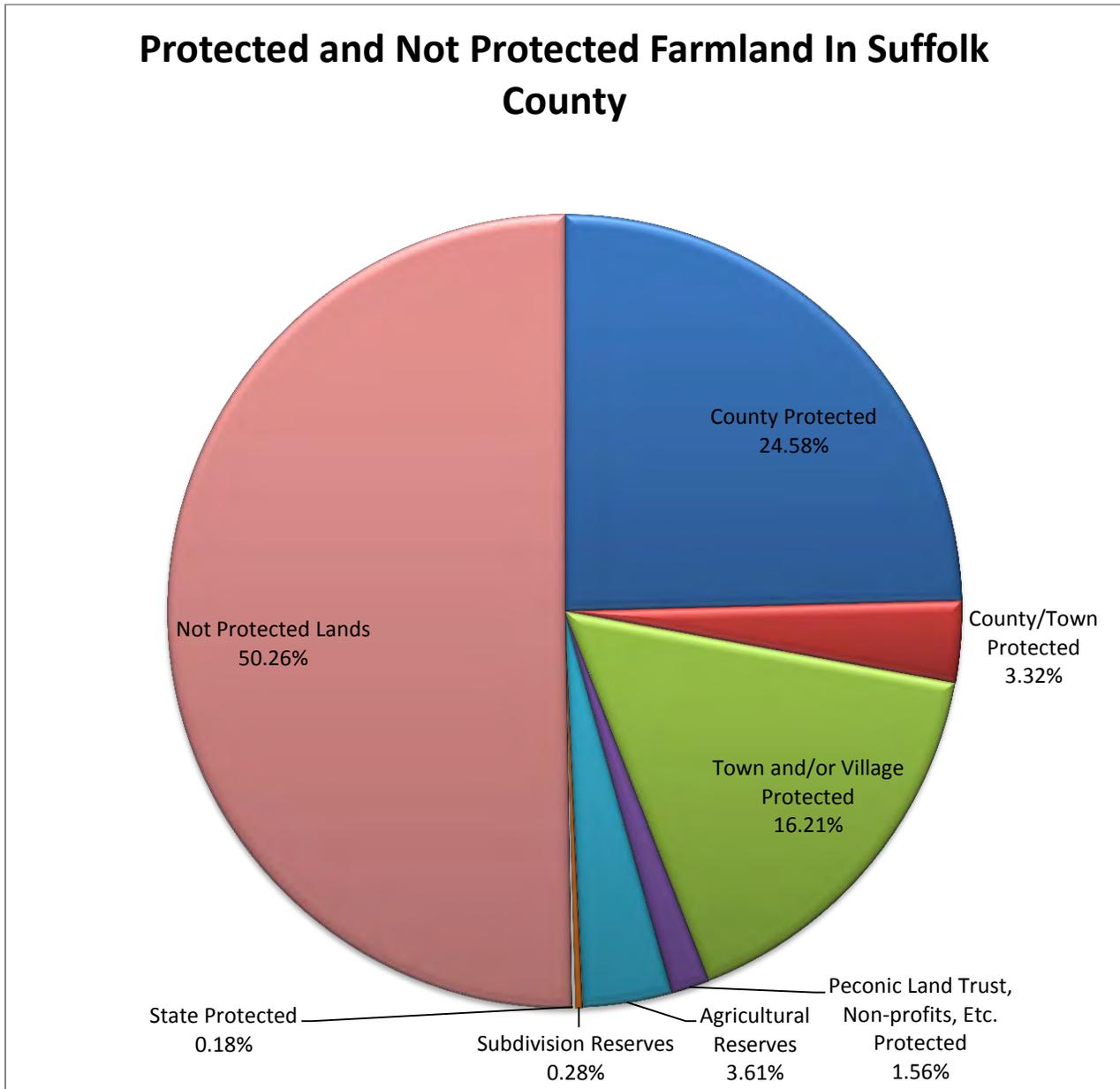
Town	Active Farmland	Fallow Farmland	Not Active/ Abandoned Fields/Successional Woodlands	Total Farmland	% of Land in Agriculture
Babylon	25.06	0.00	0.00	25.06	0.07%
Brookhaven	4,258.08	183.95	176.12	4,618.15	2.78%
East Hampton	1,289.85	163.95	16.63	1,470.43	3.13%
Huntington	653.23	11.12	6.12	670.47	1.11%
Islip	97.30	3.71	2.85	103.86	0.15%
Riverhead	14,995.85	69.52	136.50	15,201.87	35.08%
Shelter Island	187.84	24.70	0.00	212.54	2.74%
Smithtown	270.98	0.00	0.00	270.98	0.79%
Southampton	6,297.10	239.14	208.62	6,744.86	7.52%
Southold	9,164.26	265.03	232.01	9,661.30	28.11%
Suffolk County Total	37,239.55	265.03	232.01	38,979.52	6.67%

Source: Suffolk County Department of Economic Development and Planning, Division of Planning and Environment

Currently 19,389.89 acres or 49.75% of the farmland in Suffolk County is protected (see Chart 3-2). 10,636.60 of these acres have been protected through Suffolk County's Purchase of Farmland Development Rights Program. The other 8,753.89 acres have been protected through Town Purchase of Farmland Development Rights Programs, Town Conservation Easements, Town Agricultural Reserves, the Peconic Land Trust, a not-for-profit conservation organization, other not-for-profit organizations, etc.

To date, there are still 19,589.63 acres of farmland that are not protected and could potentially be developed. Of the 19,589.63 acres of farmland that is not protected only a small portion, 999.94 acres or about 5%, are either fallow or not active/abandoned fields/successional woodlands. Therefore, there are 18,589.69 acres of active farmland that are presently not protected and should be considered as priorities for future PDR acquisitions.

Chart 3-2. Protected and Not Protected Farmland in Suffolk County, 2015



Source: Suffolk County Department of Economic Development and Planning, Division of Planning and Environment

In summary, the highest concentration of agricultural land is found in the towns of Riverhead and Southold making these towns most essential to the current agricultural industry of Suffolk County. Riverhead has 7,453.02 acres or 49.03% of its farmland protected while Southold has 4,415.19 acres or 45.70% protected (see Table 3-2). Both towns have farmland preserved through the County PDR program, the Town PDR program, Peconic Land Trust Easements and New York State conservation easements. While these towns have close to 50% of their land

preserved, they are also the towns with the greatest amount of agricultural land, indicating that there is still a considerable amount to be protected within them. Of the 19,589.63 acres of farmland in Suffolk County that are not protected, 12,994.96 acres or 66.34% are located within the towns of Riverhead and Southold. Continuing the effort to preserve the farmland within these towns should be a priority to protect the agricultural industry as a whole.

Table 3-2. Protected Farmland by Town, 2015

Town	Total Farmland Acreage	Protected Farmland Acreage	% Protected
Babylon	25.06	0	0
Brookhaven	4,618.15	1,700.23	36.82%
East Hampton	1,470.43	984.21	66.93%
Huntington	670.47	73.27	10.93%
Islip	103.86	16.12	15.52%
Riverhead	15,201.87	7,453.02	49.03%
Shelter Island	212.54	190.42	89.59%
Smithtown	270.98	91.82	33.88%
Southampton	6,744.86	4,466.30	66.22%
Southold	9,661.30	4,414.50	45.69%
Suffolk County Total	38,979.52	19,389.89	49.75%

Source: Suffolk County Department of Economic Development and Planning, Division of Planning and Environment

The Town of East Hampton and The Town of Southampton have larger amounts of their farmland protected with 66.93% and 66.22%, respectively. This may be partly due to the fact that both towns have the most funding available for Farmland Purchase of Development Rights Programs through their Community Preservation Funds and each of their town's use of dedicated agricultural reserve areas as part of cluster development opportunities as another tool they use to preserve farmland. The agricultural reserves, in addition to the County and Town PDR programs as well as easements with the Peconic Land Trust and other not-for-profit land preservation groups are all ways in which these towns have protected their agricultural lands. The smallest town, Shelter Island, has only 212.54 acres of farmland but almost all of it is protected. 190.42 acres or 89.59% of the farmland is protected through the County PDR program, the Town of Shelter Island and Peconic Land Trust Easements.

Farmland in the Town of Brookhaven is concentrated in its eastern portion and consequently this is where a majority of the protected farmland in the Town is located. Brookhaven has 1,700.23 acres or 36.82% of its farmland protected through County and/or Town PDR programs as well as through Peconic Land Trust Easements.

The four west end towns of Babylon, Huntington, Islip and Smithtown have significantly less preserved farmland mainly due to the fact that these towns are significantly more developed. Most of the farmland that is protected is through the County PDR program. The Town of Smithtown has the greatest amount of protected farmland of the four west end towns at 33.88% with additional farmland protected by the Peconic Land Trust. The Town of Islip has 15.52% of its farmland protected and the Town of Huntington has 10.93% protected. The Town of Babylon does not have any of its farmland protected. Of the four west end towns, the Town of Huntington has the highest acreage of farmland, 670.5 acres and the Town of Babylon, the lowest with 25.06 acres. The four west end towns total farmland acreage is 1,070.37 acres, representing only 2.7% of the County's farmland.

Details of protected and not protected farmland acreage are provided by Town within Table 3-3 through Table 3-12. Details of protected farmland acreage for the County as a whole, is provided within Table 3-13. Two sets of maps have been prepared for each town. The first set of maps identifies all farmland, both protected and not protected, by parcel. The second set of maps identifies the status of farmland: active, fallow or not active.

Table 3-3. Town of Babylon Farmland Data, 2015

Active Farmland	Total In Acres
• Protected	0.00
• Not Protected	25.06
Subtotal	25.06
Total Farmland in Town of Babylon	25.06
% of Town of Babylon in Agriculture	0.07%
Total Protected Farmland in Town of Babylon	0.00
% of Town of Babylon's Farmland Protected	0.00%

Source: Suffolk County Department of Economic Development and Planning, Division of Planning and Environment

Table 3-4. Town of Brookhaven Farmland Data, 2015

Active Farmland	Total In Acres
• Protected	1,581.44
▪ County	1,053.55
▪ County/Town	388.25
▪ Town	112.80
▪ Peconic Land Trust	26.84
• Not Protected	2,676.64
Subtotal	4,258.08
Fallow Farmland	Total In Acres
• Protected	58.97
▪ County/Town	4.89
▪ Town	54.08
• Not Protected	124.98
Subtotal	183.95
Not Active/Abandoned Fields/Successional Woodlands	Total In Acres
• Protected	59.82
▪ Town	59.82
• Not Protected	116.30
Subtotal	176.12
Total Farmland in Town of Brookhaven	4,618.15
% of Town of Brookhaven in Agriculture	2.78%
Total Protected Farmland in Town of Brookhaven	1,700.23
% of Town of Brookhaven's Farmland Protected	36.82%

Source: Suffolk County Department of Economic Development and Planning, Division of Planning and Environment

Table 3-5. Town of East Hampton Farmland Data, 2015

Active Farmland	Total In Acres
• Protected	918.53
▪ County	298.69
▪ County/Town	71.10
▪ Town	305.54
▪ Agricultural Reserve	112.26
▪ Peconic Land Trust	69.61
▪ Agricultural Reserve/Peconic Land Trust	61.33
• Not Protected	371.32
Subtotal	1,289.85
Fallow Farmland	Total In Acres
• Protected	51.95
▪ County	13.77
▪ Town/Village	0.86
▪ Agricultural Reserve	20.26
▪ Peconic Land Trust	17.06
• Not Protected	112.00
Subtotal	163.95
Not Active/Abandoned Fields/Successional Woodlands	Total In Acres
• Protected	13.73
▪ County	5.37
▪ Agricultural Reserve	8.36
• Not Protected	2.90
Subtotal	16.63
Total Farmland in Town of East Hampton	1,470.43
% of Town of East Hampton in Agriculture	3.13%
Total Protected Farmland in Town of East Hampton	984.21
% of Town of East Hampton's Farmland Protected	66.93%

Source: Suffolk County Department of Economic Development and Planning, Division of Planning and Environment

Table 3-6. Town of Huntington Farmland Data, 2015

Active Farmland	Total In Acres
• Protected	72.13
▪ County	49.93
▪ County/Town	22.20
• Not Protected	581.10
Subtotal	653.23
Fallow Farmland	Total In Acres
• Protected	1.14
▪ County	1.14
• Not Protected	9.98
Subtotal	11.12
Not Active/Abandoned Fields/Successional Woodlands	Total In Acres
• Protected	0.00
• Not Protected	6.12
Subtotal	6.12
Total Farmland in Town of Huntington	670.47
% of Town of Huntington in Agriculture	1.11%
Total Protected Farmland in Town of Huntington	73.27
% of Town of Huntington's Farmland Protected	10.93%

Source: Suffolk County Department of Economic Development and Planning, Division of Planning and Environment

Table 3-7. Town of Islip Farmland Data, 2015

Active Farmland	Total In Acres
• Protected	16.12
▪ County	16.12
• Not Protected	81.18
Subtotal	97.30
Fallow Farmland	Total In Acres
• Protected	0.00
• Not Protected	3.71
Subtotal	3.71
Not Active/Abandoned Fields/Successional Woodlands	Total In Acres
• Protected	0.00
• Not Protected	2.85
Subtotal	2.85
Total Farmland in Town of Islip	103.86
% of Town of Islip in Agriculture	0.15%
Total Protected Farmland in Town of Islip	16.12
% of Town of Islip's Farmland Protected	15.52%

Source: Suffolk County Department of Economic Development and Planning, Division of Planning and Environment

Table 3-8. Town of Riverhead Farmland Data, 2015

Active Farmland	Total In Acres
• Protected	7,406.32
▪ County	5,574.15
▪ County/Town	403.90
▪ Town	1,348.13
▪ State	50.30
▪ Peconic Land Trust	29.84
• Not Protected	7,589.53
Subtotal	14,995.85
Fallow Farmland	Total In Acres
• Protected	0.00
• Not Protected	69.52
Subtotal	69.52
Not Active/Abandoned Fields/Successional Woodlands	Total In Acres
• Protected	46.70
▪ County	34.54
▪ Town	12.16
• Not Protected	89.80
Subtotal	136.50
Total Farmland in Town of Riverhead	15,201.87
% of Town of Riverhead in Agriculture	35.08%
Total Protected Farmland in Town of Riverhead	7,453.02
% of Town of Riverhead's Farmland Protected	49.03%

Source: Suffolk County Department of Economic Development and Planning, Division of Planning and Environment

Table 3-9. Town of Shelter Island Farmland Data, 2015

Active Farmland	Total In Acres
• Protected	176.72
▪ County/Town	146.97
▪ Peconic Land Trust	29.75
• Not Protected	11.12
Subtotal	187.84
Fallow Farmland	Total In Acres
• Protected	13.70
▪ County/Town	13.70
• Not Protected	11.00
Subtotal	24.70
Not Active/Abandoned Fields/Successional Woodlands	Total In Acres
Subtotal	0.00
Total Farmland in Town of Shelter Island	212.54
% of Town of Shelter Island in Agriculture	2.74%
Total Protected Farmland in Town of Shelter Island	190.42
% of Town of Shelter Island's Farmland Protected	89.59%

Source: Suffolk County Department of Economic Development and Planning, Division of Planning and Environment

Table 3-10. Town of Smithtown Farmland Data, 2015

Active Farmland	Total In Acres
• Protected	91.82
▪ County	63.18
▪ Peconic Land Trust	28.64
• Not Protected	179.16
Subtotal	270.98
Fallow Farmland	Total In Acres
Subtotal	0.00
Not Active/Abandoned Fields/Successional Woodlands	Total In Acres
Subtotal	0.00
Total Farmland in Town of Smithtown	270.98
% of Town of Smithtown in Agriculture	0.79%
Total Protected Farmland in Town of Smithtown	91.82
% of Town of Smithtown's Farmland Protected	33.88%

Source: Suffolk County Department of Economic Development and Planning, Division of Planning and Environment

Table 3-11. Town of Southamptom Farmland Data, 2015

Active Farmland	Total In Acres
• Protected	4,156.88
▪ County	704.59
▪ County/Town	242.49
▪ Town	1,914.73
▪ Agricultural Reserve	930.53
▪ Agricultural Reserve/Peconic Land Trust	47.32
▪ Peconic Land Trust, Not-For-Profits, Etc.	317.22
• Not Protected	2,140.22
Subtotal	6,297.10
Fallow Farmland	Total In Acres
• Protected	143.84
▪ County	20.26
▪ Town	18.92
▪ Village	9.02
▪ Agricultural Reserve	95.64
• Not Protected	95.30
Subtotal	239.14
Not Active/Abandoned Fields/Successional Woodlands	Total In Acres
• Protected	165.58
▪ County	21.82
▪ Town	13.27
▪ Agricultural Reserve	130.49
• Not Protected	43.04
Subtotal	208.62
Total Farmland in Town of Southamptom	6,744.86
% of Town of Southamptom in Agriculture	7.52%
Total Protected Farmland in Town of Southamptom	4,466.30
% of Town of Southamptom's Farmland Protected	66.22%

Source: Suffolk County Department of Economic Development and Planning, Division of Planning and Environment

Table 3-12. Town of Southold Farmland Data, 2015

Active Farmland	Total In Acres
• Protected	4,230.59
▪ County	1,717.08
▪ Town	2,328.01
▪ Subdivision Reserves	76.64
▪ State	21.09
▪ Peconic Land Trust	87.77
• Not Protected	4933.67
Subtotal	9,164.26
Fallow Farmland	Total In Acres
• Protected	38.71
▪ County	7.33
▪ Subdivision Reserves	31.38
• Not Protected	226.32
Subtotal	265.03
Not Active/Abandoned Fields/Successional Woodlands	Total In Acres
• Protected	145.20
▪ Town	142.67
▪ Peconic Land Trust	1.84
▪ Subdivision Reserves	0.69
• Not Protected	86.12
Subtotal	232.01
Total Farmland in Town of Southold	9,661.30
% of Town of Southold in Agriculture	28.11%
Total Protected Farmland in Town of Southold	4,414.50
% of Town of Southold's Farmland Protected	45.69%

Source: Suffolk County Department of Economic Development and Planning, Division of Planning and Environment

Table 3-13. County of Suffolk Farmland Data, 2015

Active Farmland	Total In Acres
• Protected	18,650.55
▪ County	9,477.29
▪ County/Town	1,274.91
▪ Towns	6,009.21
▪ Agricultural Reserves	1,042.79
▪ Agricultural Reserves/Peconic Land Trust	108.65
▪ Subdivision Reserves	76.64
▪ Peconic Land Trust, Not-For-Profits, Etc.	589.67
▪ State	71.39
• Not Protected	18,589.00
Subtotal	37,239.55
Fallow Farmland	Total In Acres
• Protected	308.31
▪ County	42.50
▪ County/Town	18.59
▪ Towns	73.00
▪ Town/Village	0.86
▪ Village	9.02
▪ Agricultural Reserves	115.90
▪ Subdivision Reserves	31.38
▪ Peconic Land Trust	17.06
• Not Protected	652.81
Subtotal	961.12
Not Active/Abandoned Fields/Successional Woodlands	Total In Acres
• Protected	431.03
▪ County	61.73
▪ Towns	227.92
▪ Agricultural Reserves	138.85
▪ Subdivision Reserves	0.69
▪ Peconic Land Trust	1.84
• Not Protected	347.13
Subtotal	778.85
Total Farmland in Suffolk County	38,979.52
% of Suffolk County in Agriculture	6.68%
Total Protected Farmland in Suffolk County	19,389.89
% of Suffolk County's Farmland Protected	49.74%

Source: Suffolk County Department of Economic Development and Planning, Division of Planning and Environment

- **Farmland Protection Strategies**
 - **Tools for the Protection of Farmland**

Suffolk County's 1996 Agricultural and Farmland Protection Plan described a number of tools that have aided in preserving and promoting agriculture. The following are tools that continue to be used in preserving and promoting agriculture throughout Suffolk County:

- Purchase of farmland development rights
- Voter referendum
- Transfer of development rights
- Donation of conservation easements
- Clustering (including agricultural reserves)
- Zoning (Agricultural Overlay Zones)
- Conservation planning/limited development
- Agricultural tax assessments (land value assessment)
- Right of first refusal
- Marketing
- Farm link and farm on programs
- Community supported agriculture (CSA)
- Responsible farming practices (AEM)
- Academic and technology connection
- Research laboratory
- State Agricultural Districts
- Reducing farm operating costs
- Estate planning

All tools in the box are important means to protect farmland in Suffolk County. Further discussion of some of these tools as well as other strategies being investigated or implemented today are described in Chapter 5.

- **Suffolk County Government Efforts to Protect Farmland**

With the establishment of the Nation's first purchase of development rights program in 1974, Suffolk County has been a leader in the preservation of farmland. Much progress has been made since then and the County is committed to continuing its efforts to support and protect agriculture as a vital asset to the community and economy. The Nassau-Suffolk Comprehensive Plan Summary in 1970 recommended the preservation of 30,000 acres of farmland. When the first Suffolk County Agricultural and Farmland Preservation Plan had been prepared in 1996, a preservation goal of 20,000 acres was set. To date, Suffolk County has almost reached the goal of 20,000 preserved acres of farmland, with the County preserving 10,636.6 acres and the

towns and not-for-profit organizations preserving 8,753.89 acres. A goal of 30,000 acres now seems attainable.

While preservation of farmland across the County is of great importance, the highest priority farmlands are those concentrated in the towns of Riverhead and Southold. These areas are of great importance because that is where the majority of the remaining farmland is and where the most land with undeveloped prime soils is found. It is important to preserve farmland in these towns to complete the farm belt on the North Fork of Long Island. By preserving farmland near to already preserved land there will be contiguous blocks of protected farmland that will provide attractive vistas to residents and tourists. These large blocks of farmland may also minimize land use conflicts between neighboring lands. While the towns of Riverhead and Southold have the most desirable farmland to preserve, this does not mean preservation efforts will be restricted to these areas.

As Suffolk County continues its efforts in farmland preservation, its first priority will be to prepare a master list of farmland parcels for acquisition and an initial list has been created through the identification of 19,589.63 acres that are not protected at the present time. This master list will be a useful tool in assisting both the County and local municipalities in making future decisions regarding Farmland PDR acquisitions and determining what funding will be needed to attain its goals.

The County has a Farmland Committee that was created under Chapter 8 of the Suffolk County Code. The committee reviews all proposed Farmland PDR acquisition properties and makes recommendations to the County Legislature who then bring forth legislation to acquire certain farmland properties. At the present time, the Suffolk County New Drinking Water Protection Program is the sole funding source for both open space and Farmland PDR acquisitions throughout the County. It utilizes a portion of the ¼% sales tax revenue on a pay-as-you-go basis that will end November 2030. At the present time, only an estimated \$6-8 Million are generated annually.

- **Town Government Efforts to Protect Farmland**

A number of towns in Suffolk County have programs that provide funding specifically for the acquisition and management of open space and farmland. A Community Preservation Fund was adopted by each of the five east end towns: East Hampton, Riverhead, Shelter Island, Southampton and Southold, for this purpose. This fund is financed by a 2% real estate transfer tax on land and housing sales. This tax is paid by the buyer and the money stays in the town in which the real estate transfer fee is levied. Each town has their own advisory committee, made up of citizens from each town, to oversee the program. Originally the program was to expire in the year 2020 but a referendum to extend the program to 2030 was passed.

The Town of Brookhaven has its own program that provides funding for the acquisition and protection of open space and farmland. This fund is known as the Joseph Macchia Environmental Preservation Capital Fund Reserve and is financed by budgetary appropriation or other means as the Town Board may deem appropriate.

The Town of Huntington has an Environmental Open Space and Park Funds program that provides financing for the acquisition and preservation of open space, including farmland. There is an advisory committee that manages the fund and makes recommendations for acquisitions.

Programs that provide for the protection of agricultural lands include purchase of development right programs and transfer of development rights programs. A majority of the towns in Suffolk County have at least one of these programs. The towns of Brookhaven, East Hampton, Riverhead, Shelter Island, Southampton and Southold all have purchase of development rights programs which protect farmland in perpetuity. The towns of Brookhaven, Huntington, Riverhead and Southampton all have transfer of development rights programs. This program allows the transfer of development potential away from areas designated for preservation to areas designated for higher-density residential development.

Agricultural advisory boards or farmland committees are another tool towns utilize in the effort to protect and support agriculture. The towns of Brookhaven, East Hampton, Huntington, Riverhead, Southampton and Southold each have their own committee that is dedicated to agriculture and farmland. These committees act as a means of communication between the farming community and the local Town Board. Committee duties may include reviewing and suggesting policies relating to agriculture, recommending agricultural lands from which development rights should be purchased and reviewing applications for construction permits for the erection of structures on lands from which development rights have been acquired by the town.

- **Not-for-Profit and Other Organizations Efforts to Protect Farmland**

In addition to local government there are several not-for-profit groups and other organizations and institutions who aim to preserve and promote agriculture in Suffolk County and educate the community on the importance of agriculture on Long Island. These groups include the Peconic Land Trust, Long Island Farm Bureau, Cornell Cooperative Extension of Suffolk County, Natural Resource Conservation Service, Suffolk County Soil and Water Conservation District and the north Shore Land Alliance.

The **Peconic Land Trust** is a nonprofit, tax-exempt conservation organization that works with landowners, communities, municipalities and partner organizations to conserve Long Island's

working farms, natural lands, and heritage. As a charitable organization, the Trust acquires conservation easements and land through donations and purchases. A conservation easement is a voluntary agreement between a landowner and the Trust that protects land from development in perpetuity; the result is similar in nature to the purchase of development rights program. When the Trust purchases farmland, it will often simultaneously sell development rights to Suffolk County or a Town. Once protected, the Trust may sell the farmland to farmers or lease it to new and established farmers through its Farms for the Future Initiative.

The primary objectives of the Initiative are to establish a new set of tools to address the issues of farmland accessibility, affordability and sustainability; to buy, protect, and resell farms to farmers; and to develop and expand its Farmland Leasing Program. Through this Initiative the Peconic Land Trust has pioneered the use of Affirmative and Affordable Farming Covenants and Resale Restrictions and established the Long Island Agricultural Capital Equipment Grant Program which will assist farmers in acquiring farm equipment needed to grow their business and meet the regulatory demands for improved food quality and safety standards.

The Peconic Land Trust believes in the importance of stewardship and employs innovative techniques to help farmers, land owners and municipalities maintain the natural resources of Long Island. The Trust can provide environmentally sensitive land care services to landowners. These services include field mowing, planting of cover crops and invasive vegetation removal. The Trust also holds a number of events and educational programs throughout the community to demonstrate the importance of agriculture. These events and programs include workshops, lectures, and dinners prepared with locally grown food.

The **Long Island Farm Bureau** is an organization made up of members who are engaged in the business of commercial agriculture as well as members who support the efforts to protect the rural way of life and the business of commercial agriculture.

The Long Island Farm Bureau is part of a state and national networking organization representing the agricultural industry in Nassau and Suffolk Counties. The Long Island Farm Bureau is a non-governmental, volunteer organization financed and controlled by member families for the purpose of solving economic and public policy issues challenging the agricultural industry. Farm Bureau's "grassroots" policy development process continues to ensure that the organization represents the majority position of its membership. Policy development begins at the county level with problem identification and culminates at the New York Farm Bureau Annual Meeting with resolutions addressing these issues.

The Long Island Farm Bureau is engaged in community efforts to promote and educate the importance of buying 'Grown on Long Island'. The Long Island Farm Bureau created the trademarked 'Grown on Long Island' logo to provide a local, recognizable icon to symbolize products grown in the region. Long Island Farm Bureau incorporates the slogan and the logo into its advertising and literature, establishing a 'home grown' identity and encourages Long Island growers to brand their products using the logo with a legal agreement. Long Island Farm Bureau's Agriculture in the Classroom Program supplies educators with resources and hands on programs to connect students with their agricultural roots. The Long Island Farm Bureau also offers scholarships to high school seniors who plan on continuing studies in the agricultural industry.

Cornell Cooperative Extension of Suffolk County is affiliated with Cornell University, part of the national land grant university system established in 1862. CCE of Suffolk County has been serving the farming community for nearly 100 years. The Agriculture Program is dedicated to supporting the economic viability of the agriculture and horticulture industries while working to preserve and protect our sensitive environment. The agriculture program has ten sub-program areas including Floriculture and Greenhouse, Nursery and Landscape, Vegetable, Viticulture, Weed Science, General Agriculture, Entomology, Environmental Stewardship, Community Horticulture and Integrated Pest Management for Suffolk County Facilities. CCE educators provide outreach to beginning, transitioning and established farmers. Agriculture continues to thrive in Suffolk County because growers continue to adapt to the changing environment by diversifying crops and adopting new technologies based on research and education programs provided by Cornell Cooperative Extension specialists.

CCE of Suffolk County collaborates with several statewide Cornell Cooperative Extension programs including the Cornell Small Farm Program and New York State Integrated Pest Management Program (IPM). The Small Farms Program offers a number of resources to farmers and has a small farms network of support. The IPM program fosters a systematic approach to pest management that uses a variety of cultural, biological and chemical strategies.

The **Natural Resources Conservation Service (NRCS)** of the United States Department of Agriculture is an agency committed to "helping people help the land"—our mission is to provide resources to farmers and landowners to aid them with conservation. Ensuring productive lands in harmony with a healthy environment is their priority. Inspired by a shared passion for conservation, NRCS regionally collaborates with farmers, communities, and other individuals and groups to protect natural resources on private lands.

Working side-by-side with these customers, we identify natural resource concerns, such as water quality and quantity issues, soil erosion, air quality, wetlands and wildlife habitat, and develop unique conservation plans for restoring and protecting resources. Funds to implement

these plans are made available in Farm Bill programs that share the cost of conservation for the benefit of the farm, the watershed, and the community. Conservation easement programs such as Farm Land Protection Program, also in the Farm Bill, provide long-term options. NRCS helps New York and the Nation balance economic goals with the needs of the environment – ensuring sustainable productive lands, and supply food, fiber, forest products, and energy for all citizens.

NRCS collaborates with many partners to set conservation goals, to provide the maximum technical assistance to people who work the land, and to leverage the federal contributions to natural resource conservation on private lands. These partners include: conservation districts, county governments, State and other federal agencies, NRCS Earth Team volunteers, agricultural and environmental groups and professional societies.

The **Suffolk County Soil and Water Conservation District** is a Suffolk County and New York State funded agency that provides technical assistance to farmers, landowners, organizations, and municipalities for the conservation of natural resources (soil, water, air, plants, and wildlife habitat) within Suffolk County. Specifically, the District is directed by Conservation District Law to conserve soil and water resources; control sediment and erosion; reduce floodwater; preserve natural resources; assist in the drainage and irrigation of agricultural lands; preserve wildlife; protect public lands; improve water quality; control and abate non-point source pollution; conduct public education; and manage invasive species. The District's programming is advanced with continued collaborative partnerships with local, county, state and federal agencies, organizations, and municipalities such as USDA-Natural Resources Conservation Service (USDA-NRCS) and Cornell Cooperative Extension of Suffolk County.

The District provides the leadership in advancing the New York State Agricultural Environmental Management (AEM) program locally, for the purposes of farmland conservation protection and planning in order to maximize crop production while protecting and conserving natural resources. Activities are focused on the development and implementation of conservation plans and engineering and agronomic practices to standards and specifications. Through the AEM planning process, the District seeks and administers federal, state and county cost-share funding to help encourage the adoption and off-set the costs associated with recommended conservation practice investments. To further assist in farmland protection and planning, the District also prepares the Soil Group Worksheet (APD-1) for agricultural landowners, which helps alleviate the tax burden on active agricultural lands.

An education program coordinated in association with Nassau Soil and Water Conservation District is the L.I. Regional Envirothon, an annual environmental studies competition for Nassau and Suffolk County high school students. This event engages the next generation of environmental stewards in learning activities that promote the protection, preservation, and restoration of our natural resources as a life-long commitment. This event is coordinated by the

Suffolk County Soil and Water Conservation District and is based on five subject areas: aquatics, forestry, soils, wildlife, and the current issue—which changes annually.

North Shore Land Alliance is a not-for-profit organization whose mission is to protect and preserve, in perpetuity, the green spaces, farmlands, wetlands, groundwater and historical sites in the northwest portion of Long Island. In Suffolk County this includes parts of Huntington, Smithtown and Brookhaven.

North Shore Land Alliance protects lands through the use of conservation easements, purchase of development rights, bargain sales, donations, conservation subdivisions and reserved life estates. The Alliance also advocates for the adoption of more effective land and water conservation laws and educates the community about the importance of protecting land. Educational programs include special lectures, events, presentations and panels. Recent farm related events held were the Small Farms Summit and the Long Island Food Conference.

- **Agricultural Districts**

The New York State Agricultural Districts Program encourages active farms to continue agricultural production by affording certain benefits to active farms under New York State's right-to-farm laws. The benefits of inclusion in an Agricultural District include protection from nuisance complaints related to standard agricultural practices and protection from over-restrictive local regulations.

Suffolk County has a total of six Agricultural Districts located in the Towns of Brookhaven, Huntington, Islip, Smithtown, Riverhead, Southold, Southampton, East Hampton, and Shelter Island. This program is a state-mandated program where the County is responsible for the administration of the annual enrollment period to consider new farmland parcels for inclusion into existing certified Agricultural Districts. The County is also responsible for the administration of the renewals for each of the six Agricultural Districts. The County has set up an Agricultural and Farmland Protection Board which reviews all properties being considered for inclusion into an Agricultural District. They make their recommendations to the County Legislature which then sends their approved list of farmland properties to the Commissioner of Agriculture and Markets for inclusion into the State's Agricultural Districts Program on an annual basis.

CHAPTER 4 – Review of Municipality Policies, Programs, Plans and Regulations Related to Agriculture and Aquaculture



- **Suffolk County Programs**

- **Suffolk County Farmland Purchase of Development Rights (PDR) Program**

In 1974, Suffolk County created the Farmland Purchase of Development Rights Program (“Farmland PDR Program”), the first in the nation, to address the rapid loss of prime agricultural lands to suburban development that had occurred in the post war decades. The County’s purchase of farmland development rights has been a uniquely effective preservation tool in that it has ensured that farmland will be preserved in perpetuity and be used exclusively for commercial agricultural production, in addition to protecting those lands as a vital cultural resource. The County Farmland PDR Program has received immense public support over the last 40 years through numerous referendums to support farmland and open space protection to thwart impending development and population increases. It is thus an important priority to continue to support and protect the County’s vital farmland and open space programs into the future.

Since the first farmland development rights were purchased in 1977, a total of 10,636 acres have been preserved through the County Farmland PDR Program. To date, Suffolk County has spent \$260,802,821.90 on acquiring these farm PDR lands with an additional \$57,150,319.85 spent by partnering town contributions. This totals \$317,953,141.75 spent on acquiring the 10,636.6 acres acquired. The agricultural industry has evolved in that time especially in regard to the different types of agricultural products that generate the highest market value, as discussed in the first chapter. Updates to Chapter 8 of the Suffolk County Code, which governs the County Farmland PDR Program, has thus been undertaken to address the evolving agricultural industry and the new issues that have emerged in regard to enforcement, program administration, and to ensure that County-preserved agricultural lands continue as active commercial farms.

Beginning in 2008, the County commenced a review of Chapter 8 of the Suffolk County Code to address new challenges in regard to enforcement and to provide clarification in other areas of the code. The County conducted an extensive public outreach process whereby it solicited input from its Farmland Committee and Advisors, Long Island Farm Bureau, Peconic Land Trust, farmers, the general public, and other interested stakeholders. These meetings and outreach resulted in certain recommendations which were ultimately codified as amendments to Chapter 8 of the Suffolk County Code on October 28, 2010. The following are highlights of those amendments:

- Creation of an enforcement provision prohibiting non-agricultural uses (e.g., dumping, mining, excavating)

- Clarification of the County Farmland PDR permit process for proposed agricultural structures, special uses, and special events
- Creation of an Annual Review Period which allows landowners of active commercial agricultural farms to apply for County Farmland PDR Program consideration during a designated annual review period
- Addition and clarification of definitions for terms used in the code such as agricultural production, structure, site disturbance, et al.
- Modification of the County Farmland Committee’s composition to include agricultural experts in various areas of expertise (i.e., vegetable, fruits, livestock, horticulture, and viticulture)
- Creation of a lot coverage provision which limits the total amount of lot coverage for buildings and other farm related structures on County Farmland PDR based on the property size.

In 2012, the County commenced a second review of Chapter 8 of the Suffolk County Code to find ways in which to strengthen the intent of the Suffolk County Farmland Purchase of Development Rights Program and to foster and ensure continued commercial agricultural production activities on County Farmland PDR lands. The County conducted public outreach meetings, similar to the 2010 outreach process, to brainstorm and solicit input from farmers, Cornell Cooperative Extension, Long Island Farm Bureau, Peconic Land Trust, County, Town and other interested stakeholders. These meetings led to certain recommendations which were ultimately codified as amendments to Chapter 8 of the Suffolk County Code on November 19, 2013. The following are highlights of those amendments:

- Modification of farm stand regulations to allow a maximum of 1,000 square feet for a farm stand and/or limited processing facility
- Prohibition on the abandonment of agricultural use which prohibits lands from laying fallow for more than two consecutive years
- Modification to allow a Bi-Annual Review Period which allows landowners of active commercial agricultural farms to apply for County PDR Program consideration during two designated annual review periods
- Allowance of specified agricultural-tourism activities (i.e., “U-Pick” operations, educational agricultural tours, crop mazes and hayrides)

For further information on the above amendments, associated requirements, and most recent changes to Chapter 8 of the Suffolk County Code, it can be found on the County's website through the following link:

<http://www.suffolkcountyny.gov/Departments/Planning/Divisions/OpenSpaceandFarmland/FarmlandPreservation.aspx>

- **Suffolk County Farmland PDR Program Rating System**

Over twenty years ago a rating system was developed for the evaluation of farm properties that were being considered for inclusion into the Suffolk County Farmland Purchase of Development Rights Program. The County's 1996 *Agricultural and Farmland Protection Plan* described the rating system in place at the time. Updates to this rating system have occurred since 1996 and due to the most recent changes to Chapter 8 and new developments in the farming industry, as a whole, the County has initiated the undertaking of a new revision to its rating system. Emphasis on prime soils is still paramount in the analysis of proposed farmland properties to be included in the County's Farmland PDR Program as well as the size of the farm and its relationship to other preserved farm properties. Length of the farm along roadways and its additional value to scenic view sheds or vistas comprise the four main components to the County's rating system.

Suffolk County has been fortunate to have an abundance of preferred soil types for agricultural uses. The one factor that is of primary importance to the County's Farmland PDR Program is to preserve prime agricultural soils that are most conducive to farming. This is the most basic requirement for the growing of crops in the ground. Prime soils are classified into Capability Classes which consist of Sub-Classes and Units that indicate the characteristics of the best soils for farming. Class I soils are best suited for all crops commonly grown in the County since they are nearly level and have few limitations that restrict their use. Soil types in this group include Bridgehampton silt loam, Haven loam, and Montauk silt loam. Class II soils are prime soils that are gently sloping and have moderate limitations that reduce the choice of plants or that require moderate conservation practices. Table 4-1 summarizes the prime agricultural soils that are factored in the rating of farm properties. A set of maps has been prepared for each town that depicts the prime farm soils.

Table 4-1. Prime Farm Soils in Suffolk County.

