



# DELAWARE COUNTY AGRICULTURAL AND FARMLAND PROTECTION PLAN

**DRAFT**

**09-10-14**



We believe that a sound agriculture will sustain our natural resources and preserve our rural identity.

**Delaware County Agricultural and Farmland Protection Board**

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# DEDICATION

This plan is dedicated to one of Delaware County's most renowned native sons, John Burroughs, born April 3, 1837, who exulted in the beauty of the Catskills, who found strength in the challenge and discipline of farm work, who traveled through the most beautiful places in the world but found his greatest contentment in the ancient slopes of the Burroughs family farm in the village of Roxbury.

In *The Summit of the Years*, John Burroughs wrote: "I have a barn-door outlook...a wide, near view into fields and woods and orchards where I could be on intimate terms with the wild life about me, and with free, open-air nature."

Such wide and near views into productive fields and forests are what help make farmers continue farming with such determination and deep-rooted satisfaction. Such views are what natives and newcomers value and call home. The outlook is a broad one, but it is also near, close to heart.

In dedicating this plan to the life, works and thoughts of John Burroughs, the Agricultural and Farmland Protection Board of Delaware County is, in truth, also dedicating it to all of this county's farmers.

# PURPOSE

Farming is the foundation upon which Delaware County is built. Ours is an agrarian genealogy that we choose to perpetuate by means that are both practical and progressive. We believe that a sound agriculture will sustain our natural resources and preserve our rural identity – that it will provide our communities and metropolitan neighbors with farm-fresh foods, protect our valuable farmlands and offer our next generation of farmers a future of agricultural opportunities.

With rapid advances in technologies and farming methods, escalating global competition, evolving communications, and environmental impact issues, Delaware County farmers must manage their farm businesses with aggressive acumen. The margin for error is smaller than ever. The business climate is as changeable as the weather and both are critical to the success of farming. Little can be done about the weather, but much can be done to provide a business climate in Delaware County that works *with*, not against, farm businesses.

Our purpose is to create an Agricultural and Farmland Protection Plan for Delaware County that will open the doors to dialogues and actions on behalf of the farmers, farming and farmland so integral to our community and our economic prosperity. This plan will identify the issues involved and actions possible to protect and preserve our farmland and natural resources and to enhance the economic viability of this county's farm businesses and the agribusinesses that work to sustain them.

**This plan's stated mission is to protect Delaware County farmland and natural resources, preserve its viable farmland and enhance the stability and profitability of agriculture in this county so that current and future farm businesses and agribusinesses are able to thrive.**

## **EXECUTIVE SUMMARY**

According to census data, land in farms in Delaware County decreased by 12% from 2007 to 2012 from 165,572 acres to 145,608 acres. The average size farm also decreased from 222 acres to 207 acres during that same time period. Large tracts of land that were formerly farms have been subdivided and purchased for second homes. Between 2007 and 2012, Delaware County lost 26 dairy farms that generate the largest sales and 135 dairy farms remain. Beef farm numbers increased and Delaware County is now fourth in New York State beef production. Farms with goats, sheep, poultry, vegetables, berries, maple and honey all increased during that time.

Approximately 76% of the county is forested, encompassing nearly 718,000 acres. Delaware County ranks fifth in New York State for total acres of forest land. 20% of the 718,000 acres or 143,000 acres are classified as "denied access" forest. This category of denied access land has nearly doubled since 2005. Approximately 39,000 acres of this is in New York State's Forest Preserve. 80% of the accessible forestland is owned by nonindustrial private forest owners. Delaware County has an established forest industry that contributes to the economic well-being of the county, the Catskill region and New York State. Loggers, foresters, sawmills and agribusinesses producing wood products abound, with approximately \$8 million in timber sales generated annually.

In Delaware County the majority of bluestone mines are in the western end of the county, with the highest number in Hancock. The growing bluestone industry is important to construction and architecture nationwide. New York's industry is valued between \$40 and \$100 million annually and it employs more than 700 full- and part-time employees. Most bluestone is quarried within a 90-mile radius of Deposit in Delaware County.

The Delaware County Agricultural and Farmland Protection Board recognizes the critical need to protect the farms, farmland and natural resources that form the economic backbone and character of Delaware County. This update to the original 2002 Plan cites the emerging trends and issues that will shape the face of this county's agriculture in the future. Based on data from stakeholders gathered in the last decade, including the efforts of Delaware County communities to develop comprehensive plans that work to protect and preserve farms, farmlands and natural resources, this updated plan is designed to provide guidelines for strategies that will enhance the stability and profitability of agriculture in this county.

## **Following is a brief overview of key recommendations:**

### **ECONOMIC DEVELOPMENT:**

- Increase communications between agencies and organizations that are working to serve the agricultural community in Delaware County
- Design and implement regional food distribution systems for better access to statewide metropolitan markets
- Increase the number of small and mid-size food processors in the county and promote access to shared use kitchens
- Pursue programs and incentives designed to lower the cost of farming in New York State
- Provide farmers with tools and necessary for agricultural business management
- Support and promote the local brands that help connect consumers to local farms
- Advocate for a system of pricing whereby dairy farmers are paid based on a margin above the cost of production
- Unify efforts to access funds from the state agricultural agenda as regional priorities are set and funding opportunities arise
- Support farmers as they work to lobby for reduction of agricultural taxes and excessive regulation
- Support activities to keep NYC DEP-owned farmland available to farmers

### **EDUCATION:**

- Provide targeted educational programs, resources and opportunities that to Delaware County farmers to increase skills in sustainable production methods, farm business planning, marketing, regulatory compliance, forest management, succession planning, and enterprise start-up or diversification
- Provide educational programs, resources and opportunities to help farmers tap into the economic potential of the natural resources of their land, including forests, bluestone, water, streams, ponds, wildlife and natural habitat.
- Increase educational outreach to youth regarding the importance of production agriculture and the opportunities that exist for farm ownership and employment
- Increase educational outreach to county officials, leaders and the public regarding the contributions farms in Delaware County make to its economy, community life, rural character, tourism and scenic beauty

### **LAND USE:**

- Support programs and incentives designed to counter farmland conversion pressures
- Identify viable farmland and forest lands for purposes of agricultural and farmland protection efforts and other land use incentives designed to help farmers reduce costs and continue farming
- Support and promote programs designed to keep farmland in production agriculture, including a voluntary program that is funded with New York State agricultural and farmland protection funds for Purchase of Development Rights (PDR), Lease of Development Rights (LDR) or Agricultural Conservation Easements and other land trust initiatives
- Protect the rights of farmers to engage in sound agricultural management practices, maintain Agricultural Districts throughout the areas of prime farmland

# **The Importance of Being Earnest...Pursuing Farmland Protection**

*By Darrel J. Aubertine,*

*Commissioner of the New York State Department of Agriculture and Markets*

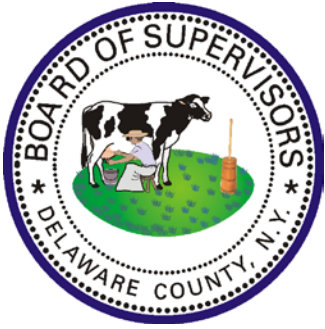
New York's farmland forms the basic infrastructure on which the state's farm and food economy is built, yet the state is losing farmland to development. Between 2001 (37,500 farms) and 2006 (35,000 farms) the state lost 2,500 farms, or more than 400 farms per year. Over the most recent five year period (2007-2011), the state lost 400 farms, or 80 farms per year. It is heartening to see a leveling trend of New York farms that underscores New York's efforts under Governor Cuomo's leadership to protect vital farmland and fund the Environmental Protection Fund (EPF) despite the state's difficult fiscal times. While we are seeing a tremendous improvement over past trends, there is more we can and must do.

These reductions demand that all residents—including state and local policy makers as well as farmers—be forthright in both understanding and sustaining food-producing operations across the Empire State. Knowing where your local food comes from, where it is processed (and where those jobs are located in your community) are essential building blocks for farmland protection.