Capability Symbol	Soil Type	Slope	Unit
BgA	Bridgehampton silt loam	0-2%	I-1
BgB	Bridgehampton silt loam	2-6%	Ile-1
BhB	Bridgehampton silt loam/ till substratum	2-6%	Ile-1
HaA	Haven loam	0-2%	I-1
HaB	Haven loam	2-6%	Ile-1
He	Haven loam, thick surface	<3%	IIw-2
MfA	Montauk fine sandy loam	0-3%	IIs-1
MfB	Montauk fine sandy loam	3-8%	Ile-2
MkA	Montauk silt loam	0-3%	I-1
MkB	Montauk silt loam	3-8%	Ile-1
RdA	Riverhead sandy loam	0-3%	IIs-1
RdB	Riverhead sandy loam	3-8%	Ile-2
ScB	Scio silt loam	2-6%	Ile-1
SdA	Scio silt loam	0-2%	IIw-1
SdB	Scio silt loam	2-6%	Ile-1
Su	Sudbury sandy loam		IIw-1

Capability Unit - for more detail refer to the *Soil Survey*

I-1	Suitable for all crops commonly grown in Suffolk County
Ile-1	Suitable for forage, grain, vegetables and nursery stock (except where erosion is a hazard).
Ile-2	Suitable for forage, grain, vegetables and nursery stock (not suited to continuous cultivation).
IIw-1	Suitable to all crops commonly grown in Suffolk County
IIw-2	Suitable to all crops commonly grown in Suffolk County
IIs-1	Suitable to all crops commonly grown in Suffolk County (irrigation required)

Source: *Soil Survey of Suffolk County, New York* - U.S. Dept. of Agriculture, April 1975.

The second factor that is important to the County's Farmland PDR Program is the preservation of large active farm properties. Since the beginning of the County's Program, its goal has been to preserve large swaths of unprotected farmland from development. Over time, as the average farm size has decreased, it is even more pressing to preserve the larger, contiguous farms that remain.

The third factor seeks to preserve farm properties that are contiguous to other preserved County and Town Farmland PDR properties. This helps to ensure that large, contiguous areas of preserved farmland will remain in agricultural use in perpetuity without the impacts that other types of development can impose on farming activities.

The fourth factor aims to preserve farm properties that are part of large farm blocks of both preserved and unpreserved farmland with long road frontages and scenic vistas. It aims to protect large areas of contiguous farmland by preserving farm blocks or belts of both preserved and unpreserved farmland.

Other considerations in the rating of farm properties include whether a farm is located within an existing certified Agricultural District; there is a confirmed partnership with a municipality or not-for-profit organization to acquire the farmland development rights; whether an Agricultural Environmental Management Plan (AEM) has been approved; and if the property is located within a Census Designated Place with a population of more than 1,000 persons per square mile. A list of the five tiers used in the NYS AEM program can be found in the Appendix.

Suffolk County is unique and more complex compared to other major farming areas upstate and throughout the Country in regard to its dense, suburban population, high land values, and the diversity of land uses. These stresses increase the potential for land use conflicts, particularly in areas where farming occurs near residential areas. It is important to be cognizant of these potential land use conflicts and competing interests that may occur in more densely populated areas of the County especially when evaluating farm properties for inclusion into the County's PDR Program. The important issue moving forward will be to balance these uses while protecting our farming areas and maintaining a sustainable farming economy.

Long Island, including Suffolk County, is also unique in that it sits atop a sole source aquifer from which it derives its drinking water. An important goal of sustainability is to protect groundwater quality and retain affordable drinking water for a highly populated area. It is thus important that we address all land uses, including agricultural, residential, commercial, and industrial that impact groundwater quality. Implementation of best management practices is one of the ways in which agricultural uses and its potential impacts can be addressed. This revised rating system has acknowledged this issue and provides added points for those farms that have an approved AEM.

Further evaluation and collaboration will be forthcoming with the Suffolk County Farmland Committee who will finalize a draft rating system which will then be submitted to the Suffolk County Legislature for final approval.

- **Suffolk County Shellfish Aquaculture Lease Program**

Shellfish farming has long been a significant, traditional use occurring in the shallow bays and estuaries between the North and South Forks in eastern Suffolk County. Suffolk County was once very active in managing the underwater lands in Peconic and Gardiners Bays for oyster farming. Under previous New York State laws, Suffolk County was responsible for the sale of oyster cultivation grants to private parties in the late 1800s and early 1900s. As a result of this oyster grant issuance activity, the underwater lands in Peconic and Gardiners Bays were subdivided into 555 individual parcels. While a significant number of those oyster grants have since reverted to public ownership, some privately owned oyster grants remain in the Peconic Bay system and have continued to be used for the cultivation of shellfish. Pursuant to Chapter 990 of the Law of New York (1969), Suffolk County was given the authority to lease certain underwater lands in Peconic and Gardiners Bays for shellfish cultivation. Although the County continued to participate in shellfish culture issues in the Peconic Bay system, it did not satisfy the necessary requirements to establish a lease program in this region at that time.

As environmental conditions began to deteriorate in the Peconic Estuary and once-productive shellfisheries began to decline due to harmful algal blooms in the mid-1980s and other causes, a few baymen started exploring the option of cultivating shellfish. In lieu of owning a private oyster grant or being able to obtain a lease from the County, prospective shellfish farmers were issued annual permits known as a Temporary Marine Area Use Assignments (TMAUAs) by the New York State Department of Environmental Conservation (NYSDEC). These TMAUAs consisted of circular five-acre plots on State-owned underwater lands where shellfish farmers could use gear, such as cages, to grow out their shellfish off the bottom. As more and more people found success using new culturing and grow out methods, the demand for TMAUAs in Suffolk County steadily increased, and a call for more secure access to underwater lands was raised. All of this led to a surge in shellfish aquaculture industry activity.

Under Chapter 425, Laws of New York 2004 (2004 Leasing Law), as codified in New York State Environmental Conservation Law (ECL) §13-0302, the State of New York ceded title to approximately 110,000 acres of underwater lands in Peconic Bay and Gardiners Bay to Suffolk County for the purpose of shellfish cultivation, and authorized the County to prepare, adopt and implement a shellfish aquaculture lease program for this region.

The Suffolk County Department of Planning addressed the initial part of the State's challenge and completed the *Suffolk County Shellfish Aquaculture Lease Program in Peconic Bay and Gardiners Bay – Management Plan* report in 2009 after nearly four years of intensive study, planning and evaluation. The Suffolk County Shellfish Aquaculture Lease Program in Peconic Bay and Gardiners Bay (Lease Program) was subsequently adopted by the County in 2009 (Local Law No. 25-2009), and the Department of Economic Development and Planning (Department),

Division of Planning and Environment was designated as the County entity responsible for implementing and administering the Lease Program. This new program provided secure access to marine space for conduct of private, commercial shellfish aquaculture in near-shore coastal waters on publicly owned underwater lands in Peconic Bay and Gardiners Bay, and introduced a new era in shellfish farming activity in Suffolk County.

According to NYS ECL §13-0302, “Leases may be issued only within areas designated as shellfish cultivation zones on a map or maps to be prepared and approved by the County of Suffolk.” The Shellfish Cultivation Zone was created to define the areas that are considered suitable for the potential placement of aquaculture leases that would have minimal impact on existing resources and activities. Leasing Law restrictions, interviews and meetings held with multiple user groups and extensive data analysis during the development of the Lease Program led to the delineation of various environmentally and socio-economically sensitive areas of the bays, all of which were considered unsuitable for the establishment of shellfish aquaculture operations. Among those areas deemed inappropriate for the siting of leases were the underwater lands within 1,000 feet of mean high water; NYSDEC shellfish closure areas; areas that support multiple commercial fisheries; navigation channels; current and historic eelgrass bed locations; current commercial hard clam harvest areas; and current and historic bay scallop beds.

The Suffolk County Shellfish Cultivation Zone is a 29,969-acre zone within which all County-issued shellfish leases are located. The zone includes former NYSDEC-issued TMAUA locations; historic, private oyster grants; and other contiguous areas where the impacts/conflicts of shellfish aquaculture activities on environmental resources/socio-economic concerns will be minimal. It was decided that the issuance of new shellfish aquaculture leases would be limited to minimum of 60 additional acres per year (Annual Acreage Cap Limit), for a maximum of 300 acres during the first five years of the program, and a total of 600 acres by the tenth year of program implementation.

Since the adoption and initial implementation of the program in August 2009, and January 2010, respectively, the County has completed six lease application cycles. Throughout this period, interest in obtaining new leases has remained strong. As of November 2015, Suffolk County has a total of 41 leases in effect on about 640 acres of underwater land in Peconic and Gardiners Bays (See Table 4-2). The County anticipates the final execution of nine pending leases in early 2016, thus increasing the total number of leases to 50, on a total of 730 acres of underwater lands. During the period from January 2016 to December of 2019, the County will hold four additional lease application cycles to lease the remaining 240 acres of underwater lands allowed under the Annual Acreage Cap Limit. (Additional lease acreage could become

available if existing leaseholders, whose acreage was derived from previous annual acreage caps, decide to terminate their leases with the County.)

Table 4-2. Leases and Acreage, Suffolk County Shellfish Aquaculture Lease Program, 2015

Town	Number of Leases	Acreage
East Hampton	5	50.00
Riverhead	3	26.93
Shelter Island	5	246.65
Southampton	8*	77.06
Southold	20**	238.32
Total in Suffolk County	41	638.96

*Contains one lease that lies in both Southampton and Riverhead, it was added to Riverhead’s total as this is where a majority of its acreage lies.

**Contains one lease that lies in both Southold and Shelter Island, it was added to Southold’s total as this is where a majority of its acreage lies.

Source: Suffolk County Department of Economic Development and Planning, Division of Planning and Environment
Current as of November 9, 2015, Subject to Change

While the County’s Lease Program attracts many experienced and new shellfish farmers, other shellfish farmers have obtained access to underwater lands through private ownership, or other access programs. These alternatives consist of privately owned underwater land/private oyster grants (oyster cultivation only), TMAUAs located outside of the Shellfish Cultivation Zone on State-owned underwater lands, and lease or license agreements that are issued by the towns for access to town-owned underwater lands.

According to the 2012 Census of Agriculture, Suffolk County ranked number one in the state in the market value of aquaculture products sold in 2012, \$9.3 million. This figure represented 51.5% of the entire New York State total.

- **Review of Local Municipality Comprehensive Plans, Policies, Programs & Zoning and Subdivision Regulations Relating to Agriculture**

Comprehensive plans and local regulations can have a significant impact on the farming community. Comprehensive plans demonstrate a community’s attitude towards farming and how supportive they are of preserving and promoting it. The plan also sets goals and strategies the community would like to achieve. Zoning regulations originate from the goals of the comprehensive plan and should support the community’s vision for agriculture. Zoning laws

and other regulations can greatly affect agriculture by supporting and promoting it or restricting and hindering it.

Two important regulations that support farming are the right to farm law and the protected agricultural practices within the respective Town or Village zoning and subdivision regulations. Five of the ten towns in Suffolk County have these laws in their code. The right to farm law gives farmers the right to farm without undue interference from adjacent landowners or users. These towns also provide farmers the right to undertake protected farm practices in the active pursuit of agricultural operations, including but not limited to clearing, grading, plowing, aerial and ground spraying, the use of legal agricultural chemicals, raising horses, poultry, small livestock and cattle, processing and marketing produce, installing water and soil conservation facilities, utilizing crop protection devices, designing, constructing and using structures, including barns, stables, paddocks, fences, greenhouses and pump houses, using water, pumping, spraying, pruning and harvesting, disposing of organic wastes on the farm, extensive use of farm laborers, training others in the use and care of equipment, animals, traveling local roads in properly marked vehicles and providing local farm produce markets near farming. These activities can and do generate dust, smoke, noise, vibration and odor and may occur on holidays, Sundays, and weekends, in both the night and the day. Such activities are presumed to be reasonable and do not constitute a nuisance unless the activity has a substantial adverse effect of the public health, safety and welfare.

The following is a list of farm friendly criteria followed by a review of the available comprehensive plans and zoning and subdivision regulations regarding agriculture for the ten towns and a selection of villages in Suffolk County:

Farm Friendly Criteria

Comprehensive Plans:

- The comprehensive plan has a section on agriculture.
- The plan recognizes the importance of agriculture to the economy and community.
- The plan sets goals relating to agriculture.
- The plan recommends strategies and action plans relating to agriculture.
- The plan sets policies relating to agriculture.
- The plan discusses policies and tools related to preserving agricultural land.

Local Regulations:

- Agriculture is permitted in more than one zoning district.
- Accessory uses such as buildings, barns, garages, etc. are permitted.

- Special use permits for agriculture and agriculture related uses are not required.
- There is an established agricultural zoning district or agricultural overlay district.
- Higher density residential or commercial growth in core farm areas is discouraged.
- Open space subdivisions and clustering that provides areas designated for farming activities is encouraged.
- Farmland preservation programs such as purchase of development rights or conservation easements are encouraged.
- There is a right to farm law.
- Agricultural practices are protected.
- There is a right to notice law (relating to nearby farm operations).
- Agricultural activities are exempt from noise regulations.
- Buffer zones are required between farmland and residential uses.
- Onsite and offsite signs advertising agricultural products for sale are permitted.
- Farmstands are permitted.
- Farmstands are permitted to sell products not grown on the site.
- There are no prohibited animals.
- There is no limit on the number of animals.
- **Town Comprehensive Plans, Policies, Programs & Zoning and Subdivision Regulations Relating to Agriculture**

- **Town of Babylon**

Comprehensive Plan Review

The Town of Babylon's 1998 comprehensive plan does not discuss agriculture or set any goals relating to agriculture.

Zoning, Subdivision and Regulations Review

The Town of Babylon has a total of 14 zoning districts of which six are residential and eight are non-residential. Of the 14 zoning districts, customary agricultural occupations are permitted in four of the residential zoning districts. Customary accessory buildings and uses related to the agricultural operation are also permitted so long as they are not conducted as a business. There is a requirement that dust or odor producing substances may not be stored within required distances from lot and street lines. Any horses or livestock must also be kept at a certain given distance from any habitable dwellings

There is no permit required for farmers making reasonable use of water resources when grazing and watering livestock, harvesting natural products of wetlands or selective cutting of timber,

draining land or wetlands for growing agricultural products. There is also no permit required for the excavation or removal of any nonvegetative earth products as a result of farming.

- **Town of Brookhaven**

Comprehensive Plan Review

The Town of Brookhaven's 1996 comprehensive plan does not have a section dedicated to agriculture. Instead it lists agricultural goals throughout hamlet mini master plans. For example, the Longwood mini master plan includes encouraging the use of Purchase of Development Rights to preserve agricultural resources. Other goals include establishing an agricultural zoning category, continuing existing agricultural uses and enacting tax abatements for properties in agri-business.

Zoning, Subdivision and Regulations Review

Brookhaven recognizes the importance of the agricultural industry and therefore includes a section in the Town Code regarding the right to farm and protected farm practices. The Town also has a right to notice law such that town agencies shall give notice of protected farm practices to any applicant of a proposed development that would be neighboring a farm.

In order to preserve environmentally sensitive lands, including agricultural lands, Brookhaven established the Joseph Macchia Environmental Preservation Capital Fund Reserve which provides funds to pay costs associated with the acquisition of such undeveloped lands. Brookhaven also utilizes a Transfer of Development Rights Clearinghouse. The Town also has an Agricultural Advisory Board to advise the Town on policy issues and programs affecting agricultural industries within the Town.

The Town has a total of 32 zoning district categories of which 17 are residential and 15 are non-residential. Brookhaven allows open farming, defined as cultivation of the soil for food products, in five residential and four business zoning districts. Certain districts have regulations such as no odor or dust producing substances are to be stored within 150 feet of the property line. Customary accessory uses, structures, buildings and greenhouses, conforming to dimensional requirements, are permitted accessory uses. Retail or wholesale of agricultural products is permitted. Wind energy conversion systems are also permitted on parcels used for agricultural production as customary accessory structures. Other agricultural operations not included in the definition of open farming, such as dairies, greenhouse and raising of livestock, require special use permits. Stand-alone farm stands are permitted in one business district while another business district permits duck ranches.

Brookhaven has a horse farm residence district which allows open farming and horse farms. Customary accessory uses are permitted such that uses are incidental to the primary use. Housing accommodations for full time farm employees requires a special permit from the Board of Appeals. Horse shows and special events may be held if authorized by the Planning Board. Horse farms include regulations including but not limited to minimum lot size, specific horse to acre ratios and stable size requirements. Agricultural activity is also permitted in the Central Pine Barrens district so long as such use or expansion of use does not result in any material alteration of native vegetation.

A planned conservation overlay district also exists in Brookhaven with the purpose of preserving large portions of existing open space and agriculture of at least 35 acres. Site development in this overlay district requires that a minimum of 70% of the land must be preserved for open space or agriculture with development restricted to the other 30%.

Additional zoning regulations in Brookhaven include agricultural equipment being exempt from the noise regulations, provided that it is operated with a muffler between certain hours. The Town also allows unlimited quantities of hay and other agricultural products to be stored in or near farm buildings outside closely build areas without a permit.

- **Town of East Hampton**

Comprehensive Plan Review

East Hampton's 2005 comprehensive plan states one goal relating to the preservation of agriculture which is to encourage and retain traditional agricultural industries that practice environmentally sound methods of operation. This goal is followed up with strategies such as: continue to encourage local land trusts to preserve agricultural land; encourage farmers to enroll in property tax reduction programs; and allow commercial greenhouses in additional zoning districts.

Zoning, Subdivision and Regulations Review

East Hampton has a right to farm policy and protection of agricultural activities to conserve and encourage development of its agricultural land. Agricultural activities between 6:00 a.m. and 8:00 p.m. are also exempt from the noise regulations of East Hampton.

East Hampton has a Community Preservation Fund which is financed by a 2% tax on real estate sales in the Town. This fund is used to protect open and undeveloped lands including farmland. The fund helps finance its Purchase of Development Rights program which preserves agricultural lands in perpetuity. The Town also uses conservation easements to preserve agricultural lands by limiting or restricting development on farmland parcels. The Town of East

Hampton has also established an Agricultural Advisory Committee to serve as a vehicle for communication between the agricultural community and Town government, make recommendations as to Town policies and how they relate to agriculture, and make recommendations regarding the Town's preservation efforts.

The Town of East Hampton has a total of 21 zoning district categories of which nine are residential and 12 are non-residential. Agriculture is permitted in several zoning districts, including eight residential districts and seven non-residential districts. Accessory buildings are permitted but are subject to dimensional regulations. Riding academies are permitted in the business districts and permitted by special permit in other districts. Animal husbandry and wineries are permitted by special permit in select districts. There is an Agricultural Overlay District to preserve large, contiguous areas of prime agricultural soils. Lots, lands, buildings and other structures in this overlay district are subject to the Town Open Space Preservation Law, right to farm, soil conservation, site plan review and architectural review.

In order to further preserve prime agricultural lands, East Hampton requires that open space subdivisions, containing prime agricultural soils or that are located within the Agricultural Overlay District, set aside 70% of the total acreage as agricultural open space (i.e. agricultural reserve areas).

Other regulations in the Town include the regulation of farmstands which allows temporary open walled structures that may not exceed 200 square feet in floor area. They must be located on the lot being used for agriculture and operated by the owner or lessee-farmer to sell produce grown on the lot, with or without other produce. There is also a regulation for quartering animals stating that they shall not be permitted within 10 feet of any lot line except when adjoining the street or a parcel of land whose use is restricted in perpetuity to agriculture. East Hampton requires permits for fences in the front yard area over four feet in height and for any fence greater than six feet in height.

- **Town of Huntington**

Comprehensive Plan Review

Huntington's 2008 comprehensive plan includes a chapter dedicated to open space which includes agriculture. Goals set forth by the Town include strengthening their open space program, using town funds and grants for acquisition of open space and exploring the use of a Purchase of Development Rights program to preserve prime agricultural properties.

Zoning, Subdivision and Regulations Review

The Town of Huntington has an Environmental Open Space and Park Funds program that provides financing for the acquisition and preservation of open space, including agricultural land. There is an advisory committee that manages the fund and makes recommendations for acquisitions. The Town also uses programs such as the Transfer of Development Rights and Transfer of Density Flow Credits to benefit the preservation of open space and agricultural land. Land, from which the development rights or density flow credits are to be transferred from, can include agricultural land. Huntington Code provides for a Citizen's Advisory Committee on Farming to advise the Town Board on matters affecting farming in Huntington. The Committee also educates the public on the importance of maintaining the farming community and protecting farmland. The Town of Huntington has an Open Space Index adopted in 1974, which provides the Huntington Conservation Board with an advisory role on land use applications with potential to affect mapped sites, much of which was or is farmland.

The Town has a total of 33 zoning district categories of which 13 are residential and 20 are non-residential. Agriculture is permitted in 8 residential districts and 6 non-residential districts with buildings, retail sale of products and signs permitted as accessory uses. Dairies, commercial riding centers, and horse boarding facilities are permitted in some residential zones subject to specific requirements including, but not limited to, acreage size, lot coverage percentages, and parking constraints. Huntington also has a Special Agricultural-Retail Overlay District which allows retail uses restricted to food, flowers and nursery products and may also include animal farms. Property and buildings used for agricultural, farm and nursery use are permitted in this overlay district.

Town of Huntington Code allows for all available vacant lands to be used as community gardens. Any resident or organization within the town may apply to use vacant land as a community garden. Produce grown within the garden may not be sold but can be donated.

Other regulations related to agriculture include the allowance, without a permit, of one non-illuminated sign announcing the sale of agricultural products. The moving of topsoil from one part of the property to another incidental to farming is exempt from the grading of land regulations.

- **Town of Islip**

Comprehensive Plan Review

The Town of Islip's last comprehensive plan is from 1979. The Town is currently working on an update.

Zoning, Subdivision and Regulations Review

The Town of Islip has a total of 27 zoning district categories in which nine are residential and 16 are non-residential. Agriculture and the retail sales of products grown on the premises are permitted in one residential and five non-residential zoning districts in Islip. Two zoning districts require a buffer zone of at least 25 feet wide between agricultural operations and residential uses. Animal related agriculture such as commercial poultry farms, poultry slaughterhouses and goat farms are permitted in two industrial zoning districts by special permit. The keeping of equine livestock is subject to regulations such as specific horse to acreage ratios, stable and corral dimensions and locations and storage regulations.

Additional agricultural regulations in Islip include the storage of unlimited quantities of hay, straw and other agricultural buildings, without a permit. There is no permit necessary for the moving of topsoil from one piece of a property to another for the purpose of farming. There is also no permit necessary for grazing, farming and harvesting of crops on wetlands and waterways, so long as these activities don't substantially impair the functions of the wetlands.

- **Town of Riverhead**

Comprehensive Plan Review

The Town of Riverhead's 2003 Comprehensive Plan has a chapter dedicated to agriculture. Riverhead recognizes the importance of agriculture and the contributions it makes to the local economy and character of the town. Therefore the Town sets forth a number of goals to preserve and promote agriculture. These include preserving the agricultural landbase, reducing development where agriculture is concentrated, fostering the local agriculture community and protecting the family farm. Riverhead puts forward many strategies to achieve these goals and preserve farmland in the town. Several of these goals have been achieved since the publication of the plan in 2003 such as implementing a transfer of development rights program and promoting the growth of the wine industry and agro-tourism in the Town.

Zoning, Subdivision and Regulations Review

In order to preserve and protect farming in Riverhead, Town regulations give farmers the right to farm without undue interference from adjacent landowners and lists protected farm practices. Riverhead also requires a notice of protected farm practices as part of any approval of real property development within 1,000 feet of any property five acres or greater that has an agricultural easement or is in an agricultural district.

Riverhead has a number of programs to facilitate the preservation of farmland. There is the Purchase of Development Rights program which allows for town funding to purchase

development rights of farmland to keep the land in agriculture in perpetuity. A source of funding for this program comes from the Community Preservation Fund which is financed by a 2% tax on real estate sales in the Town. Another program, Transfer of Development Rights, allows the transfer of development potential from the Agricultural Protection Zone to areas designated as more appropriate for higher density development. Riverhead also has an Agricultural Advisory Committee and a Farmland Preservation Committee. The Agricultural Advisory Committee serves as a vehicle for communication between the agricultural community and the Town Board, while the Farmland Preservation Committee acts as a resource in the prioritization of agricultural lands to be preserved or acquired.

The Town of Riverhead has a total of 38 zoning district categories of which nine are residential and 29 are non-residential. Agriculture is permitted in five residential districts and eight non-residential districts. Riverhead also has an established Agricultural Protection Zoning Use District (APZ) to facilitate existing and future agricultural land uses. The APZ allows agricultural activity, farm operations, agricultural worker housing and small wind energy systems on parcels greater than 7 acres. Greenhouses are permitted on parcels 5 acres or greater and permanent greenhouses are subject to site plan approval. Retail sales of homegrown products are also permitted on parcels 7 acres or greater, subject to site approval. Retail sales may include farm products not grown by the farmer so long as they do not exceed 40% of the merchandise area. Low density residential zoning districts allow similar uses in the APZ with the exception of the wind energy systems. The additional districts that allow agriculture and its accessory uses and buildings, including retail sales, do so with few restrictions, though some districts require special use permits for horse operations. Farmstands and wine tasting rooms are a permitted accessory use only in the rural corridor zoning district.

Cluster development is encouraged to allow for compatible arrangement of agricultural and residential land and to preserve prime agricultural soils and maintain scenic vistas. Requirements of cluster development include a minimum size of ten acres for an agricultural lot and preserving at least 70% of Class I or II prime agricultural soils.

Other regulations in Riverhead include the exemption of agricultural activity from the Town's noise regulations. Temporary farm market signs advertising available produce are permitted in all zoning districts without a permit. Each farm market may have up to 10 signs and two additional off-site signs advertising specific seasonal crop availability. The Riverhead Planning Board also allows for farm stand review and approval for the construction of roadside stands, u-pick operations and farm stands, subject to an applicant's ability to meet certain criteria.

- **Town of Shelter Island**

Comprehensive Plan Review

The Town of Shelter Island’s 1993 comprehensive plan does not discuss agriculture or set any goals relating to agriculture.

Zoning, Subdivision and Regulations Review

Shelter Island has a Community Preservation Fund which is financed by a 2% tax on real estate sales in the Town and is used to acquire interest or rights in real property, including agricultural land.

The Town has a total of 11 zoning district categories in which six are residential and five are non-residential. Agricultural uses such as the raising of trees, shrubs, plants and food crops is permitted in three residential zoning districts and one non-residential district. Accessory buildings or structures incidental to these agricultural uses and the keeping of livestock are permitted accessory uses. Noncommercial riding rings are permitted in these districts by special use permit. The retail sale of products grown on the premises is a permitted accessory use in one residential district.

Shelter Island’s subdivision of land regulations state that subdivision design shall preserve and protect, if possible, natural terrain features such as prime agricultural soils.

Other Town regulations relating to agriculture include the allowance of a garden fence up to a maximum of eight feet in height. Farm machinery must be stored within a building or effectively screened from public view. Regrading, excavating and moving topsoil from one part of a property to another for the purpose of farming is exempt from the excavation regulations. Land used for agricultural production is also exempt from irrigation regulations.

- **Town of Smithtown**

Comprehensive Plan Review

The Town of Smithtown’s 2015 draft comprehensive plan recognizes the benefits of agriculture to the community and the need to protect it. Smithtown sets goals pertaining to open space, including agriculture, such as to protect the aesthetic appearance of agricultural lands, protect prime agricultural lands and expand agricultural uses when the opportunity arises.

Zoning, Subdivision and Regulations Review

The Town of Smithtown has a total of 20 zoning district categories in which 10 are residential and 10 are non-residential. Smithtown allows agriculture in seven residential and five non-

residential zoning districts. Horse stabling, adhering to specific requirements, is permitted in two residential districts but requires a special use permit in the others. Horsemanship schools and horse boarding operations are permitted in some residential districts with special use permits and also have to meet certain requirements. These requirements include size requirements, specific horse to acreage ratios and structure regulations among others.

When approving residential subdivisions, the Planning Board does so with certain goals in mind, such as preserving open space, minimizing adverse impacts to prime agricultural soils and scenic vistas. If a proposed subdivision will impact prime agricultural soils, then the subdivision shall be clustered.

Other regulations pertaining to agriculture in Smithtown include storage of unlimited quantities of hay, straw and similar agricultural products near farm buildings located outside of congested districts. No permit is required for activities of farmers grazing and watering livestock, harvesting natural products of wetland and otherwise engaging in the use of wetlands for growing agricultural products. Noise produced from agricultural equipment is exempt from the Town's noise regulations between given hours. The Town Board may approve special events to be held at a winery pursuant to specific conditions.

- **Town of Southampton**

Comprehensive Plan Review

The Town of Southampton's comprehensive plan was published in 1999 and includes a section entitled The Vision for Agriculture. This section recognizes the importance of agriculture and the immense development pressure threatening it. Southampton sets forth a number of goals and implementation strategies to protect and preserve agriculture through different Town policies and programs. Among strategies proposed are the use of Transfer of Development Rights, enhancing the Purchase of Development Rights Program, bringing inactive agricultural land back into production and enacting programs that foster an awareness of agriculture. Several Town goals have been achieved since the plan's publication, such as the establishment of a transfer of development rights program and enhancing the Town's support of farming through its regulatory policies and programs.

Zoning, Subdivision and Regulations Review

Southampton recognizes the right to farm and includes a section in the Town code stating this right and the protection of agricultural activities. Agricultural activity is also exempt from the noise provisions regulating noise pollution in the Town.

Southampton has a number of farmland preservation programs that protect agricultural land through the acquisition of development rights. There is the Community Preservation Fund which is financed by a 2% tax on real estate sales in the Town and is used to acquire interest or rights in real property, including agricultural land. Beginning in 2014, the Town has purchased enhanced restrictions on protected farmland that include Affirmative and Affordable Farming Covenants and Resale Restrictions. Acquisitions are reviewed and recommended to the Town Board by the Community Preservation Fund Advisory Board that includes an active farmer as a voting member. There is also a Town Agricultural Advisory Committee that makes recommendations to the Town Board regarding policies that benefit agriculture and the Planning Board regarding proposed agricultural structures on protected farmland. An Environmental Savings Fund also exists through voluntary gifts.

The Town of Southampton has a total of 36 zoning district categories in which 17 are residential and 19 are non-residential. Agriculture is permitted in 14 residential districts and 9 non-residential districts. There are also three residential districts and one non-residential district that only permit plant nurseries and one non-residential district that only permits horse farms. The zoning districts that permit agriculture also permit accessory uses such as accessory structures, wind energy conversion systems and temporary roadside stands. Agricultural operations such as animal husbandry, horse operations and commercial greenhouse operations are only permitted in specific districts and require a special permit. Furthermore, animal husbandry is only permitted on sites of 10 acres or more and there are zoning regulations pertaining to shelters for these animals. Horse farms, stabling facilities and riding academies have their own set of requirements. These include a minimum lot size of 10 acres, specific horse to acreage ratios, building size and style requirements, event limitations and several other regulations. Wineries are permitted by special permit only in the country residential zoning districts. Agricultural labor housing meeting specific requirements is permitted by special use permit in most residential zoning districts.

The Town of Southampton has an Agricultural Overlay District to encourage preservation of large tracts of agricultural lands. Subdivision in the Agricultural Overlay District shall preserve the maximum possible land area for agricultural use (between 35% and 65% of the prime agricultural soils depending on the zoning of the parcel), which will become an agricultural reserve with an easement running with the Town or a qualified conservation organization. Applicants for planned residential development in an Agricultural Overlay District may transfer the development rights to an approved land area outside of the agricultural tract. The Town also has an Agricultural Planned Development District (AgPDD) to encourage the protection of farming by having the Town and landowner enter into an agricultural easement under which the land will remain in agriculture for a minimum of 10 years. Farmland included in an AgPDD is protected from changes in zoning.

Southampton also has a Conservation Opportunities Subdivision Option that is designed to promote agricultural production and preserve and protect prime agricultural soils. The Conservation Opportunities Subdivision will preserve at least 80% of the parcel and reduce the development by 50%.

A permit is required to erect and operate a temporary farm stand for the sale of farm related products. As per regulations, a farm stand may not exceed 240 square feet. To obtain a permit, the area devoted to growing crops by the farmer must be no less than 10 acres. No permit is required for a single roadside stand, selling crops grown within the Town, which has a display area less than 40 feet in area. Other agricultural regulations in Southampton include residential districts to require that cover crops be planted on all cultivated land of one acre or more within two weeks of harvest. These cover crops must be maintained to protect the soil against wind erosion. Agricultural fencing may be approved by the Town Board but may not exceed a maximum height of eight feet. Greenhouses on lots of less than three acres within certain residential districts are subject to lot coverage and setback requirements.

- **Town of Southold**

Comprehensive Plan Review

The Town of Southold's draft comprehensive plan, Southold 2020, includes an agriculture chapter which recognizes the importance of agriculture both in terms of its land area and its contribution to the economy. There is also a land preservation chapter in the draft plan which discusses the importance of preserving open space, including farmland, and the methods to do so. Southold sets forth a number of goals relating to the preservation of farmland and advancement of the agricultural industry. These goals include protecting farmland from conversion to non-agricultural uses, protecting prime agricultural soils, promoting best management practices and promoting agriculture tourism and a buy-local campaign.

The Town of Southold also has a Farm and Farmland Protection Strategy, published in 2000. The publication acknowledges the development pressures threatening the agricultural industry in the Town. The Town establishes several goals and objectives such as preserve land that is suitable to farming, ensure farming remains an important part of the local economy, develop a stewardship program and encourage farm support services and farm related businesses to thrive.

Zoning, Subdivision and Regulations Review

The Town of Southold recognizes farming as an essential activity within the Town and supports agricultural pursuits with a right to farm law and protected practices within their Town code. Southold also requires a notice of protected farm practices be provided to any potential

purchaser of a property adjacent to any property five acres or greater that is in agricultural production.

Southold has a number of farmland preservation programs to protect agricultural land within the Town. The Agricultural Lands Preservation Law allows the Town to acquire development rights to agricultural lands for the purpose of protecting prime agricultural resources and encouraging local production of food. A source of funding for this program is the Community Preservation Fund which is financed by a 2% tax on real estate sales in the Town. The Town of Southold also has an established Land Preservation Committee. This committee reviews all matters relevant to the agricultural community, recommends agricultural lands to be purchased by the Town's purchase of development rights program and acts as a review board for the granting of permits for construction on agricultural lands.

The Town of Southold has a total of 17 zoning district categories in which 10 are residential and seven are non-residential. Agriculture is permitted in seven residential districts and four non-residential districts. These 11 zoning districts allow the raising of field and garden crops, vineyard and orchard farming, the maintenance of nurseries and the seasonal sale of products grown on the premises, as well as the raising and training of horses, domestic animals and fowl on lots of 10 acres or more (except ducks). These zoning districts also permit accessory structures such as barns, storage buildings, greenhouses, irrigation and other related structures subject to bulk and specified requirements. Wineries on parcels of at least 10 acres devoted to a vineyard are permitted uses in these zoning districts with the exception of one, and are subject to specified requirements. Farm labor camps are permitted by special exception in seven of the districts that allow agriculture. Small wind energy systems are permitted on parcels greater than seven acres in five of the zoning districts. Three non-residential zoning districts are not subject to site plan approval for permitted agricultural uses.

The Town has an Agricultural Planned Development District (AgPDD) which is a floating zoning district that incentivizes the preservation and perpetuation of farmland uses. Landowners of farmland that meet certain eligibility requirements are afforded the opportunity to rezone their properties to AgPDD and sell development rights to the Town on an incremental basis without subdividing their land.

Southold has cluster development regulations which enable the preservation of farmland by setting aside a certain percentage of buildable land as open space including farmland. The Planning Board requires cluster development of parcels that are seven acres or greater and may mandate cluster development on parcels of seven acres or less. The Town also has conservation subdivision regulations which enable the preservation of farmland if it meets either of two requirements. The first requirement is that at least 75% of buildable lands must be permanently protected from all residential or commercial development, and must include a

clustering of open space in which density is reduced by at least 75% of permissible density. The second requirement is that at least 80% of buildable lands must be similarly preserved, and also must include clustering of open space in which density is reduced by at least 60% of permissible density.

The installation and operation of farm stands are permitted in the Town if they are part of a bona fide farming operation. They are limited to 3,000 square feet in area and must meet a minimum threshold of 60% of gross dollar sales generated from agricultural products grown by the farm stand operator in the Town of Southold. A permit must be obtained for farm, garden and nursery signs to advertise product grown on eastern Long Island. Agricultural activities in the Town are exempt from certain regulations such as the movement of topsoil from one part to another of the same premises, open storage in connection with agricultural operations, deer fencing and noise regulations.

- **Select Village Comprehensive Plans, Policies, Programs & Zoning and Subdivision Regulations Relating to Agriculture**
 - **Village of Head of the Harbor**

Comprehensive Plan Review

Currently there is no comprehensive plan for the Village of Head of the Harbor.

Zoning, Subdivision and Regulations Review

The Village of Head of the Harbor has a total of five zoning district categories in which four are residential and one is non-residential. Agricultural pursuits are permitted special uses in all of the residential zoning districts in the Village and must adhere to specific regulations. The operations are confined to the farm under cultivation and are to be conducted in such a manner as not to cause harm or annoyance to residents or adjacent properties. No odor or dust producing substances are permitted to be stored within a given distance of property lines, and appropriate fencing must be installed to prevent livestock from straying. Wholesale plant nurseries are also a permitted special use if located in a specific area in one residential district and are subject to specific regulations. These regulations include a minimum lot size of five acres, vegetated buffers on all boundaries, retail sales are prohibited and greenhouses, except temporary plastic over wintering structures, are prohibited. Noise generated by agricultural equipment is exempt from the Village's noise regulations provided that it is operated with a muffler between specified hours and not for more than four hours on any day.

- **Village of Islandia**

Comprehensive Plan Review

The Village of Islandia recognizes the pressures of suburban development in the Village and the effect it has had on agricultural lands. The Village views the preservation of agricultural lands as important in maintaining a link to its agricultural past and, in helping maintain a more rural atmosphere in the Village. The Village of Islandia's 1994 comprehensive plan sets one goal relating to agriculture; to preserve and protect the greenbelt preserve and agricultural lands.

Zoning, Subdivision and Regulations Review

The Village of Islandia has a total of 12 zoning district categories in which three are residential and nine are non-residential. Agriculture, including farmstands for the resale of products grown on the premises, is permitted in all three residential districts. The keeping of equine livestock is subject to several regulations including, but not limited to, specific horse to acreage ratios and stable and corral dimension and location regulations. Agriculture is also permitted in the Village's agricultural district. The Village established this district to allow for the preservation of agricultural land and prevent the encroachment of residential and nonagricultural uses into the district. Permitted uses within the agricultural district include agricultural uses and necessary buildings, horses and other livestock, horticultural uses, commercial stables, riding academies and farmstands, limited to the sale of products grown on the premises.

Single family cluster subdivisions shall be permitted in the Agricultural District so long as the agricultural tract is a minimum of 7 acres and will be subject to additional conditions.

Agricultural activity in the Village is exempt from the provisions regulating noise pollution, lot maintenance and excavations and topsoil removal. The Village requires that all areas subject to the cultivation of farm crops or the pasturing of livestock shall contain erosion-control filter strips. Erosion-control filter strips shall be maintained with an all-season ground cover (such as grass, ivy, etc.) and any agricultural activities that could threaten such ground cover shall be prohibited from such areas to prevent erosion.

- **Village of Nissequogue**

Comprehensive Plan Review

Currently there is no comprehensive plan for the Village of Nissequogue.

Zoning, Subdivision and Regulations Review

The Village of Nissequogue has a total of two zoning district categories; both are residential and allow agriculture as a permitted special use. Farms, farm uses, nurseries and greenhouses are subject to certain restrictions such that no odor or dust producing substances be kept within 100 feet of any property line, appropriate fencing shall be installed to prevent straying of livestock and there shall be no retail sales of produce or plant material.

Equestrian centers are a permitted special use in one residential district provided that each applicant obtains a special permit and submits evidence of compliance with the regulations of such a center. These regulations include specific acreage size, stall and other structure dimension regulations and a maximum number of horses, among others. Special permits are granted for a period of three years and will only be renewed if the operator continues to adhere to the required standards.

- **Village of Sagaponack**

Comprehensive Plan Review

The Village of Sagaponack's 2007 comprehensive plan does not have a section specifically dedicated to agriculture but it does recognize the importance of agriculture to its past, present and future. The plan states many goals and action items related to agriculture, including supporting farmers and farming practices through regulatory policies and programs, encouraging participation in agricultural land preservation strategies and supporting good stewardship practices for farmland.