Since taking office, Governor Cuomo has demonstrated a true commitment to the agricultural industry through the creation of the Agricultural and Community Recovery Fund, Regional Economic Development Councils, lowering business and energy costs, limiting property tax increases, creating new markets for farm products and lowering the middle class tax rates to the lowest level since 1953.

I am especially excited about the Governor's new \$3 million Agriculture Development Program that will provide up to \$500,000 to help promote agricultural economic development by funding projects that will increase New York farm viability through expansion, value-added production, diversification, or long term reduction of operating costs. Providing incentives to businesses that play an active role in keeping our land productive and that improve the vibrancy of economies in rural communities should go a long way toward protecting farmland.

Going forward, we at the Department of Agriculture and Markets will continue to work with farms and the agriculture community to improve the competitiveness and economic strength of this vital industry and make sure they have the tools available to keep land in production. New York's Farmland Protection Program provides, in part, matching grant support to municipalities to preserve farmland, particularly viable agricultural lands that are facing significant development pressure and that serve as a buffer to significant natural public resources. Since the program's inception, more than \$176 million in matching grants have been awarded to municipalities to protect over 300 farms throughout the State. The Department also offers farmland protection planning grant assistance so that long-term municipal agricultural and farmland protection plans can be created. Indeed, fair and effective public policy and investment in locally-led planning and implementation activities are essential to ensure that productive agricultural land is not converted to non-farm uses. Equally important is that agricultural sector jobs in a community are sustained.



## **DELAWARE COUNTY BOARD OF SUPERVISORS**

**Senator Charles D. Cook County Office Building  
111 Main Street  
Delhi, New York 13753  
Telephone: 607-832-5110  
Fax: 607- 832-5111**

**James E. Eisel, Sr., Chairman  
Christa M. Schafer, Clerk**

### **Pursuing Farmland Protection by James E. Eisel**

Agriculture in Delaware County is a \$56 million business and multiplies at least 2.5 times in the local economy with farmers spending locally, milk plants processing fluid milk, making value-added dairy products, and agribusinesses such as feed companies, fuel companies, equipment dealers, vets, breeders, route trucks, etc. striving to meet the demand of local agriculture. Dairy contributes the largest percentage to gross ag sales and Delaware County is 3<sup>rd</sup> in NYS beef production. It is important to recognize and assist agriculture and related industries to make it easy to do business here. Delaware County Economic Development and the IDA have been integral to help new farm-related businesses, keep the processing companies efficient with infrastructure improvements, and make Delaware County a welcoming environment and profitable place to do business.

Delaware County has been extremely involved in assisting in the educational needs of farmers, supporting Cornell Cooperative Extension annually with a budget that allows them to offer timely, research-generated assistance to all farmers. In addition, the County provides the mechanism through which New York State funds are channeled for Precision Feeding Programs and other cutting edge educational programs that keep our farmers competitive and environmentally sound.

The Delaware County Board of Supervisors has always supported legislation that can help agriculture and supports the Delaware County Ag and Farmland Protection Board in their activities. The Right to Farm Law, passed in 1992, affirms the need to protect agriculture from nuisance complaints and interference.

The County has supported the NYS Ag Districts recommendations and allows for a 30-day period each year for landowners or agricultural property to join an agricultural district, making it easier to take advantage of the protections of being in an Agricultural District.

The County has supported efforts to study agriculture locally such as the Delaware County Agriculture Growth and Sustainability Plan and the Farmland Tax Analysis Study. The County attained the goals of the Ag and Farmland Protection Plan in 2000 and will continue to work on achieving the goals in this new updated plan to keep agriculture strong and agri-businesses thriving to make food security in Delaware County a reality.

Future efforts to support cheaper energy, local food systems, favorable agriculture policy, and other initiatives to encourage agriculture in Delaware County will provide for a stable and sustainable agricultural economy. While the world is changing rapidly, good wholesome reliable food is the role of our farmers and we must maintain our agricultural economy. We have three huge indicators that will help Delaware County to remain viable and they are: the land to be able to feed ourselves; pristine drinking water in abundance; the possibility of cheap energy with the advent of natural gas. Farmers are our natural conservationists and without them we cannot sustain our rural way of life.



## **AN AGRICULTURAL HERITAGE**

The twentieth century in Delaware County was defined by sweeping changes which have challenged the county's small, scattered rural communities. Dramatic advances in communications, transportation and agriculture have changed rural communities around the country, including Delaware County. However, Delaware County also faced very unique challenges when a significant portion of the county was made part of New York City's "watershed". Over 1,000 people had to move from their homes and farms when eight communities were flooded in the 1950s and 1960s to create reservoirs of clean drinking water for New York City.

Most residents and visitors would not recognize much of the county of a hundred years ago. The county's early twentieth-century agricultural economy was reflected in the valley communities and hillside dairy farms. Larger communities boasted factories producing chemicals from wood, sawmills, grist mills and textile mills. Lumber and other wood byproducts were harvested from the county's forests. Local farmers produced dairy products, vegetables and poultry for sale in urban areas like New York and Philadelphia.

In 1900, Delaware County's population peaked at over 46,000; a century later the population had only grown about 2%. Delaware County's dairy production and forest-based industries sustained many viable and lively communities throughout its nineteen towns. These small rural communities were trading and cultural centers, each supporting schools, mills, churches, post offices and often bakeries, blacksmiths, butcher shops, a cabinet maker, a carriage shop and livery stable, doctors, dressmakers, feed stores, furniture store, general stores, hardware stores, a harness shop, lawyers, a milliner, a pharmacy, a shoemaker, a telegraph office and an undertaker. In 1900, most villages and many hamlets were served by a railroad depot.

The geography of Delaware County has always determined transportation patterns. By the end of the nineteenth century, the railroad had proven more effective and economical than rafts and stages in the transportation of people into and products out of Delaware County. Railroads snaked and spurred throughout the county, carrying vacationers into the county and dairy and other Delaware County products to urban markets.

Several towns in eastern Delaware County built their early twentieth century economies around the influx of tourists brought to their communities by the railroads. In 1903, the Ontario & Western carried 1.5 million passengers to the Catskills. Beginning in the 1920s and 1930s, automobiles, buses and trucks, traveling on the county's newly improved and paved roads, began to drive the trains out of the county's towns, and World War II and the construction of the Pepacton and Cannonsville reservoirs saw the discontinuation of most passenger and freight railroad service in the county.

In the nineteenth century, Delaware County was an important supplier of butter to urban markets, and by 1900 the county became equally important as a source of milk. Special trains cleared for rapid runs carried gallons of fresh milk into New York City. Large, prospering creameries stood alongside train tracks in hamlets around the county, receiving, processing and shipping milk to market. The Ulster & Delaware Railroad shipped as many as 30,000 tons of milk a year to New York City, and the Ontario & Western transported five times that in refrigerated rail cars. New York City became so dependent on upstate dairy products that whenever a blizzard stopped the trains, city children went without milk.

New York State was a national leader in dairy production in 1900, and Delaware County was a leader in dairy production in the state. One hundred years ago, farmers also raised poultry for market, sold maple products, and grew potatoes and cauliflower which were important cash crops in the first half of the twentieth century. Rafting logs down the river, quarrying bluestone, and the wood products industry declined as the century progressed.

Few of the county's farms had electric power until the passage of the Rural Electrification Act of 1935. As late as 1950, half of Delaware County farms had no tractor, half had no truck, one-third had no telephone and one-tenth still had no electricity. Changes in agriculture and the labor force have created great challenges for Delaware County's twentieth century dairy industry. The county has lost many family farms and supporting businesses like feed stores and creameries. The number of family farms decreased dramatically while the number of cows per farm grew.

Many communities that existed in 1900 are no longer here today. Agriculture has become large-scale and industries have moved near population centers. Today, people drive long distances to work, play and buy necessities – all activities that took place at or close to home one hundred years ago. Modern life has erased the self-sufficiency that was hallmark of rural communities until World War II. Today, many Delaware County residents telecommute. Artists and writers, inspired by the natural beauty of the region, create in-home studios. Family farms often supplement income with other home industries or jobs off the farm. Throughout the area creative and resourceful people are doing very special jobs to meet the needs of rural communities throughout Delaware County. Government, manufacturing, and retail services are now the largest employers in the county.