Zoning, Subdivision and Regulations Review

The Village of Sagaponack has a total of nine zoning district categories in which three are residential and six are non-residential. Agriculture is permitted in three of the residential districts and three of the non-residential districts. Accessory uses in the three residential districts include customary accessory structures, signs and farmstands by special permit. Special exception uses in the residential districts are animal husbandry, horse farms, stables and riding facilities, vineyards, agricultural greenhouses and wind energy conversion systems. Two of the residential districts allow agricultural worker housing by special exception. The open space conservation district allows signs as accessory uses and accessory structures and horse farms, stables and riding centers as special exception uses. Horse farms in the Village are subject to certain regulations, including, but not limited to, a minimum lot size of 10 acres, specific horse to acreage ratio, event restrictions and building and structure dimension regulations.

Sagaponack has a designated Agricultural Overlay District which contains prime agricultural soils found in the Village. This district was established in order to encourage the preservation of these lands for agricultural purposes. Lands in this district are subject to permits for structures, soil preservation and certain subdivision regulations to preserve open space. Sagaponack also created an Agricultural Planned Development District for the preservation and protection of farming. This program allows for a farmer to enter into an agricultural easement under which the land will remain in agricultural production of a minimum of 10 years.

Additional regulations relating to agriculture include adhering to best management practices to minimize soil erosion and optimize water, fertilizer and crop protectants. Properties used for bona fide agricultural production are not required to adhere to the provisions in the property maintenance chapter. Agricultural operations are also exempt for noise regulations in the Village. Agricultural fencing requires a permit from the Planning Board and may not exceed eight feet in height.

- **Village of Southampton**

Comprehensive Plan Review

The Village of Southampton's 2000 comprehensive plan acknowledges the ongoing loss of farmland in the Village and sets a few goals to preserve what is left. These goals include conserving remaining agricultural land as active farmland or open space, using preservation methods such as clustering or purchase of development rights and working together with the Peconic Land Trust to preserve more farmland.

Zoning, Subdivision and Regulations Review

The Village of Southampton has a total of 17 zoning district categories in which there are nine residential and eight non-residential. Agriculture, excluding animal husbandry, is permitted in all nine residential districts and seven non-residential districts. Accessory uses include signs and customary accessory buildings. Greenhouse and plant nurseries are permitted in the industrial district but are special exception uses in other districts.

Additional regulations relating to agriculture in the Village of Southampton include noise from agricultural operations being exempt from Village noise regulations. Farming is also exempt from the provisions regulating excavations when moving topsoil from one part to another of the same premises. In all zoning districts cover crops shall be planted on all cultivated land of one acre or more within two weeks of the date when crops are harvested. The cover crops shall be maintained as to protect the soil against wind erosion. Another regulation is that during the months of July and August, motor driven machinery used in connection with farming

shall not be used on any weekday before 6:00 am or after 9:00 pm or at any time on Sundays, except with specific approval.

- **Summary**

Many of the Towns in Suffolk County meet many of the farm friendly criteria stated previously. The four west end towns, Babylon, Huntington, Islip and Smithtown, have the least amount of farmland in the County. Consequently these west end towns do not have as many policies and zoning and subdivision regulations pertaining to agriculture. The Town of Brookhaven is located in the middle of the County and is a combination of the developed west end towns and the more rural east end towns. Brookhaven has a generous amount of farmland on its eastern end; the Town recognizes its importance and has adopted a number of farm friendly policies to support agriculture in the Town. The five east end towns, East Hampton, Riverhead, Shelter Island, Southampton and Southold, contain the majority of the farmland in Suffolk County. These towns have established many more farm friendly policies and zoning and subdivision regulations to support and maintain agriculture in the towns. The Town of Southold, containing the second greatest amount of farmland in the county, stands above the rest in terms of their effort of support and protection of the agricultural industry. Southold is the only town that has a Farm and Farmland Protection Strategy dedicated solely to the state of agriculture in the Town and goals to support and protect it. Southold allows agriculture in a majority of its zoning districts without many restrictions and has many policies that support the agricultural uses in these districts. The Town of Southold stands out as an excellent example of what a farm friendly town should be.

Review of Other Aquaculture Programs

- **Private Oyster Grants and Other Privately Owned Underwater Lands**

Under Chapter 385, Laws of New York 1884, the State of New York ceded to the County of Suffolk all the right, title, and interest to the lands under water of Gardiner's Bay and the Peconic bays and the tributaries thereof, in the County for the purpose of oyster culture. During the period of 1885-1914, a total of 45,081.5 acres of underwater lands were granted by the County, accounting for approximately 40% of the total area of the Bays. Although the majority of these lands have reverted back to the County due to non-payment of taxes, a number of oyster grants remain under private ownership. According to title searches that were conducted by Suffolk County between 2006 and 2007, a total of 60 private oyster lots were identified, and an additional 15 lots were identified with some type of title issue associated with them. Together, these privately held oyster grants total 5,822.08 acres and occupy approximately 5% of the entire Peconic and Gardiners Bay system.

In addition to the aforementioned oyster grants located within Peconic and Gardiners Bays, there are 20 privately owned underwater land parcels in the surrounding tributaries of the Peconic Bay system, and in Shinnecock Bay, which are also being used for commercial shellfish farms. These 20 privately held parcels occupy approximately 75 acres of underwater lands; the largest of these shellfish farms is the Shinnecock Shellfish Company, which is owned and managed by the Shinnecock Indian Nation, within its reservation. Fourteen private oyster grant owners hold permits to grow oysters commercially on their private oyster grants; four of which have lease overlays that were issued to them by the County that authorize the cultivation of species other than oysters. While these underwater land owners and private oyster grant owners both possess an ownership interest in their underwater lands, they are still required to obtain authorization from the NYSDEC, US Army Corps of Engineers, the US Coast Guard, and the New York State Department of State to cultivate oysters on their private underwater land parcels.

- **Temporary Marine Area Use Assignments**

The NYSDEC has the authority to permit on-bottom and off-bottom shellfish culture under the Environmental Conservation Law (ECL), Section 13-0316 and Part 48 of 6NYCRR. In lieu of the State implementing a leasing program, the NYSDEC developed the TMAUA program in 1982, under an agreement with the New York State Office of General Services (NYSOGS) and a Memorandum of Understanding with Suffolk County. This program was utilized as an interim program until a leasing program could be developed by Suffolk County for Peconic Bay and Gardiners Bay.

The TMAUA program was designed to promote small scale off-bottom shellfish cultivation in State-owned underwater lands in the Marine and Coastal District via an annual permit. TMAUAs consist of circular plots, generally 5-acres in size, with a 250-foot radius from the central point. TMAUA holders are authorized by NYSDEC to culture oysters, hard clams and scallops only in off-bottom culture gear. According to NYSDEC, assignments are not issued in areas which support established commercial fishing, crustacean or shellfish activities, or in areas that support current or traditional bay scallop harvesting.

An application process to obtain a TMAUA is required by NYSDEC. TMAUAs are issued on an annual basis, and must be renewed each year. Applications for a TMAUA are submitted to and reviewed by NYSDEC, Division of Marine Resources Bureau; US Army Corps of Engineers, the US Coast Guard, and the New York State Department of State. All applications are subject to a 30-day public comment period. TMAUA applications that receive significant negative comment

during the public comment period are either not issued, or the location is adjusted based on an acceptable location from all involved parties.

As of October 2015, there are 11 TMAUAs located within Suffolk County on 55 acres of State-owned underwater lands in the Long Island Sound and Block Island Sound; the majority of which are used for cultivating one species – oysters.

- **Town Aquaculture Programs**

- **Town of Babylon**

The Town of Babylon has a long history of leasing properties covering the Barrier and Bay Islands, some dating back to the early 1900's, however, only three are currently leased for commercial purposes. The one property located on the western portion of Seganus Thatch Island was leased for a commercial gas dock/restaurant/bait station and the former "State Channel Marina" site went out of business in the mid-1990s. In 2012, a formal proposal was made by the Long Island Blue Point Oyster, L.L.C to lease the site for grow out of hatchery raised oysters to market size. The Town executed a 10-year lease with Long Island Blue Point Oyster, L.L.C. in January 2015 for the two-acre property in Great South Bay.

At the present time, the Town of Babylon is not considering the development of a larger lease program similar to the County or the Town of Islip's programs for aquaculture, since Babylon resource surveys still show the bay bottom to be naturally productive shellfish grounds.

- **Town of Brookhaven**

The Town of Brookhaven, like the Towns of Islip and Babylon, owns most of the underwater lands within its boundaries in the Great South Bay. Given this ownership interest and the authority to grant access to these underwater lands for shellfish cultivation, Brookhaven has issued one pilot plot in Moriches Bay via a 25-year license agreement with Great Gun Shellfish LLC on a 3.673 acre parcel. This license agreement was approved by the Town Board in February 2015. However, prior to executing the license agreement, the Town required Great Gun Shellfish LLC to have a benthic survey conducted on the proposed site by a private researcher and submit the findings to Town staff for review. As a license holder with the Town, Great Gun Shellfish LLC is required to maintain all required regulatory permits, submit an annual report and annual lease rental fee.

While the Town of Brookhaven moved forward with the issuance of this license agreement for a pilot plot, it does not plan to develop an expanded lease program for shellfish aquaculture in the near future.

- **Town of Islip**

The Town of Islip established its Bay Bottom Leasing Program in 2012 and made available over 100 acres of town-owned bay bottom in the Great South Bay. Access to this underwater land is issued via a five-year license agreement between the Town and a commercial shellfish farmer. The 25 available underwater land parcels were approved by the NYSDEC, and range anywhere in size from 1 to 5 acres. The Town has transitioned from a lottery system to issuing licenses on a first-come, first-serve basis, and utilizes a waiting list. Once they are contacted, they must submit a business plan with a budget, cost estimates for gear, boat, shellfish, etc., to the Department of Environmental Control's Commissioner and associated staff. No application fee is required, but there is a deposit fee, which will be applied to pay for a portion of the first year's rental fee. All applicants must apply for regulatory permits; following the issuance of their permits, applicants may then sign their license agreement and pay the rental fee balance. Along with their annual lease rental fee, all license holders are required to submit annual reports for each year they retain their license agreement.

At this time, 25 license agreements have been issued by the Town of Islip in the Great South Bay. Given the substantial amount of interest for access to its underwater land, the Town is considering an expansion to the program, which would open a second cultivation area.

- **Other Towns**

It should also be noted that while most of the towns in Suffolk County are not pursuing commercial shellfish aquaculture leasing programs, many are either actively spawning and/or growing shellfish for restoration purposes, or supporting private not-for-profit organizations involved in restoration activities on both public and privately owned underwater lands. The Towns of Huntington, Babylon, Smithtown, Islip, Brookhaven, Southampton, East Hampton, Shelter Island and Southold each recognize the many benefits that shellfish have on water quality, and all support restoration activities that plant shellfish in their waters.

CHAPTER 5 – Strategies to Promote a Viable Agricultural Industry in Suffolk County



- **Identification of Challenges Facing Suffolk County Agriculture and Courses of Action**

The first chapter includes a detailed analysis of the demographic and economic realities of the Suffolk County agriculture industry. Farming is significantly changing in Suffolk County. The types of crops are different – from potatoes and corn to nursery stock and grapes. The technologies are different – from old-school plastic greenhouse operations heated by coal and oil to hydroponic operations under glass fueled by solar energy, from the use of traditional fertilizers to the use of controlled release fertilizers that minimize nitrogen leaching. The gender balance is slowly tilting towards women, as new women enter the field and long-standing female farmers assume ownership of their family operations. A more educated consumer base is finally changing its shopping behavior and beginning to prize organic and locally produced foods.

In light of these changes, many Suffolk County farms, both old and new, are struggling to find a profitable business model. To some degree, all of the challenges listed in this chapter stem from one major threat: A threat to economic viability. According to the 2012 Census of Agriculture, 307 of the 604 farms (51%) reported an operation loss in the last year. That is a majority of local farms. Only 45% of farms reported an operational loss in the 2007 Census. Disturbingly, 88% of all survey respondents from the *2013 State of the Suffolk County Agriculture* report were “very” or “somewhat concerned” about their ability to farm profitably. Of course, both the Census period and survey period overlapped with the Great Recession (2007-2009) and its aftermath, at a time of heightened economic concern. Nevertheless, these numbers are worrisome. We see a very wide range of agricultural profitability and loss in Suffolk County. Again, according to the 2012 Census of Agriculture, of the Suffolk County farmers reporting losses, the average loss reported was \$73,551. Of the farmers reporting profitability, the average reported earnings were \$226,309.

With \$240 million in market production, the employment of approximately 2,800 individuals during peak seasons, and \$88.5 million in wage income, agriculture is an important driver of Suffolk County’s economy.¹ It is important to note that the \$240 million in market production does not include the worth of value-added produce like wine, jams, jellies, pies, sauces, cheeses, etc. For example, according to the Long Island Wine Council, the 60 vineyards in Long Island Wine Country produce 500,000 cases of wine a year, worth approximately \$100 million, and draw 1.3 million visitors who generate an additional \$90 to \$120 million in tourism

¹ New York Department of Labor Statistics as accessed on 11/27/15 at <http://labor.ny.gov/stats/ins.asp>.

revenues. Agriculture supports the \$2.7 billion Suffolk County tourism industry which directly employs an additional 26,744 employees.²

In short, improving agriculture's economic viability is critical to the Suffolk County economy. 50% of Suffolk County farms cannot be allowed to lose money. All the Courses of Action recommended within this Chapter must deal with that ultimate reality that farm operations must be profitable to survive.

While the rapid decline in Suffolk County farmland identified in the 1996 *Agricultural and Farmland Protection Plan* has been abated, many of the agricultural challenges identified in that nearly 20-year-old plan remain. Here is an overview of important agricultural industry challenges, as initially reported in the 2013 *The State of the Suffolk County Agriculture Industry* and raised in focus groups held across the County, as well as put forward by other interested parties. You will find some of these challenges consistent with those identified in the 1996 *Agricultural and Farmland Protection Plan*. Other challenges are new to the industry. Fortunately, strong agricultural advocates both within and outside local government are in-place to address these challenges head-on and to take innovative approaches to solving them.

- **Challenge: An Aging Farming Population and Agricultural Brain Drain**

The age of farmland owners and operators is an important concern because a) an aging farmer population needs to be replaced at some point in order to sustain the industry and b) land turnover is highest among older farmland owners³. Suffolk County, like New York State and the United States, suffers from an aging farmer population. Since 1997, the average age of the principal operator of a Suffolk County farm has increased from 53.2 years old to 57.6 years old, an increase of 8%. A worrisome tabulation discovered by the American Farmland Trust shows that 85% of retirement-age farmers (65+) in Suffolk County do not have a young farmer operator alongside them. An aging population suggests that new farmers are not entering the industry – this despite the renewed interest in agriculture and “foodie” cultures suggested by trends in popular culture. Entire television networks, magazines and websites are dedicated to the coverage of economic, technological, environmental, and culinary trends within the food industry. If these trends have revitalized interest in agriculture, those trends have not yet manifested in the age of the farming population. Suffolk County must grow and retain a new generation of farmers for the industry to continue to succeed. While the importance of existing, experienced, multi-generational farming families cannot be overstated, it is clear that the “agricultural brain drain” is a clear and present threat to the industry.

² Suffolk County tourism data provided by Tourism Economics, An Oxford Economics Company and the Long Island Convention and Visitors Bureau.

³ *Trends in U.S. Farmland Values and Ownership*, Nickerson, Morehart, Kueth, Beckman, Ifft and Williams, 2012.

To sustain the health of the industry, younger farmers must be identified in order to:

- Maintain permanently preserved farmland in *active* commercial production
- Continue to protect and purchase existing, not PDR-protected farmland, in order to prevent further residential, industrial or commercial development
- Adopt changing technological means of production and sales and distribution models
- Adapt to changing environmental standards and to implement best management practices⁴
 - **Course of Action: Agricultural Education Opportunities**

In order to curb the agricultural brain drain, Suffolk County must take advantage of the growing interest in agricultural and “foodie culture” and funnel those energies into agricultural careers here on Long Island. These lessons, which must begin in K-12 classrooms within the school districts throughout the County, should be brought into school cafeterias and the lessons should cross disciplines. These activities can include:

- School gardens, community gardens, greenhouses, and hoop houses
- Field trips to local farms
- Farmers visiting classrooms
- Bringing local produce into school cafeterias
- Coordinating lesson plans with established “*New York Agriculture in the Classroom*” curriculum
- Community Supported Agriculture
- Providing therapeutic work situations

In May 2014, Suffolk County Executive Steve Bellone spearheaded discussions on this front with school districts, the farming industry, and local universities. As an outcome of this initial workshop, Suffolk County created and distributed a survey to Suffolk County school districts and 33 responses were received. The responses of this survey were very encouraging for the future of Suffolk County farming. The survey found that some school districts have already introduced new agriculture-related curriculum, erected greenhouses, or built school gardens. Many more are interested in pursuing planning or implementation funds to begin such programs. The USDA Farm to School grant program has been identified as a lucrative source of funding for school districts across the County and several school districts have, or are expected

⁴ The *Trends in U.S. Farmland Values and Ownership* study found that younger farmers are much more likely to enroll in conservation stewardship practices, such as the Conservation Reserve Program and the Wetlands Reserve Program.

to develop grant applications for these funds in the next few years. In October of 2015, an Agriculture Literacy Academy (sponsored by New York Agriculture in the Classroom (NYAITC)) was held that attracted over 30 K-12 teachers across eight different geographically diverse school districts. NYAITC is a partnership of Cornell University, the NYS Department of Agriculture and Markets, the NYS Education Department, Cornell Cooperative Extension, and the New York Farm Bureau. This Academy has sparked substantial interest in agriculture curriculum, school gardens, and school greenhouses and has alerted many districts about the Common Core consistent agriculture curriculum already available within the State. Many schools are seeking funding for school gardens and greenhouses as a result.

Funding for agricultural education programs can be found through both the “*NY Agriculture in the Classroom*” program and, more substantially, through USDA Farm to School grants. Many Suffolk County districts are already investigating these funding streams and are actively making applications.

The Community Supported Agriculture (CSA) model, which is explained later in this chapter, also offers support for agricultural education. For example, the CSA operating in Huntington at Fox Hollow Farm brought over 100 families into direct contact with the growers on a weekly basis.

Increasingly, agricultural education is used as a form of physical, mental or rehabilitative therapy. Several mental health and specialized organizations that work with the disabled community are building associations with local farms to provide hands-on support and learning, while reaping the benefits of sensory integration, social interaction and team building experiences. Several local equine farms have therapeutic aims associated with their operations.

▪ **Course of Action: Internship and Apprenticeship Programs**

Suffolk County is working with trade schools, such as the Eastern Long Island Academy of Applied Technology and BOCES, to develop a vocational internship program that would expose high-school level students to different agricultural careers. This pilot internship program is currently in development and is in the process of identifying sources of funding. The interns would be paid for their services. During week one, the interns would tour a variety of different agricultural commodities and farms – vegetable, nursery and/or greenhouse, viticulture, shellfish hatcheries, poultry/livestock, etc. For the remaining three weeks of the internship, the interns would focus or specialize within a certain discipline – students would be matched with farmer mentors based on skill sets, level of interest, transportation logistics, etc.

The internship concept is intended to broaden the career spectrums available to Suffolk County students. West End Suffolk residents in particular are unfamiliar with the broad job

opportunities in agriculture – careers in management and business, science, technology and engineering, sustainable food and biomaterials production, environmental science, etc. Without this learning-based exposure, qualified Suffolk County students are unlikely to pursue careers in agriculture. From an education and talent perspective, this would be a wasted opportunity for Long Island.

A recent USDA study entitled *Employment Opportunities for College Graduates in Food, Agriculture, Renewable Natural Resources, and the Environment United States, 2015-2020*⁵ predicts that between 2015 and 2020, there are an expected 57,900 average annual openings for graduates with bachelor's or higher degrees in those areas. An average of 35,400 new U.S. graduates with expertise in food, agriculture, renewable natural resources, or the environment are expected to fill 61% of those expected 57,900 average annual openings.

Building enthusiasm and interest in these careers at the K-12 levels, where we must target our efforts initially, will build the need and demand for those degrees at the local collegiate level. In speaking with local colleges and universities, it is clear that the demand for this programming has not yet reached sustainable levels, though some strong local programming exists (for example, Farmingdale State College's Department of Urban Horticulture and Design). A systematic effort to expose K-12 students to agricultural careers, bring them into the workforce through apprenticeship programs, and expand their local collegiate offerings should help Suffolk County create the next generation of ambitious, well-educated, and well-prepared local farmers.

The Peconic Land Trust has also recognized that we are going to need young and next generation farmers to "take up the reins" of the Island's food and agricultural industries, if agriculture is to remain a part of the fabric of Long Island's communities. To that end, in 1989 the Trust started its Apprenticeship Program at Quail Hill Farm, the Trust's Community Supported Agriculture (CSA) operation in Amagansett. In the 26 years since its inception, over 130 young, aspiring farmers have learned about sustainable and organic farming including field preparation and seeding, harvesting and the community and educational outreach involved in operating a successful CSA. Many of the Program's apprentices are still active in agriculture, whether pursuing an advanced degree in agriculture, starting or managing a farm, or participating in other farm apprenticeship programs.

As a natural extension of the Apprenticeship Program, the Trust formalized its farmland leasing program in 2008 to provide beginning farmers with the opportunity to start or expand their own farm operations at either the Agriculture Center in Southold or the Deborah Light and

⁵ *Employment Opportunities for College Graduates in Food, Agriculture, Renewable Natural Resources, and the Environment United States, 2015-2020*, Goecker, Smith, Fernandez, Ali, Goetz Theller, 2015.

Town Lane Preserves in Amagansett. Part of the Trust’s Farms for the Future Initiative, beginning farmers are leased improved farmland with deer fencing and irrigation, and provided with guidance and assistance from the Trust’s Stewardship and Planning staffs to help get their operations up and running. This assistance includes guidance on crop selection, field layout, irrigation practices, nutrient management and market strategies. After five years, the Trust works with the beginning farmer to identify a more permanent location for their growing operation and helps them transition to another farm property so that the Trust can provide the same opportunity to another aspiring, beginning farmer. Currently, just under half of the 30 farmers leasing farmland from the Trust are a part of this beginning farmer program.

- **Challenge: Access to Affordable Land**

Residential encroachment and second-home demand continues to impact land values significantly in Suffolk County. The price of Suffolk County farmland ranks amongst the highest in both New York State and the nation. While the cheapest agriculture land in Suffolk County may run around the \$17,000 per acre (with development rights *sold*), the average United States farm real estate value averaged only \$2,900 per acre in 2013.⁶ In New York State, the average was only \$2,600 per acre. Keeping farmland affordable for both new farmers and existing farmers looking to expand their operation is an ongoing challenge. The agricultural land base is comprised of both full rights and preserved farmland types and today almost 20,000 acres in Suffolk have been preserved. Farm Credit East, a specialized lender for the Northeast in agricultural, commercial fishing and forest products industries, analyzed farmland on a per acre basis and provided the following data in Table 5-1.⁷

Table 5-1. Median Price of Unpreserved and Preserved Farmland

Source: Farm Credit East	Unpreserved Farmland 2009-2013 Median Price Per Acre	Preserved Farmland 2009-2013 Median Price Per Acre	% Cheaper
Riverhead	\$63,399	\$25,275	60%
Southold	\$76,250	\$25,000	67%
South Fork	\$400,000	\$106,229	73%
Western Suffolk County	\$145,631	\$17,000	88%
Suffolk County	\$125,000	\$28,000	78%

⁶ *Land Values 2013 Summary*, USDA, National Agricultural Statistics Service, August 2013.

⁷ Farm Credit East, *Farmland Values in Suffolk County NY Summer 2014*. Appendix F

- **Course of Action: Continued Purchase of Farmland Development Rights**

As the previous figure indicates, even preserved Suffolk County Farmland is expensive. A single acre of protected farmland on the South Fork of Long Island, which includes the Towns of East Hampton and Southampton, has a median price of \$106,229. That is an expensive proposition for any farmer. However, that rate is still 73% cheaper than unprotected farmland. And protected farmland in other parts of Suffolk County, including desirable locations in the Towns of Riverhead and Southold on the North Fork, remain reasonably affordable (~\$25,000 per acre). Furthermore, while farmland is expensive, these areas also enjoy access to highly lucrative direct retail markets. Both the North Fork and the South Fork support over a hundred farm stands, farmers markets, and CSAs. And recent 2013 changes to the Suffolk County Purchase of Development Rights Program have expanded economic opportunities on preserved farmland. These changes allow larger farm stands on protected lands (up to 1,000 square feet), limited agri-tourism activities, and even some value-added food processing activities, subject to local and state zoning and health codes.

With over 39,000 acres of farmland in Suffolk County existing in some form, be it active, fallow or not active, and almost 20,000 of those acres protected through various preservation programs, there is still a great deal of farmland exposed to future development. A continued reduction in available farmland will only increase farm prices further. As such, farmland acquisition rates must be maintained or even increased. Funding for open space and farmland preservation acquisitions continues to be provided by the Suffolk County ¼% Drinking Water Protection Program through sales tax revenues. The East End towns primarily finance purchases for open space and farmland PDRs through their state-approved Community Preservation Funds (CPF), utilizing revenue from a 2% real estate transfer tax.

While the Suffolk County Legislature is currently given the discretion to prioritize funding for certain open space, active recreation and farmland acquisitions, recent steps taken by the County have addressed previous inequities in the process. The 2013 amendments to Chapter 8, along with the addition of the “AAA” acquisition process, has brought farmland parcels closer to procedural and funding equity with the other open space programs. These changes now allow farmland owners to submit a parcel for acquisition at least twice a year and year-round under certain hardship considerations. The parcels are then scored and reviewed by the Division of Planning and Environment and approved by the Farmland Committee for recommendation to the Legislature who make the final decision to authorize an appraisal.

- **Course of Action: Leverage State and Federal Funding**

New York State has a mechanism to assist counties in farmland preservation with a line item in the Environmental Protection Fund budget for farmland preservation. However, that amount is

a small fraction of what is needed here in Suffolk County to continue to work towards our goal of preserving 30,000 acres. With only \$15 million dollars available statewide, that figure is relatively small compared to farmland preservation budgets in surrounding states that are 3 to 5 times larger on a yearly basis. We encourage New York State to seriously look at increasing funding made available to counties in matching funds for farmland preservation to equal surrounding states. While there are some discrepancies between the State's program and the County's program, which must be addressed, both Suffolk County and local municipalities have had some recent success partnering with the State on farmland acquisitions. Between 2007 and 2012, the State and the County successfully collaborated on three farmland PDR acquisitions totaling \$9.2 million. While it takes several years to proceed from grant application to cost-share pay-out, the New York State Department of Agriculture & Markets has recently made major investments in staff and time to reduce these processing periods. It should be noted that State rules that cap easement rates at \$29,000 per acre severely limit the ability of the County to effectively partner with the State on easement purchases as undeveloped Suffolk County land is appraised at values much higher than that. Working with the State to increase the maximum allowable compensation rate should be a long-term goal of Suffolk County local municipalities and agricultural advocacy groups.

Partnering with the federal government through the Agricultural Conservation Easement Program has proven to be equally difficult, given similar incongruences between the federal conservation easement required on protected parcels and Suffolk County's Deed of Development Rights. Inconsistencies regarding lot coverage limitations and the allowance of homesteads have proved problematic in the past. Local advocates must continue to lobby federal policymakers to make changes that will accommodate Suffolk County farming. Most recently, Suffolk County partnered with the Town of Shelter Island and the federal government to purchase 57 acres of development rights for \$4.7 million in 2012.

Both Federal and State governments should support local farmland protection programs rather than place requirements that may undermine local farmland preservation acquisition programs that have been successfully supported through voter referendums. Instituted in 1974, Suffolk County was the first Farmland Preservation Program in the Country that purchases the development rights to farmland. Suffolk County is very proud of this fact and looks forward to working with all levels of government to continue its efforts to protect its remaining farmland. Creative solutions must be found to increase Suffolk County and its towns' preservation funds, including funding generated by the East End Town's Community Preservation Funds, in order to protect the County's remaining 19,589.63 acres of unprotected farmland. Federal and State funding sources are potential long-term leveraging opportunities, but, in the short-term, differences between these PDR programs must be reconciled. Counties can then continue to do

the important work of preserving the land to help farming not only survive but thrive in New York State.

- **Course of Action: Amend New York State Tax Cap Exclusions**

Over the last several years, the 2% statewide mandatory tax cap has restricted a number of local municipalities from considering adding funds to their open space and farmland protection programs to continue to acquire lands for these purposes. Section 1 Paragraph g of subdivision 2 of section 3-c of New York State’s General Municipal Law, as added by section 1 of part A of Chapter 97 of the Laws of 2011, has restricted the ability of municipalities to raise revenues for open space that can include farmland development rights acquisitions.

The New York State Legislature should consider an amendment to its General Municipal Law to add a new exemption/sub-paragraph (v), such as: (v) a tax levy subject to mandatory public referendum and approved by an affirmative vote of a majority of the qualified electors casting ballots on the referendum ballot item within the county, city, town, village, fire district or special district affected. Without an amendment to the tax cap restraint, the County and the towns in Suffolk may not be able to continue their efforts to acquire lands through bonding and other financial avenues. This exemption would allow those municipalities that wish to spend funds on protecting open space and farmlands, to do so, with the requirement of voter referendum support. Removing the tax cap burden to allow funding for these open space and farmland acquisitions would significantly improve local municipal efforts to do such.

- **Course of Action: Enforcement of the “Prohibition on the Abandonment of Commercial Agriculture Production” in the SC Farmland PDR Program**

One unforeseen consequence of the County’s Farmland Purchase of Development Rights (PDR) program has been the purchase of protected farmland by non-agricultural producers. Increasingly seen on Suffolk County’s South Fork, but also beginning on the North Fork, a number of individuals have purchased protected farmland to serve as vast estates and manicured lawns. While the landowners understand they cannot “develop” the land, they are perfectly willing to, as the *NY Times* notes “buy protected land and, preferring the patter of horses to the clatter of tractors, turn it into private equestrian complexes or simply giant lawns surrounded by hedges. The hedges and horses mean not only less local produce, but also fewer of the bucolic potato farm vistas associated with the South Fork, and an increased feeling of an expensive enclave.”⁸

Taking protected farmland out of production, by choice or otherwise, reduces the supply of affordable farmland and drives up the cost of the remaining productive farmland. This limits

⁸ *Amid Preservation Efforts, Farmland in the Hamptons Goes for Other Uses*, Chaban, NY Times, August 4, 2014.

opportunities for expanding farmers and beginning farmers. However, the most recent 2013 changes to Chapter 8 is an attempt to address this practice. New language to the County's Farmland PDR Program introduces the following prohibition:

Abandonment of agricultural use. Beginning on January 1, 2014, no owner shall leave agricultural land uncultivated and not engage in agricultural production or a commercial horse boarding operation and/or a commercial equine operation, for more than two consecutive years.

Violations to this prohibition are subject to the following remedies, as specified in Chapter 8: damages, restoration costs, civil penalties, attorney fees, etc.

The intent of the new prohibition is clear. Protected farmland is meant to be in commercial agriculture production. Landowners in the PDR program who are subjected to the amended language are expected to bring their farm into commercial production, or to lease their farmland to someone who will.

In order to enforce this mechanism and its legislative intent, farmland inspections must proceed on a timely basis and farms that are not in commercial production must be noted, recorded, and sent a letter of notification by the County. Appropriate staffing levels, timely notification, and enforcement will help bring currently unproductive and fallow farmland back into commercial production.

The County, local municipalities, and its agricultural partners shall assist landowners in their efforts to find suitable agricultural buyers or lessees of the land if the landowner cannot bring the farmland into compliance themselves for reasons due to hardship, lack of financial resources, inexperience, or otherwise. Additionally, the Suffolk County Farmland Committee must be kept abreast of parcels currently in violation of this code.

- **Course of Action: Affirmative and Affordable Farming Covenants and Resale Restrictions**

In recent years, sales of protected farmland on Long Island's South Fork to non-farmers have been as high as \$300,000 per acre, raising the average value of protected farmland to over \$120,000 per acre—values well beyond the reach of the vast majority of farmers who grow food. The Peconic Land Trust has created a tool they refer to as the "Affirmative & Affordable Farming Covenants and Resale Restrictions", which lowers the value of the protected farmland to its "true food production value". The additional restrictions incorporated in the Development Rights Easement are based, in part, on similar restrictions used in Massachusetts and Vermont, and include the following:

- 80% of the farmland must be used for the production of food;
- Equestrian use is prohibited on the property;
- Horticultural specialties that result in the removal of soil from the property are prohibited;
- If the farmland is fallow for one year, it must be kept available for agricultural use and managed subject to a Natural Resource Conservation Plan;
- If the farmland is fallow for 2 years, the Town has the right to lease it to another farmer to ensure that it remains in agricultural production.
- Future sales of the protected farmland are limited to its “true agricultural value” at the time of the Town’s purchase of development rights (today about \$26,000/acre) plus the value of any agricultural improvements added to the property by the farmer, plus appreciation based on the lower of either the Area Median Income (AMI) or the Consumer Price Index (CPI) not to exceed 3.5% annually;
- The Town reviews and approves all future sales to ensure that the restricted farmland is purchased by a qualified farmer;
- The Trust, or a similar organization, will be the purchaser of last resort if the owner is unable to find a farmer to purchase the protected farmland. When purchased under these circumstances, the protected farmland will be offered for sale to qualified farmers through a transparent selection process including a “request for proposals” and lottery, as necessary.

- **Course of Action: Adapting to New Models of Suffolk County Farming**

Given the very high cost of Suffolk County farmland and the financial realities of the industry, past models of farm operations may no longer be economically viable or even attractive to new farmers. For example, over 4,000 acres of farmland that is in the County’s protected farmland inventory of 10,636.6 acres, consists of parcels that are larger than 50 acres. However, business models that involve a 50 acre (or larger) farm and the full time attention of the operator may very well become the exception to Suffolk County farming. Rather, individuals entering agriculture, today, may want to operate a smaller operation on a more part-time basis. The existing farmland protection programs should evaluate this trend and determine if changes to their programs are needed. As preserved farmland prices continue to rise, possible subdivisions of certain protected farmland may be considered, as larger parcels are shared amongst multiple farmers. Town and Village codes and County planning efforts should afford a certain amount of flexibility to anticipate these changing needs. Additionally, a study should be conducted to determine a minimum size limit that would adequately support commercial agricultural operations in the future.

- **Challenge: Access to Capital, Financing, and Tax Credits**

Farming in Suffolk County is expensive. Land is expensive, labor is expensive, equipment is expensive and energy costs are expensive. In fact, “High Production Costs” and “High Fuel Costs” were cited as the top two challenges to the industry in *The 2013 State of the Suffolk County Agriculture Industry* report. Given these financial challenges, farmers need access to capital and financing to expand and diversify their businesses. Many farmers use commercial banks, specialty banks like Farm Credit East, and federal lending agencies like the Farm Services Agency to finance their operations. Other farmers raise capital by selling development rights through the Suffolk County PDR program or town PDR programs or not-for-profit organizations. However, sometimes these funding sources are not enough. Local farmers need access to the capital funds and tax credits we afford other industries if we want to maintain a vibrant and economically viable agriculture industry on Long Island.

- **Course of Action: “Farmers for the Future” Agricultural Capital Equipment Cost-Share**

The Peconic Land Trust, the Suffolk County Department of Economic Development & Planning, The Long Island Farm Bureau, Farm Credit East and Cornell Cooperative Extension recently worked together to secure funding for a \$1 million “Farmers for the Future” Agricultural Capital Equipment Cost-Share from Round IV of the Empire State Development Consolidated Funding Application process.

The new program will create a financial pool of resources that will assist Long Island farmers in making capital investments in their farming operations. The program is expected to assist 50 to 100 beginning and established farmers over three years (2015-2018) to acquire the farm equipment needed to grow or diversify their business and meet the regulatory demands for improved food quality and safety standards. The program will reimburse farmers up to 20% of the purchase cost of new and used capital equipment and infrastructure – the funding of which will be drawn from the \$1 million grant.

Eligible parties are new and emerging farmers, including second-career farmers, farmers upgrading equipment to come into compliance with new food safety regulations, including the federal Food Safety Modernization Act, and farmers transitioning to a new commodity, method of production, or a new business plan. Both the farmer and the capital equipment and infrastructure purchases will be closely verified and vetted for cost share eligibility and suitability by the program administrators.

▪ **Course of Action: Raise Awareness of Existing Funding Streams**

The Suffolk County Department of Economic Development and Planning, The Long Island Farm Bureau, The Peconic Land Trust, The Long Island Wine Council, Farm Credit East, the Suffolk County Soil and Water Conservation District, USDA: NRCS and Cornell Cooperative Extension must continue to make farmers aware of the State-level and federal-level funding streams available to local producers. State and federal agencies can be very generous when it comes to funding availability to private, for-profit producers. Suffolk County puts out a newsletter that tracks these announcements and opportunities and farmers new and old should be advised to subscribe to this weekly e-newsletter. The following is a non-exhaustive list of funding opportunities that are made available to local farmers, aquaculturalists, cooperatives, non-profits, municipalities, research and educational institutions, etc.:

- Empire State Development: Consolidated Funding Application
- New York State New Farmers Grant
- New York State Young Farmers Loan Forgiveness Program
- New York State Climate Resilient Farming Grant Program
- New York Farm Viability Institute
- Northeast Sustainable Agriculture Research and Education
- USDA: Value Added Producer Grant
- USDA: Farmers Market Promotion Program
- USDA: Local Food Promotion Program
- USDA: Farm to School Grants
- USDA: Rural Energy For America Program
- USDA: Small Business Innovation Research
- Suffolk County Water Quality Protection and Restoration Program
- East End Towns Community Preservation Funds
- Peconic Land Trust: Farmers For The Future Agricultural Capital Equipment Grant
- Farm Credit East: The AgEnhancement Grant Program

Additionally, USDA: NRCS offers millions of dollars in cost-share assistance for farmers looking to invest in environmental stewardship efforts.

▪ **Course of Action: Work With Economic Development Entities**

Farming is an important component to Suffolk County's economy. There are several economic development entities that work with companies to provide tax benefit and other programs. It is worth exploring with economic development entities (Suffolk County and local Industrial Development Agencies and Economic Development Corporations) whether the cultural and tourism impacts of the agricultural industry might qualify some projects under their guidelines.

The County's wineries, breweries and perhaps even shellfish hatcheries could potentially be a fit when viewed through this lens.

- **Challenge: Federal and New York State Inheritance Taxes**

As noted earlier in this report, agricultural land values in Suffolk County continue to rank among the highest in the nation. This presents a major obstacle for farmers who want to pass along the farm to the next generation because the value of the land alone exceeds the exclusion levels defined in federal tax code (the 2015 federal exemption is \$5,430,000) and New York State tax code (the 2015 New York State exemption level is \$3,125,000). This, in turn, triggers substantial inheritance taxes that may necessitate the sale of farmland itself in order to pay such taxes. While there are many estate planning tools that farm families can use to reduce their future inheritance tax liabilities, this requires a significant amount of time and expense given exceptionally high land values in Suffolk County.

- **Course of Action: Legislative Reform**

Legislation should be pursued that protects farms from both federal and state inheritance tax consequences. Unless inheritance taxes on farmland are abolished, legislation should be pursued that defers such taxes on working farms as long as they remain in agricultural production. In the meantime, New York State inheritance taxes should match federal exclusion levels and legislation should be pursued to eliminate the current “cliff” that disallows any New York State exclusion if the taxable estate exceeds 105% of the amount of the exclusion. Farmland owners should seek advice from qualified tax advisors.

- **Course of Action: Facilitate Transitional Farming and Estate Planning**

Transferring management responsibility and farm assets to the next generation or a non-family member is an important, but frequently confusing process. Exiting farmers face a number of issues, such as retirement and estate planning, that factor into the farm succession process. Nevertheless, lack of transitional planning is a major cause of farmland loss on Long Island. Postponing estate planning can lead to farmland parcels being sold outside of the family or subdivided and taken out of farming use permanently. Too much farmland has been lost in light of family squabbles and overly burdensome inheritance tax payments that may have been avoided given better preparation and guidance. Fortunately, there are agricultural organizations that will work with farmers to prepare for these inevitable transitions. For example, NY FarmLink, a sister program of New York FarmNet, is committed to helping individual producers achieve personal, managerial, and financial success through assistance with farm succession and business partnership planning issues. NY FarmLink provides farmers with free assistance in all aspects of business transfer and partnership success including:

- Succession planning for family and non-family transfers
- Retirement and estate planning
- Joint ventures/partnerships
- Help for beginning farmers

Other organizations such as American Farmland Trust and, more locally, the Peconic Land Trust can also assist with some transitional and estate planning.