Buildings and barns are symbols of the past existing in the present – some are architecturally significant, some are historic landmarks, and some represent the commercial or social history of the community. They offer a bridge between past and present – consistency or change.



*Photo by Ellen Wong*

## **Andes**

Logging, tanning, sheep and dairy farming flourished in the 1800's. It was home to blacksmiths, a hotel, mills, dairies, doctors, dentists, sawmills, grist mills tanneries, and a Baptist church. Sheep farming followed and throughout the 1900's, dairy farming was the major industry. Despite the stony upland soil, the farmers managed to grow hay and feed corn and fenced their pastures with the stones removed from the soil.

Andes was the center of the Anti-Rent Rebellion during which farmers were able to overcome a feudal land system of absentee ownership dating back to settlement days. From about 1839 to 1852, farmers and their supporters in parts of Delaware, Albany, Rensselaer, Schoharie, Columbia, Greene, Ulster, Sullivan, Otsego, Montgomery, and Washington Counties joined forces and began the campaign to free themselves from the chains of the feudal system.

The fields and forests surrounding the Pepacton Reservoir are reminders of the towns that once bustled in that valley. Shavertown and Union Grove also had a thriving lumber industry, sawmills, acid factories, creameries and an opera house.

Seven dairy farms ship milk in Andes, along with other small farm enterprises of beef, meat goats, dairy goats, and sheep. These help preserve the rural character of the town that visitors, second homeowners and residents enjoy along with a popular farmers' market.

## **Bovina**

Perhaps named for the cattle that made Bovina butter famous, or for the abundant pastures, Bovina has maintained its historic agricultural character. Upon two occasions, Bovina dairies have supplied the tables of the Presidential mansion at Washington, recommended as the finest flavored butter made in the United States. In 1890, Bovina had 117 small dairy farms; today there are five somewhat larger dairy farms in operation.

"Farming Bovina", is a grassroots group dedicated to preserving its local farms and the rural character of the town. Farms in Bovina include five dairy farms, several beef farms, farms with chicken and eggs, Christmas trees, vegetables, sheep, maple products, corn and a corn maze, pick-your-own flowers, pumpkins and more. This group's website covers the agricultural history of this town beautifully: [farmingbovinany.org](http://farmingbovinany.org).

## **Colchester**

The hamlets throughout Colchester supported sawmills, tanneries, acid factories, quarries and a grist mill at the beginning of the twentieth century. During that time, much of the town's economy was dependent on forest resources and rafting timber down the Delaware River was still a springtime event. Early in the twentieth century, the railroad took over shipping wood products and bluestone.

An acid factory chimney still stands and uniform “company houses” are architectural reminders of Corbett’s company town heritage. A large acid factory, sawmill and store served the community. The hamlet of Horton bustled with the Treyz Brothers’ acid factory, quarries and a charcoal plant. Cooks Falls’ railroad station shipped bluestone and the products of its acid factory and creamery to the city and welcomed tourists to its hotels.

Downsville was the economic center of the Town of Colchester. Its businesses included a tannery, grist mill, cigar and furniture factories and a shingle mill. The neighboring village of Pepacton was a center for rafting, tanning and dairy products. When Pepacton and the upstream communities were flooded to create the reservoir, Downsville’s prosperity suffered. It is currently home to the beautifully restored Old Schoolhouse Restaurant where locally grown Texas Longhorn beef is served.

A restored covered bridge graces the hamlet of Downsville over the East Branch of the Delaware River. Currently, two dairy farms operate in Colchester along with a variety of livestock operations.

### **Davenport**

The Ulster & Delaware Railroad arrived in West Davenport in 1900, supporting a hotel, a woolen factory, shops and mills and serving as a transfer point to the Cooperstown & Charlotte Valley Railroad. By this time, Davenport Center and the eastern end of the town had thriving commercial communities which included hotels, a tannery, saw and shingle mills, shoe and wagon shops, and several other retail and service establishments.

The hamlet of Butts Corners grew around a tannery and Fergusonville hosted a boarding school and a cheese factory. Today, Brandow’s IBA serves local farmers with a well-stocked route truck. Tractor Supply sells parts and supplies needed by farmers and homeowners alike. Thering Sales and Service is conveniently located for milking and barn equipment. Cazenovia Equipment Company sells farm equipment and parts for area farmers. Three dairy farms and several large beef operations remain in Davenport. The Davenport Garden Center is a popular nursery/bedding plant business.

### **Delhi**

As the county’s seat in the early 1900s, Delhi had hotels and an opera house as well as textile mills, a silk mill, a bottling works, a wagon works, and a growing dairy industry, including a creamery specializing in producing/shipping condensed milk. Railroad traffic was greatly reduced in the 1920s after the first paved roads in the county were followed by bus service to Walton and Sidney.

Delhi’s Main Street still reflects a mixture of retail stores that service students, residents, farmers and people coming for government business. Tractor Supply, located in the center of town, sells parts and supplies needed by farmers as well as homeowners. Since 1955 McDowell & Walker has served Broome, Chenango, Cortland, Delaware, Otsego, and Tioga county farms from its

production facility in Afton and its retail locations in Delhi and Sidney. A Wednesday Farmers' Market offers local farm foods in the town square. Saputo Dairy Foods USA, a dairy processing plant in the Hamlet of Fraser, is a key point for local fluid milk.

There are currently sixteen dairy farms in Delhi. Settled in 1875 by Daniel Frisbee, Maple Shade Farm of Delhi has been refurbished by the Wilson family. It now raises Berkshire pigs, pumpkins and vegetables. It offers many agri-tourism farm events that feature local farm products, including the *Taste of the Catskills*, *Heritage Harvest Festival*, *Christmas on the Farm*, *Jack-O-lantern Jamboree*, and *Little Farmers Day*. Their on-farm store is an outlet for local growers as are their farm markets in Margaretville and Franklin which offer the products of over thirty local farms. Burn Ayr Farm of Delhi also specializes in foods they and other local farms produce. Certified organic, Betty Acres in Delhi offers its artisanal "La Belle Fromage" cheese along with beef, pork and eggs from pasture raised heritage breeds. Good Cheap Food in downtown Delhi has long featured locally produced farm products, giving small scale farms in the area greater marketing opportunities and visibility. The current significant trend for buying local food and retaining local farms is strong and growing in Delaware County. Delhi is also home to farms growing llama, tilapia, beef, vegetables, pigs, chickens, eggs, vegetables, berries and more.

### **Deposit**

Deposit's name symbolizes its role a century ago when logs were brought to the community by sled in the winter and "deposited" to be made into rafts and then floated downstream in the spring. At the beginning of the twentieth century, Deposit was also the bustling mid-point of the Erie Railroad with four hotels, an opera house, a silk mill, a seed company, a printing and binding plant, and factories making sleds and snow shovels, buttons, canning supplies, cigars, fishing rods, gloves and overalls. The building of the Cannonsville Reservoir dispersed the population of the farm communities that once traded in the village and depended on its services. Hinman Mills, a feed company and farm supply store, has been in business since 1896 – their motto, "A friendly place to trade". New England Wood Pellet has a state of the art production facility in Deposit providing a source for local woody biomass heating pellet fuel.

Barbourville and Hambletville supported communities and businesses as well, and the Hamlet of Hale Eddy also had a hotel, stone dock and a stop on the Erie Railroad.

Several productive quarries, diversified livestock operations, a beef farm and three dairy farms operate in the town today.

## **Franklin**

At the turn of the century, Franklin supported over 50 retail establishments and the surrounding farm community thrived. The prosperity of the community at the time is reflected in the ornate Ouleout Valley Cemetery. The Village of Franklin and the cemetery are on the National Register of Historic Places. Franklin's Masonic Hall is now a community theater and the general store that served North Franklin is now a private home. The hamlet of Treadwell has a thriving arts community. The general store in Treadwell has been in continuous service since 1841. Harry Barlow was proprietor in 1930 and it is still called Barlow's at the present time. Treadwell also had a bakery, four blacksmiths, two cooperages, eight dressmakers, three general stores, a harness shop and a tobacco and confectionery store in the early 1900s.