- **Challenge: High Energy and Fuel Costs**

Suffolk County faces unique energy cost challenges. While most of New York State enjoys low or moderate rates, Long Island ratepayers are burdened with much higher rates, a certain amount driven by a failed \$7 Billion investment in the LIPA Shoreham power plant debt still on the books.

In 2013, High Production Costs and High Fuel Costs were cited in “The State of the Suffolk County Agriculture Industry” report as the Number One and Number Two most pressing challenges to the future profitability of the industry. Fortunately, for agriculture operations, oil prices have substantially decreased in the last two years since the report was released. This includes oil for heating greenhouses and diesel gasoline to fuel tractors. Home oil heating prices are down 27% in the last year alone⁹ and gasoline prices are down about 36% since 2013¹⁰. Certain conditions resulting in oil price reductions include the dramatic increases in oil pumped by the United States on the supply side, and the generally sluggish world economy on the demand side. However, it is not expected that oil supplies will continue to increase nor is it desirable that world demand should remain depressed. Thus, we may expect energy costs to rise again in the future.

- **Course of Action: Policies that Promote Cheap, Renewable Energy Generation**

For the most part, the prices of commodities like oil are globally driven. Little can be done on a County level to impact global supply and demand. However, New York State and Suffolk County have engaged in policies to promote alternative green and renewable energy sources. The continuation of these incentives may help alleviate some energy cost afflictions suffered by local farmers.

⁹ NYSERDA as accessed on 11/25/15 (<http://www.nyserda.ny.gov/Cleantech-and-Innovation/Energy-Prices/Home-Heating-Oil/Average-Home-Heating-Oil-Prices>)

¹⁰ GasBuddy trends as accessed on 11/25/15 (http://then.gasbuddy.com/Retail_Price_Chart.aspx)

Suffolk County farmland is precious and there is no desire to see this farmland converted into “solar farms”. However, there are middle grounds that can be achieved through the promotion of *limited* solar, wind, and geothermal energy generation on farms. Solar energy installations should be encouraged on *existing* agricultural structures. Currently, under the Suffolk County Farmland PDR Program, renewable energy is limited to 110% of the farm operations energy usage. Suffolk County farms could reduce their expenses if some additional energy generated by renewable sources could be sold back into the grid.

In order to facilitate renewable energy adaptation, the Suffolk County Planning Commission has developed a model code for geo-thermal, solar and wind installations with municipalities and industry leaders that will standardize approval processes and help support renewable energy.

Potential funding to support renewable energy installation is available through the USDA Rural Energy for America Program (REAP) and the NYSERDA Agriculture Energy Efficiency Program. Local stakeholders must work together to ensure that these federal and state programs work with local agriculture needs. Farmers should be educated about renewable energy options and funding opportunities at traditional and new agricultural forums and workshops held over the course of the year. In fact, when “Green” and Renewable Energy Forums are hosted by local non-profits, energy consortiums, technology conferences, and local business organizations, special effort should be made to involve the agriculture community so the needs of this industry can be communicated and met.

- **Challenge: Access to Equipment & Processing Facilities**

One fear of reduced farm acreage and agricultural industry is a corresponding reduction in supporting agricultural suppliers, servicers, and infrastructure. Suffolk County has certainly seen a decrease in the number of suppliers in the immediate vicinity (businesses and services specializing in agricultural supplies, equipment and repair). Some of these businesses can maintain a certain level of reduced agricultural service by diversifying their business model, but it is just that – reduced. Some farmers, particularly those in the smaller commodity segments of the industry such as livestock and shellfish aquaculture, struggle to access the support services, veterinarian services, equipment manufacturers, everyday supplies and value-added processing facilities necessary to grow their industry. For example, there are no USDA commercially-accessible livestock slaughtering facilities in all of Long Island. Often times, local producers are forced to transport their animals out-of-state in order to process their meat for wholesale or retail sale.

- **Course of Action: Private/Public Infrastructure Investments**

The County, the State, and the Federal government must continue to partner with private enterprise, non-profit agencies and research institutions/universities on infrastructure

investments that serve industry needs and can eventually achieve its own economic sustainability. In recent years, the Grapes and Greens facility in Calverton, the Stony Brook University Business Incubator at Calverton, and South Fork Kitchens on the Southampton Campus of Stony Brook University are all examples of investments in the processing facilities and incubators that serve the greater interests of the industry as a whole.

The Long Island livestock industry does not currently have access to a locally-based USDA-approved meat processing facility. USDA certification is necessary for producers to sell to restaurants, farmers markets, and other retail outlets. One potential option available to local producers is the processing facility at the Suffolk County Farm in Yaphank. However, this County-owned facility is not currently available for commercial use. In order to evaluate the economic and legal feasibility of using the facility for commercial applications, the County and its partners should engage an agricultural economist to assess the potential needs of the livestock sector. This analysis should determine:

- the throughput needed to economically sustain such a facility;
- cost savings to farmers by processing locally;
- environmental value associated with reduced transportation;
- effective legal agreement to adopt at the facility;
- anticipated growth of livestock sector;
- current demand for locally raised meat.

Concurrently, the County should evaluate and explore the legal feasibility of upgrading its current meat processing facility at Yaphank. This analysis will extend to an evaluation of potential private-public partnership models. Should a legal agreement prove feasible, the County should engage a consultant with technical expertise in livestock processing facilities. This consultant would recommend facility improvements including: (i) equipment and infrastructure needed to upgrade the facility to current standards that provide for safe and humane animal handling; and (ii) the staffing necessary to operate the facility profitably.

The industry should be engaged to discuss the optimal business organizational structure for a regional, Suffolk-based livestock farmer cooperative which would access the facility. Once stakeholders have been consulted, a report for the livestock industry should be prepared. This report should determine the appropriateness of the Suffolk County Farm facility for commercial livestock processing.

Alternatively, if private investment interest can be established, Suffolk County should consider a Request for Proposals process to explore opportunities to partner with private investors to upgrade and operate the facility on a *limited basis* while maintaining use of the building for its current public needs – as a training and rehabilitation program ground for local Suffolk County prisoners, to process meat for County supported facilities such as the Sheriff’s office, and to maintain its operation as a historical Suffolk County Farm. While there are obstacles associated with introducing a for-profit operation on County-owned land, a balance may be struck that expands local economic development opportunity for this growing segment of Suffolk County agriculture while preserving the public aims of the facility itself.

- **Challenge: Food Safety Regulations**

Recent outbreaks of food borne illnesses have become a concern for citizens of the United States. The FDA has developed 2 programs to help combat these outbreaks: FSMA (Food Safety Moderation Act) and GAP (Good Agricultural Practices). These programs are designed to implement practices on farms to provide a safe food supply for our residents and include practices such as water testing, safe handling of food products, temperature controls for storage of certain products, upgrading of equipment, etc. Long Island farmers take great pride in producing a safe food supply for our residents, however, the requirements these new regulations will put on our farmers will be costly to implement and in some case will require additional staffing at a time when labor is scarce and the cost of labor is increasing.

- **Course of Action: Cost-Sharing and GroupGAP**

Suffolk County farmers will need additional resources on a federal, state and local level. These resources could include cost sharing for upgrading equipment (some grants are already in place for these investments), assistance from experts in education and guidance for implementation of these plans, and review and relief from over burdensome regulations that will prove ineffective in reducing the food outbreaks in Suffolk County. Additional support could come from the food purveyors along the supply chain in the food system.

The USDA-Agricultural Marketing Service has recently introduced a new audit-based program named the GroupGAP certification program that is designed to allow grower groups, such as cooperatives, food hubs, and grower association to receive USDA GAP certification, demonstrate conformance to new Food and Drug and Administration requirements for on-farm food safety, and access new markets. While the program is brand new, it may allow a small degree of cost-sharing and economies of scale that could benefit local growers.

- **Challenge: Labor Shortages**

The availability of farm labor continues to be a pressing issue in Suffolk County, just as it exists across the country. Farmers recognize that agricultural labor is one of the most critical components of their operation. And yet, access to labor is limited. It was the third most cited challenge by Suffolk County agricultural producers. As few agricultural operations on Long Island require a year-round workforce, most employment in the industry is seasonal and relies on migratory labor. Farmers care for and respect their workers; otherwise the workers would not return to the farms year after year or bring their families to work on the farm. A continuous and abundant workforce is needed to supply workers to fill the necessary jobs agriculture needs.

- **Course of Action: Improve Access to Seasonal Workers**

Seasonal workers must be given the opportunities to fill these labor gaps and the legal and practical means to do so in the eyes of the law. The federal government's H-2A program allows U.S. employers or U.S. agents who meet specific regulatory requirements to bring foreign nationals to the United States to fill temporary agricultural jobs. This must be simplified and regulatory hurdles must be eliminated. Immigration reform is needed to ensure the agricultural industry has the necessary workforce to continue to operate. Without this workforce farmers will begin to cut back production threatening the supply of farmland that is available to grow the food and fiber we need.

In order to bring younger farmers into the fold, farm internships and apprenticeships should be offered and encouraged to age-appropriate high school college-level students. Some organizations, such as the Peconic Land Trust, are already highly active in recruiting next generation farmers through their Farms for the Future Initiatives.

- **Course of Action: Downtown Revitalization, Investments in Public Transit, Transit-Oriented Development and Affordable Housing**

One reason farmers cannot find and hire their agricultural workforce (part time or full time, seasonal or year round) is because potential agricultural workers cannot afford to live in the areas where many of Suffolk County's existing farms remain. This is particularly true for the farms remaining in the Towns of Southold, Southampton and East Hampton, which are Suffolk County's most affluent towns. In most regards, these areas are affluent because long-time and new residents alike are drawn to these locales by the open spaces, operational farms and scenic vistas afforded by these traditionally agrarian towns. These areas attract significant and substantial second-home residents and these vacationers drive up the costs of housing in the

area. But many farmers find their labor forces from less affluent communities who are priced out of the immediate area.

Additionally, potential farm employees in the East End may lack the private and public transit options needed to commute to work. However, as Suffolk County’s Comprehensive Plan demonstrates, improving transit-oriented development, increasing the availability and frequency of public transportation options and increasing the stock of affordable housing are key strategies of long-term Suffolk County economic development. Large scale investment in smart transit-oriented development and a continued emphasis on increasing the availability of affordable housing, and rental units in particular, may alleviate some of the housing and transit challenges experienced by the agricultural workforce. Infill development in historic Riverhead and proposed revitalization efforts in Riverside are important steps in this direction and speak to real progress and a renewed vigor for workforce housing in East End communities. The Towns of Southampton and Southold have also recently identified the need for, and challenges associated with, the provision of affordable housing.

Investment in public transit will have the added benefit of increasing tourism opportunities on the East End. Public transit that can bring the agricultural labor force to work can also bring vacationers from Connecticut, Manhattan, Brooklyn, Queens and Western Long Island to local vineyards, breweries, farmstands, and hamlet centers. Increasingly, urban residents, while drawn to rural vacations, no longer own vehicles or even possess driver’s licenses. For example, a recent J.D. Power and Associates analysis found that millennials were about 29 percent less likely to buy a new car or truck last year than members of Gen X or the Baby Boomers.¹¹

- **Challenge: Minimum Wage Laws**

Farmers generally are price-takers for the products they raise. The majority of crops grown here on Long Island are what are called “commodity crops”. Prices set for commodities are done on a market basis, usually based upon supply and demand. In years with abundant crop harvest, prices are generally low; sometimes beneath the cost of production, meaning a farmer will have a loss for the year. In times of non-abundant harvest, products are in short supply, meaning the farmer, if they are able to harvest a crop, could actually have a strong year, financially. Furthermore, farmers cannot easily pass along government-mandated cost increases or increased cost of products used on the farm due to the year-to-year fluctuations this industry can experience.

¹¹ “Millennials Are Still Pretty Cheap” as accessed on 11/27/15 at http://www.slate.com/blogs/moneybox/2015/04/29/millennials_and_cars_is_gen_y_learning_to_love_the_auto_mobile.html

Public education of the economics of farming will help to educate consumers and voters. Government officials, at all levels, need to know the economics of farming so they can make intelligent decisions that affect farmers. Additionally, due to the seasonality and the sensitive nature of farming, it is important that any regulation or restriction must consider logistics associated with planting, harvesting and storing of perishable products or crops.

- **Course of Action: Cost-benefit Analysis**

Cost-benefit analysis studies should be performed to understand the impact of minimum wage laws on the agricultural sector. Farmers must be engaged during the consideration of any legislation mandating wage increases or the payment of overtime rates after a set amount of hours. Additional dialogue is needed among farm organizations, groups representing laborers, and policymakers in advance of proposed legislation. Legislation must consider the impact of potential minimum wage laws on the economic viability of the local agricultural community. Minimum wage laws could have unintended consequences if they lead to layoffs and or business failures.

- **Challenge: Branding Local Agriculture and Direct Marketing Opportunities**

In business, branding and marketing matters. Direct marketing opportunities have exploded since the 1996 *Agricultural and Farmland Protection Plan*. In addition to traditional marketing avenues such as farmstands, online sales and CSAs have broadened the span and scope of traditional business models. Suffolk County has an impressive history of direct marketing. The East End of Long Island is already characterized by its iconic farmstands. In the 2013 *The State of the Suffolk County Agriculture Industry* report, 44% of survey respondents reported operating a farmstand of some kind. This is particularly impressive in light of the fact that the vast majority of agricultural production in the County is affiliated with the greenhouse, nursery, and sod industries, which are not frequently associated with roadside farmstand operations. Nevertheless, in a crowded marketplace, branding and marketing avenues must continue to innovate and proliferate. While Suffolk County may be well-known for its beaches and its playgrounds of the rich and famous such as “The Hamptons”, it is less frequently labelled as a “foodie paradise”, though that is precisely what it is.

New York State Agriculture & Markets have a very successful “Pride of New York” brand and the Long Island Farm Bureau has an equally powerful “Grown on Long Island” brand. However, Long Island agriculture and, particularly, Long Island Wine Country, requires increased efforts to market and brand the region. Recently, Long Island vineyards have earned important attention and well-deserved high praise and recognition. Wine Enthusiast magazine recently named New York its “Wine Region of the Year” in 2014 and local Long Island vintages have begun to score 90s and above in Wine Spectator and similar publications, a number that denotes an

outstanding wine. Organizations such as the Long Island Farm Bureau, the East End Tourism Alliance, the Long Island Wine Council, Suffolk County and the Long Island Visitors and Conventions Bureau must continue efforts to brand the destination as an agricultural destination. Clearly there is an audience for agri-tourism opportunities and a market for locally produced food.

- **Course of Action: Branding and Third Party Certification Model**

Consumers have demonstrated a willingness to pay premiums for brands that signal an added degree of quality. Products that are branded as “green,” or “sustainable,” or “eco-friendly,” generate price premiums. A recent Nielsen study reviewed retail sales data for a cross-section of both consumable and non-consumable categories across 20 brands in nine countries. The results from this 2014 analysis show an average annual sales increase of 2% for products with sustainability claims on the packaging and an increase of 5% for products that promoted sustainability actions through other marketing programs. “Grown locally” efforts have proven to be equally powerful. While the USDA sets standards for “organic” certification, which is enforced through third-party agents, there is no equivalent standard to certify farms that use “best management practices”. When standards are rigorously developed, and then third-party enforced, they can prove to be a viable branding mechanism for local producers. These third-party certifications send signals to consumers that our local producers are taking extra, *voluntary* measures to protect our environment. As such, they can serve several important functions. One, they allow local producers to charge premiums for their produce which will help reward producer investments in environmental sustainability. Two, they will help communicate to the press, to policymakers, and to the public-at-large that local farmers are taking important steps to protect our natural resources. Third-party certification standards, which can be communicated through branding stickers directly on produce, displayed at farm stands and farmers markets, and included in marketing and promotional materials, can help expanding awareness of Long Island sustainability efforts. And as a farmer driven effort, the effort is sure to drive local farmer involvement in the settings and achievability of certification standards.

As an example of the “Branding and the Third-Party Certification Model”, please read the **Narrative – Long Island Sustainable Winegrowing**, found in the Appendix.

- **Course of Action: Community Supported Agriculture**

Community Supported Agriculture (CSA) consists of a community of individuals who pledge support to a farm operation where the growers and consumers share the risks and benefits of food production. Typically, members or "share-holders" of the farm cover the anticipated costs of the farm operation and the farmer's salary. In return, subscribers receive shares in the farm's production through the growing season. Members share in the risks of farming, including poor

harvests due to unfavorable weather or pests. These direct sales to neighbors and community members provide the farmer with advance working capital for the growing season, better prices for their crops, and added financial security. CSAs are a growing segment of the Long Island agricultural industry. There are approximately 25 active CSAs in Suffolk County and some farmers, particularly organic farmers, cite CSAs as the sole reason for their success and continued operation. Individual farms can build very powerful personal brands around their CSAs.

- **Course of Action: Virtual Foodhubs**

Virtual food hubs are online resources that match farmers, harvesters, and value-added producers directly with buyers including distributors, grocers, restaurants, co-ops, and value-added producers. There are a number of online virtual food hubs, and enlisting with one hub does not preclude listing with another virtual food hub. Farmers interested in a virtual food hub should explore several options (most have a fee structure of some kind) and each operation should choose a hub or hubs that best serve its own business model. Current virtual foodhubs include: New York MarketMaker, Local Dirt, Plovgh.com, Farm2Kitchen Long Island, OurHarvest.com, FarmersWeb, and Meat Suite.

- **Challenge: Extending the Growing, Harvesting and Sales Season**

For the most part, Suffolk County farmers have a limited growing season. Suffolk County farmers cannot grow and harvest year-round as farmers in other parts of the country, such as Florida and California, can. While some crops like greens and lettuces, horseradish, asparagus, peas, and strawberries can come in early to late spring, and others like broccoli, cauliflower, Brussel sprouts, cabbages and winter squashes can last into late Fall, few farmers have a sustainable crop year round. Even most horticultural operators, including greenhouse operations, have a very heavy and intense Spring sales period which then, traditionally, slow down over the Summer and Fall months (though many horticulture operations grow and sell chrysanthemums which does usually bring a sales spike in the Fall months). Additionally, many if not most, Suffolk County agricultural operations rely on direct retail sales at a nursery or farm stand. However, the audience for these operations declines significantly when seasonal visits and residents on the East End decrease.

- **Course of Action: Investment in Greenhouses to Extend the Growing Season**

As stated in Suffolk County's 2015 Comprehensive Plan, Suffolk County must "Explore opportunities to expand greenhouse production in Suffolk County to extend the growing season, utilize renewable energy sources while reducing environmental impacts and realizing the potential economic benefits." In practice this means working with educators at Cornell

Cooperative Extension on research trials that test the suitability of certain species best suited to grow under glass during Fall, Winter and Summer months. What infrastructure and equipment investments are needed to conduct such trials? Existing greenhouse operators interested in experimenting with a new crop should be encouraged to access funding through the Peconic Land Trust's Agricultural Capital Equipment Grant Program. The use of renewable energy sources in greenhouse operations in order to offset the energy expenses affiliated with year round heating are essential. Greenhouse operators should be encouraged to seek funding through federal and state sources to help make these energy investments. The USDA Rural Energy for America Program (REAP) and the Agriculture Energy Efficiency Program through NYSERDA are potential funding sources.

Additionally, local partners should work together to bring outside expertise on these subject matters. While Suffolk County farmers continue to be innovation and thought leaders on many environmental and economic practices, the County does not yet enjoy a robust winter greenhouse industry. And yet, many sectors of the world, with colder climates and less daylight hours have healthy off-season greenhouse production. With 12 million square feet of agricultural land under glass production, Suffolk County is primed for off-season production. Instead, most greenhouses sit dormant during the offseason. Fruit and vegetable growing under glass only accounts for 2% of all Suffolk County greenhouse production. Obviously, off-season greenhouse operations are challenging on Long Island, where high energy costs can be prohibitive. More than 80% of energy used for greenhouses goes toward such heating¹². However, as renewable energy sources such as geothermal, wind, and solar advance, local growers can increasingly rely upon on-site energy generation to offset these costs. Fortunately, technological leaders around the world, including the Dutch, have already found ways to integrate energy generation into their greenhouse designs.¹³ Currently there are political, social, and practical challenges that constrain some on-site energy generation on Suffolk County farms. For example, farms in the County's Farmland PDR program can only produce 110% of the farm's energy needs on-site and cannot sell energy back into the grid. There is also understandable reluctance within the industry and rural communities to convert viable agricultural soils into industrial energy generators, even if those structures are growing local plants and produce within. Simply put, Suffolk County residents value their rural scenic vistas.

However, greenhouse operations are expanding, rather than contracting on Long Island and we should expect those trends to continue. Higher density living generally leads to higher density

¹² *Putting the "Green" into Greenhouses* Erdmann, Scientific American, February 12, 2009.

¹³ The Dutch Ministry of Agriculture established a network for system innovations as a response to the many developments confronting Dutch agriculture, such as environmental and food safety issues, growing competition, pressure on space and changes in the relationship with civil society. One such innovation is the "Greenhouse as a Source of Energy" initiative.

greenhouse operations. To accommodate these trends, and to take proactive approaches to increased indoor farming in environmentally and economically sensitive manners, Suffolk County, the state of New York, and federal agencies need to continue to fund innovative greenhouse research through Cornell Cooperative Extension of Suffolk County. Workshops should be held that bring together specialists from around the world in the greenhouse fields of energy efficiency, hydroponics, aquaponics, automation, and direct marketing. Suffolk County cannot continue to allow millions of feet of greenhouse space to lie idle for significant portions of the year.

In the short term, even traditional, non-greenhouse operations should explore the feasibility of utilizing high tunnels. These low-cost greenhouses extend the growing season, reduce input costs, conserve natural resources and make locally-grown produce available for a greater portion of the year. Funding for high tunnels is available through the Environmental Quality Incentives Program (EQIP) of the USDA-NRCS.

- **Course of Action: Maintaining Local Food Hubs and Incubators**

Food hubs and incubators are a means for local farmers to extend the shelf lives of their products, create value-added products, and increase direct marketing efforts. A food hub is a centrally managed business structure that gives small and mid-sized producers the ability to gain access to infrastructure such as warehouses, cold and warm storage, and processing space. Major advantages of a food hub or incubator are lower upfront investment costs and the economies of scale enjoyed.

Recently, local agribusinesses have been given an opportunity to lease subsidized cold storage space at the Grapes and Greens facility operated by J. Kings in Calverton. This opportunity is being made possible by a \$500,000 grant from New York's Empire State Development Corporation to the Long Island Farm Bureau (LIFB) in 2012. The grant funds will be used to defray the cost for leases to the facility for Long Island farms, wineries, and value-added producers.

The Stony Brook University Incubator at Calverton is an economic development center designated to foster the growth and success of entrepreneurial companies. The facility in Calverton features an Agriculture Consumer Science Center and Open Kitchen and is specifically tailored to suit the agricultural and food-services industries. The main goal of the incubator is to provide services and resources that will enable entrepreneurs to grow and leave the program financially sound. Conveniently located near the heart of the Suffolk County agricultural sector, the Calverton Incubator offers the resources necessary to experiment with new recipes and market new products. This new facility includes modernized kitchen, processing, and storage utilities which are being made available at affordable rental rates.

An additional food incubator has recently opened on Suffolk County's South Fork. South Fork Kitchens, which opened in April 2014, was made possible by the Amagansett Food Institute, an organization that works to support, promote and advocate for food producers on the East End. It is large enough to accommodate multiple users; those wishing to use the space can sign up for four-hour blocks of time around the clock. The commercial kitchen is located on the Stony Brook University Southampton campus. The facility also offers access to Business Development specialists and office space.

Additional funding for food hubs and incubators may be sought through the USDA's Farmers Market Promotion Program (FMPP) or Local Food Promotion Program (LFPP).

▪ **Course of Action: Create an Agri-tourism Visitors Center**

Agri-tourism in Suffolk County is exploding and is a true growth sector within the industry. In 2002, when US Census data was first collected on this market segment, only ten Suffolk County farms conducted agricultural tourism and this produced a mere \$18,000 in revenue. By 2007, 32 farms conducted agri-tourism activities and generated \$798,000 in revenues. In the latest Census, 91 farms reported agri-tourism as a revenue generator and these sales increased to \$4,247,000. That's a 432% increase in a five-year period that overlapped with a national recession. The 52 tasting rooms in Suffolk County Wine Country generate over 1.2 million annual visitors alone. A 2013 survey of Suffolk County farmers (included in this Plan) found that 91 of 143 farmers surveyed (64% of respondents) engaged in some form of agri-tourism activity.

An Agri-tourism Visitors Center would steer visitors towards existing agri-tourism assets and promote the creation of new assets. Multi-media consoles at a Visitors Center would point visitors to attractions a) nearby b) near their ultimate destination (such as a beach, marina, hiking trail) or c) near their hotel/motel accommodations. The visitor's center can also serve as a mini-historical museum, documenting Long Island's agricultural heritage, accounting for present day developmental pressures, and explaining the successful steps the County has undertaken to preserve farmland. In addition to the agri-tourism activities cited above, the visitor's center could point visitors towards:

- Local Farm stands
- Local U-Pick operations
- Agricultural Education opportunities
- Nearby Restaurants that serve locally produced food
- Upcoming special events and festivals

The creation of agri-tourism visitor centers is already being explored in locations across the County. The Town of Riverhead was awarded an Empire State development grant in 2014 to create an agri-tourism visitors center. Suffolk County has appropriated millions of dollars in construction over the next few years to create a new Agricultural Visitors Campus at the Suffolk County farm in Yaphank that would include the promotion of agri-tourism. Recently, New York State Agriculture and Markets has explored the possibility of opening a “Taste NY” retail operation somewhere on Long Island. Promoting agri-tourism through these venues, and coordinating those efforts through the Long Island Convention and Visitors Bureau, the Long Island Farm Bureau, the Long Island Wine Council, Cornell Cooperative Extension, Peconic Land Trust, and local municipalities offers Suffolk County the unprecedented opportunity to market agri-tourism assets across the County.

- **Course of Action: Promote New Forms of Agri-tourism**

As documented previously, agri-tourism is an increasingly important component of Suffolk County agriculture. The agri-tourism activities which fuel tourism visits and spending across Long Island, range from “U-Pick” operations, vineyard and brewery tasting rooms, to crop mazes and cooking demonstrations.

While Suffolk County enjoys the most robust, diverse agriculture in the state, most agri-tourism is oriented around traditional commodities – primarily fruits, vegetables, and the pies, pickles, jams, beers and wines made of these products. However, Suffolk County need not limit itself to traditional forms of agri-tourism.

Suffolk County has greenhouse operations using advanced technologies and hydroponics that grow high-end microgreens, lettuces, and orchids. The County has indoor mushroom farmers and state-of-the-art shellfish aquaculture operations. We have nursery stock that landscapes the richest homes and estates in the world. All of these types of agriculture offer new and exciting tourism opportunities. These opportunities for agri-tourism should be identified, encouraged, and then marketed through channels such as the Long Island Convention and Visitors Bureau (LICVB). Day trips and packages should be built around trips to the North and South Forks.

Additionally, downtown communities across the County should be reminded that agri-tourism experiences can be found in unexpected places, including the West End Towns of Islip, Smithtown, Huntington, Babylon and Brookhaven in central Suffolk (including maple syrup farming, equestrian farms, small scale organic farming, and vineyards with tasting rooms).

- **Course of Action: Promote Off-season Agri-tourism**

As noted previously, the diversification of Suffolk County agriculture lends itself to increased agri-tourism opportunities. As this diversification continues, organizations and local municipalities must continue to work together to promote off-season agri-tourism opportunities. Finding off-season revenues for farmers will help increase yearly revenues and off-set cash flow strains.

For example, the Long Island wine industry experiences noticeable and substantial drop-offs in revenues during the late Fall-early Spring months. To offset these declines, Long Island Winterfest-Live on the Vine was created. Live on the Vine is a successful collaborative effort between East End Arts, The Long Island Wine Council, and Long Island Convention & Visitors Bureau, with support from Suffolk County under the auspices of the Office of Film & Cultural Affairs. It is a 6-week mid-winter music festival that takes place in Long Island's unique vineyard tasting rooms, hotels and other venues on the East End. It has been recognized for its cultural tourism impact during an off season and has greatly stimulated the business economy during the cold winter months.

A similar effort is financed by New York State Empire State Development. In the past few years, The Long Island Wine Council and the East End Tourism Alliance have organized a "Taste the North Fork" event over Veteran's Day Weekend in November. The event includes special tastings, events, discounts and live music at the wineries and helps drive shoulder season revenues. The weekend event includes a free "hop on-hop off" shuttle service which circulates throughout the North Fork, connecting wineries and the region's historic hamlets.

Of course, the wine industry is not the only agriculture commodity that experiences off-season revenue declines. As year round or off-season greenhouse industries expand, tourism opportunities at those facilities will expand as well. Aquaculture operations also hold as-of-yet unfulfilled potential for agri-tourism experiences. The same holds true for visits to Suffolk County mushroom farms, buffalo farms, microbreweries using local hops and grains, etc.

- **Challenge: Protecting Suffolk County Ground and Surface Waters**

Water is at the heart of quality of life on Long Island and it is critical to our health and economic success. Suffolk County's success is tied to the accessibility and availability of clean ground and surface waters. Most importantly, Suffolk County groundwater provides the drinking water that sustains life on Long Island. Our surface waters feed our bays and oceans and generate recreational and tourism opportunities for individuals to swim, boat, and fish our shores. They sustain its wetlands and habitats for shellfish, finfish, and birds. These rivers, bays, and estuaries fuel the economic success of our well-known beaches and historic fishing

communities. Water quality also lies at the heart of our agricultural success. Access to clean, affordable water has fueled growth in our vegetable, greenhouse, nursery, sod, and aquaculture industries for generations.

Farming practices are typically fertilizer (nitrogen) and pesticide dependent. Nitrogen management is a major concern for estuaries around Long Island. Nitrogen contributed by fertilizers (along with wastewater, atmospheric deposition and other sources) has already resulted in adverse environmental impacts such as low oxygen areas (hypoxia), harmful and toxic algal blooms, and loss of coastal vegetation that provides critical habitat and protects shorelines from storm impacts.

While current agricultural stewardship efforts have had some success, it is clear they are fragmented and underfunded. Funding is needed to enhance agricultural stewardship efforts, help farmers adapt best management practices, protect water quality, improve soil health, prevent harmful algal blooms (HABs) within the estuary, restore aquatic habitats, and continue building local shellfish populations.

▪ **Course of Action: Create an Agricultural Stewardship Advisory Committee**

The Suffolk County Legislature should create an Agricultural Stewardship Advisory Committee (ASAC) to oversee the Suffolk County Agricultural Stewardship Program. The principle function of the ASAC shall be to develop and oversee the implementation of the annual workplan relating to nitrogen and pesticide loading reduction strategies pursuant to this report. The Council will use the Key Performance Indicators as guidance. In addition, the Council shall advise the Suffolk County Legislature on the progress and implementation of reducing pesticide and nitrogen loadings. Tasks shall include but not be limited to:

- Report to the Legislature on the progress of meeting the nitrogen and pesticide reduction goals;
- Evaluate and advise the Suffolk County Legislature on the progress and effectiveness of programs underway and recommend additional reduction strategies;
- Propose an annual budget and recommended work plan to the Suffolk County Legislature that will allow agriculture to meet the stated goals.

This committee shall meet three times per year, additionally if necessary, and shall “produce an annual report which shall summarize on-going stewardship efforts and evaluate programmatic effectiveness”. The Committee shall also be responsible for evaluating goals in the context of funding appropriated and received. The goals shall be revised as needed. It is not the fault of the participating organizations if goals are not met or if the budgetary allocations needs falls

short. The Committee will be responsible for reviewing the budget and adjusting goals accordingly.

▪ **Course of Action: Research on Farm Demonstration Initiatives**

Significant developments of best management practices (BMPs) for nutrient and pest management have occurred over the past 30 years. However with the diversity of crops in Suffolk County and the continued development of new technology, local research is of utmost importance to address these issues.

Local research should be supported in the development of new Best Management Practices to reduce and minimize the impact on the groundwater and surface waters while maintaining the economic viability of agriculture in Suffolk County. Nutrient management trials need to focus on formulations, rates and timing of nitrogen. Pest management trials should include evaluations of alternative pest controls, biological controls, pest-resistant crops and organic strategies. Further research must focus on providing economic data to local farmers to help them remain economically competitive and financially able to implement BMPs. After new BMP practices are developed on small-scale research projects, they should be implemented on large-scale on-farm demonstrations. Once demonstrated to be a viable practice on a large scale, these BMPs can be incorporated into Nutrient and Pest Management Plans and adopted by producers.

The following are examples of research that need to be conducted:

- Evaluation of various formulations of nitrogen, especially controlled release forms for vegetable and fruit crops, sod and nursery to determine if nitrogen contamination to groundwater and surface water is reduced and economically viable yields are maintained.
- Evaluate and support new cultivars which will use less nitrogen compared to standard varieties
- Develop alternative pest management practices to replace pesticides which have the potential to impact the environment and encourage registration of newer products
- Develop irrigation management practices, including the evaluation of the most effective equipment
- Develop precision irrigation for greenhouses and other commodities
- Development of thresholds for pests and scouting and monitoring procedures

- Develop web-based pest forecasting and modeling programs using the weather station network.
- Use of treatment technologies to remove pollutants from groundwater as a remedial measure in areas where groundwater is contaminated.
 - **Course of Action: Education Outreach**

Research and on-farm trials are the first step in evaluating BMP effectiveness. However, once BMPs are identified, those suggestions must be successfully communicated to SC farmers. While some farmers may actively seek out new technologies, environmentally friendly practices and cost-minimizing strategies, some farmers may not. Word-of-mouth has always been a strong communication medium within the agricultural community. Farmers are willing to adopt beneficial insect controls, or mating disruption technology, or slow release fertilizers, when they see neighboring farmers have success with those methods. But first adapters are essential in this process. CCE of Suffolk County, SCSWCD, and NRCS must continue to use traditional and non-traditional means to communicate with the agricultural community. This means traditional communications like CCE's Agricultural News and Long Island Fruit & Vegetable Update, but also the use of social media and the sharing of user-created content such as you-tube mediums. It means that SCSWCD must continue to hold Soil Education workshops, but it must work hard to increase participation and attendance rates through old and new mediums. Subscribers to USDA e-newsletters will notice a new aggressive use of video-based communications and user-friendly websites. Next generation farmers will seek out new information through traditional outlets, and through in-person visits to the Riverhead offices, but they increasingly expect to come across information organically through new media. State and County agencies must help vigorously advertise the education and technical services offered through local programming.

- **Course of Action: Cost-Share Funding for Implementation of Agricultural Best Management Practices**

The SC Soil & Water Conservation District 's Agricultural Environmental Management (AEM) program utilizes the NY State AEM process to support the County's diverse agricultural community in its effort to protect the quality of region's ground and surface water as well as its other natural resources, while maintaining a strong, viable agricultural industry. This goal will be achieved by completing AEM Tiers 1-V with growers. Assistance to producers will be provided through conservation planning, design and cost-share opportunities. Cost share monies will be sought through NYS AG & Markets Agricultural Non-Point Source Abatement & Control Program (ANSACP) funding and other grant opportunities to help agricultural producers implement Tier III and IV.

In New York State, Soil & Water Conservation Districts have an integral role in working with USDA-NRCS to set conservation goals, provide the maximum technical assistance to farmers and to leverage federal funding made available through the Farm Bill. Federal programs to support these programs include the Environmental Quality Incentives Program (EQIP), Conservation Stewardship Program (CSP), Agricultural Management Assistance Program (AMA) and Agricultural Conservation Easement Program). Federal Programs may cover implementation costs for conservation cover crops, critical area planting, tillage, filter strips, irrigation systems, micro-irrigation, water management and windbreak and pest and nutrient management.

- **Course of Action: Increased Monitoring of Groundwater**

The use of test wells to monitor groundwater is the best method to evaluate the impact of agricultural practices on groundwater. The Suffolk County Department of Health Services (SCDHS) has been monitoring test wells adjacent to agricultural fields and greenhouses for over 30 years. During that time approximately 200 test wells have been established to evaluate impacts from agricultural inputs. In the past three years, Cornell Cooperative Extension of Suffolk County, New York State Department of Environmental Conservation, SCDHS and Suffolk County farmers have collaborated to establish a network of test wells where main crop commodities are grown on Long Island. These wells have been established at greenhouse, sod, nursery, vineyard and vegetable operations. Groundwater samples are collected from near the water table in order to detect nutrients and pesticides that are applied on-site and to minimize potential inferences from up-gradient land uses. This network, which can be expanded as needed, if funding is available, will be used to evaluate best management practices (BMPs) and other stewardship efforts in order to determine their effectiveness in reducing the impacts to groundwater.

Cornell Cooperative Extension of Suffolk County will work with growers to document pesticide and nutrient use and farm management practices. SCDHS will monitor test wells semi-annually. As part of the trend analysis, CCE will collaborate with growers to evaluate the causes/reasons for detection and non-detection of various selected pesticides and nutrients and evaluate grower best management practices to determine their value in minimizing groundwater impacts.

Parameters to serve as metric indicators can include: the number of farmers participating in best management practices as recommended by the stewardship plan; the amount of crops produced; and amount of acres in production.

- **Challenge: US EPA Clean Waters Regulations**

Suffolk County’s drinking water is dependent upon its groundwater quality. Surface water quality is paramount on an island that has three major estuaries. The County has spent billions of dollars protecting this resource through open space acquisitions, health department regulatory efforts, and local water authorities’ management initiatives, to name a few. Balance is required when evaluating future policies among a variety of goals – including environmental and agricultural, as it relates to water quality. Proposed environmental regulations, including the US Environmental Protection Agency’s Waters of the United States, merit additional stakeholder engagement within the agricultural community in order to strike an appropriate balance. During the development of the Plan, groups, like the Long Island Farm Bureau, expressed concern specifically about strictly interpreting the Waters of the United States regulations as these rules have the potential not only to affect the actual waters around the Long Island but also affect the land adjacent to the waters. This could mean that agricultural operations may be affected by having to get additional permits to farm and or they may be required to take land out of production in certain low-lying areas where surface water accumulates during wet periods. The additional cost to farmers of these regulations, and the potential consequences of having to remove land from production, could have serious impacts on our farmers. Municipalities could be equally affected, such as in the case of edge-of-field ditches that aid in reducing stormwater runoff onto public roadways, which could be federally regulated.

- **Course of Action: Engaged Stakeholder Outreach**

Additional and ongoing dialogue with a variety of stakeholders is recommended. The Long Island Farm Bureau suggests, “Strict adherence to the law the way it was written without far reaching interpretations is recommended. Our leaders in New York State and County representatives need to ensure that our farms are not unduly regulated or forced to implement changes to the farm based upon interpretation versus actual law.”

- **Challenge: NYS DEC Pesticide Restrictions**

Suffolk County farmers engage in agricultural practices above our groundwater supply. They use the same groundwater for irrigation as neighboring residents use for drinking water and lawn irrigation as well as commercial and industrial uses. As such, farmers are invested in clean, safe, affordable water access. However, given Suffolk County’s status as a federally-designated sole-source aquifer, farmers managing pests and fungi on their operations have been faced with products being banned for use in Suffolk County. This has required certain farmers on Long Island to grow less profitable crops, or sustain substantial crop losses and revenue declines due to pest and fungus infestations. The economic impact of these pesticide decisions can be

substantial and may lead to future farm loss and increased East End development. In many cases, products that have been found to be soluble in groundwater have been restricted on Suffolk County lands while its use is still permitted in other counties throughout New York and neighboring states. In most instances, there is no product available to replace those that are removed from the Suffolk County market. This can put Suffolk County farming at a major economic disadvantage relative to farming in neighboring Counties and States.

- **Course of Action: Sound Science and Stakeholder Engagement**

Suffolk County should support ongoing scientific agricultural stewardship research to provide local farmers with a range of economically viable and environmentally approvable alternatives. Regulators should continue to work with the farm community in Suffolk to help them stay in business growing profitable crops while protecting our precious water quality. Sound science should be the basis for decision-making. For example, the DEC has worked with local stakeholders to develop the “Long Island Pesticide Pollution Prevention Strategy”. The Strategy presents a blueprint for NYS DEC to evaluate pesticide usage on Long Island, identify pesticides that have the greatest potential to cause adverse impacts and work with partners to reduce or eliminate such usage or find alternatives that do not present such impacts. This approach will protect both Long Island’s water resources from pesticide impacts and encourage effective methods of pest management. As a component of this strategy, NYS DEC has created a Technical Review and Advisory Committee (TRAC) to pool expertise amongst state and local government agencies, academic agencies, and public service organizations to advise NYS DEC regarding potential response actions to prevent further pesticide-related impacts to Long Island’s aquifers while recognizing pest management needs. TRAC meetings are currently being held and stakeholder outreach is underway.

- **Challenge: Water Quantity Demands**

Suffolk County farmers and residents are fortunate to have an abundant supply of water at some of the cheapest rates in the nation. Recent news stories of sustained drought conditions in states like California highlight the need to plan for a possible future scenario of a local water shortage, notwithstanding how a remote possibility it may be.

- **Course of Action: Advanced Planning**

Advanced planning with current water usage data by sector, an appropriate pricing structure, and engaged multi-stakeholder dialogue is needed to develop a long-term policy plan to address a region with possible water quantity constraints in the future.

- **Challenge: Protecting Soil Health**

Soil health, also referred to as soil quality, is defined as the continued capacity of soil to function as a vital living ecosystem that sustains plants, animals, and humans. This definition speaks to the importance of managing soil's physical, chemical and biological components so they are sustainable for future generations.

Healthy soil supports clean air and water, bountiful crops and forests, productive grazing lands, diverse flora and fauna and beautiful landscapes. Unfortunately, agricultural crops are nutrient intensive and the supportive agronomic practices that disturb the soil through conventional tillage, readily degrade soil health by reducing organic matter content and its functional abilities to support production while buffering against leaching, erosion, disease, pests and weeds.

- **Course of Action: Composting**

One key component to enriching organic matter in soils is through the use of compost. Many traditional farmers use compost on their operations. These farmers either bring in compost from outside sources or manufacture the compost right on the farm within DEC regulations. Regulations and funding opportunities should continue to support the farmer's right to compost as part of their operations.

- **Challenge: Extreme Weather Events/Global Climate Change**

One of the Top 5 Challenges to the industry cited by Suffolk County farmers was *Extreme Weather Events/Global Climate Change*. A farmer's success is, of course, extraordinarily tied to the vicissitudes of weather. Extreme heat, drought, intense rain, floods, and powerful winds can all have catastrophic effects on yearly harvests. As recent weather events such as Tropical Storm Irene (2011) and Super Storm Sandy (2012) have demonstrated, Suffolk farmers are finely tuned to the perils of extreme weather events. Clearly, the timing of a catastrophic weather event is extremely important. While Tropical Storm Irene was smaller on a meteorological scale than Super Storm Sandy, Irene occurred much earlier in the growing season (late August) versus Sandy (late October). Thus, the impacts on the growing and harvest season were substantially different. Regardless of the season, extreme weather events, including intense winter snow storms, can have a noticeable impact on both infrastructure (storage units/greenhouses/etc.) and equipment (tractors/generators/heating/chilling units/etc.), not to mention an employee's ability to get to work. It can also impact tourism.

Farmers are well aware that global climate change may increase the frequency of these extreme events while, at the same time, changing the type of crops that can or cannot be produced on Long Island. Reduced precipitation and strains on the water supply, heating stress, and the introduction of new pests affiliated with global climate change can all threaten current

methods of production. As of this writing, in 2015, California is in the fourth year of an epic drought. This drought has probably altered agriculture, water allocations and land usage in the state of California forever. Witnessing the impact of climate change and prolonged weather events in California, we can predict that continued climate change may have a substantial impact on local agricultural success. Mitigating the damage caused by climate change, and anticipating potential opportunities provided, will prove vital to industry success.

▪ **Course of Action: Planning for Climate Change**

While “preventing global climate change” is beyond the scope and nature of this Plan, there are some steps that can be taken to address the potential impacts of global climate change and catastrophic weather events. In the face of a changing natural environment, farmers, advocacy agencies, and municipalities must be prepared to do the following:

- Hold forums that engage local farmers and agricultural experts on the impacts of global climate change. Identify specific challenges and opportunities related to this development.
- Fund research that identifies crops, and species within those crops, that demonstrate higher levels of “hardiness” or crops that can withstand a broader range of inclement weather.
- When protecting farmland, create buffers and wetlands that mitigate the damage caused by storms and hurricanes.
- Spread awareness of programs that insulate farmers from costs and loss revenues affiliated with storm and weather-based damages including those offered by the USDA-Farm Services Agency.
- Direct private venture capital investment and public research investment in technologies and practices that can mitigate the damages associated with climate change.¹⁴
- Work with farmers to maximize crop yields and improve the health of their land through more efficient use of fertilizers and pesticides, and improved post-harvest processing and storage facilities. Healthier lands and soils will prove to be more resilient to extreme weather events.

¹⁴ For example, a recent article on the website AgFunderNews has found that the California drought has actually spurred a massive \$525 million private investment in water technologies aimed at improving water efficiency (<http://agfundernews.com/moving-to-mainstream-agtech-gathers-2-06bn-in-the-first-half-of-2015.html/>).

- Encourage crop diversification within farms. Diversified farm portfolios, like a diversified stock portfolio, helps individuals farmers, and the region as whole, weather storms and unplanned developments.
- Help farmers secure emergency funding to repair and/or replace crops and equipment lost and damaged after major weather events.¹⁵

In 2015, New York State announced the launch of a \$1.4 million Climate Resilient Farming grant pilot program created to support projects that mitigate the environmental impact of agriculture-related activities and increase the resiliency of farms throughout New York State in the face of a changing climate.

Funding is being made available to agricultural projects which develop and implement best management practices to reduce greenhouse gas emissions and carbon sequestration. Additionally, funding is available to projects that help agricultural producers prepare for and better manage the impacts of climate change like increased heavy rain storm events and periods of drought.

- **Challenge: Shellfish Aquaculture Lease Program 10-year Review**

The Suffolk County Shellfish Aquaculture Lease Program in Peconic Bay and Gardiners Bay was established by Suffolk County Local Law No. 25-2009 (Chapter 475, Article II of the Suffolk County Code). This program provides secure access to marine space for private, commercial shellfish aquaculture through the issuance of shellfish aquaculture lease agreements on publicly owned underwater lands in Peconic Bay and Gardiners Bay. The County's policies and program requirements for the first 10 years of the program are outlined in Suffolk County Local Law No. 25-2009 and described in the *Program Management Plan*. The Local Law stipulates that the County must conduct a comprehensive review of the Shellfish Cultivation Zone and Lease Program. In response to this requirement, the Department will be preparing a request for proposals for the required 10-year review of the Lease Program. This review will evaluate how it should be modified as a result of early operational experience, and specify how the program should be implemented in the future when the annual acreage cap limit expires after 2019. It will also evaluate and amend the Shellfish Cultivation Zone map as mandated under NYS law and Article II, § 475-13 of the Suffolk County Code.

As recommended by the Suffolk County Council on Environmental Quality and the Suffolk County Legislature and pursuant to Article II, § 475-19 of the Suffolk County Code, the Lease

¹⁵After Hurricane Sandy coalition partners were able to help secure USDA funding to assist four historic East End farms. (<http://www.newsday.com/long-island/suffolk/historic-east-end-farms-get-funds-for-sandy-damage-1.5374582>)

Program also includes a monitoring component that is intended to monitor any benign, beneficial, or adverse impacts that could be associated with the Lease Program. The development of a monitoring program was contingent on the availability of funding, which the County was able to secure through CP # 7180.114, *Shellfish Aquaculture Lease Monitoring Program in Peconic and Gardiners Bays*. This effort will benefit from a workshop conducted by New York Sea Grant (under a contract with the Suffolk County Dept. of Health Services [SCDHS] pursuant to CP # 8224.117), which is devoted to review and discussion by a team of “outside experts” on potential aspects of a shellfish aquaculture monitoring program. The workshop will address three needs: 1. how to determine whether shellfish aquaculture as part of the Lease Program is having a positive, negative, or neutral environmental effect; 2. what types of data/monitoring would be needed to determine if there is a cumulative effect; and 3. how should the results of monitoring be interpreted in order to be useful for the management and evolution of the Lease Program. A white paper on the proceedings with recommendations will be prepared after the workshop occurs. The Department will use the workshop recommendations in its preparation of a Request for Proposals for a consultant who will implement a monitoring program using funding under CP # 7180.114 that reflects budget constraints and related water quality initiatives of the Peconic Estuary Program. (Note: This project will be coordinated with the SCDHS, and will capitalize on the results of its study devoted to the review and analysis of historical water quality data sets collected in the Peconic Estuary; and a new initiative involving a state-of-the-art assessment of Harmful Algal Bloom (HAB) occurrence in the Peconic Estuary and other surface waters in the County.)

- **Course of Action: Continue to Support Suffolk County’s Shellfish Aquaculture Lease Program**

The initial focus of Suffolk County’s Lease Program was to address the access needs of existing shellfish aquaculture businesses, while simultaneously accommodating moderate growth in the industry. Although the Lease Program has been successful in facilitating the establishment of new shellfish farms at secure locations and increasing private investment in aquaculture operations, the Lease Program and other municipal programs that provide access are still young, and the full economic impact of an expanded aquaculture industry remains to be seen.

While many of the first leaseholders have become operational and are bringing their shellfish to market, many other leaseholders are still just starting out. This is also true for shellfish farmers in the town programs that have recently started granting access to their bottom-lands for shellfish aquaculture. As these new shellfish farmers work towards obtaining their regulatory permits, they are also securing dock space, investing in boats and aquaculture gear, and purchasing shellfish seed, etc.; and new opportunities are just beginning to present themselves. At present many shellfish farmers purchase aquaculture gear, supplies, materials and shellfish

seed from companies in surrounding states. As the shellfish aquaculture industry in Suffolk County continues to grow, additional economic opportunities for other local markets that are both directly and indirectly related to shellfish aquaculture operations will emerge, such as local suppliers of boats, gear, materials and shellfish seed, etc.

While many of the newer shellfish farmers are just getting started, a group of the previously existing private grant owners, former TMAUA holders and initial leaseholders have initiated a number of new developments, which have already expanded the marine-based economy of Suffolk County, and there is opportunity for new growth. An example of a pioneer in recent aquaculture activities in Suffolk County is provided in the **Narrative – The Growth of an Aquaculture Business in Today’s Environment**, found in the Appendix.

The demand for oysters and other shellfish has continued to grow, and these shellfish farmers have moved beyond the standard model of selling their cultivated shellfish to restaurants, retail or wholesale. Many farmers are capitalizing on the local food movement, and are selling directly to the consumer at new local oyster bars, vineyards, private parties, and local and regional oyster events, where the consumer is able to meet and speak with the shellfish farmer. A few shellfish farming operations have gone a step further and are promoting “oystourism”, which mimics the “agri-tourism” industry of “you pick” farms. Visitors are taken out to the shellfish farm to see and learn about the shellfish farm operations, and how shellfish are grown. Many shellfish farmers are also taking advantage of social media to advertise and showcase their shellfish and shellfish farming activities; some are looking to utilize websites to process orders online.

Shellfish aquaculture not only appeals to the consumer, but also to the farmers themselves, which has been demonstrated through the diversity of Lease Program applicants from all walks of life. Most of the current and prospective shellfish farmers grew up on Long Island, and can recall the Island’s surrounding bays and tributaries before the decline in water quality, the increased occurrence of harmful algal blooms, and the over fishing that depleted the naturally abundant shellfish populations. Many of these shellfish farmers believe that the production of large numbers of oysters, hard clams and bay scallops in dense populations on shellfish farms can help augment the spawning potential of native shellfish populations. The farming of millions of filter feeding bivalves on shellfish farms also has the ability to exert a positive influence on water quality by helping to control nutrient cycling and contributing to the prevention of noxious plankton blooms, such as brown tide. These and other ecosystem services associated with private shellfish farming operations are provided on a sustainable basis at little to no cost to the general public; while creating jobs that contribute to the quality of life and sense of place in East End communities.

While not all shellfish farmers who obtain access to underwater lands through any of the aforementioned programs will be successful, many are achieving success in this industry. The interest in shellfish farming that the County has seen during the first six years of the Lease Program does not appear to be waning. In fact, the interest by current and prospective aquaculturists to add additional marine plant species (i.e., kelp) to their aquaculture farms only seems to be increasing the demand for access to underwater lands. The future framework of the County's Shellfish Aquaculture Lease Program will be determined during the required 10-year review, which will recommend new guidelines for administering the program that will either maintain or increase the allowable lease acreage available after 2019.

- **Challenge: Expand Aquaculture Activities in Suffolk County**

In addition to addressing program requirements, the 10-year review will draw on early operational experiences and investigate the feasibility of introducing new aquaculture activities into the Lease Program. Over the last couple of years, many shellfish farmers have expressed interest in the cultivation of marine plants, i.e., kelp, in NYS waters, especially in Long Island Sound and Peconic and Gardiners Bays. Given the prospects of kelp farming to produce food as a viable agricultural activity, and based on successful research/extension work in New England and the establishment of commercial kelp farms in waters to the north of Suffolk County, shellfish farmers have inquired about their ability to integrate this type of culture into their current farming activities, or as a standalone crop.

- **Course of Action: Evaluation of Kelp Farming**

Objective information is needed to help answer the policy question of whether or not commercial kelp culture should be conducted here. This question is pertinent to Suffolk County, given the County's ownership of underwater lands in Peconic and Gardiners Bays for shellfish cultivation, and the interest expressed by shellfish leaseholders who would like to grow kelp as an additional crop.

The Peconic Estuary Kelp Aquaculture Feasibility Study, to be conducted by Cornell Cooperative Extension with funding support provided by Suffolk County pursuant to Res. No. 254-2015, will review siting requirements for kelp culture; conduct a site suitability analysis in the Peconic Estuary; and assess the benefits and costs of kelp culture in the region. The results of this study will be available by the fall of 2017. It is anticipated that they will help decision-makers address the following: Should a marine plant aquaculture lease program be designed for this region? If so, where should marine plant culture occur, and how should it be managed? How will such a program impact County's Shellfish Aquaculture Lease Program? Can marine plant and shellfish culture be integrated?

Together with the monitoring program recommendations, conclusions derived from the Peconic Estuary Kelp Aquaculture Feasibility Study, and the findings obtained from the evaluation of the of the first 10 years of the Lease Program’s implementation, the County will be able to effectively review the Shellfish Cultivation Zone and recommend any necessary amendments to the same and the program administration requirements. All major policy changes to the Lease Program and Shellfish Cultivation Zone will be subject to legislative approval.

- **Course of Action: Propose Amendments to Consider Changes in New York State and County Laws regarding Seaweed Production**

Suffolk County and its partners need to coordinate with the NYSDEC to propose amendments to State and County law that will allow for seaweed production on Suffolk County lease sites as well as other public and privately owned underwater lands. These amendments should not be limited to kelp, but should also allow for the farming of other commercially important native species. Additionally, the practice of cultivating seaweed along with shellfish should be explored in other areas of our estuaries given the biological benefits that these species could provide in the reduction of excess nitrogen.

- **Challenge: Allowance of Mechanical Cultivation Methods**

Modern shellfish farming was first implemented on Long Island and Connecticut through collaboration between the oyster industry and federal fisheries scientists. Long Island was home to several large shellfish aquaculture companies, of which only one is still in existence today. In the 1900s the shellfish farming industry was able to use the bottom of the Peconic Bay/Gardiners Bay estuary to cultivate shellfish. Many of the large oyster farming companies went out of business when the oyster industry began to collapse during the middle of the last century. Conflicts between wild harvest baymen and shellfish farmers resulted in the loss of the ability to cultivate the bottom using mechanical means. Authorization to use mechanical cultivation methods has only been retained by a limited number of shellfish farms. This is an important tool for grooming the bottom to prepare it for shellfish cultivation and to re-harvest bottom-planted species, such as oysters and hard clams. Most shellfish farms are located in deeper water where hard clams cannot be cultivated in large numbers without the ability to use mechanical cultivation. Oysters also grow best on bay bottoms. Thus, having secure access to underwater land is essential to the industry and its continued growth.

The County’s Shellfish Aquaculture Lease Program and other lease programs in Suffolk were developed with a large amount of public scrutiny. Even though there was no data which showed any negative effects from shellfish farms that used best management practices, many in the public opposed the cultivation of bottom lands using mechanical means. While the

County does not restrict culture and harvest mechanisms on their lease sites, authorization to cultivate the bottom is denied on most leases by regulatory agencies. Some lease owners may be permitted to use mechanical cultivation, but only after expending funds to have a cost-prohibitive benthic study conducted which, then, demonstrates, that there will be no harm to the benthic ecosystem.

- **Course of Action: Increase Coordination between the County and its Partners, to Work with the NYSDEC to Amend DEC's Programmatic Policies.**

The County, in conjunction with other interested parties, such as: the LI Farm Bureau, NYS Aquaculture Association, and NYS Department of Agriculture & Markets, needs to work together with NYS Department of Environmental Conservation to change DEC's programmatic policies, which restrict the use of mechanical cultivation methods on County leases and other underwater lands.

- **Challenge: Deer Management**

White-tailed deer are a growing problem and a serious concern on Long Island. According to the United States Department of Agriculture Animal and Plant Health Inspection Service Wildlife Services, Suffolk County has an estimated 25,000-36,000 deer (as cited in the *Long Island White-tailed Deer Damage Management Demonstration Project Report*). This estimate gives Suffolk County an average density of 27-39 deer per square mile with denser populations in the eastern and northwestern parts of the county. Suffolk County's deer herd is roughly twice the carrying capacity, putting pressure on agricultural production, property, human health and safety, and natural resources. White-tailed deer are a vector of several prevalent and serious tick borne diseases on the East End of Long Island, including Lyme disease, ehrlichiosis, Powassan, Southern Tick Associated Rash Illness (STARI), and Babesiosis.

A Cornell Human Dimensions Research Unit study estimated that deer damage to Long Island crops exceeded \$1.75 million, and in a more recent 2009 estimation of deer damage, deer cause \$5 million per year in agricultural damage to Suffolk County farmers.

- **Course of Action: Develop Deer Management Strategies**

An East End Wildlife Task Force has been developed to address animal nuisance issues. This group, comprised of members from the east end towns, policy-makers, hunters, agricultural community and environmental groups seeks to cultivate an integrated management strategy to address wildlife management issues. Suggestions are being worked on that could include changes in laws for hunters, additional best management techniques, and the purchase of specialized equipment such as freezers for storage. This equipment and changes in the law

would allow for hunters to take more deer and encourage donations to food banks to help alleviate hunger by our citizens.

It is important that policy-makers work with management agencies to remove statutory prohibitions that limit management tools and effectiveness in rural and suburban environments. A law was recently changed from a 500 -foot setback to a 150-foot setback for hunters which has allowed for more huntable lands. Other preventions that should be reevaluated include the prohibition of specific tools for hunting and the constraints on hunting season length. Many of the laws in place were developed for game management in a time of deer scarcity. Laws and regulations must evolve to align with the new wildlife issues since recreational hunting was never designed to reduce unsustainable population levels but only to work to maintain ecologically sound population levels. Donation credits or other incentives are also encouraged to increase the donations of venison to food banks. Currently there are regulations in place that prevent the selling of venison by hunters. Farmers currently have the ability to obtain nuisance permits that allow for management of deer during the non-hunting season. Permits should be issued expediently so the farmer can minimize damage to crops.

Education of the public about the problems associated with deer overpopulation and an unmanaged herd is vital. Public support of management techniques is necessary for a successful and effective plan. Hunter education is also important especially when administering programs that encourage hunters to help manage population sizes.

- **Challenge: Other Wildlife Nuisances – Canadian Geese**

Wildlife has proven to be problematic regarding nitrogen loading to uplands and surface waters. The additional nitrogen loading by wildlife has become a growing concern. There has been a problem of closures for shellfish beds and public access due to the pathogens spread by wildlife. The recent overpopulation of Canadian Geese has negatively impacted water quality in Suffolk County. When cover crops are planted in the early Fall, they have the time and adequate temperature to grow with a supportive root system. The cover crop, while growing, helps to remove available nitrogen from the soil. However, geese are attracted to the young seedlings and a flock of geese can easily denude a whole field by the end of November, before the hunting season begins. At this time of year, the soil and air temperature becomes too cold for the cover crop to recover, and the soil is, then, exposed to wind and water erosion through the remaining Winter season.

- **Course of Action: Extended Hunting Season and Comprehensive Planning**

Canadian geese are protected as migratory birds. However, extending the hunting season from November 1st to the end of February would help protect cover crop growth. In the long-term,

comprehensive strategies must be developed outside of the agricultural community to address the growing overpopulation of Canadian geese, as these animals pose a long-term threat to the effectiveness of local cover-cropping as well as surface water quality in ponds and streams.

- **Challenge: Neighbor Conflicts and Local Zoning**

Unlike most places in the United States, farmers in Suffolk County practice farming in suburbia. Many farms are surrounded by residential properties. Increasingly on the East End of Long Island, new farmland neighbors have moved from western Suffolk, Nassau County or parts of New York City to the East End. In a number of cases, these residents do not have a basic understanding of farming practices and the need for farmers to utilize tractors, irrigation motors, and other equipment, which can make noise and create dust.

Over the last 10 years, we have seen a number of new and innovative farms come into existence that are seeking to capitalize on new markets as well as re-emerged farm operations with renewed interest in local foods and new marketing opportunities. Examples include: organic chicken production, specialty cheeses, farm breweries, indoor mushroom growing, hydroponic operations, boutique wine making, small animal operations, land-based aquaculture and raw milk sales. A good example of a new market in Suffolk County is the changeover from an historic potato farm operation to a farm brewery. Please read the **Narrative – New direction for potato growers – Craft Spirits** of a local farmer’s transition which can be found in the Appendix section.

Most of these emerging and re-emerging farm operations, while small in footprint, encompass a growing amount of total farm acreage. Being smaller in-size, they can sometimes set up operations in more densely populated towns that no longer have an agricultural base and have lost familiarity with recent agricultural operations. In some instances, their town codes do not address the uniqueness of these new and innovative agricultural commodities.

- **Course of Action: “Right to Farm”**

Local town governments need to be flexible with zoning codes and regulations when new operations come into existence. Innovative agriculture ventures will encourage new jobs, increase tourism, promote economic growth and increase the preservation of farmland. Towns need to be open to and work with new growers in order to enable their success. “Right to Farm” laws need to be in place in towns and villages to support the farmer’s ability to operate. Chapter Four of this report evaluates each of Suffolk’s ten towns and certain Village’s relative “farm friendliness”.

Additionally, the County will continue to support Agricultural Districts across Suffolk County. Enacted in 1971, New York’s Agricultural Districts Law (ADL) creates economic and regulatory

incentives to aid new and existing farmers. The Program is based on a combination of landowner incentives and protections, all of which are designed to forestall the conversion of farmland to non-agricultural uses. Included in these benefits are protections against overly restrictive local laws, government funded acquisition or construction projects, and private nuisance suits involving agricultural practices. Suffolk County has an Agricultural and Farmland Protection Board which currently supports six Agricultural Districts. Additional farms are added to existing Districts on an annual basis through the approval by the Board, the County Legislature and the Commissioner of NYS Agriculture and Markets.

- **Challenge: Excessive Regulations**

Farmers are subject to many regulations from different government agencies in New York State including, but not limited to, the NYS Department of Labor, the NYS Department of Agriculture & Markets, the NYS Department of Environmental Conservation, the NYS Department of Taxation and Finance, and the NYS Department of Health. In many instances, these departments pass regulations that conflict with or are duplicative of federal laws. Additionally, farmers are put at a disadvantage on Long Island due to the additional restrictions that other states or counties within New York do not have to adhere to.

- **Course of Action: Eliminate Regulations that Impair Agriculture**

Regulating agencies need to be aware of the impacts they place on farmers in Suffolk County. Increasing populations and the loss of farmland on Long Island and across the nation could lead to food security challenges in the future. Regulatory agencies should work with and encourage farm production as a matter of food security, food access and affordability, and to promote general well-being and overall quality of life. Farms provide the nutritional foods needed to support healthy living and active lifestyles. Policymakers and regulators must understand that unnecessary and burdensome regulations jeopardize the farmer's ability to stay in business in Suffolk County and provide an affordable product that can be provided to local supermarkets, restaurants, universities, hospitals and schools.

- **Challenge: Support for Agriculture**

There are many federal and state agencies and organizations that assist agriculture in New York State: The USDA NRCS, NYS Department of Agriculture and Markets, Cornell University and Cooperative Extension, Soil & Water Conservation Districts, etc. These organizations make a huge impact in supporting agriculture through regulatory protection measures, through the provision of technical assistance, through research and educational trials, or by cost-sharing investments in best management practices. Additional funding for these institutions is vital to continue the excellent work they do to promote agriculture both regionally and locally.

- **Course of Action: Provide Appropriate Funding**

New York State and the federal government must continue to fund and lend support to the organizations that serve and protect agriculture. Without these support mechanisms, farming will not be able to be the important economic engine that it should be in providing affordable food products and other agricultural commodities in the future.

- **Course of Action Matrix**

Chapter Five summarizes the challenges facing agriculture in Suffolk County and the courses of action recommended for each challenge. Table 5-2, the Course of Action Matrix, lists each challenge with its corresponding courses of action, as well as a timeframe for completion and partner agencies to work with. A key to timeframe and partner agency acronyms is provided below:

- Ongoing
- Short Term = 0-3 years
- Medium Term = 3-5 years
- Long Term = 5-10 years

- AFT = American Farmland Trust
- Army Corps = U.S. Army Corps of Engineers
- BOCES = Boards of Cooperative Educational Services
- CCE = Cornell Cooperative Extension of Suffolk County
- DEC = New York Department of Environmental Conservation
- EDC = Suffolk County Economic Development Corporation
- ESD = New York State Empire State Development
- IDA = Suffolk County Industrial Development Agency
- LICVB = Long Island Convention & Visitors Bureau
- LIFB = Long Island Farm Bureau
- LIWC = Long Island Wine Council
- NRCS = Natural Resources and Conservation Service
- NYAM = New York Agriculture & Markets
- NYSAA = New York State Energy Research and Development Authority
- PEP = Peconic Estuary Program
- PLT = Peconic Land Trust
- SCSWCD = Suffolk County Soil & Water Conservation District
- SCWA = Suffolk County Water Authority
- USDA = United States Department of Agriculture

Table 5-2. Course of Action Matrix.

Challenge:	Course of Action:	Timeline	Implementation Agencies
An Aging Farming Population and Agriculture Brain Drain	Agricultural Education Opportunities	On-Going	LIFB, CCE, BOCES, School Districts, Suffolk County
	Internship and Apprenticeship Programs	Short-Term	Suffolk County, LIFB, PLT
	Continued Purchase of Farmland Development Rights	On-Going	Suffolk County, Towns, Villages, NYAM, NRCS
	Leverage State and Federal Funding	Short-Term	Suffolk County, Towns, Villages, NYAM, USDA, NRCS
	Amend New York State Tax Cap Exclusions	Short-Term	Suffolk County, Towns, Villages, LIFB, PLT, AFT
	Enforcement of the "Prohibition on the Abandonment of Commercial Agriculture Production" in the SC Farmland PDR Program	On-Going	Suffolk County, PLT, LIFB, CCE
Access to Affordable Land	Affirmative and Affordable Farming Covenants and Resale Restrictions	On-Going	PLT
	Adapting to New Models of Suffolk County Farming	Medium-Term	Suffolk County, Towns, Villages
	"Farmers for the Future" Agricultural Capital Equipment Cost-Share	On-Going	PLT, ESD, LIFB, CCE, Suffolk County
	Raise Awareness of Existing Funding Streams	Short-Term	Suffolk County, CCE, LIFB, PLT, USDA, NRCS, SCSWCD, NYAM, ESD
Federal and New York Inheritance Taxes	Work with Economic Development Entities	Short-Term	Suffolk County, IDA, EDC, LIFB
	Legislative Reform	Medium-Term	NYAM, LIFB, PLT
	Facilitate Transitional Farming and Estate Planning	On-Going	NY FarmNet, AFT, PLT, LIFB
High Energy and Fuel Costs	Policies that Promote Cheap, Renewable Energy Generation	Medium-Term	Suffolk County, NYSERDA, NYAM
Access to Equipment and Processing Facilities	Private/Public Infrastructure Investments	Short-Term	LIFB, Suffolk County, ESD, NYAM, USDA
Food Safety and Regulations	Cost-sharing and GroupGAP	Medium-Term	USDA, CCE, LIFB
	Improve Access to Seasonal Workers	Medium-Term	USDA, LIFB, PLT
Labor Shortages	Downtown Revitalization, Investments in Public Transit, Transit-Oriented Development and Affordable Housing	On-Going	Suffolk County, ESD

Table 5-2. Course of Action Matrix (continued).

Challenge:	Course of Action	Timeline	Implementation Agencies
Minimum Wage Laws	Cost-Benefit Analysis	Short-Term	LIFB
Branding Local Agriculture and Direct Marketing	Branding and Third Party Certification Model	Medium-Term	LIFB, Suffolk County, ESD, NYAM, LIWC, CCE
	Community Supported Agriculture	On-Going	LIFB, CCE, PLT
Extending the Growing, Harvesting and Sales Season	Virtual Foodhubs	On-Going	LIFB, CCE
	Investment in Greenhouses to Extend the Growing Season	On-Going	CCE, PLT, Suffolk County, LIFB, NRCS, NYAM
	Maintaining Local Food Hubs and Incubators	On-Going	LIFB, PLT, ESD, USDA
	Create an Agri-tourism Visitors Center	Medium-Term	Suffolk County, ESD, LIFB, LIWC, CCE, LICVB, NYAM
	Promote New Forms of Agri-tourism	Short-Term	LICVB, Suffolk County, LIFB, PLT, ESD, NYAM
Protecting Suffolk County Ground and Surface Waters	Off-season Agri-tourism	On-Going	ESD, LIWC, LICVB, Suffolk County
	Create an Agricultural Stewardship Advisory Committee	Short-Term	Suffolk County, LIFB, CCE, NRCS, SCSWCD
	Research on Farm Demonstration Initiatives	Short-Term	CCE
	Education Outreach	Short-Term	CCE, SCSWCD, NRCS, LIFB, Suffolk County
	Cost-share Funding for Implementation of Agricultural Best Management Practices	Short-Term	SCSWCD, NRCS, PLT, NYAM, Suffolk County
	Increased Monitoring of Groundwater	Short-Term	Suffolk County, SCWA, DEC
	Engaged Stakeholder Outreach	On-Going	LIFB
	Sound Science and Stakeholder Engagement	On-Going	DEC, LIFB, CCE, SCSWCD, Suffolk County
	Advanced Planning	Short-Term	LIFB, CCE, DEC, SCWA
	Composting	On-Going	CCE, SCSWCD, NRCS, LIFB, DEC
Extreme Weather Events/Global Climate Change	Short-Term	Suffolk County, NYAM, ESD, CCE, SCSWCD, NRCS	
Shellfish Aquaculture Lease Program 10-year Review	Short-Term	Suffolk County, CCE, LIFB, NYSAA	

Table 5-2. Course of Action Matrix (continued).

Challenge:	Course of Action:	Timeline	Implementation Agencies
Expand Aquaculture Activities in Suffolk County	Evaluation of Kelp Farming	Short-Term	Suffolk County, DEC, LIFB, CCE, NYSAA
	Propose Amendments to Consider Changes in New York State and County Laws regarding Seaweed Production	Medium-Term	Suffolk County, DEC, Army Corps, CCE, LIFB, NYSAA
Allowance of Mechanical Cultivation Methods	Increase Coordination between the County and its Partners, to Work with the NYSDEC to Amend DEC's Programmatic Policies	Medium-Term	Suffolk County, DEC, LIFB, NYSAA, NYAM
Deer Management	Develop Deer Management Strategies	Short-Term	Suffolk County, Towns, DEC, CCE, USDA
Other Wildlife Nuisances - Canadian Geese	Extended Hunting Season and Comprehensive Planning	Long-Term	DEC, LIFB
Neighbor Conflicts and Local Zoning	"Right to Farm"	Medium-Term	Towns, Suffolk County, NYAM
Excessive Regulations	Eliminate Regulations that Impair Agriculture	Medium-Term	LIFB, NYAM, DEC, Suffolk County, Towns
Support of Agriculture	Provide Appropriate Funding	Medium-Term	Suffolk County, USDA, NYAM, Towns

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APPENDIX



- **Agricultural Environmental Management (AEM) Program**

The five (5) steps or tiers used in the NYS-AEM Initiative will be followed to allow farmers to address environmental concerns on their farms, while maintaining a healthy agricultural economy. The five tiers and any required modifications are:

- Tier 1 – A questionnaire designed to collect basic information, such as the type of commodities grown, farm practices and activity in conservation planning programs.
- Tier 2 – In this phase, on-farm resource concerns and stewardship activities are identified through the completion of a series of commodity specific agronomic operation worksheets by the farm manager and with the assistance of natural resources professional. The worksheets selected are based upon answers to the Tier 1 questionnaire. Additional commodity worksheets are continuously being drafted throughout the state and locally to address additional and regionally unique resource concerns.
- Tier 3 – The development of a holistic conservation plan is developed in this phase of planning to address each natural resource concern identified in Tiers 1 and 2. The plan will identify the recommended resource management system and associated best management practices (BMPs) as well as any suggested changes in agronomic operations. Since the use of nutrients and pesticides is a major environmental concern, nutrient and pest management practices must be an integral component of the plan.
- Tier 4 – Tier 4 is the implementation phase of AEM where the recommended resource management systems and/or individual practices are designed and installed. Tier 4 may involve engineering and construction measures, or changes in farm practices and methods. Technical assistance will be provided to the farmer for implementation of the plan by staff from the Suffolk County Soil and Water Conservation District (SCSWCD), Cornell Cooperative Extension of Suffolk County (CCE) and the US Department of Agriculture – Natural Resources Conservation Service (USDA-NRCS). Financial incentives are a critical factor to ensure implementation of the plan.
- Tier 5 – In this final phase of planning, the natural resource benefits provided by the installation of BMP's are evaluated at a farm and watershed based scale. This includes measuring the effectiveness, continued operation and maintenance, and satisfaction with the AEM initiatives.

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- **Narrative – Long Island Sustainable Winegrowing**

For almost 40 years, Long Island vineyards have worked hard to develop unique and safe practices for producing quality wine grapes. East End vineyards and wineries have grown to create their own definition of sustainability that is based on their role as stewards of the rich agricultural heritage of the Long Island.

According to the Long Island Sustainable Winegrowing (LISW), the viability of local vineyards is dependent on their ability to steward their land in a way that allows it to stay healthy and productive well into the future. They see their vineyards as a holistic ecological system and they strive to develop viticultural practices that produce the highest quality fruit possible while also being sensitive to the environment and financially viable over time.

LISW is a not-for-profit organization that provides education and certification for Long Island vineyards. Cornell Cooperative Extension Viticulture Specialist Alice Wise and former Viticulture Program Assistant Libby Tarleton created NY's first sustainable viticulture guidelines in 2004, the Long Island Sustainable Viticulture program. The LISV guidelines were then incorporated into VineBalance, the statewide guidelines that resulted from collaborations between a large group of Cornell faculty and staff. VineBalance is recognized and endorsed by AEM Program of NYS. It is "designed to provide grape growers of New York and other regions of the northeastern United States with guidance in evaluating and adopting best management practices that minimize environmental impacts, reduce economic risks and protect worker health and safety".

Using VineBalance as a template, a group of Long Island grape growers worked with Wise and Tarleton to create a set of sustainable viticulture guidelines that addressed Long Island's specific goals and challenges. First released in 2012, the Long Island Sustainable Winegrowing guidelines (<http://www.lisustainablewine.org/>) are a science-based approach that are annually reviewed and revised to reflect current best management practices. LISW and CCE together have hosted speakers that addressed both the technical merit and administration of LISW as well as vineyard management strategies for sustainable growers.

The LISW is a new way to look at sustainable agriculture that ensures that we have clean water and air, a healthy workforce, healthy soils and healthy vines. The program is committed to the following:

To implement cultural practices and solve problems that reduce and minimize the use of chemicals and fertilizers, with the goal of protecting the farmer, the environment, and society at large.

To encourage practices that promote and maintain high biological diversity in the whole vineyard.

To maintain and conserve healthy and fertile soils to produce grapes for years to come

To encourage practices that protect our maritime ecosystem and estuaries from runoff and leaching

To create and maintain viticulture that is economically viable over time.

To maintain the highest level of quality in our fruit production.

To qualify for certification, participants must undergo an independent, third-party inspection. This involves an on-site visit and a review of all records—earning passing scores on all criteria, and creating an action plan for future improvements. The following year they must show progress on that plan. A vineyard has to be certified the first two consecutive years, and then subsequent inspections take place every third year.

Vineyards are scored on weed management, disease management and insect control. Some herbicides, fungicides and insecticides are prohibited altogether because of their tendency to leach into and persist in ground water. Others are limited to use once or twice per season. Reduced-risk, bio-pesticides and/or organic materials are allowed, and in the case of fungicides, must make up more than half of the applications each season. Since excessive nitrogen is a critical concern in ground water and the estuarine environment, growers are not allowed to exceed a total application of 20 lbs. per acre of nitrogen fertilizer while encouraging the use of organic forms of nitrogen.

Former District Conservationist Allan Connell has been involved in not only helping to develop the criteria but also in providing guidance to growers on how to meet the requirements of the program. The NRCS and SWCD play a critical role in this process because the participants rely on them for conservation planning assistance to help them address these critical resource concerns. Participants must develop an action plan to explain how they are addressing soil erosion, runoff management and how they are providing habitat diversity in the form of ecological compensation areas on the farm. A current conservation plan satisfies these requirements.

One critical need that is being addressed is the need for an Agricultural Chemical Mixing Facility on each farm. The SWCD has designed a generic pad that can be used by all vineyards and NRCS is in the process of reviewing and approving this design. The NYS Department of Environmental Conservation is providing cost share assistance to the growers for the installation of these pads.

The program is in its fourth year and continues to grow. There are currently 18 vineyards and 800 acres enrolled in the program (36% of the Long Island wine grape acreage.) Many have



gone through two years of inspections and all are now certified sustainable. A logo has been developed and can be used on wine labels to indicate that the vineyard is certified sustainable. Wine market research has shown that consumers will pay a premium for wine that originates from operations that take stewardship steps above and beyond the regulatory minimum. We already see the marketing advantages and price premium power of branding efforts such as “certified organic”. If Suffolk County grape growers can distinguish themselves in the marketplace and on store shelves with LISW certification,

they will have proven to be a viable economic model for other agricultural commodities. It will not be long before other business-savvy and ecologically-conscious Suffolk County farmers create their own voluntary third-party certification programs in order to distinguish themselves from the competition.

- **Narrative – New Direction for Potato Growers – Craft Spirits**

Dean Foster is a sixth generation potato farmer in Sagaponack, NY. In 1987, his family was farming close to 800 acres of potatoes and corn from Amagansett to northern Bridgehampton. Now, the Foster family farms about 400 acres of potatoes they sell wholesale. The last several years have been difficult for small-scale farmers on Long Island who are being wiped out by large corporations. Taxes, the real estate market and land regulations are some of the issues small farmers, including the Fosters, face as they struggle to compete and make a profit.

“The only way that the farmer is going to survive is niche-market,” says Dean Foster who is moving the family potato business into craft spirits. Mr. Foster contemplated the idea of creating a distillery for the past eight years, and when Governor Andrew Cuomo signed legislation in 2012 to expand the existing 2007 Farm Distillery Act, allowing farm distilleries to sell their own liquor, Mr. Foster saw his opportunity.