Today, White's Farm Supply, known for many years as "Catskill Tractor" has been in Franklin since 1947 and still provides farm equipment and parts to a large geographic area. The original building was destroyed by fire in 2011 and the dedicated owner and staff renovated and expanded the business in their building across the street.

Franklin has twenty dairy farms, as well as farms raising meat and dairy goats, sheep, berries, maple products, honey, herbs, vegetables, beef, breads and garlic, to name a few. The town offers a Farmers' Market on Sundays. The Maple Shade Farm Market is located at the base of Franklin Mountain and offers a variety of locally produced farm products.

## **Hamden**

In the early 1900s, Hamden bustled with several creameries. Its lumber industry, a quarry, and other retail service businesses, including feed and coal dealers, were served by the railroad. The Hamden Inn has served the community since the 1840s. Built by Robert Murray in 1859 for a cost of \$1,000, the Hamden Covered Bridge crosses the West Branch of the Delaware near Hamden. It is a long truss with a span of 125 feet. The bridge was fully restored in 2000-2001. Reportedly built in 1855-56, the Octagon House was built of locally quarried stone and veneered over with brick in 1875. Inside the rooms are square with a spiral staircase running up the center. It was known as "Hawley's Station" as the O & W train regularly stopped there. Once serving as the main house to a dairy farm, it is now a bed and breakfast.

Six dairy farms operate in Hamden, a hay dealership, horse boarding operation, several small scale beef farms, a maple enterprise, apiaries, a greenhouse nursery operation, and berry farm. Lucky Dog Farm, located in the heart of Hamden, is an organic vegetable farm. Opened in 2001, the Lucky Dog Farm Store features the farm's produce, regional farm products and crafts, and a small café. River Valley New Holland Inc. has been a family-owned farm equipment store in nearby Otsego County since 1978. In 2008 they opened a facility in Hamden and are serving farmers throughout the region.

The Town of Hamden received NYS Agriculture & Markets funding to develop a municipal agriculture and farmland protection plan. A plan was developed and included as part of the Town Comprehensive Plan update, completed/adopted in 2010.

## **Hancock**

A significant wood-chemical industry thrived in Hancock one hundred years ago. Today, many quarries are still in production in the town of Hancock. Peakville was also a shipping point for lumber and for other forest products, including the groundcover “princess pine” and the now rare maidenhair fern. The names of the hamlets of Burnwood and Methol reflect the past importance of wood chemical manufacturing in the southeast portion of the county.

The now quiet Beaverkill Valley had a beehive of industry, frequently traversed by freight trains carrying its products away. Today the recreation industry only partially makes up for the industrial employment that had been the lifeblood of the countryside. Harvard, East Branch, Long Eddy and Fishs Eddy still support logging and bluestone quarrying, but they are no longer lumber, rafting, quarrying and wood-chemical centers. Cadosia (Hancock Junction) also hosted a factory that produced wood alcohol and formaldehyde until the end of World War II.

Today Hancock is home to Mountain Dell Farm, an organic vegetable and herb farm. Other farm enterprises include horses, alpaca, and one dairy farm. In Long Eddy, Shea Farm grows pastured pork, grass-fed beef and lamb, maple, honey, candles and soaps.

## **Harpersfield**

Dairy farming, oats, potatoes, cauliflower and poultry were important farms products produced in Harpersfield in the early twentieth century. It is the oldest town in the county, but because the railroad did not come to the town, it lost its prominence. At the turn of the century, North Harpersfield had a blacksmith, a carriage shop, a cooperage, a foundry, grocer, a shoemaker, wagon maker and other services. The Colonel Harper Grange, 1508, is currently active, advocating for farmers and residents of rural areas.

There are currently five dairy farms operating in Harpersfield, including the county’s largest farm, Eklund Farms which has approximately 600 cows in organic production. Shaver Hill Farm is an example of a dairy farm whose families transitioned into a large maple business making syrup and value-added maple products sold through their farm store and website. Owned by the Brovetto family, Harpersfield Cheese is a dairy farm that diversified into making their own cheeses and selling to restaurants and stores in New York, Massachusetts, and Connecticut.

## **Kortright**

Grist and sawmills, tanneries, a clothing and carding mill, a distillery, carpentry and blacksmith shops, tool-making establishments, hotels and taverns and stores met the needs of Kortright’s residents in the late nineteenth century. Potatoes and dairy products were shipped from Kortright as cash crops. The farm communities of North Kortright, Kortright Center, West Kortright and Doonan’s corners grew around churches and other services. Bloomville had a variety of retail and service establishments including the Sheffield Farms Creamery (which was the first milk processing plant in the United States to conduct pasteurization), a meat packing plant, cabinet and harness shops, dry goods, a jewelry store and a tinsmith.

Kortright boasts eighteen active dairy farms today as well as beef and horse farms. Other farm enterprises produce vegetables, eggs, honey, maple syrup, chickens, herbs, flowers, alpaca products, and more. La Basse Cour Farm offers a farm bed and breakfast, a farm stand and store that feature an array of locally produced farm products, as well as their own eggs and vegetables. Gunhouse Hill Alpacas sell breeding stock and fiber products.

### **Masonville**

Lumbering, trapping and dairy farming ushered Masonville into the twentieth century, and some logging and farming continues today. At the turn of the century Masonville supported several stores, doctors, lawyers, a blacksmith, a shingle factory, a tavern, a grist mill, a sawmill and a cooper. Today, a general store and café, town library, and town hall are enjoyed. Farming still flourishes in Masonville, including beef operations, swine, poultry, sheep, meat goat, and four dairy farms.

### **Meredith**

The town of Meredith had several dairy-centered farm communities. Meridale Farms' international reputation for breeding and innovation symbolized the strength and prosperity of the County's dairy industry at the turn of the century. In 1900, in the heart of East Meredith, a thriving mill complex served the surrounding farm community. Today, Hanford Mills Museum is a living reminder of the important services that existed in almost every rural community at the turn of the century.

Today Meredith has six operating dairy farms. HaSu Ranch Alpacas raise breeding stock alpacas. There are numerous large beef operations in Meredith, including Slope Farm that specializes in grass-fed beef for downstate markets. Sheep and beef grace the hillside at Promised Land Farm and woolen products add to the farm's diversity. With its garden center and farm store in nearby Meridale, Greenane Farms raises pasture-raised beef and chickens, eggs, vegetables, berries, flowers and herbs, bedding plants, specialty salsas and preserves.

The Town of Meredith received NYS Agriculture & Markets funding to develop a municipal agriculture and farmland protection plan, completed/adopted in 2013.

### **Middletown**

At the turn of the century, Fleischmanns was a booming tourist destination. Its eighteen hotels and scores of boardinghouses catered to Jewish vacationers. The railroad came to Margaretville in the 1870s, bringing vacationers to boardinghouses, hotels, retail stores and the fairground. Over a century later, tourism and related retail industries remain dominant throughout the town. Today, the Delaware and Ulster Rail Ride echoes the importance of train travel in the county 100 years ago. In the early twentieth century, Delaware County's cauliflower industry got its start in New Kingston, remaining an important cash crop until World War II.



Arkville’s hotels included the Hoffman House (later the Pakatakan Inn), attracting the “Catskill Mountain School” of landscape artists. At the turn of the century it could accommodate 75 guests. Today the Pakatakan Inn and its artists’ cottages are part of a historic district that is listed on the National Register of Historic Places. The train between Arkville and Delhi continued to operate into the early twentieth century. Today, the Pakatakan Market is a large farmers’ market where local farmers sell their fresh farm products. Two dairy farms operate in Middletown today. Small farms also board horses, and grow produce, and grass-fed beef.

## **Roxbury**

Butter, cheese and milk produced by Roxbury’s dairy farmers, and some manufacturing were important to the town’s early twentieth century economy. As the boyhood home of naturalist John Burroughs (1838-1921) and industrialist Jay Gould (1836-1892), Roxbury earned attention and notoriety. Prominent visitors came to Burroughs’ Woodchuck Lodge at the turn of the century. Commercial photographer Helen Bouton Underwood carried on the artistic traditions of Bouroughs’ spirit early in the twentieth century and the Roxbury Arts Group is a hub of Roxbury’s cultural community today. The main house of Stone Tavern Farm was built in 1803. This horse farm offers miles of trial riding, raises beef and pork, and is a bed and breakfast tourist destination.