Mr. Foster plans to launch Sagaponack Farm Distillery in the spring of 2016 when he plans to release the distillery’s first product, Sagaponacka Vodka. Nearly all the ingredients used at the distillery will be grown on the farm. This will be followed by whiskies, brandies, gin and absinthes. Mr. Foster plans to self-distribute, something he believes is possible, due to the expanding slow food movement on the East End.

“The food that is grown here is second to none,” Mr. Foster says about Long Island. He plans to continue to grow at least 40 acres of potatoes for distribution to local restaurants. “The farms that are still here are the best of the best,” he said when speaking about the rapid suburban development farmers faced in the 1980s. “They decided that a farm is more important than a house.”

- **Narrative – The Growth of an Aquaculture Business in Today’s Environment**

Karen Rivara grew up watching “Undersea World of Jacques Cousteau” and was inspired to become a marine biologist. In pursuit of that goal she attended and graduated from Long Island University, Southampton College in 1981 with a degree in Marine Science.

Upon completing her studies she began working at the Shinnecock Tribe Oyster Project in Southampton in 1983, as a Research Technician for Dr. Robert Malouf, at the Marine Sciences Research Center, SUNY @ Stony Brook. During her time there, Karen had her first experience cultivating shellfish and discovered her passion for shellfish farming. She worked in commercial shellfish hatcheries, including the Bluepoints Company hatchery in West Sayville, as well as the Shinnecock Shellfish Company’s hatchery in Southampton. Eventually she started her own company, Aeros Cultured Oyster Company, Inc., with her business partner, Jim Markow in 1994. Karen took on the roll as President, and ran the hatchery out of the basement of her partner’s house in Shirley.

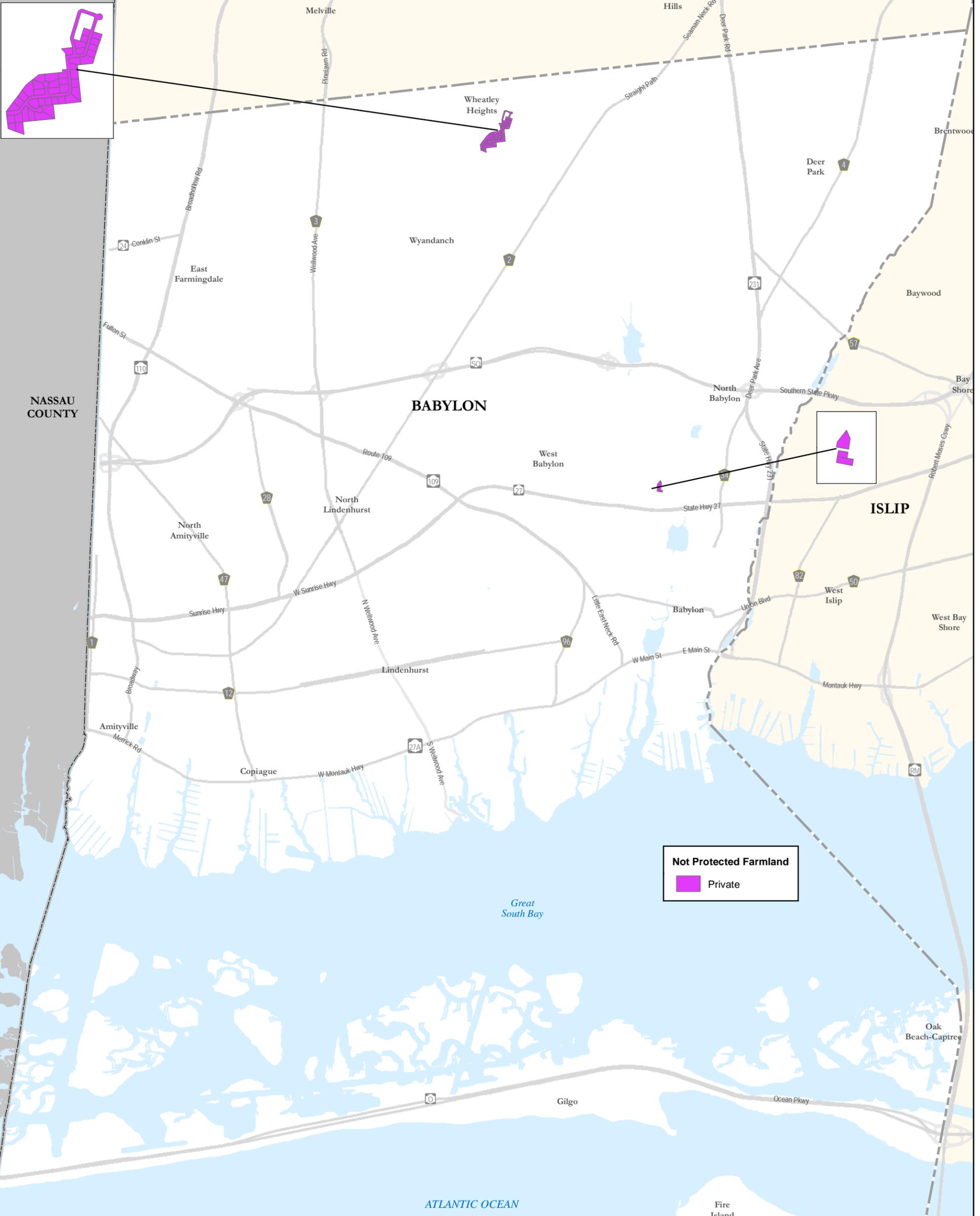
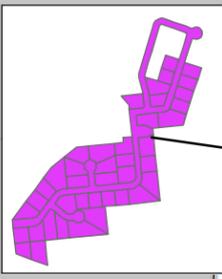
In 2000, Karen and Jim founded the Noank Aquaculture Cooperative in Noank, CT and subsequently joined forces with the Peconic Land Trust, a nonprofit dedicated to preserving open space. Karen was eventually able to move the hatchery out of the Shirley basement in 2004, relocating it to the Shellfishers Preserve, a Peconic Land Trust property in Southold, which was gifted to the trust by the Plock Family in 1996. Utilizing the existing indoor hatcheries, Karen was able to expand hatchery production and supply shellfish seed to other growers, while simultaneously growing her business to include the cultivation and sale of shellfish wholesale and retail.

As a shellfish farmer and founding member and former President of the East End Marine Farmers Association (2001); and the East Coast Shellfish Growers Association (2002), which she is now a Board Member, Karen lobbied and advocated for the change in the NYS Environmental Conservation Law, which allowed for the development and subsequent adoption of the Suffolk County Shellfish Aquaculture Lease Program in Peconic Bay and Gardiners Bay. Karen also was a member of the Suffolk County Aquaculture Lease Program Advisory Committee, which helped develop the County’s Lease Program.

Active in the agriculture community, Karen was named president of the board of the Long Island Farm Bureau, a Calverton-based advocacy organization. She is the first aquaculturist to fill this role in the bureau’s 58-year history.

Agriculture & Farmland Protection Plan

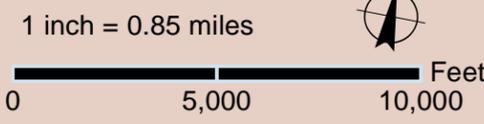
Suffolk County, New York



Not Protected Farmland
 Private



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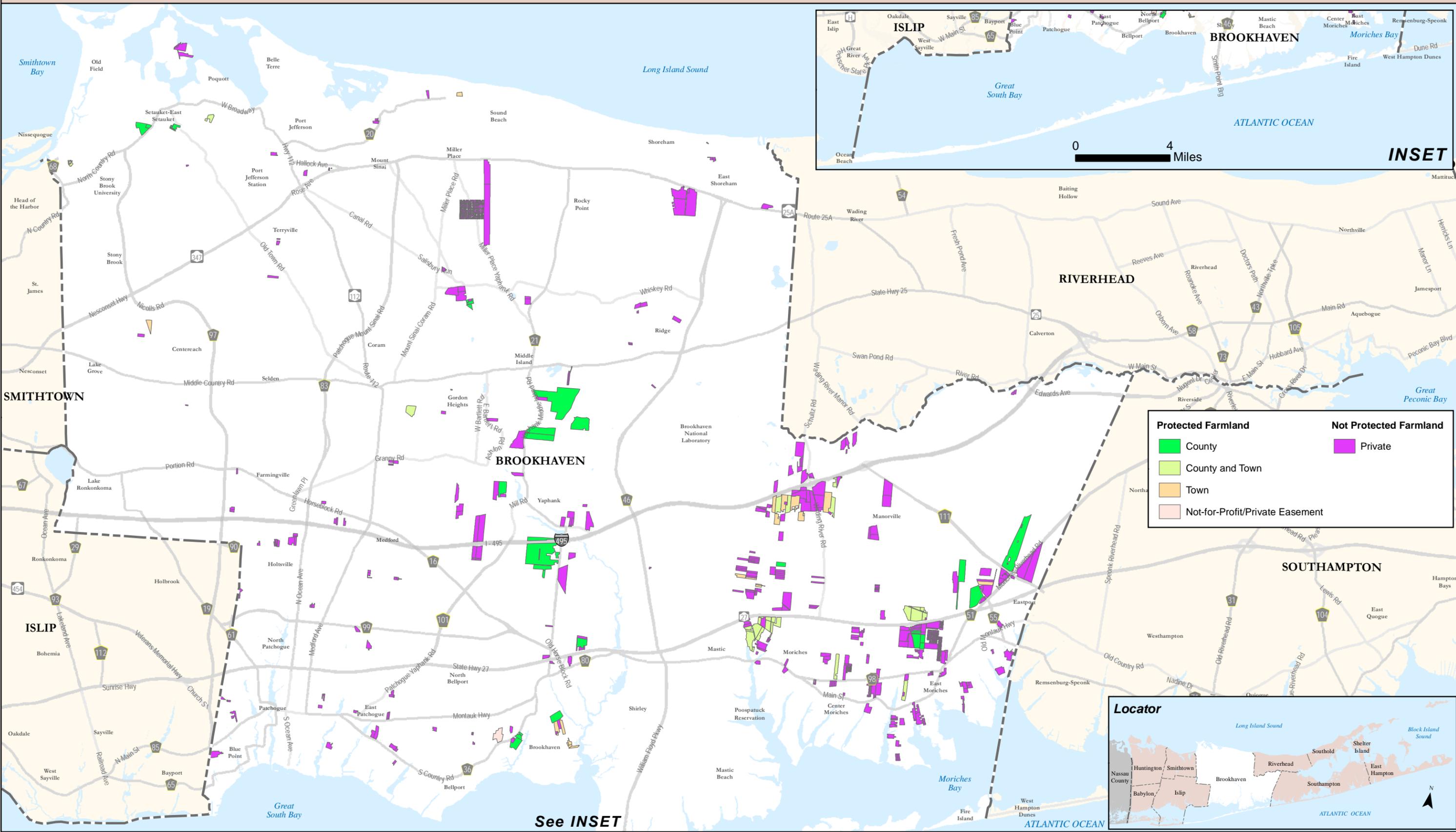
Protected and Not Protected Farmland

Town of Babylon

*excepted from (F.O.I.L.) the provisions of the Freedom of Information Law [Public Officers Law Article 6 Section 84-90] by section 87.2.g

Agriculture & Farmland Protection Plan

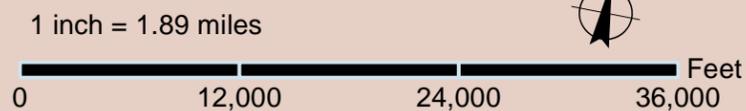
Suffolk County, New York



Protected Farmland		Not Protected Farmland	
■	County	■	Private
■	County and Town		
■	Town		
■	Not-for-Profit/Private Easement		



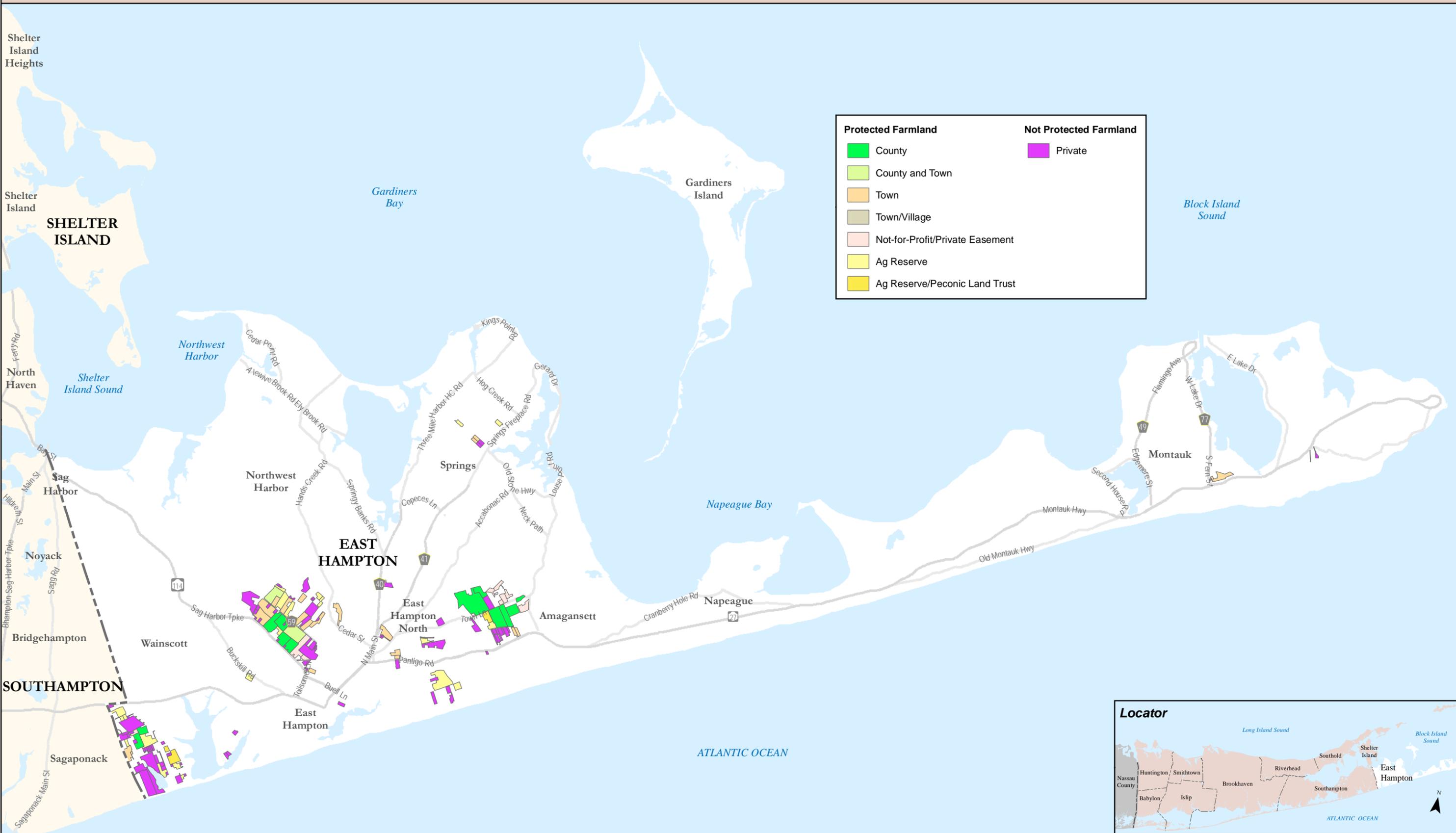
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Protected and Not Protected Farmland Town of Brookhaven

*excerpted from (F.O.I.L.) the provisions of the Freedom of Information Law (Public Officers Law Article 6 Section 84-90) by section 87.2.g

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1 inch = 1.5 miles

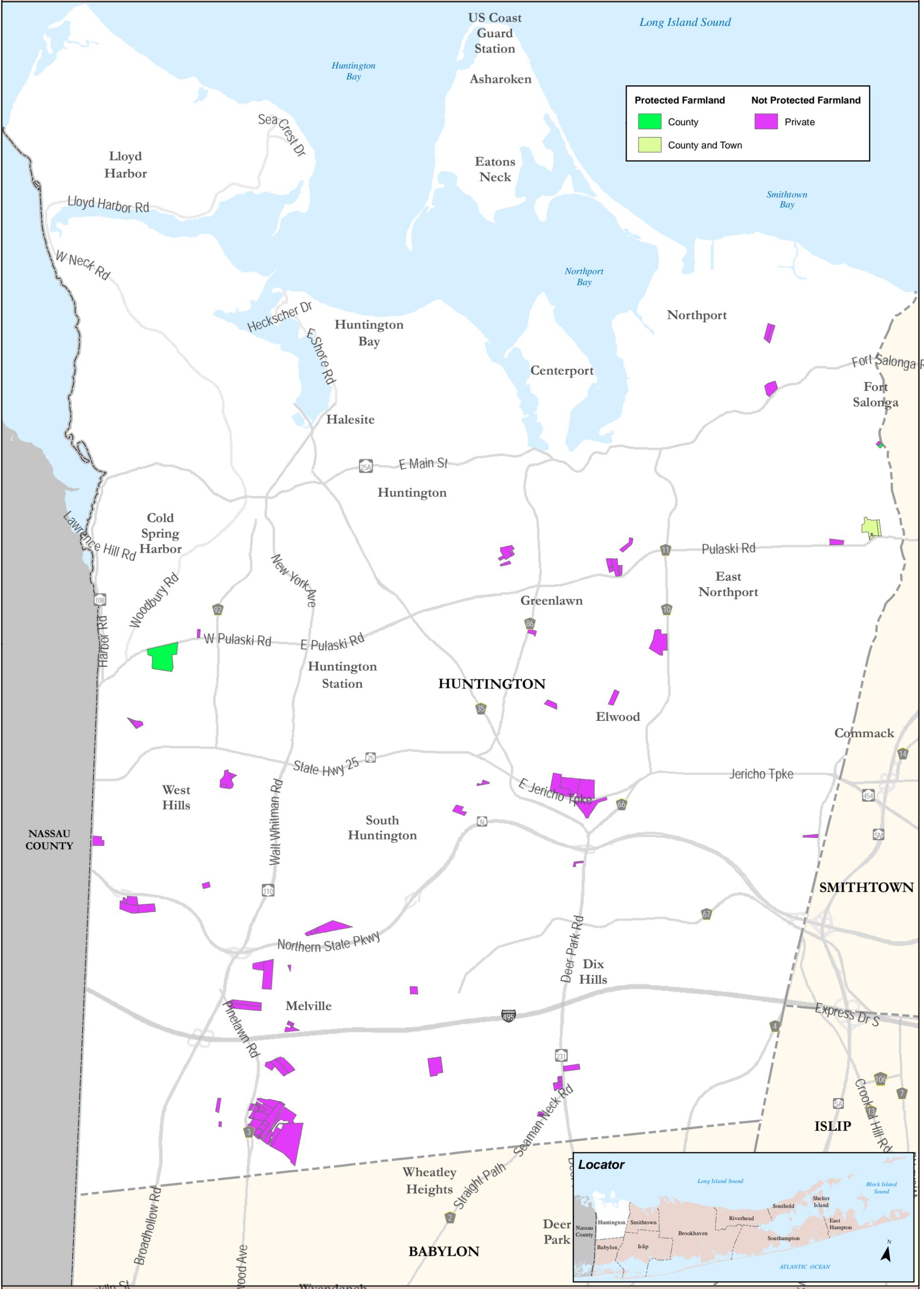


**Protected and Not Protected Farmland
 Town of East Hampton**

*exempted from (F.O.I.L.) the provisions of the Freedom of Information Law (Public Officers Law Article 6 Section 84-90) by section 87.2.g

Agriculture & Farmland Protection Plan

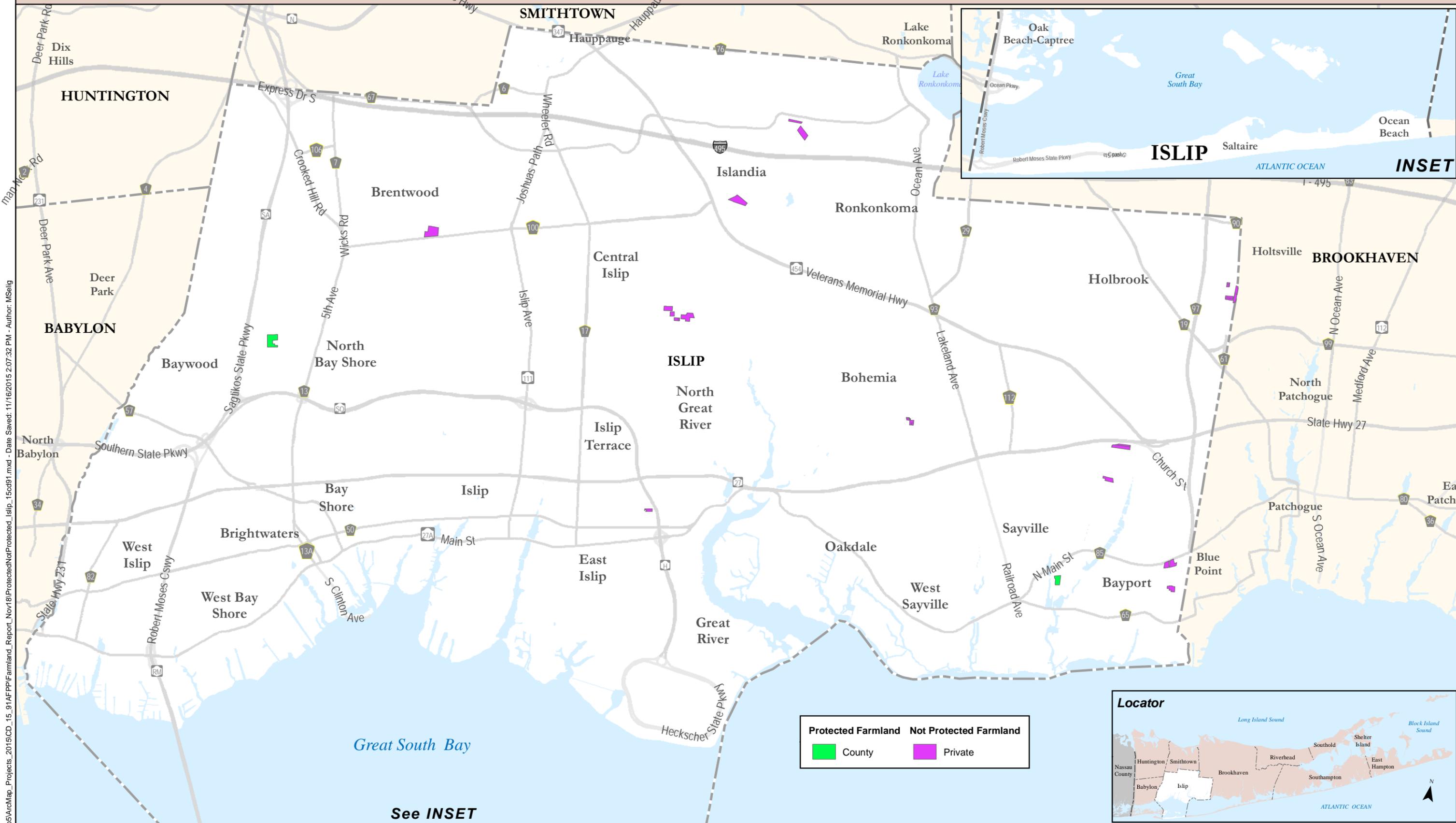
Suffolk County, New York



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Protected and Not Protected Farmland
Town of Huntington



See INSET

Protected Farmland		Not Protected Farmland	
■	County	■	Private



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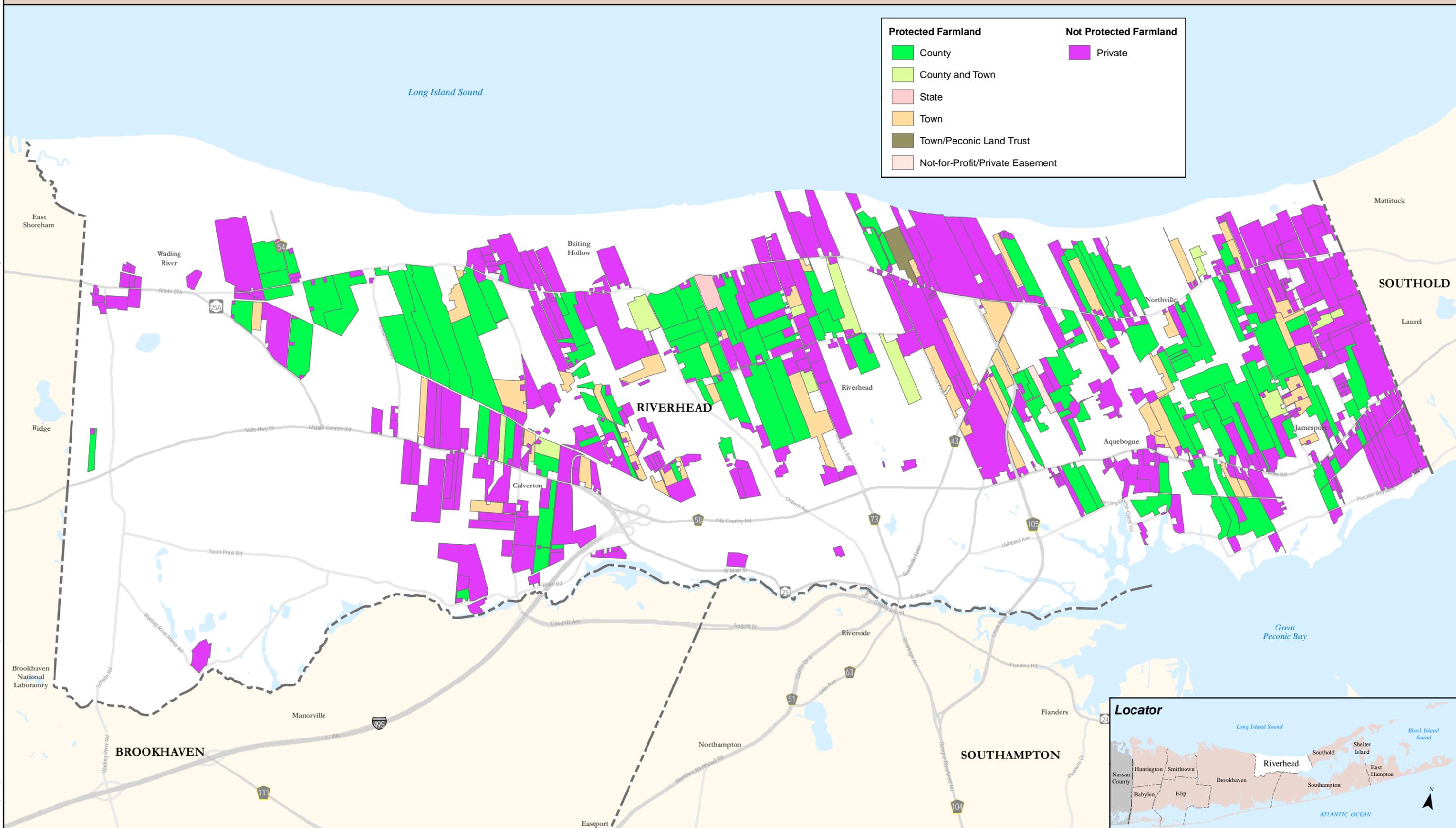


Protected and Not Protected Farmland Town of Islip

*excerpted from (F.O.I.L.) the provisions of the Freedom of Information Law [Public Officers Law Article 6 Section 84-90] by section 87.2(g)

CD-15-91 - 11/16/15

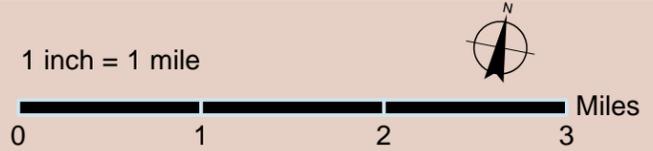
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Protected Farmland		Not Protected Farmland	
■	County	■	Private
■	County and Town		
■	State		
■	Town		
■	Town/Peconic Land Trust		
■	Not-for-Profit/Private Easement		



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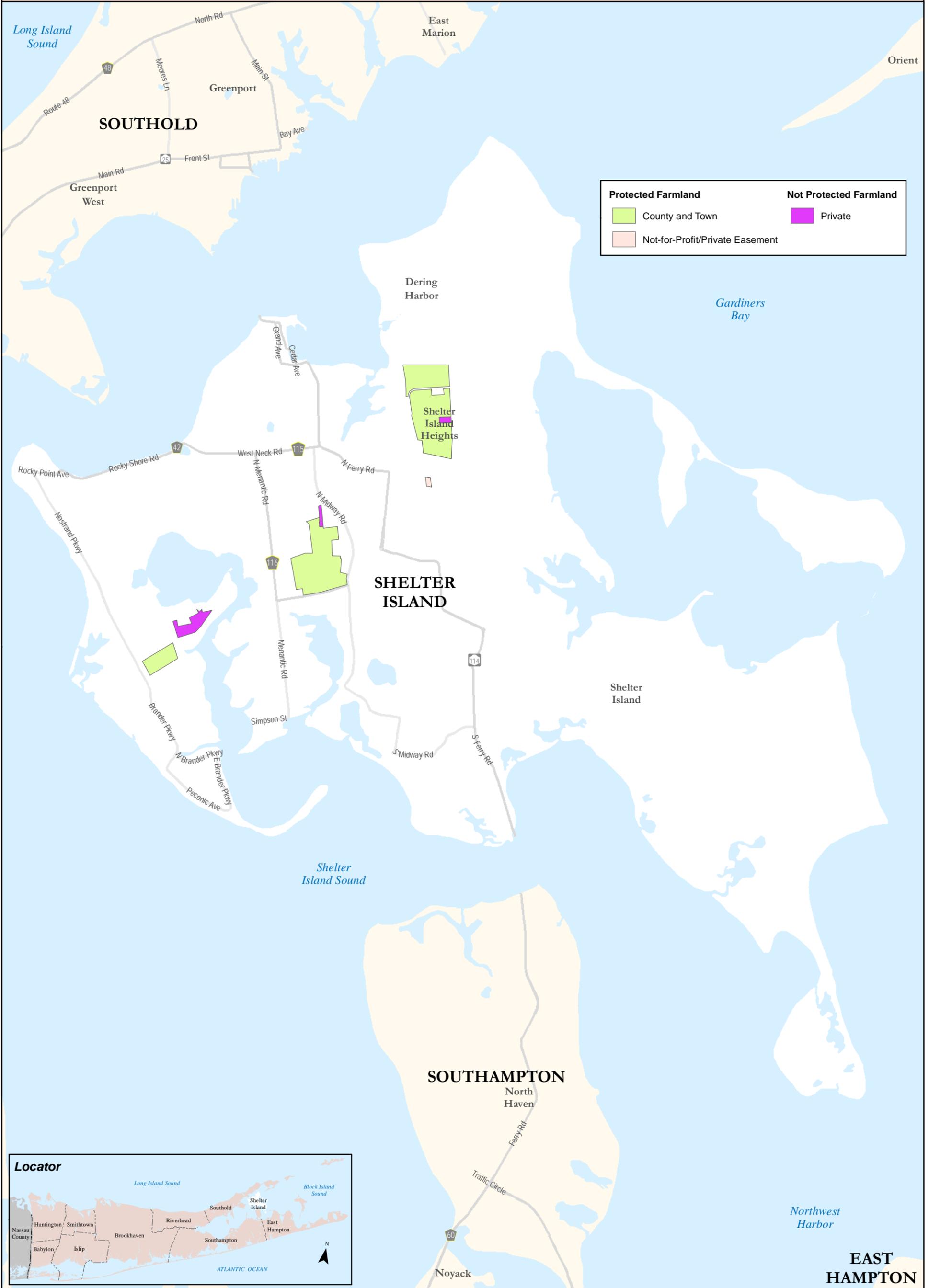
Protected and Not Protected Farmland Town of Riverhead

*excerpted from (F.O.I.L.) the provisions of the Freedom of Information Law [Public Officers Law Article 6 Section 84-90] by section 87.2(g)

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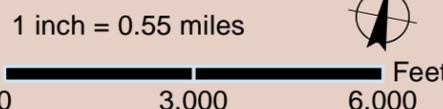
Agriculture & Farmland Protection Plan

Suffolk County, New York

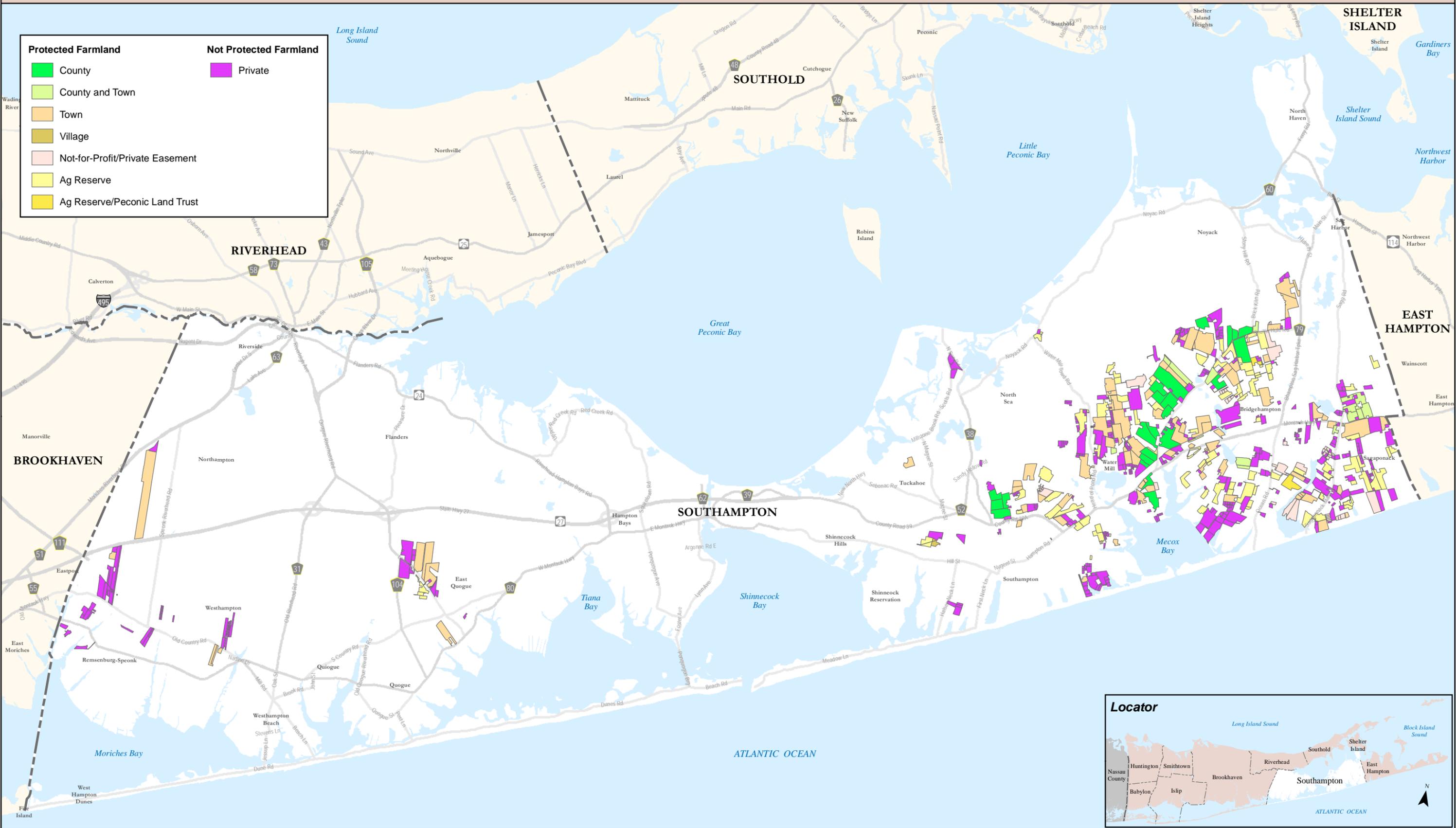


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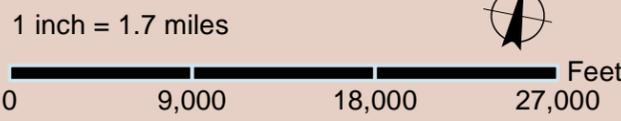
Protected and Not Protected Farmland
Town of Shelter Island



Protected Farmland		Not Protected Farmland	
■	County	■	Private
■	County and Town		
■	Town		
■	Village		
■	Not-for-Profit/Private Easement		
■	Ag Reserve		
■	Ag Reserve/Peconic Land Trust		



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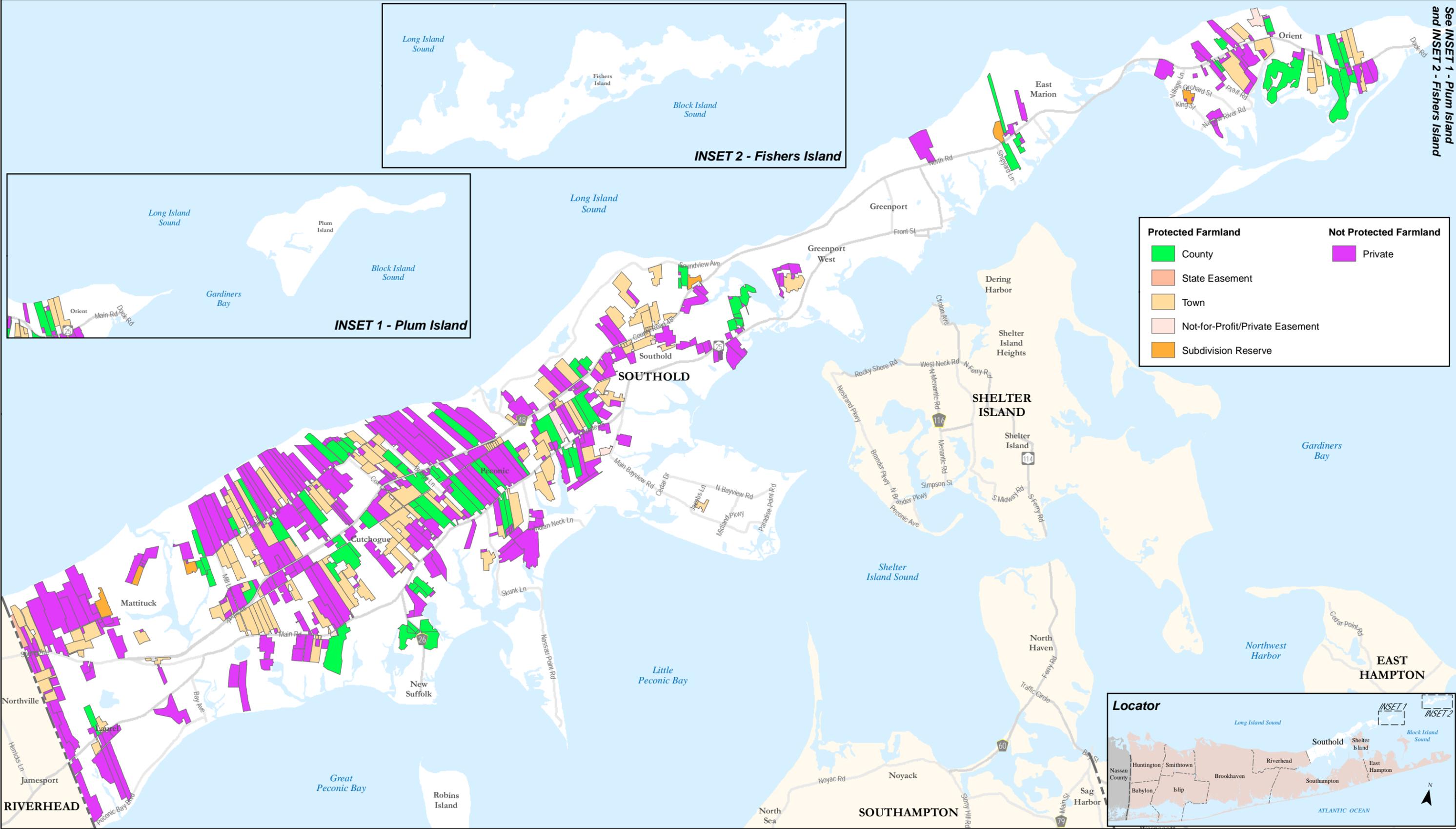
Protected and Not Protected Farmland Town of Southampton