Mountainside Farms processes milk at their Roxbury plant, including organic milk, kosher, and conventional milk – keeping current with trends in the marketplace. Five dairies grace the Town of Roxbury.



*Photo by Ellen Wong*

## **Sidney**

In the early twentieth century, Sidney had Delaware County’s strongest industrial base. Its activities included a cheese factory, a glass works, a knitting mill, lumber mills, a wood novelty works, a paper mill, silk mills, tanneries and an automobile factory in the former wagon works. During World War II, Scintilla Magneto (now Amphenol) manufactured parts crucial to the air war. In the 1870s, the railroad came to Maywood Station at Sidney Center, a hamlet that at one time supported for hotels, a creamery, a sawmill, a feed store and other services. The lost Hamlet of Youngs also had a railroad stop when there were two stone quarries in operation, and a creamery and a feed store served the farm community.

Sidney continues to be an industrial center with Mead Westvaco and Amphenol still in operation. Today five dairy farms continue to produce milk in Sidney. Numerous sheep, goats, beef, pigs, poultry and vegetable farms grace the surrounding countryside in both Sidney and Sidney Center.

### **Stamford**

Stamford was a destination for weary turnpike travelers throughout the nineteenth century. Stamford's "Grand Hotel Era" arrived by railroad in the late 1800s, followed by the construction of Churchill Hall and the Rexmere. By 1900, Stamford boasted over 50 guest houses and hotels and an opera house. The Sunday New York Times even ran a column reporting on the activities of Stamford's summer guests. Stamford's Churchill Park Historic District includes fifty-four buildings built during the late nineteenth and early twentieth centuries, mostly summer homes, hotels, and boarding houses. Milling, logging and trapping were leading occupations in Stamford in the early 1900s.

Continuing Delaware County's tradition of the wood manufacturing industry, Catskill Craftsmen began operations in 1948 and became the nation's leading manufacturer of ready-to-assemble hardwood kitchen islands, carts, and work-centers.



*Catskill Craftsmen: <http://www.catskillcraftsmen.com>*

Many dairies in the region get farm supplies through Don's Dairy Supply. Eklund Farm Machinery services Stamford area farmers with farm equipment and parts. Eklund's Processing Inc. was established in 2010, offering processing services to both conventional and organic farmers in the region. Serving area farmers since 1932, the Stamford Farmers Cooperative offers farm, feed and crop supplies. Stamford is home to Bluesky Farm, a Blueberry U-Pick and Winery, a farmers' market, several herb and vegetable operations, poultry, grass-fed beef, alpacas and another farmers' market in nearby Hobart.

Six dairy farms operate in Stamford. Del-Rose is a dairy that has diversified into vegetables and baked goods. Raw milk gouda cheese is made at Byebrook Farm in Bloomville, as well as eggs, lettuce and raspberries.

The Town of Stamford received NYS Agriculture & Markets funding to develop a municipal agriculture and farmland protection plan. A plan was developed and included as part of the Town Comprehensive Plan effort, completed/adopted in 2011.

### **Tompkins**

Most communities in Tompkins fell victim to the decline of the wood-chemical industry in the early 1900s and the construction of the reservoir in the 1960s. A century ago, the town had more schools than any other town in the county, several creameries, grist mills, hotels, saw mills, retail stores, quarries and acid factories. There were 4,000 people living in Tompkins; today there are just over 1,000.

In the early part of the 1900s, Trout Creek supported cheese and dried milk plants and a creamery. Kerryville was the site of the town's first acid factory which operated until 1930. Apex hosted a sawmill and stone quarries. Rock Rift's forest based industries, including a factory making charcoal, wood alcohol and acetate of lime, operated until the 1930s. Later, several communities were lost to the Cannonsville Reservoir, along with the lumbering and rafting center of Granton, and the thriving community of Cannonsville. Before construction of the reservoir, Rock Royal's creamery served 150 producers and shipped 24 million pounds of milk.

Small-scale diversified farms grace this area, including poultry, beef, and pigs. Today, four dairy farms continue to operate in the Town of Tompkins.



*Photo by Ellen Wong*

## Walton

Walton had a strong history of wood working and manufacturing plants, and a piano factory at the turn of the century. Several bluestone quarries and a dairy processing industry served the surrounding farm community. Walton's Gardiner Place includes an 1890s library (William B. Ogden Free Library) made from locally quarried bluestone and an early twentieth century opera house – both on the National Register of Historic Places. Walton was served by two railroad stations which brought visitors from all over the county to the Fair each summer and kept busy shipping dairy products. Breakstone Products-Kraft, Inc. processes a large quantity of local milk into cottage cheese and sour cream at its Walton location. In 2013, the Delaware County Fair is in its 127<sup>th</sup> year of operation.



Photo by Ellen Wong

Today, Walton is home to eight dairy farms. Other farm products grown in Walton include vegetables, honey, herbs, garlic, perennials, rabbits, alpacas, meat goats, beef, poultry and sheep and more.

*This historical perspective is drawn from The Delaware County Historical Association located in Delhi, NY and first used with their permission in 2002, published in the Delaware County Community Directory in 2000 by Decker Advertising Inc. Entitled "Delaware County, a Century Ago", sources of facts used from a variety of books produced by the Historical Association, including Lost Villages by Mary Robinson Sive; Farms and Forges: Artisans on the Delaware County Farmstead; Between the Branches; and The Delaware County Historical Association's Driving Tour of Delaware County. Other sources of information on individual towns include: the Delaware County Farm Bureau website; the Delaware County NY Genealogy and History Site website; "Farming Bovina" an online resource provided by the Bovina Historical Society and "The Anti-Rent Movement" by Nancy S. Cannon, from "Voice of the People: Life in the Antebellum Rural Delaware County New York Area. Current farm data was provided by Mariane Kiraly, Resource Educator and Agriculture Program Leader for Cornell Cooperative Extension of Delaware County. Updating and editing was done by Janet Aldrich, Senior Extension Educator for Cornell Cooperative Extension of Delaware County.*

## **AGRICULTURE - AN ECONOMIC MAINSTAY**

### **Dairy Farming**

Dairy farming is the largest single agricultural activity in Delaware County with beef production being a distinct second with smaller enterprises becoming more numerous. (See graphs in “Recent Trends & Characteristics” page 37) Income from dairy farms comes in from outside the county and is generally spent inside the county. Using the standard multiplier effect for dairy of 2.5, a 20% reduction in dairy farms with a 20% decline in revenue would result in \$8 million less being spent, resulting in a \$20 million “ripple” effect throughout the county. Dairy processing is also critical to the economic well-being of the communities and typically has a 3.2 multiplier effect. “This suggests that for every additional new job created in food manufacturing, an additional 2.2 jobs are supported in industries and sectors structurally linked to the food manufacturing sector”, according to Cornell University’s study in 2012 called “Agriculture-Based Economic Development in NYS: Trends and Prospects”. Dairy processing at Kraft Foods’ Breakstones Division in Walton, Suputo Dairy Foods USA in Fraser, and Mountainside/Worcester Dairy in Roxbury is an extremely valuable industry. Local milk is pasteurized, sold as fluid milk or can be made into sour cream or cottage cheese, and leaves the county. Milk also comes into Delaware County to fill the plants as needed. These plants generally run 24 hours/day and employ hundreds of people. In addition, the Chobani plant in Chenango County draws milk there as well. New York is now the largest manufacturer of Greek Yogurt in the country and the State is promoting dairies to expand to fill the need, thus creating jobs and much economic activity. In recent years, dairy farmers have left the industry due to thin margins of profit given the outdated federal milk pricing laws in the Farm Bill. Land has been sold to New York City or the highest bidder and farmers find another line of work or retire. With reform of federal legislation an unrealized goal, many have lost the heart to continue to farm with very low returns. A profit is needed in any business to ensure that it can continue, way of life or not. The reality in agriculture is that the farm must be able to cash flow or it will fold. Given that fact, more will fold if margins do not improve. There is a profound economic need to keep dairy farming viable in Delaware County, but affecting federal legislation is difficult for our county legislators to do.