*excerpted from (F.O.I.L.) the provisions of the Freedom of Information Law (Public Officers Law Article 6 Section 84-90) by section 87.2.g

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Agriculture & Farmland Protection Plan

Suffolk County, New York



Protected Farmland		Not Protected Farmland	
■	County	■	Private
■	State Easement		
■	Town		
■	Not-for-Profit/Private Easement		
■	Subdivision Reserve		



See INSET 1 - Plum Island and INSET 2 - Fishers Island

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1 inch = 1.25 miles

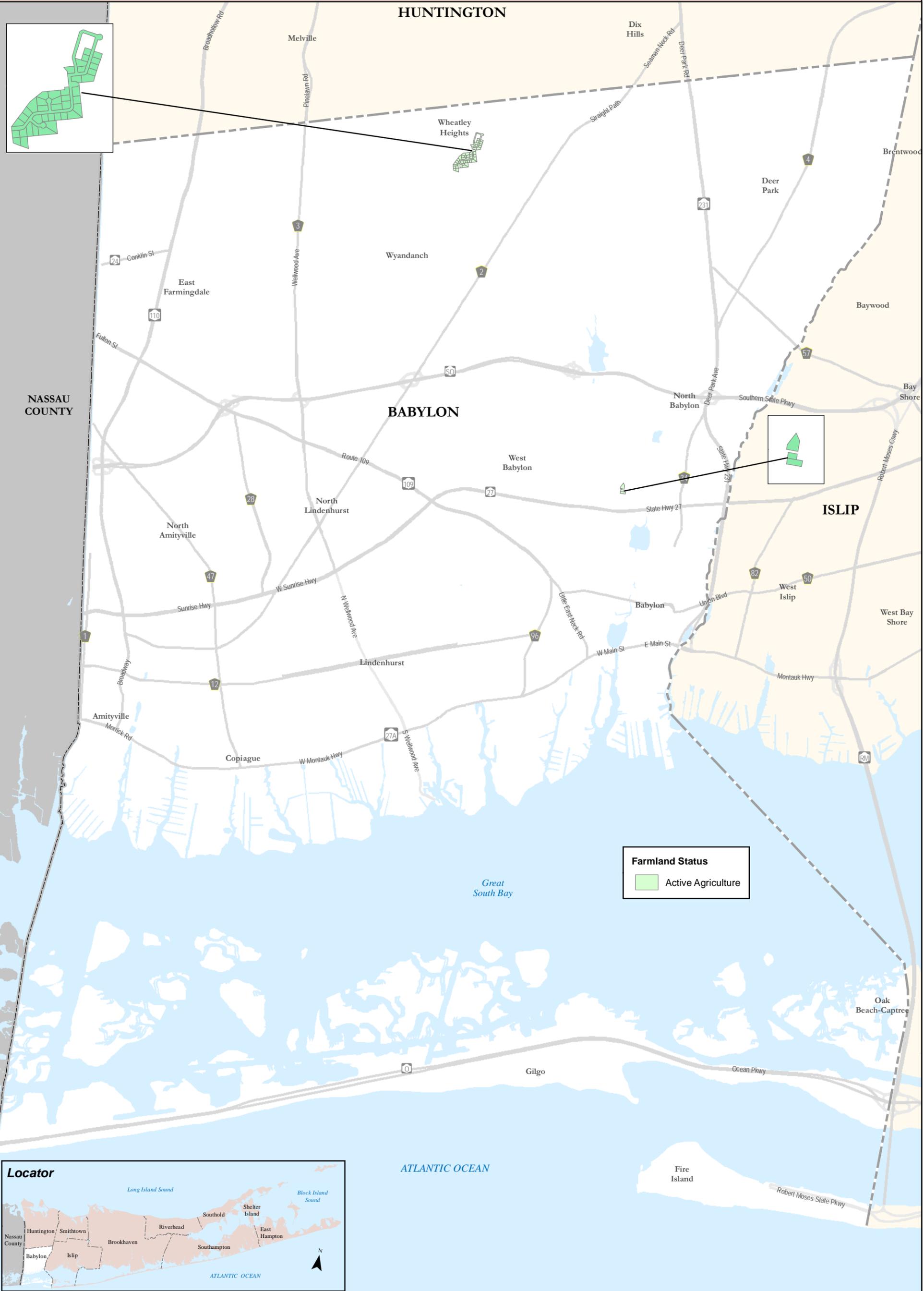


Protected and Not Protected Farmland Town of Southold

*excerpted from (F.O.I.L.) the provisions of the Freedom of Information Law (Public Officers Law Article 6 Section 84-90) by section 87.2.g

Agriculture & Farmland Protection Plan

Suffolk County, New York



Farmland Status

- Active Agriculture



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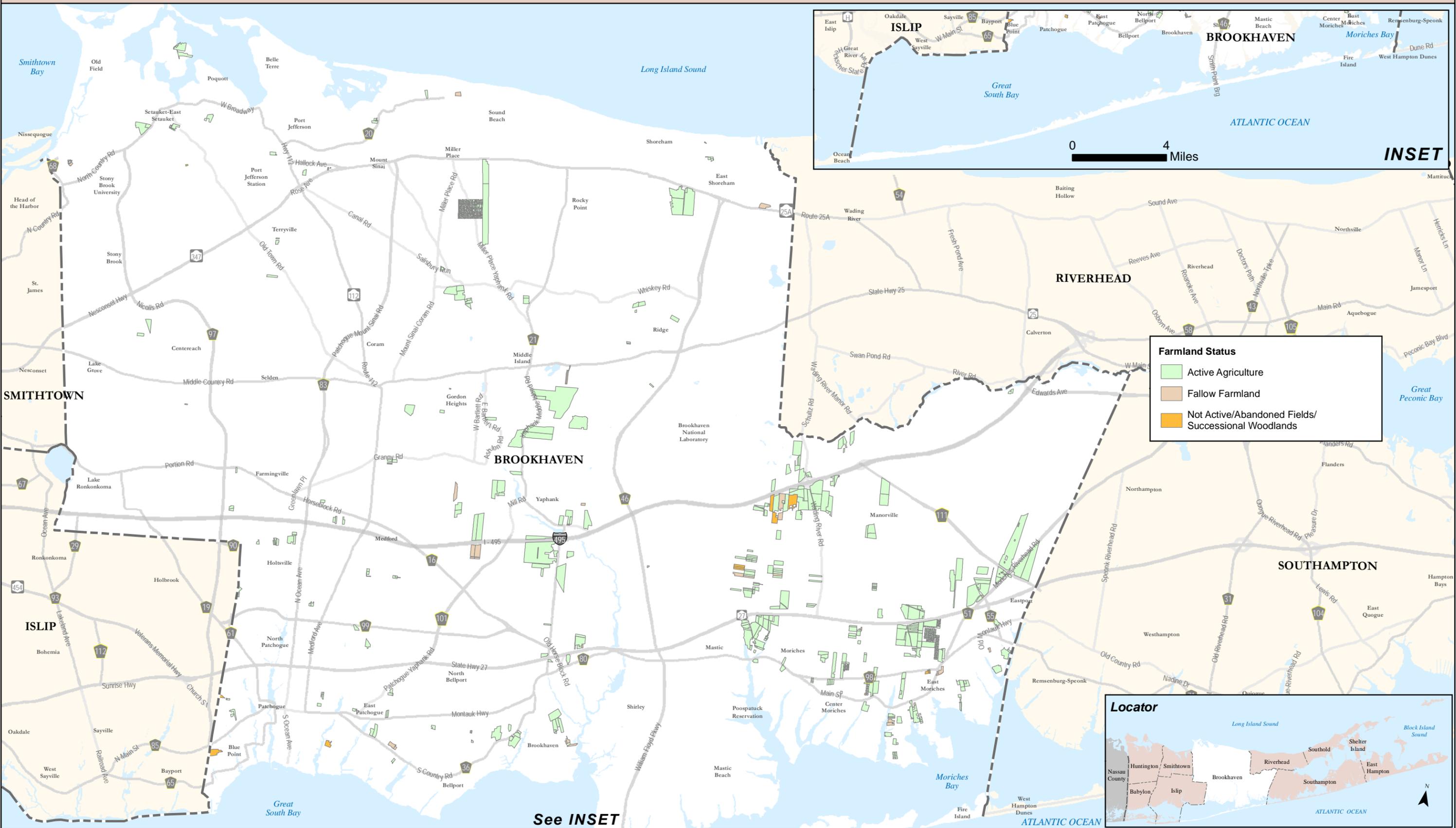
*excepted from (F.O.I.L.) the provisions of the Freedom of Information Law [Public Officers Law Article 6 Section 84-90] by section 87.2.g



Farmland Status Town of Babylon

Agriculture & Farmland Protection Plan

Suffolk County, New York

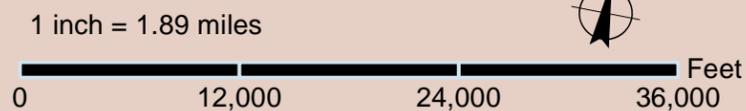


Farmland Status

- Active Agriculture
- Fallow Farmland
- Not Active/Abandoned Fields/Successional Woodlands



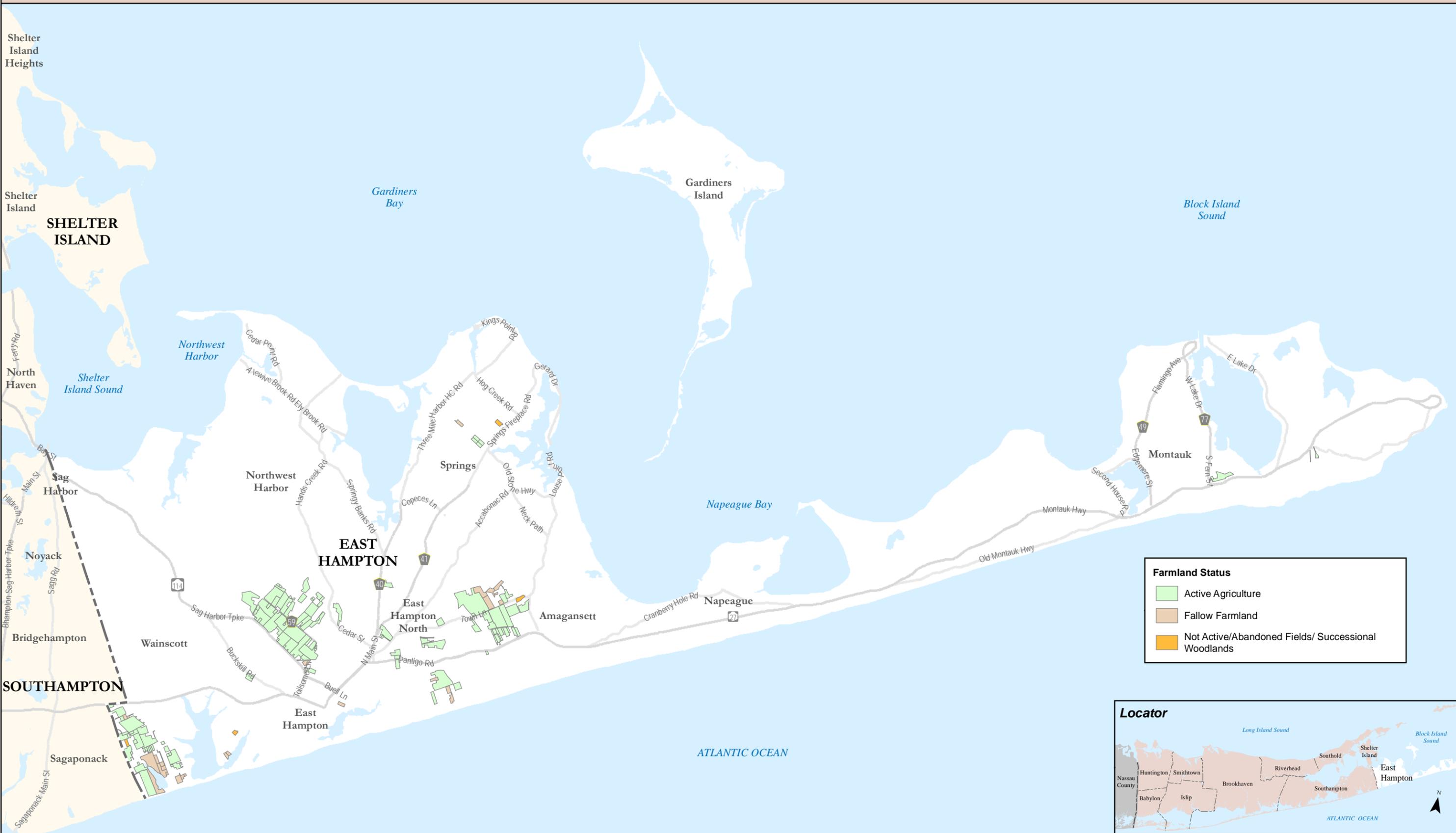
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Farmland Status Town of Brookhaven

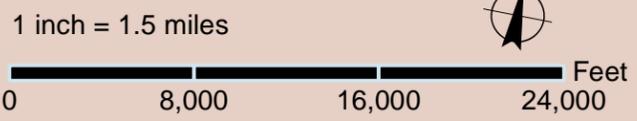
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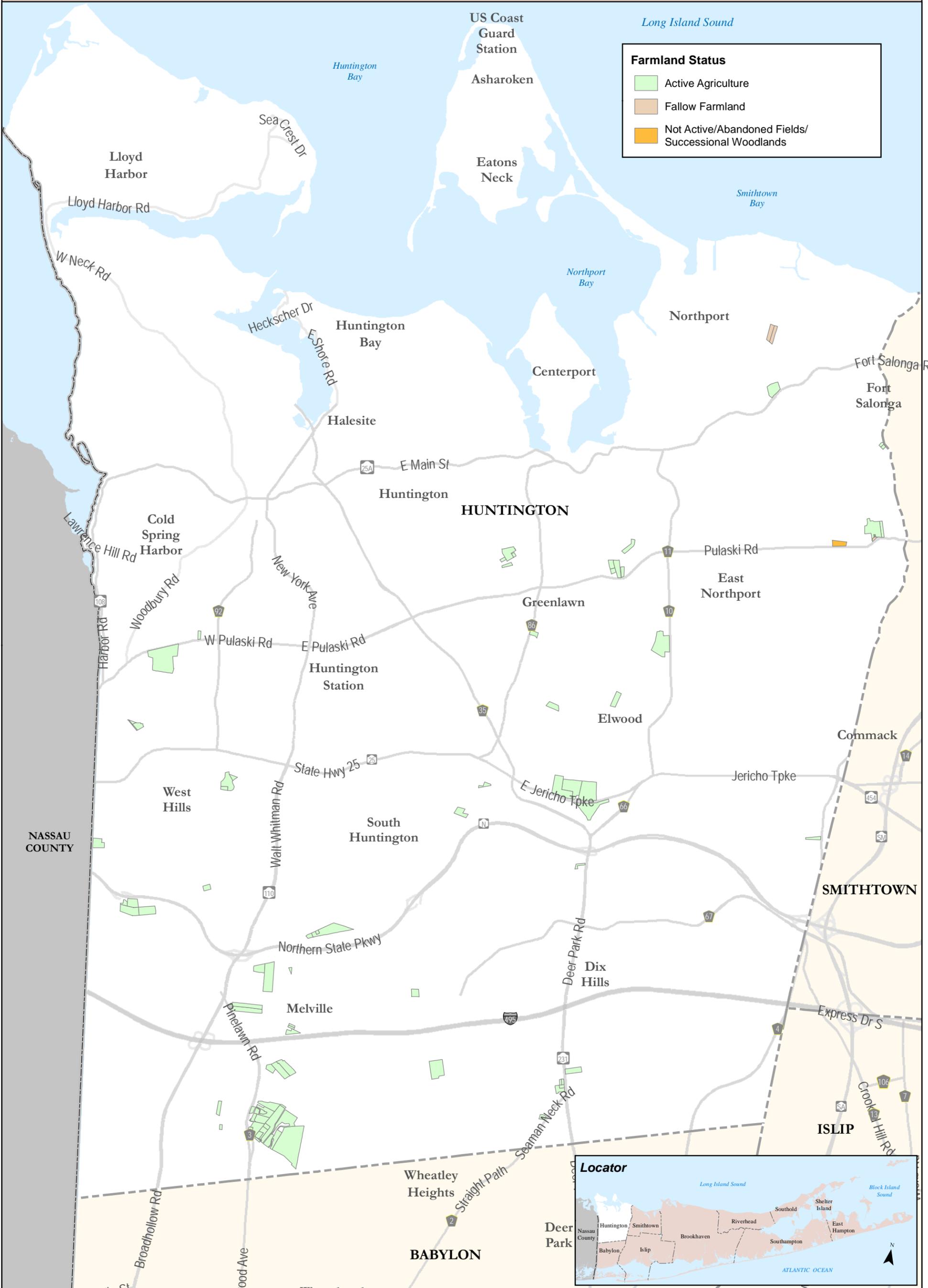
**Farmland Status
Town of East Hampton**

*exempted from (F.O.I.L.) the provisions of the Freedom of Information Law (Public Officers Law Article 6 Section 84-90) by section 87.2.g

CD-15-91 - 11/16/15

Agriculture & Farmland Protection Plan

Suffolk County, New York



Farmland Status

- Active Agriculture
- Fallow Farmland
- Not Active/Abandoned Fields/
Successional Woodlands



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Farmland Status Town of Huntington

*excepted from (F.O.I.L.) the provisions of the Freedom of Information Law [Public Officers Law Article 6 Section 84-90] by section 87.2.g



See INSET

Farmland Status

- Active Agriculture
- Fallow Farmland
- Not Active/Abandoned Fields/ Successional Woodlands



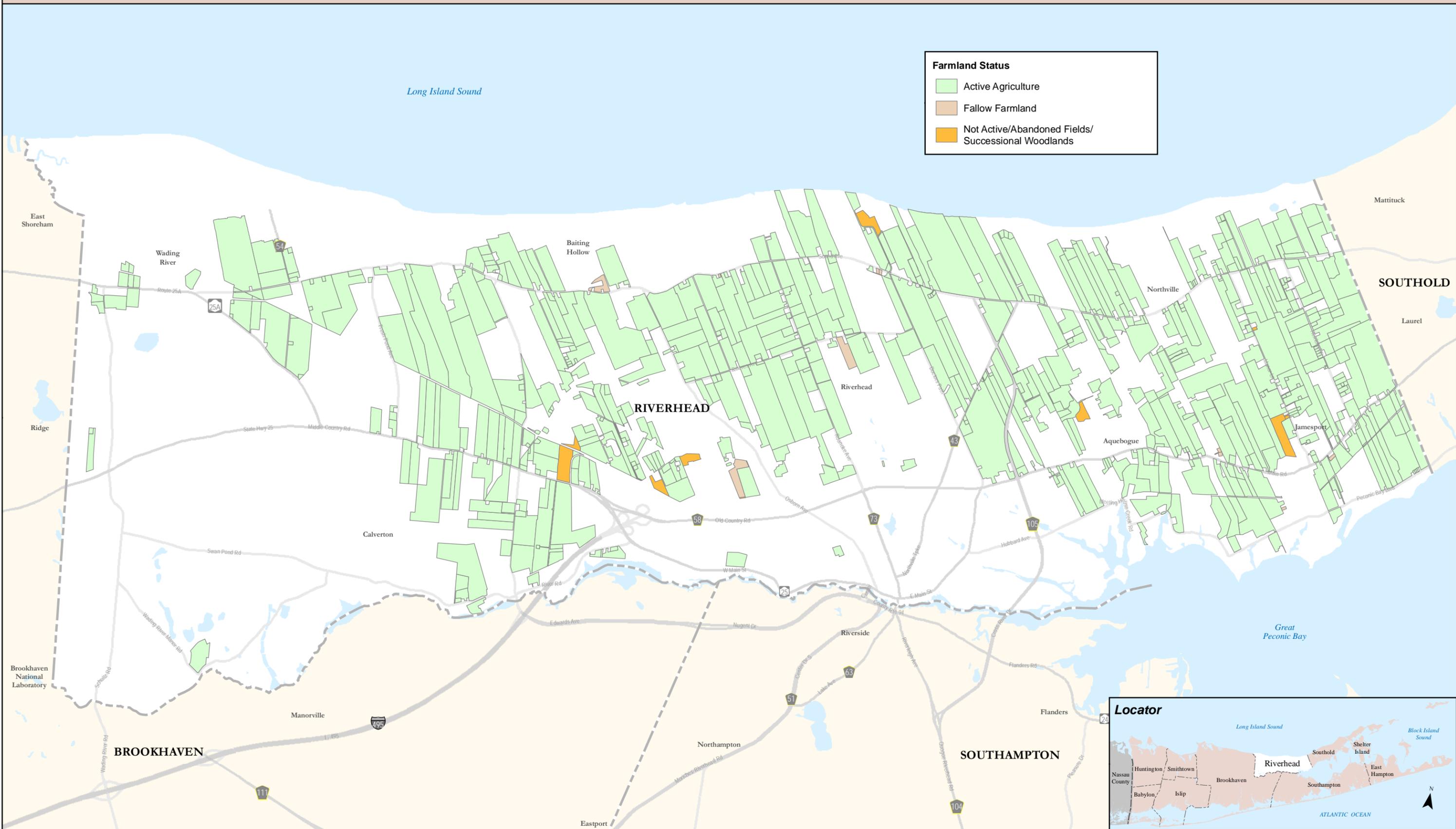
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**Farmland Status
Town of Islip**

*excerpted from (F.O.I.L.) the provisions of the Freedom of Information Law [Public Officers Law Article 6 Section 84-90] by section 87.2(g)

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1 inch = 1 mile



Farmland Status Town of Riverhead

*excerpted from (F.O.I.L.) the provisions of the Freedom of Information Law [Public Officers Law Article 6 Section 84-90] by section 87.2(g)

Agriculture & Farmland Protection Plan

Suffolk County, New York



Farmland Status

- Active Agriculture
- Fallow Farmland



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Farmland Status Town of Shelter Island



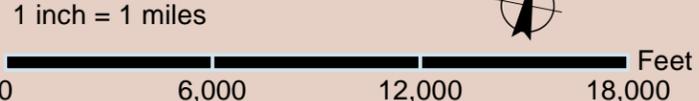
Farmland Status

- Active Agriculture



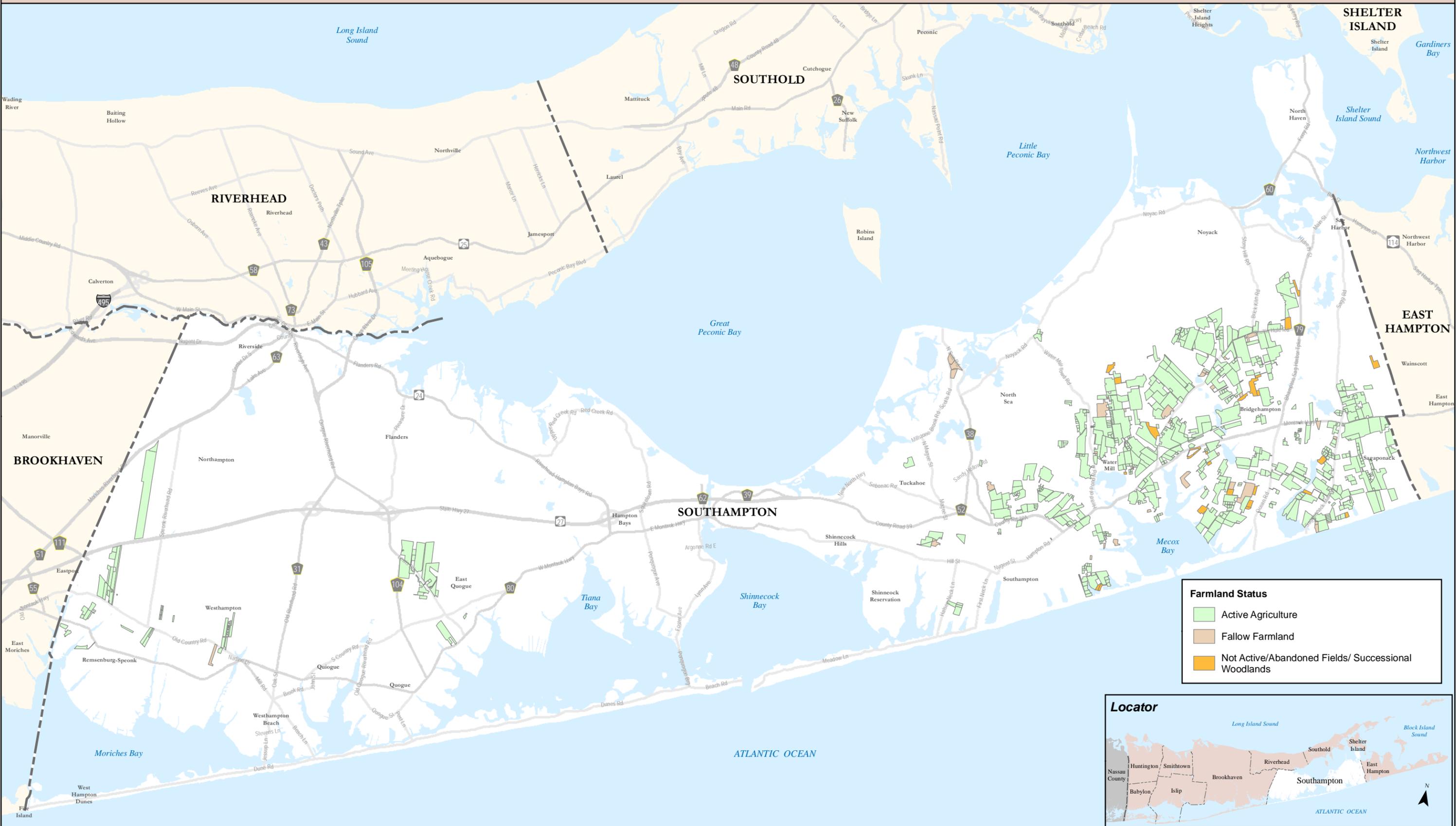
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Farmland Status
Town of Smithtown

*excerpted from (F.O.I.L.) the provisions of the Freedom of Information Law [Public Officers Law Article 6 Section 84-90] by section 87.2(g)

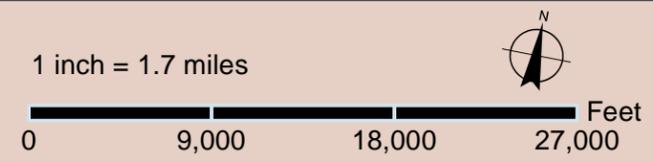


Farmland Status

- Active Agriculture
- Fallow Farmland
- Not Active/Abandoned Fields/ Successional Woodlands



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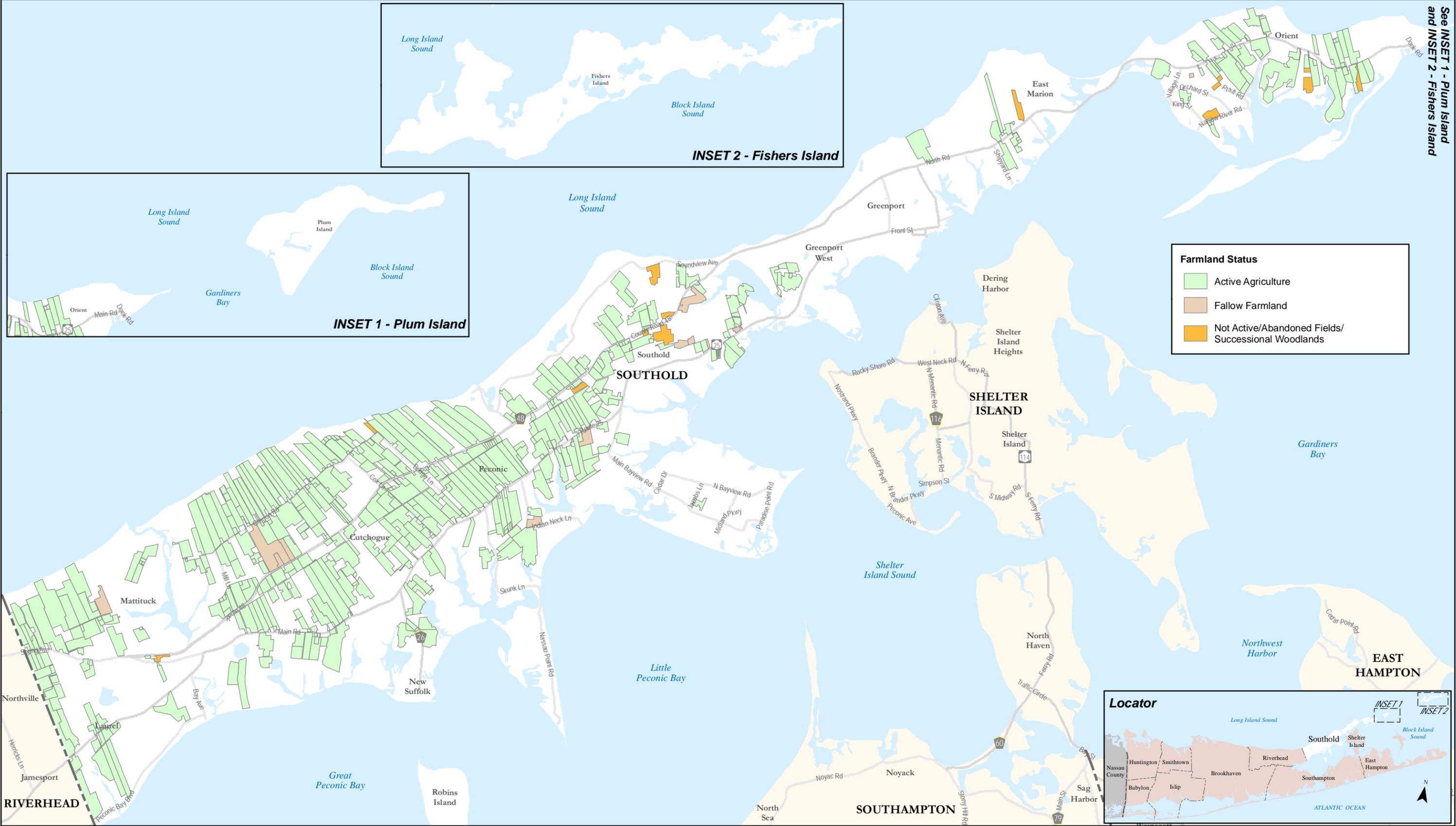
Farmland Status
Town of Southampton

*excerpted from (F.O.I.L.) the provisions of the Freedom of Information Law (Public Officers Law Article 6 Section 84-90) by section 87.2.g

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Agriculture & Farmland Protection Plan

Suffolk County, New York



Farmland Status

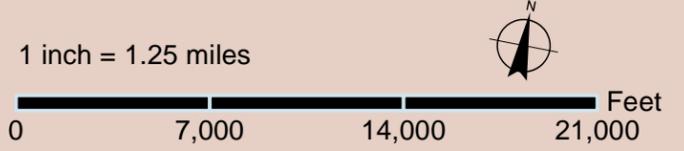
- Active Agriculture
- Fallow Farmland
- Not Active/Abandoned Fields/
Successional Woodlands



See INSET 1 - Plum Island and INSET 2 - Fishers Island

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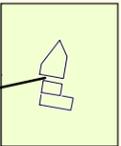
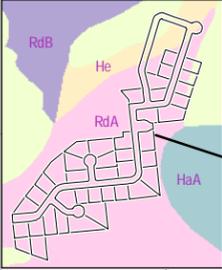
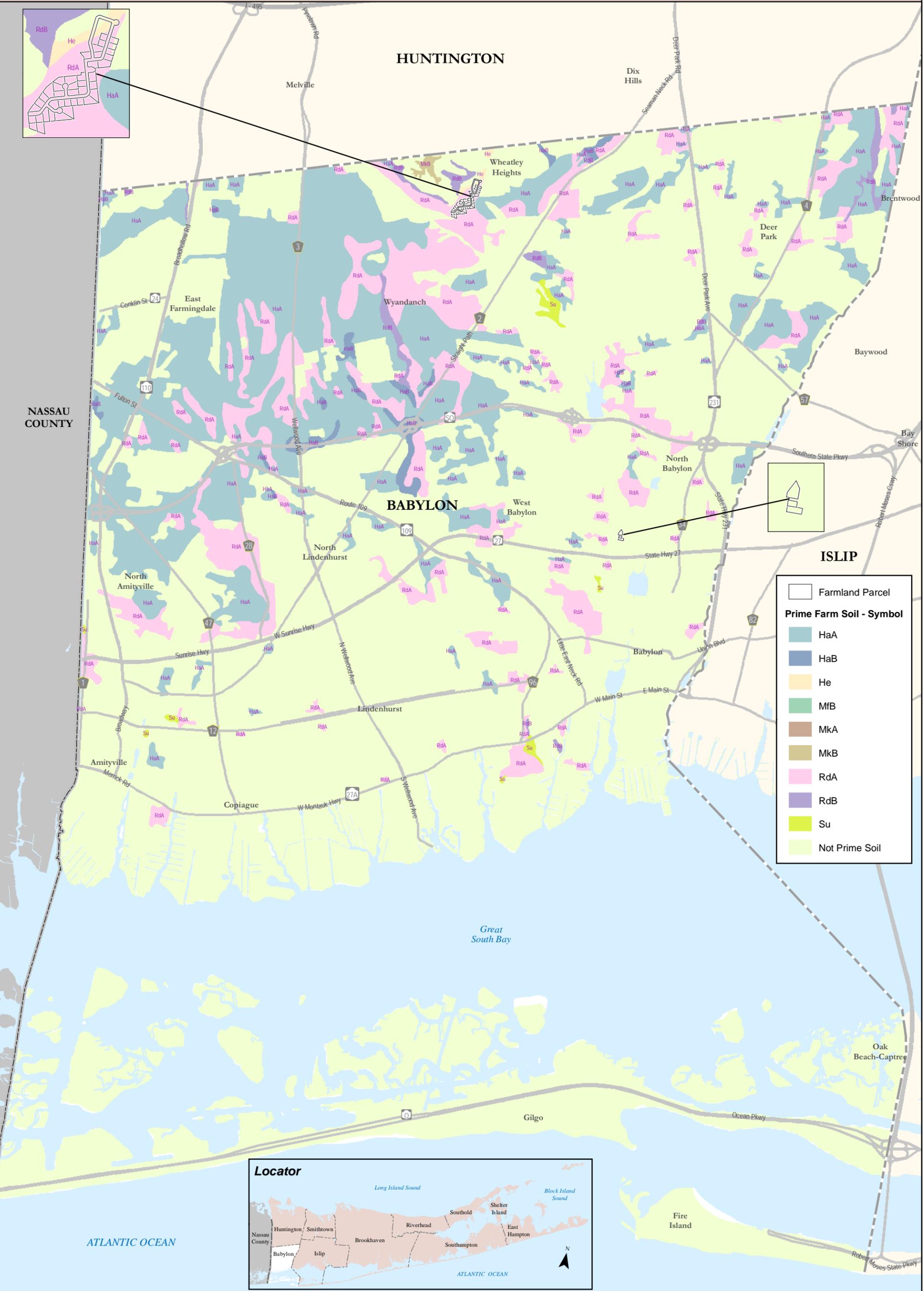


Farmland Status Town of Southold

*exempted from (F.O.I.L.) the provisions of the Freedom of Information Law (Public Officers Law Article 6 Section 84-90) by section 87.2.g

Agriculture & Farmland Protection Plan

Suffolk County, New York



Farmland Parcel	
[White Box]	Farmland Parcel
Prime Farm Soil - Symbol	
[Light Blue Box]	HaA
[Dark Blue Box]	HaB
[Yellow Box]	He
[Green Box]	MfB
[Brown Box]	MKA
[Olive Green Box]	MKB
[Pink Box]	RdA
[Purple Box]	RdB
[Lime Green Box]	Su
[Light Green Box]	Not Prime Soil



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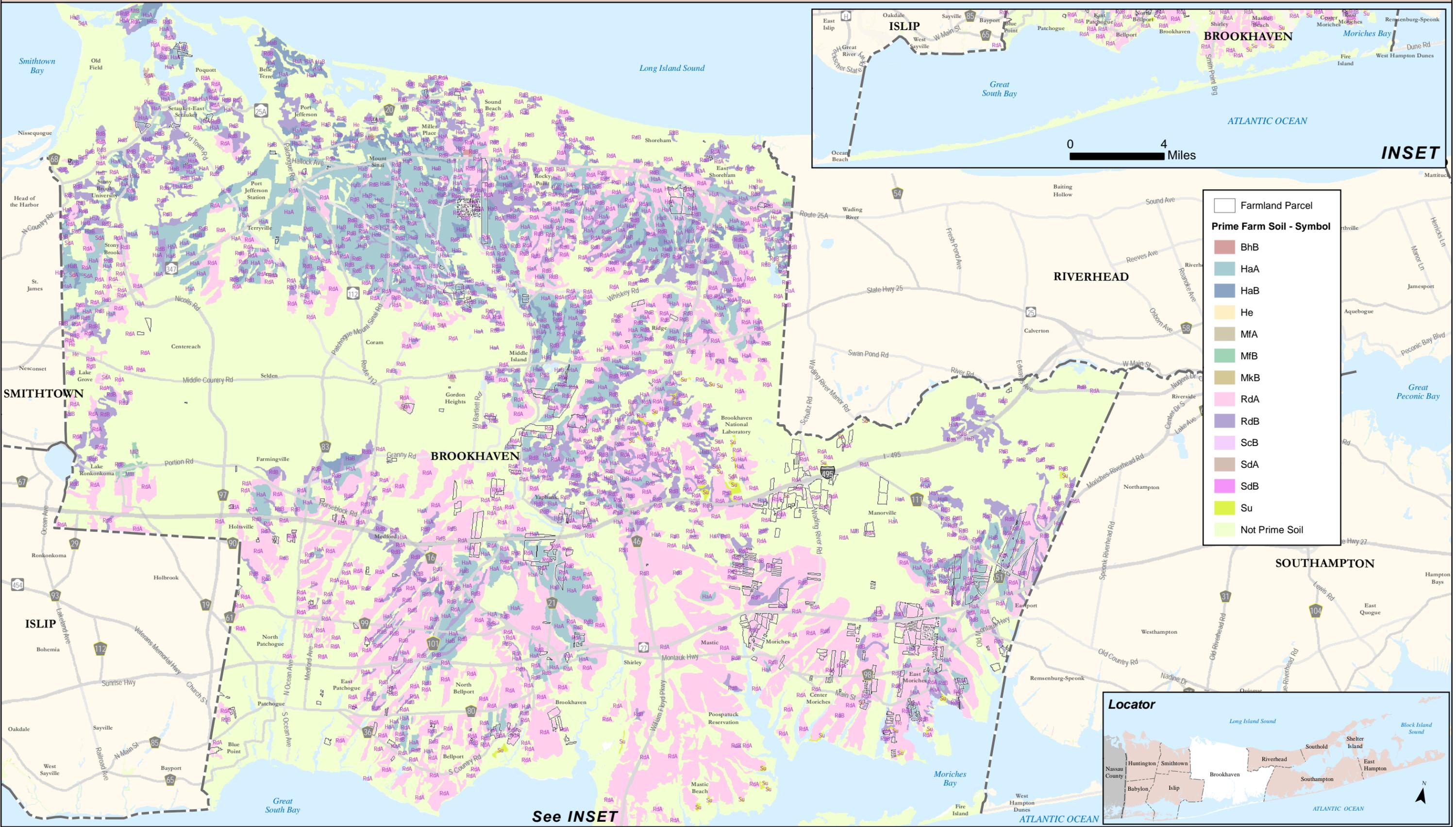
1 inch = 0.85 miles



Soils Map Town of Babylon

Agriculture & Farmland Protection Plan

Suffolk County, New York

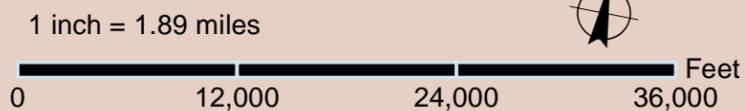


Farmland Parcel	
[White Box]	Farmland Parcel
Prime Farm Soil - Symbol	
[Brown Box]	BhB
[Light Blue Box]	HaA
[Dark Blue Box]	HaB
[Yellow Box]	He
[Light Green Box]	MfA
[Green Box]	MfB
[Dark Green Box]	MkB
[Pink Box]	RdA
[Purple Box]	RdB
[Light Purple Box]	ScB
[Light Brown Box]	SdA
[Magenta Box]	SdB
[Yellow-Green Box]	Su
[Light Yellow Box]	Not Prime Soil



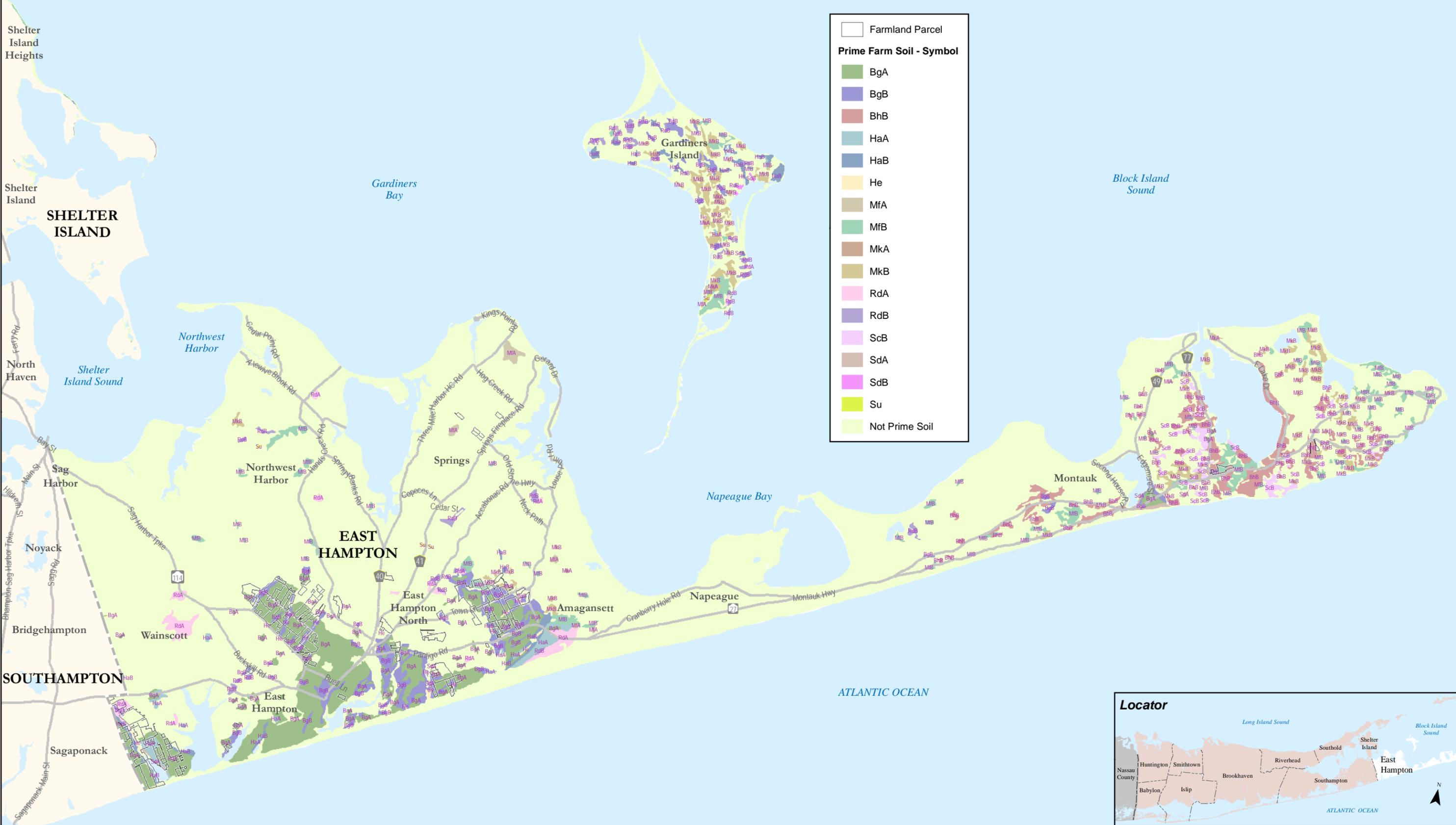
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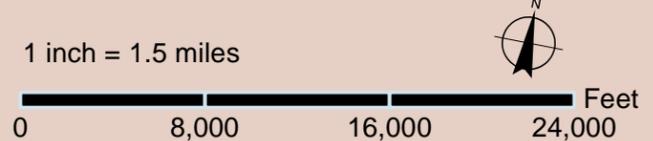
Soils Map Town of Brookhaven



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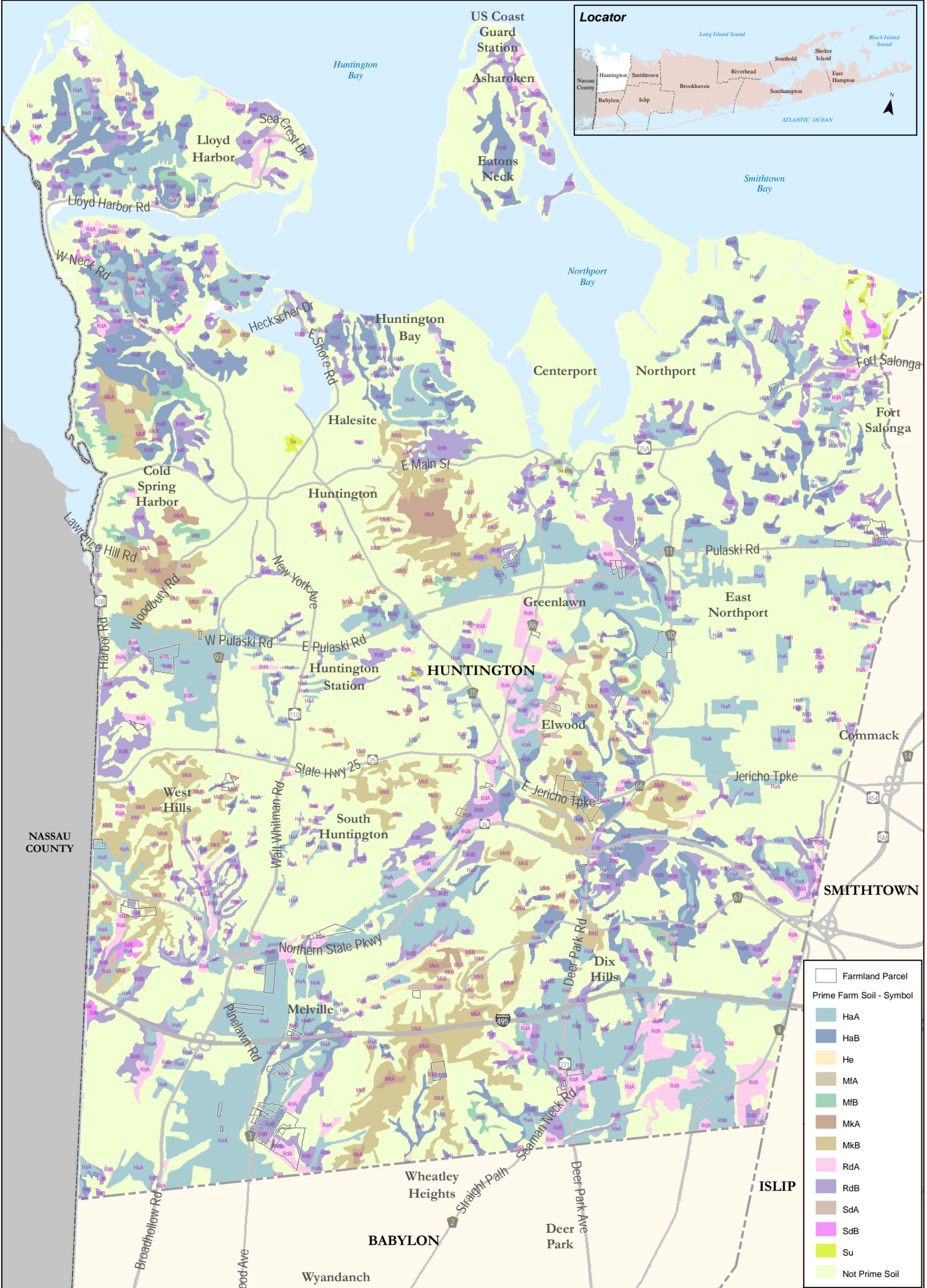


Soils Map Town of East Hampton

*excerpted from (F.O.I.L.) the provisions of the Freedom of Information Law (Public Officers Law Article 6 Section 84-90) by section 87.2.g

Agriculture & Farmland Protection Plan

Suffolk County, New York



Farmland Parcel	
[White outline]	Farmland Parcel
Prime Farm Soil - Symbol	
[Light Blue]	HaA
[Dark Blue]	HaB
[Light Green]	He
[Light Yellow]	MfA
[Light Purple]	MfB
[Light Orange]	MkA
[Light Brown]	MkB
[Light Pink]	RdA
[Light Purple]	RdB
[Light Brown]	SdA
[Light Purple]	SdB
[Light Green]	Su
[Light Yellow]	Not Prime Soil

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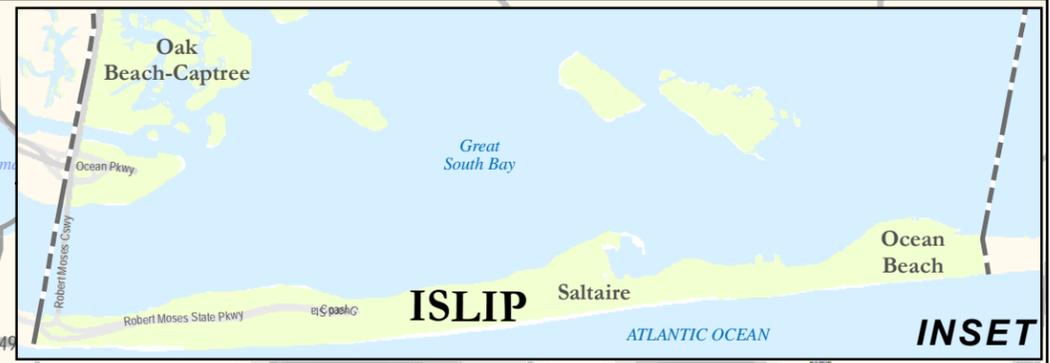
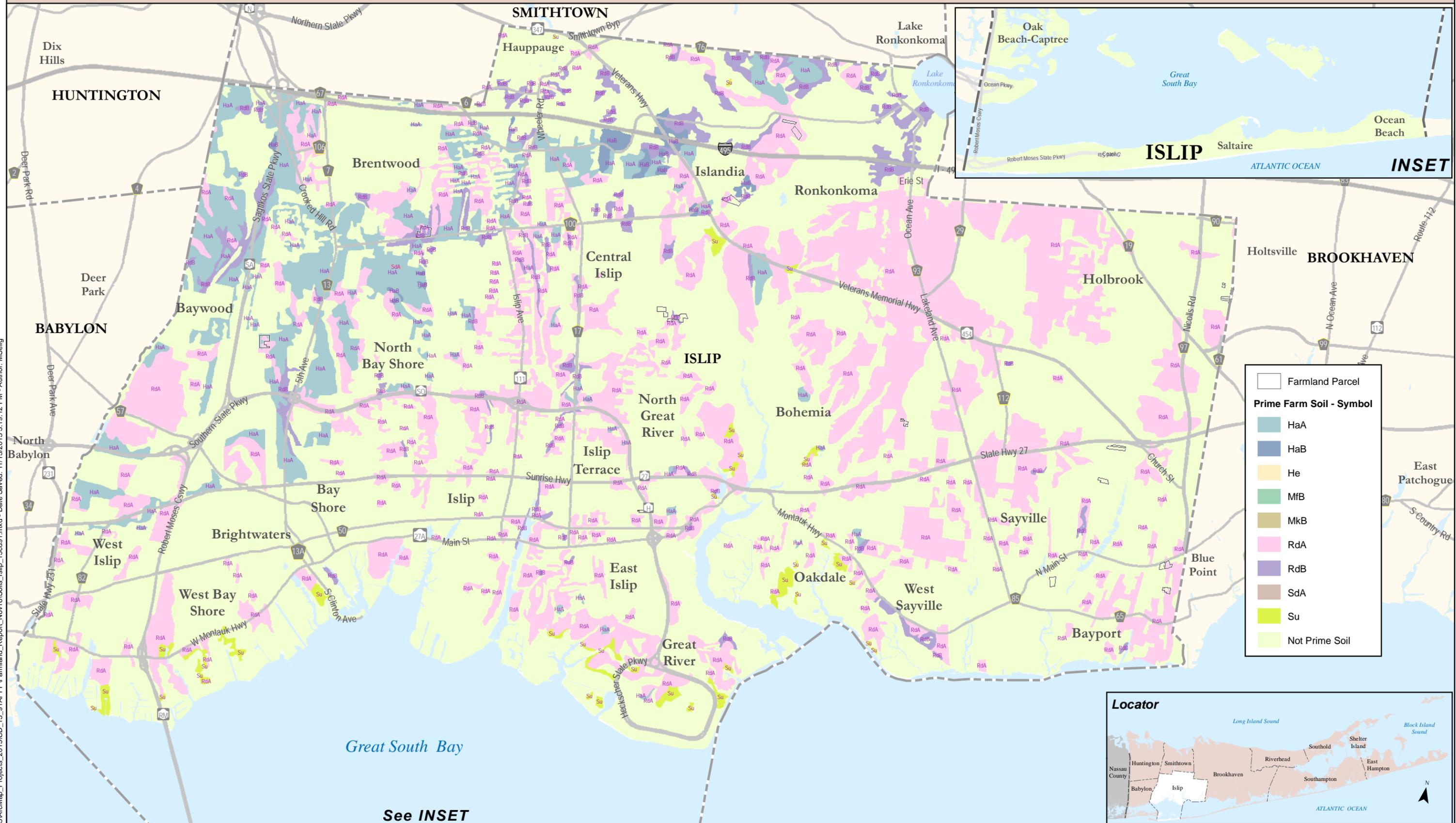
1 inch = 1 miles



0 6,000 12,000 Feet

Soils Map Town of Huntington

*excepted from (F.O.I.L.) the provisions of the Freedom of Information Law [Public Officers Law Article 6 Section 84-90] by section 87.2.g



Farmland Parcel	
[White box]	Farmland Parcel
Prime Farm Soil - Symbol	
[Blue box]	HaA
[Dark Blue box]	HaB
[Orange box]	He
[Green box]	MfB
[Brown box]	MkB
[Pink box]	RdA
[Purple box]	RdB
[Light Brown box]	SdA
[Yellow box]	Su
[Light Green box]	Not Prime Soil



See INSET

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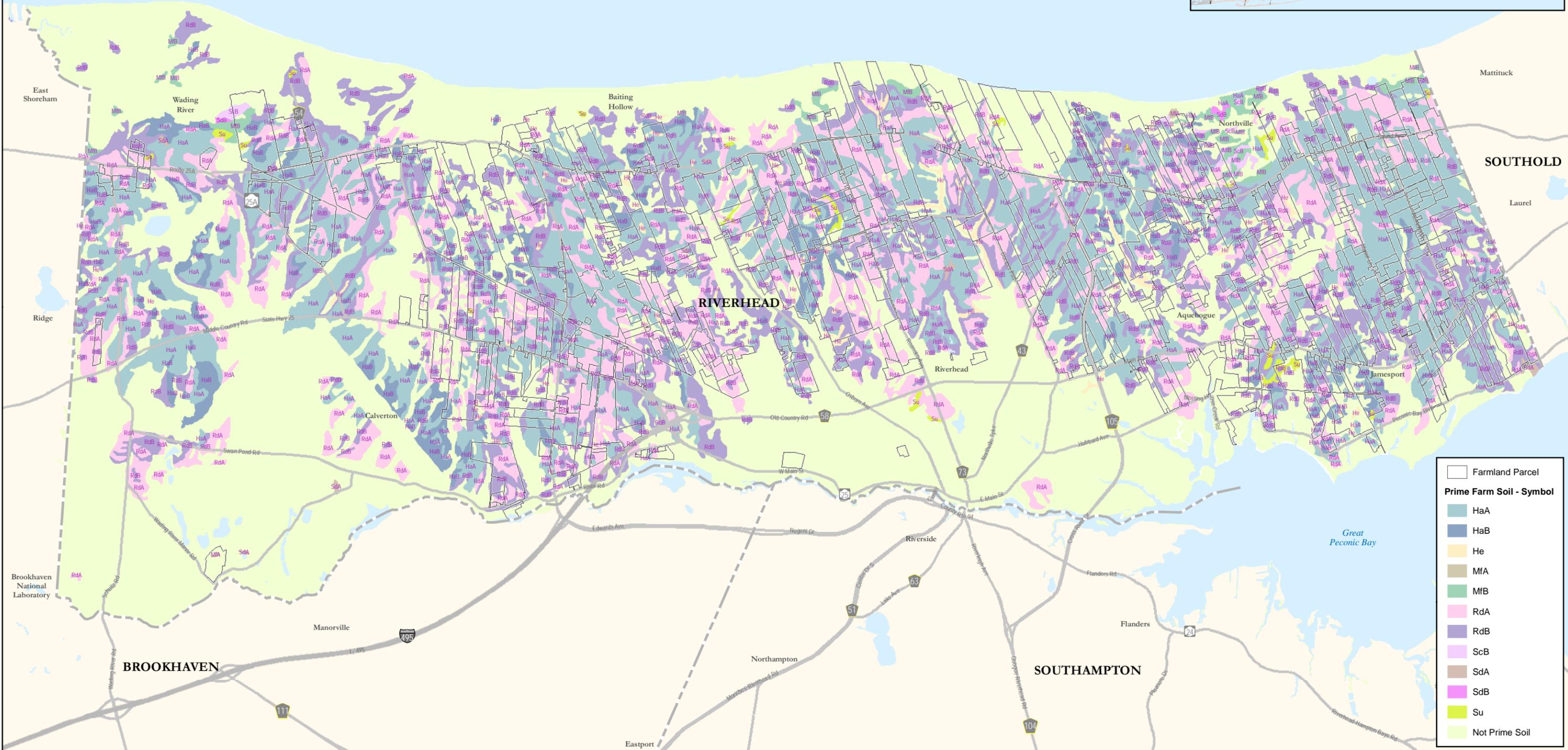
**Soils Map
Town of Islip**

*excerpted from (F.O.I.L.) the provisions of the Freedom of Information Law [Public Officers Law Article 6 Section 84-90] by section 87.2.g

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Agriculture & Farmland Protection Plan

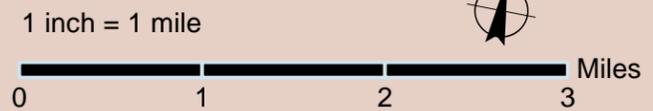
Suffolk County, New York



Farmland Parcel	
[Black outline]	Farmland Parcel

Prime Farm Soil - Symbol	
[Light Blue]	HaA
[Medium Blue]	HaB
[Yellow]	He
[Light Green]	MfA
[Dark Green]	MfB
[Pink]	RdA
[Purple]	RdB
[Light Purple]	ScB
[Brown]	SdA
[Magenta]	SdB
[Light Green]	Su
[White]	Not Prime Soil

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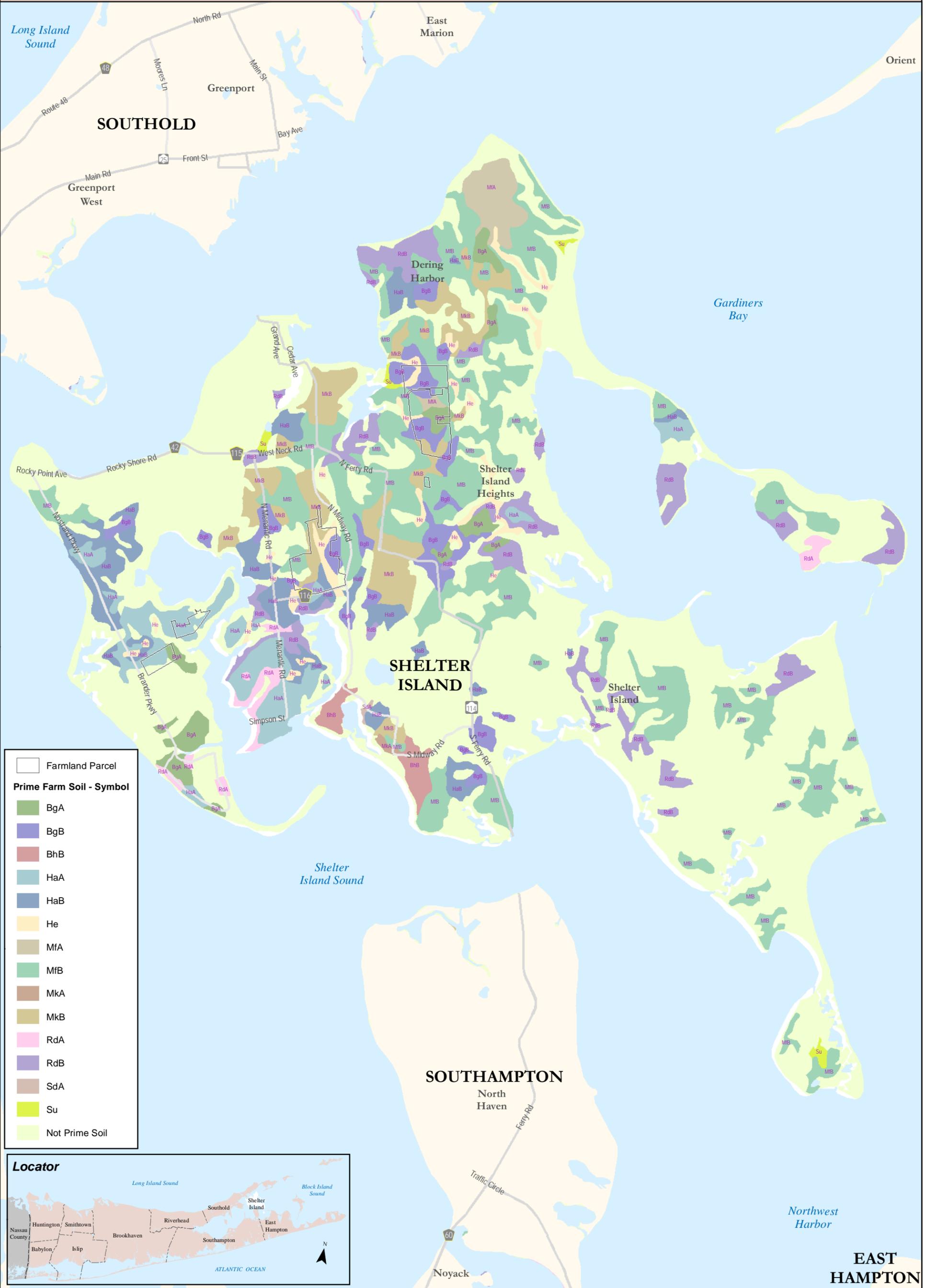
Soils Map Town of Riverhead

*excerpted from (F.O.I.L.) the provisions of the Freedom of Information Law [Public Officers Law Article 6 Section 84-90] by section 87.2(g)

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Agriculture & Farmland Protection Plan

Suffolk County, New York



Farmland Parcel

Prime Farm Soil - Symbol

- BgA
- BgB
- BhB
- HaA
- HaB
- He
- MfA
- MfB
- MkA
- MkB
- RdA
- RdB
- SdA
- Su
- Not Prime Soil

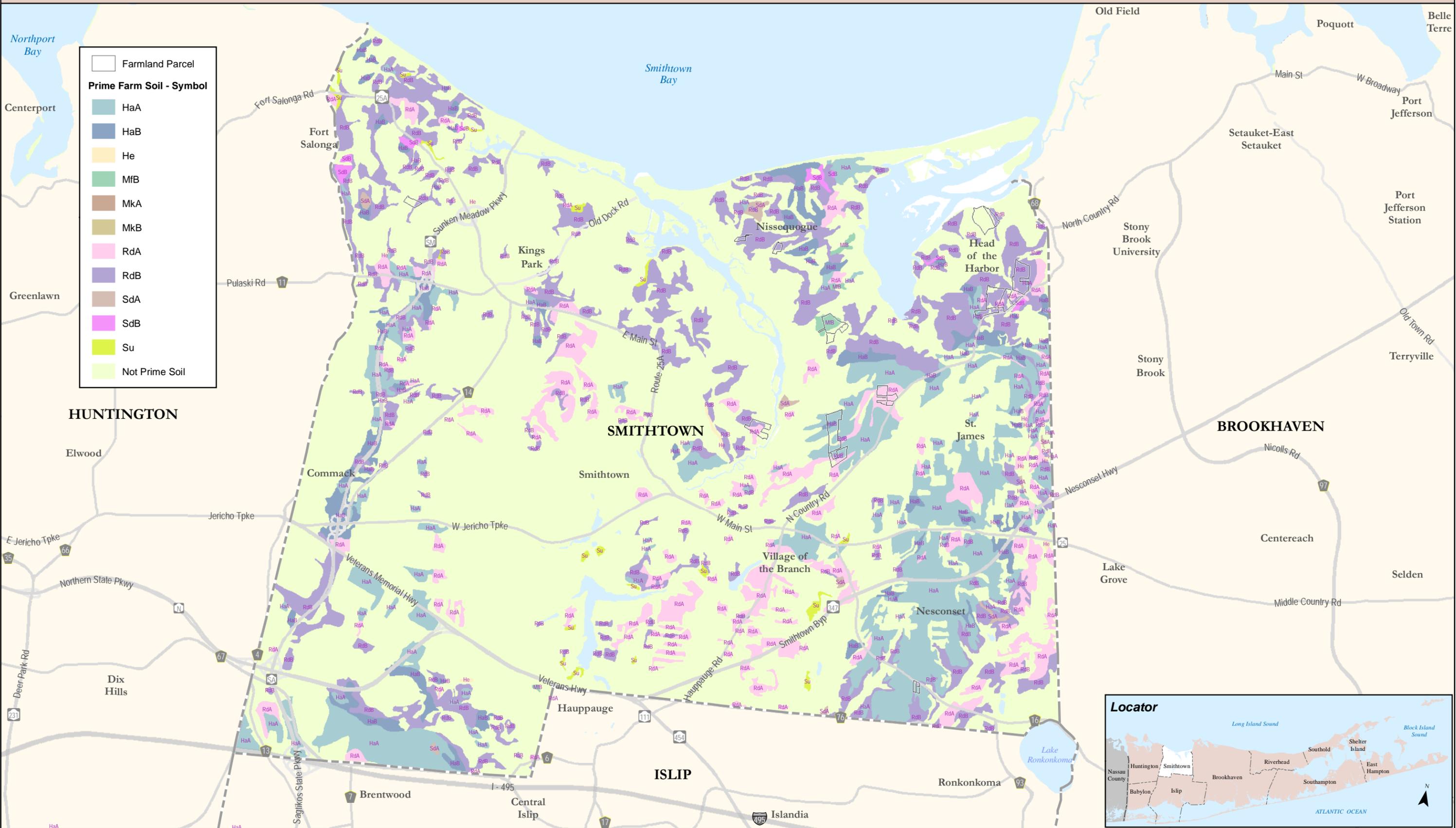


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*excepted from (F.O.I.L.) the provisions of the Freedom of Information Law [Public Officers Law Article 6 Section 84-90] by section 87.2.g



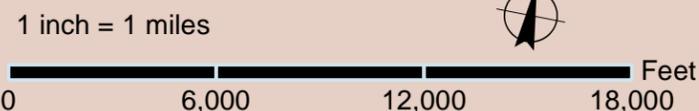
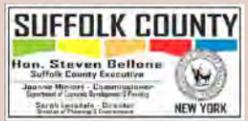
Soils Map Town of Shelter Island



Prime Farm Soil - Symbol	
[Light Green Box]	HaA
[Dark Green Box]	HaB
[Yellow Box]	He
[Light Blue Box]	MfB
[Light Brown Box]	MkA
[Dark Brown Box]	MkB
[Pink Box]	RdA
[Purple Box]	RdB
[Light Brown Box]	SdA
[Magenta Box]	SdB
[Yellow-Green Box]	Su
[Light Green Box]	Not Prime Soil



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**Soils Map
 Town of Smithtown**

*excerpted from (F.O.I.L.) the provisions of the Freedom of Information Law [Public Officers Law Article 6 Section 84-90] by section 87.2.g

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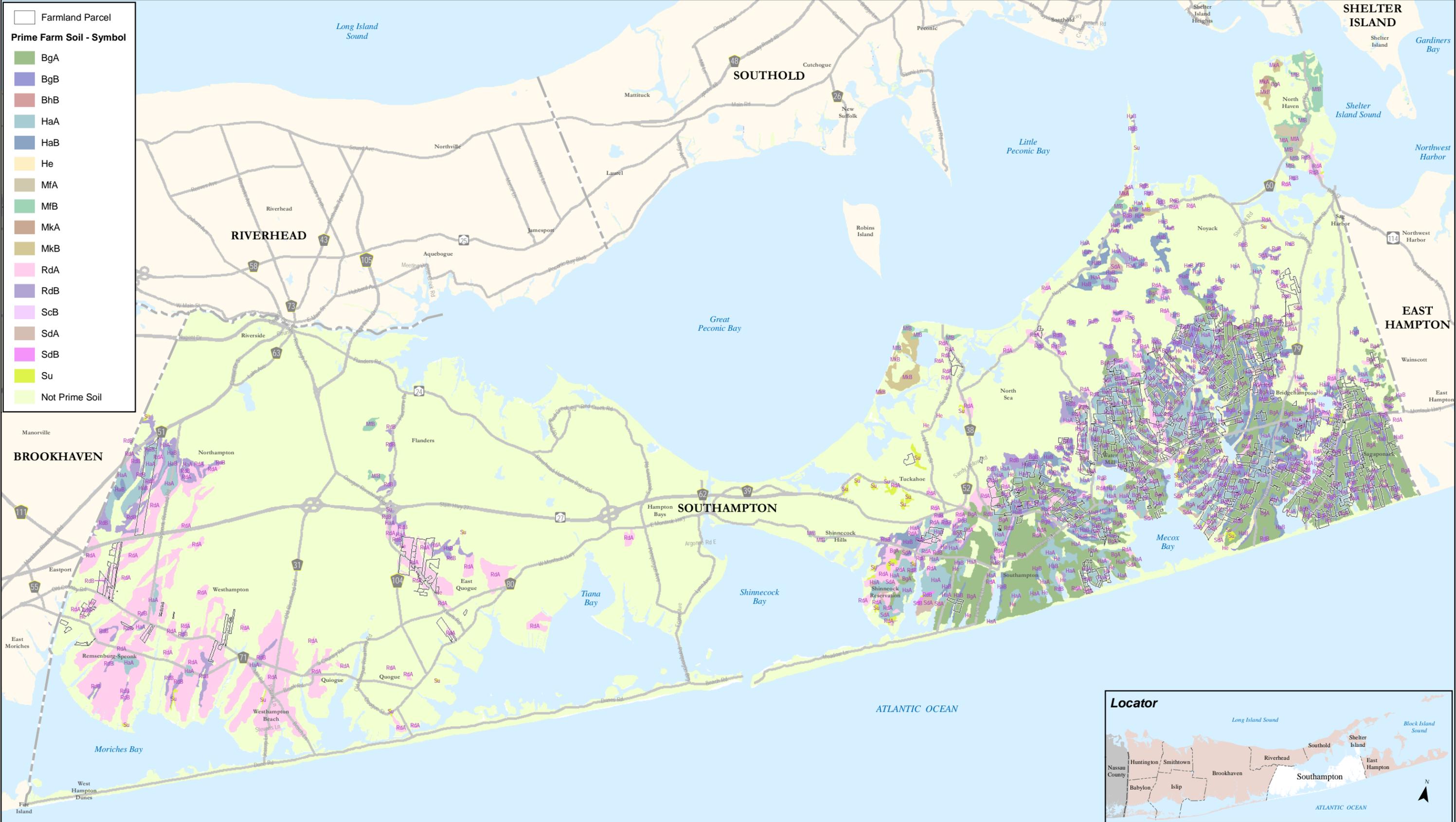
Agriculture & Farmland Protection Plan

Suffolk County, New York

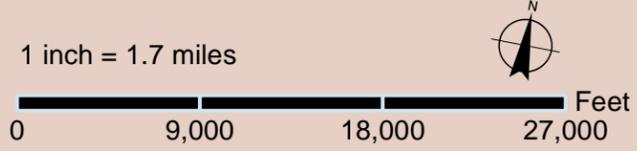
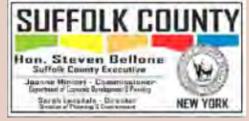
Farmland Parcel

Prime Farm Soil - Symbol

- BgA
- BgB
- BhB
- HaA
- HaB
- He
- MfA
- MfB
- MkA
- MkB
- RdA
- RdB
- ScB
- SdA
- SdB
- Su
- Not Prime Soil



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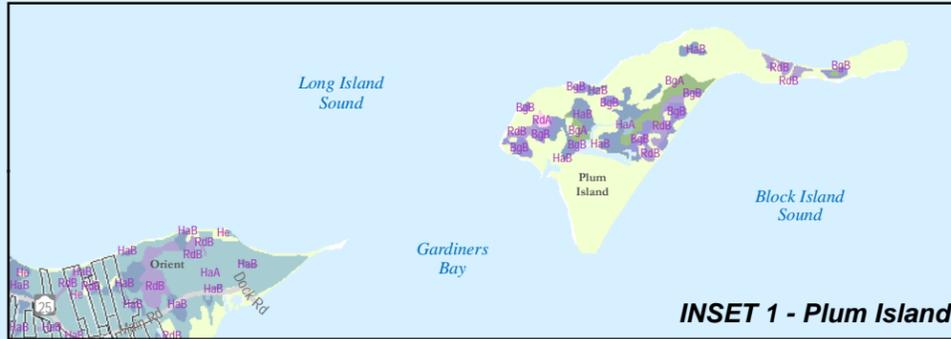
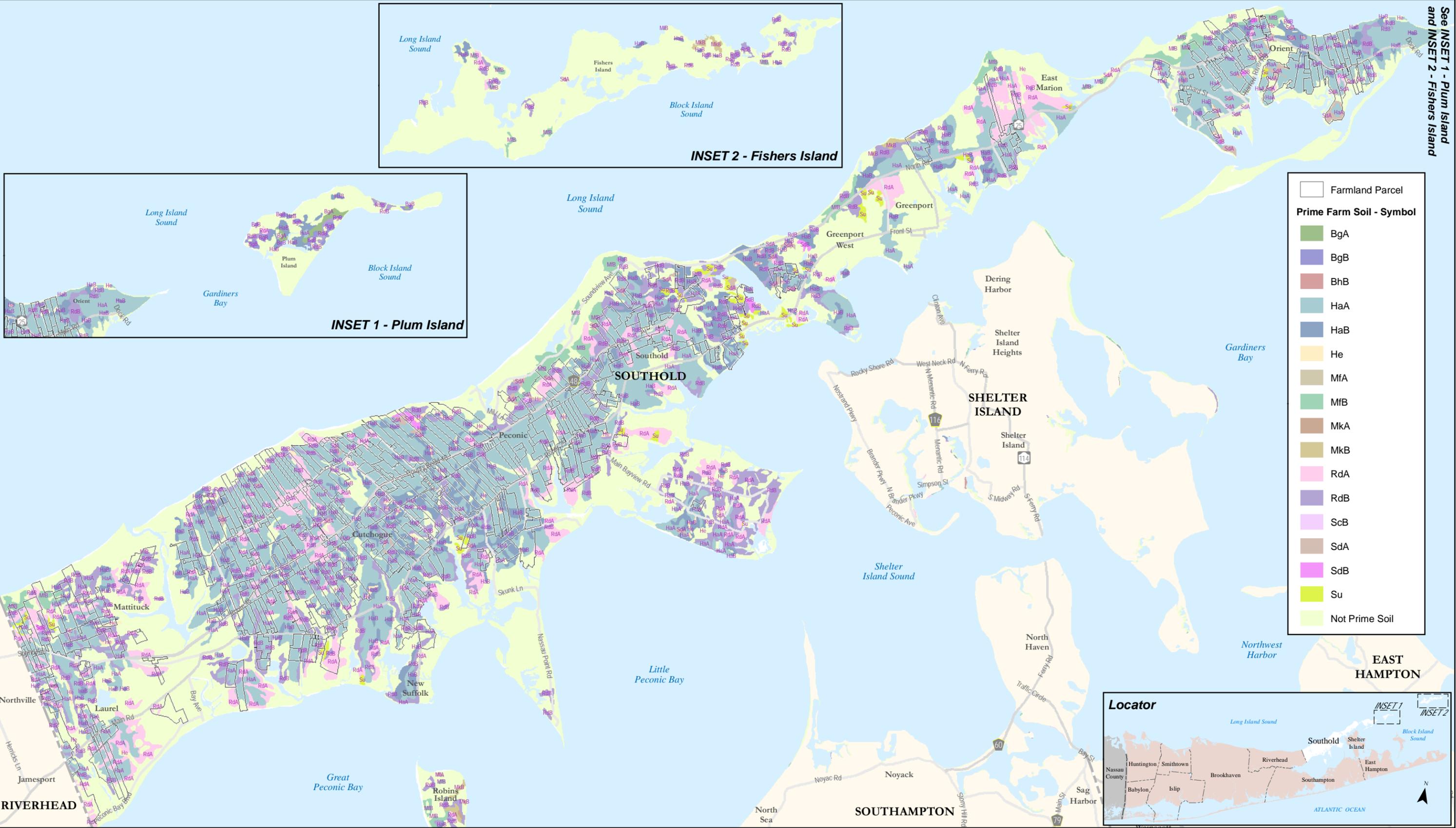
Soils Map Town of Southampton

*excerpted from (F.O.I.L.) the provisions of the Freedom of Information Law (Public Officers Law Article 6 Section 84-90) by section 87.2.g

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Agriculture & Farmland Protection Plan

Suffolk County, New York



Farmland Parcel	
[White Box]	Farmland Parcel
Prime Farm Soil - Symbol	
[Green Box]	BgA
[Purple Box]	BgB
[Red Box]	BhB
[Light Blue Box]	HaA
[Dark Blue Box]	HaB
[Yellow Box]	He
[Light Green Box]	MfA
[Dark Green Box]	MfB
[Brown Box]	MkA
[Olive Green Box]	MkB
[Pink Box]	RdA
[Purple Box]	RdB
[Light Purple Box]	ScB
[Light Brown Box]	SdA
[Magenta Box]	SdB
[Yellow-Green Box]	Su
[Light Yellow Box]	Not Prime Soil



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See INSET 1 - Plum Island and INSET 2 - Fishers Island

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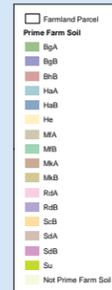
1 inch = 1.25 miles



Soils Map Town of Southold

*excerpted from (F.O.I.L.) the provisions of the Freedom of Information Law (Public Officers Law Article 6 Section 84-90) by section 87.2.g

SUFFOLK COUNTY, NEW YORK



SOILS MAP Agriculture & Farmland Protection Plan

Map is subject to revision. This map is not to be used for surveying, conveyance of land, or other precise purposes.

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*recepted from § 87(2)(b) the provisions of the Freedom of Information Law (Public Officers Law Article 87, Section 87(2)(b))

November 27, 2013 - 10:15:02