### **Agricultural Infrastructure**

The loss of farm businesses makes it more difficult for the supporting agribusiness infrastructure to survive. Farmers in the southern portion of Delaware County need to travel great distances for products and services for their farms. Choices are more limited in areas with less agriculture and some farmers even receive needed products by mail or truck rather than make long, time consuming trips. The loss of agribusinesses to support the needs of local agriculture is not only detrimental to the farmers, but to the economic business climate of the entire county. A critical mass of farmers would ensure that the support businesses can survive as well. In recent years, smaller agricultural operations have created demand for smaller scale equipment. Equipment dealerships have diversified their product lines to accommodate these new operations and this new business has been welcomed by these dealerships. However, Delaware County is still in

need of more large animal veterinarians, breeders, specialized milking equipment dealers, lime haulers, and other custom service providers.

## **Locally Grown Food**

The “buy local” consumer trend is growing in Delaware County and the surrounding regions. As of 2013, Delaware County has eleven farmers’ markets in the following towns: Andes, Bovina, Delhi, Deposit, Franklin, Deposit, Kortright, Middletown, Sidney, Stamford and Walton. Active farmers’ markets in nearby Sullivan and Otsego County are also retail outlets for Delaware County farmers and consumers. As the diversity of farm products grows (see Appendix for list of products being grown in Delaware County) consumers can now know where a significant part of their food is being grown and how it is grown. In addition, farm stands, farm stores and local stores carrying local products are on the rise, providing Delaware County with nearby wholesale markets. The *Pure Catskills Guide*, sponsored by the Watershed Agricultural Council’s “Farm to Market” program, offers farmers in Delaware, Greene, Otsego, Schoharie, Sullivan and Ulster counties an inexpensive marketing outlet that is available to consumers online and as a publication to carry in the car. This colorful guide contains ads, maps, farm events, restaurants and stores that feature local products, tourism events that are farm related, farm and food radio shows, and farmers’ markets. The striking photography of local farms and farm products showcases the quality and value of farming to this region. Farms are starting to work together to offer a fun day for people to follow a “farm trail” where they can stop, ask questions, see farming in real life and buy product direct from the farmer. These opportunities are making farming more accessible, and more profitable, especially to small diversified operations.

## **Quality of Life – Viewpoints from Delaware County Farmers**

In the 2012-13 survey of Farming in Delaware County, farms voiced a united view that farming and farmers and consumers need to change for agriculture to survive and thrive. Today’s farmers are taking more about “organizing” and “cooperating” as they contemplate the future. Here are some striking comments received in the survey:

***“Milk prices are too low. There are young farmers who would like to continue the family farm but can’t because all prices have gone up except milk prices. Farmers should cooperate with one another to set prices, like all other major businesses.”***

***“Fuel and fertilizer go up but we have to keep our prices down to keep our product available to local people. Farmers need to organize to increase buying power for supplies.”***

***“We need local distribution for better access to markets and local or shared resources for processing value added products.”***

***“One operator cannot maintain a 24/7/365 operation and have “quality of life”. The best labor is another person who wants to start a farm.”***

***“The Amish have always done it – they maintain individual operations but cooperate and share in labor and equipment. Large operations divide responsibilities between individuals – each working what he enjoys most. Informal or formal farm-to-farm agreements to operate cooperatively will require a paradigm change.”***

***“We need to coordinate markets for home-grown meats, vegetables and value added dairy products. We need to provide a mechanism whereby home-grown products can reach urban markets.”***

*“We need to encourage landowners to make their farmlands available to farmers.”*

*“A main obstacle is the lack of people that want to be farmers – we need to promote the area as farm friendly.”*

*“The greatest obstacle to farming here is getting the products to those who want to buy it – we need more networking and cooperating between farmers.”*

*“We need more mobile processors, commercial kitchens, access to pasteurizers and packaging facilities.”*

*“When farms and farmers were the majority in this community, people just understood the lifestyle and respected those who were good at it. As long as manual labor is not respected, young farmers will be scarce. Growing food should be honored.”*

## **Economic Consequences of Further Farm and Farmland Loss**

Agriculture is a vital to the economy of Delaware County, the success of tourism in the county, and the quality of the land, air and water in the county. It continues to be marginal in profit as a business, farm labor is becoming more scarce as the younger population moves away from the county and from farming. The consequences can be measured in dollars but in a more manifest way, just imagine a county that is all industry or housing, tourism confined to the rivers or resorts, and food that is sourced from other states, or other countries.

As farms “go out”, we get: decreased revenues, decreased agricultural infrastructure; increased cost to maintain quality of water, soil and air, more residential development, less open space, less tourism, higher property taxes, loss of locally grown food, loss of our farming heritage.

*Source: Written by Mariane Kiraly, Extension Resource Educator and Janet Aldrich, Senior Extension Educator, Cornell Cooperative Extension of Delaware County*

## Agricultural & Farmland Protection In Delaware County

In 1971, The New York State Legislature passed the Agricultural District Law with the intent to encourage a strong agricultural industry. Counties were required to appoint an Agricultural District Advisory Committee to review proposed agricultural districts (as well as Districts under eight year review) and to make recommendations to the Board of Supervisors. In the late fall of 1973, the first Agricultural District in Delaware County was proposed and the Agricultural District Advisory Committee was formed. The first Agricultural District Advisory Committee consisted of Dr. Frank Cyr (Chairman); Hugh Southerland, Delhi; Ray Christensen, Davenport; Tony Warner, Deposit; Frank Bachler, Meredith; Einar Eklund Stamford; Tom Shultz, Hamden; Mrs. Paul Grommeck, Andes; Donald Bolton, Walton; and Howard Gilchrist, Delhi. Today, Delaware County has a total of 8 Agricultural Districts, encompassing 231,643 acres. See Appendix, page 97, for list of today's Board members.

On April 24, 1991, Delaware County passed a local law entitled "The Delaware County Right To Farm Law" (see Appendix). In 1992 New York State Governor Mario Cuomo signed the Agricultural Protection Act into law and the Ag District Advisory Committee was renamed the Agricultural Farmland Protection Board. This legislation required this board to review Agricultural Districts and critique "Notices of Intent" as per Section 305 of the NYS Agricultural Markets Law. In March 1999 the Delaware County Agricultural and Farmland Protection Board applied for and received a grant to develop a county Agricultural and Farmland Protection Plan. With input from farmers, agri-businesses, agri-service agencies, county development and planning officers, and county residents, the plan was written, approved and published in December 2000.

The Delaware County Agricultural and Farmland Protection Board consists of eleven members, at least four of whom are active farmers. One member of the board represents area agribusiness and another member represents an organization dedicated to agricultural land preservation. These six members are required to reside within Delaware County. The Board membership also includes the chairperson of the County Soil and Water Conservation District's board of directors, a member of the Delaware County Board of Supervisors, a county Cooperative Extension agent, the county planning director and the county director of real property tax services.

Much has been accomplished since 2000 to amend the Agricultural Districts Law to be both more farmer-friendly in compliance, and more expansive in inclusion of farm operations. ***Key amendments include:***

**2001:** manure processing and handling facilities, commercial horse boarding operations included as part of a farm operation;

**2002:** number of acres needed for a farm to qualify for agricultural assessment reduced from ten acres to seven;



**2003:** First year farmers were allowed to receive an agricultural assessment if their gross sales value met the requirements. Farms converting some of their land to wind energy generation facilities would not be assessed conversion penalties;

**2004:** Startup orchards or vineyard operations are eligible for agricultural assessment in the first through the fourth years of production;

**2005:** Wool bearing animals such as alpacas and llamas were added to the definition of livestock and livestock products; a commercial horse boarding operation could receive an agricultural assessment in its first or second year of production if it meets acreage and gross sales value requirements; The Commissioner is authorized to review and comment upon proposed rules and regulations of other State agencies which may have an adverse impact on farming in the State;

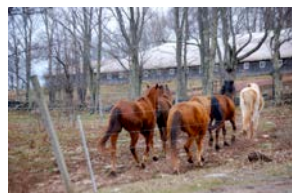
**2006:** Christmas tree farms are eligible for agricultural assessment in their first through fifth years of agricultural production; Defines and adds “agricultural tourism” to the list of examples of activities the commissioner may consider for sound agricultural practices; *FARMER FRIENDLY:* Allows farmers to apply late for their application if it is due to a death or illness in the family as certified by a licensed physician; Extends the exemption period for newly planted orchards and vineyards from four to six years;

**2007:** *FARMER FRIENDLY:* Allows farmers to apply late for their application if it is due to a natural disaster or destruction of farm structures;

**2008:** Apiary products are added to the definition of crops, livestock and livestock products and apiary products operations are qualified for agricultural assessment as an independent farm operation; Not-for-profit institutions are allowed to qualify rented land for agricultural assessment if it is used for agricultural research to improve the quality or quantity of crops, livestock or livestock products; Adds the production, management and harvesting of “farm woodland” to the definition of a farm operation and to the list of examples of activities the Commissioner may consider for sound agricultural practices; Allows the sale of “compost, mulch or other organic biomass crops” up to \$5,000 to help meet eligibility requirements for agricultural assessment – and adds these to the definition of a “farm operation”;

**2010:** Redefines timber processing as “timber operation” and removes the reference to “farm woodland” – removes “readily moveable, nonpermanent saw mill” and adds “production, management, harvesting,...and marketing” to the definition;

**2011:** Adds “commercial equine operation” to the definition of farm operation and qualifies it for an agricultural assessment



*Photo by Ellen Wong*

## **DECADE OF ACCOMPLISHMENTS 2000-2014**

**Partners:** Delaware County Farmers; Cornell Cooperative Extension of Delaware County (CCE); Delaware County Departments of Planning & Economic Development (**DCDP & DCDED**); Delaware County Agricultural & Farmland Protection Board (**DCAFPB**); Delaware County Chamber of Commerce (**DCCC**); USDA Farm Service Agency (**USDA-FSA**); Delaware County Soil and Water Conservation District (**DCSWCD**); USDA Natural Resources Conservation Service (**USDA-NRCS**); Watershed Agricultural Council (**WAC**); Watershed Agricultural Program (**WAP**) NYS Department of Environmental Protection (**NYS DEP**); NYS Department of Environmental Conservation (**NYS-DEC**); Catskill Forest Association (**CFA**); NYS Bluestone Association (**NYSBA**); Farm Catskills; Chambers of Commerce of Delaware County Towns; NYS Farm-Net (**NYSFN**); New York FarmLink (**NYFL**); Catskills FarmLink (**CFL**); Center for Agricultural Development and Entrepreneurship (**CADE**); Delaware County Board of Supervisors (**DCBOS**); Delaware County Farm Bureau (**DCFB**); Department of Watershed Affairs; Delaware County Department of Real Property Tax Services

### **Efforts to enhance the profitability and economic vitality of farms, agribusinesses, and natural resource-based business in Delaware County:**

CCE and the DCDED work one-on-one with farmers to assist in business planning for current and proposed farm expansions, diversification and farm transfers. Workshops on farm business planning, farm transfers and tax preparation are held annually at Cooperative Extension with assistance from DCDED, DCCC, DCSWCD, WAC, NY FarmNet and FarmLink, as well as area tax specialists, farm insurance specialists, bank representatives and estate planning specialists.

Delaware County is now third in the State for beef production. Downstate markets are demanding sheep and goat products and small scale operations are on the rise in the county.

Through WAP's Producer Group Initiative, area farmer groups meet on a regular basis to network, upgrade knowledge, and share experiences. These groups currently: Small Ruminant Producer Group; Beef Producer Group; Dairy Producer Group.

CCE has initiated a Young Dairy Farmer group to focus on management issues and help these young families connect.

CCE works with Delaware County farmers' markets, helping them offer the SNAP program (Supplemental Nutrition Assistance Program) to seniors and low income families throughout the region and offering at-market advice on preparing meals with fresh produce. CCE established farmers' markets in three new locations in the county.

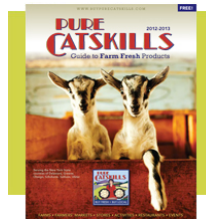
Resulting from a strategic plan completed by the Watershed Agricultural Council, a non-profit aimed at protecting water quality in the Catskills, an **Economic Viability Program** was formed in the winter of 2014. The goal of the program is to execute initiatives that will enhance the

profitability and sustainability of all agricultural and forestry enterprises in the NYC watershed and greater Catskill region. The Economic Viability Committee overseeing this initiative will offer area farmers, foresters and landowners a suite of tools, resources and information to enhance the marketing and distribution of products made in the Catskills.

Program objectives include: the Farm to Market Conference; a value-added dairy marketing event; development of a regional food hub; educating communities on the benefits of buying local; offering beginning farmer education; farmland finding services to start-up farmers; and marketing technical assistance. The program also partners with numerous local, regional and state organizations that support regional economic development in agriculture and forestry.

The centerpiece of the Economic Viability Program is the “Pure Catskills” - a regional “buy local” campaign. Pure Catskills works with hundreds of farm, food and wood-product businesses throughout Delaware, Greene, Otsego, Schoharie, Sullivan and Ulster Counties in New York State. In addition to publishing an annual *Guide to Pure Catskills Products*, Pure Catskills members receive point of purchase materials, promotion through the Pure Catskills website and social media channels and they have access to an array of marketing tools and campaigns, such as the Farmer’s Market of the Week, the Holiday Guide Listing and the Wholesale Product Guide. In addition, Pure Catskills takes an on-the-ground approach to facilitating sales connections, both wholesale and retail, to local consumers and metropolitan markets, and everywhere in between. The efforts to facilitate sales of products made in the Catskills is expanding to include an online Pure Catskills store, scheduled to launch in the end of 2014.

*Written by Beth McKellips, Farm-to-Market Manager, Watershed Agricultural Council*



In 2011 Governor Cuomo created 10 Regional Economic Development Councils to develop long-term strategic plans for economic growth for their regions. In 2012, through the Rural Initiative Fund Program \$3,000,000 was made available “to reduce financial risk and increase sustainability of agriculture and forestry ventures and to encourage investment and job creation. The program is designed to provide gap financing for priority activities, including development and promotion of value-added agricultural products, development of new markets, renewable energy initiatives, increased land productivity, applications of new technologies, and growth in net agricultural revenue.”

CCE, WAC’s forestry program, and CFA have active programs to help Delaware County landowners tap into the economic potential of their forest lands. CFA and WAC’s forestry programs offer a professional training to loggers, foresters and manufacturers in the wood products industry. Catskill WoodNet was established by WAC in 2005. Its purpose is to support wood products businesses in the Catskill region and maintain an online directory called Catskill WoodNet. This directory is a regional network of businesses that harvest and manufacture wood

products from the Catskills region using improved land stewardship. Its goal is to connect people with local forest resources.



**Delaware County Agricultural Growth and Sustainability Plan 2010-2015:** In 2010 the Delaware County Department of Economic Development (DCED) received funds from the office of Community Renewal to conduct an assessment of agricultural businesses in the county and to develop a plan to sustain and grow the county’s agricultural base. A survey was developed and sent to farms and farmland owners in the county, one-on-one interviews were held with farmers, and a strategic plan was developed. Focus groups were held, comprised of farmers and key agricultural stakeholders to review and refine the plan’s key recommendations. To read the plan in its entirety, go to:

*[delawarecountypartnership.com/PDFs/DelawareCountyAgriculturalDevelopmentPlanFinal.pdf](http://delawarecountypartnership.com/PDFs/DelawareCountyAgriculturalDevelopmentPlanFinal.pdf)*  
or see Appendix, page 15, for a brief overview.

Strategic Areas of Focus:

1. Product differentiation: marketing and branding Delaware County farm products;
2. Creating new mechanisms for aggregating, selling, and distributing products; and
3. New product development

### **Agri-tourism**

In 2009 CCE & WAC held a 6-part agri-tourism program that helped farmers plan for on-farm public events.

In 2007 Maple Shade Farm in Delhi renovated its historic barn and has worked to create a vital link between tourism and agriculture in the county. It holds several festivals throughout the year and showcases area farm products and crafts. The Taste of the Catskills festival draws thousands of visitors each year.

Working with ten nearby farms, Maple Shade Farm helped create a “farm trail” called the “West Branch Farm Trail”. WAC funded a brochure to promote this trail where visitors can stop by these small scenic farms in the Delhi-Stamford region.

Other local events attracting hundreds of visitors include: the Cauliflower Festival, Deposit Lumberjack Festival, Hancock Fireman’s Field Days and Lumberjack Competitions, Bovina

Farm Day, Maple Weekend, the Catskill Forest Festival, Woodstock Farm Festival, Heritage Harvest Festival, Little Farmer's Day, Jack-O-Lantern Jamboree, Christmas at the Creamery, Christmas on the Farm – and the list continues to grow.

## **Energy Cost Savings**

To facilitate the development of a local grass bio-energy system, CCE and the CWC developed a *“production to consumption” grass bio-energy pilot project*. CCE is working with farmers to produce and test grass biomass feedstock suitable for combustion purposes. It is also working with local grass biomass processors, to produce and test grass biomass pellets and testing bulk delivery and on-site handling of grass pellets. CCE has installed and researched the use of small business/municipality scale use of pellet stoves and outdoor boilers. Ultimately, this research will determine if the grass biomass pellets can be used as a fuel much like wood pellets – a “fuel” that can be grown, manufactured and used locally by business, farms and residences.

The Delaware County Electric Cooperative (DCEC) is not-for-profit electric cooperative that was established in 1942 to bring safe, reliable and cost effective electricity to rural families, farms and businesses. It offers home energy audits and other cost saving programs to members and offers educational outreach to the community on renewable energy technologies.

The New York State Energy Research and Development Authority (NYSERDA) has conducted free farm energy audits at many Delaware County farms, helping farmers make decisions in how to cut energy costs.

## **Efforts to increase educational programs for farmers, agri-businesses, natural resource-based businesses, county government, community leaders, residents and youth:**

### **Education**

Cornell Cooperative Extension of Delaware County has increased programming efforts significantly, securing grants from local, state and federal sources to keep costs low for farmer participants. In partnerships with Cornell University, the USDA, Delaware County, the Watershed Agricultural Program (WAP), the Livestock Foundation, and other funding sources, extensive programs in business planning and start-up production were offered, including: farm website development; agri-tourism, farm business planning; marketing school for growers, organic vegetable production; highbush blueberry production; organic fruit production; fruit tree pruning; beekeeping, value-added maple products, maple grading; beginning maple production; value-added honey products; farmers' market display and salesmanship; livestock grazing; meat goat production; beef production; poultry production; the Annual Dairy, Livestock & Vegetable Conference held at SUNY Delhi, farmers' tax school; county dairy tours; calf raising and housing; FAMACHA training for small ruminant farms; no-till planting; spinning and fiber processing; forest management; wildlife enhancement; estate planning and succession; managing

investments and windfalls; farm stress management; farmstead safety; cheese making; and pond management.

**Farm Catskills** is a grass-roots organization made up of farmers and concerned residents who want to help preserve farms and farmland in the Catskills region. In 2010 they began a “Growing New Farmers” program designed to help new or aspiring farmers get the training they need to go out on their own and to get started farming with affordable expenditures for equipment and land rental.

### **Next Generation Education**

Cornell Cooperative Extension of Delaware County’s **4-H program** continues to be an active educational force for youth in Delaware County. Over fifty clubs are active in the county, provide the next generation of farmers with guidance in animal production, gardening, public speaking, community service, natural resources, nutrition and food preparation, science and technology – all of which are necessary for today’s farmers to succeed.

Cornell Cooperative Extension coordinates the **New York Agriculture in the Classroom** program for Delaware County. Through this program schools can request curriculum quality teaching resources to integrate agriculture into their lesson plans. This program conducts an annual “Ag Literacy Week” whereby volunteers throughout the state read a book with an agricultural theme to second graders. Students and teachers also benefit from hands-on lessons and receive follow up activities. The books are given to the school library with a bookplate recognizing the donor and NY Ag Literacy Week. 1,400 books were donated in 2012 while thousands of second graders participated in fun and educational activities. In Delaware County, every school received a book and participated in the program. Now in its 7th Year, Agricultural Literacy Week has helped to bring agriculturally themed books and resources into thousands of classrooms and libraries throughout New York State.



Cornell Cooperative Extension of Delaware County works with schools and day care centers throughout the county who are interested in starting a children’s garden. In addition, the Expanded Food and Nutrition Education Program staff works with low income families throughout the county teaching hands-on Eat Smart New York gardening, food safety, nutrition and food preparation/presentation skills.

The National FFA Organization (**Future Farmers of America**) is dedicated to making a positive difference in the lives of students by developing their potential for premier leadership, personal

growth and career success through agricultural education. Active FFA programs in Delaware County include: Delaware Academy in Delhi; Sidney High School; Western Delaware BOCES, located in Sidney Center and Walton Central School. One notable accomplishment: Delaware Academy FFA built a sap house and they produce maple syrup. They are members of the NYS Maple Producers Association.

The **Walton Regional Livestock Show** keeps interest high among youth raising livestock throughout New York State. The Agriculture teacher at Walton Central School and Future Farmers of America (FFA) chapter group leader reports that "People in Delaware County have a vision to collaborate on behalf of kids in agriculture. This show benefits a wide range of animal species and livestock handlers."

The "Healthy Gardens, Healthy Youth" **People's Garden School Pilot Project** is an Extension partnership that aims to engage more than 4,000 elementary students in creating vegetable and fruit gardens in 54 low-income schools in four pilot states, as part of a 2.5-year research study. Cornell Cooperative Extension of Delaware County has launched this program at three Delaware County schools: Deposit Central School; Downsville Central School; and Margaretville Central School. The goals of this program are to: increase fruit and vegetable consumption by youth; empower youth to grow and sustain gardens and choose healthy food; develop children's and teachers' appreciation for the health, environmental and social benefits of school and community gardens; and to build a nationwide network through which garden-based learning can be replicated.

**Delaware Opportunities' Community Garden:** A partnership between Delaware Opportunities, the Rural Health Network of South Central NY and Farm Catskills has created a community garden established at Delaware Opportunities in Hamden. In 2010, they reported that they were able to make local food available to three local food banks, the WIC Program, foster care homes, six senior meal sites and a senior community. This program also seeks to connect local farmers with these groups. A number of young people have the chance to serve their community and learn about agriculture in the garden. One year, a teenager worked as part of the county's summer Youth Employment Program. The garden was also tended by South Kortright Central School's summer program members.

### **Educational Outreach to Public & County Officials**

CCE presents an annual "*Update on Agriculture*" to the County Board of Supervisions, outlining the growth of agriculture, current trends affecting Delaware County farms, current issues affecting Delaware County farms, and the latest statistics on farm products grown in the county. This report is shared with the local media. In June, CCE creates an education exhibit in the lobby of the County Building for the "June is Dairy Month" initiative.

The Delaware County Fair is a major link between farmers, visitors and community members. Agri-tourism events at several local farms provide a vital link between the farm and non-farm community. The Dispute Resolution Center helps mediate and settle conflicts between farmers and residents before they develop into serious problems.

Passed in 1991, the Delaware County Right to Farm Law remains key in helping farmers argue on their own behalf during litigation. Cornell Cooperative Extension serves as a key liaison to help people understand this law and the legalities and rights of farmers.

## **Efforts to protect this county's active farmland through supportive land use policies, incentives and programs:**

The **Delaware County Agricultural and Farmland Protection Board's** major accomplishments in the past decade include:

### **1) Agricultural District Reviews:**

2003: Recommended to the Delaware Board of Supervisors to designate an annual review period for Ag District amendments, in response to new legislation from NYS Ag & Markets that allows for it.

**303-b Inclusion Period:** Reviews of properties requesting to be included into agricultural districts are conducted by the DCAFPB annually. Property owners make the request and provide the necessary information needed by the Board to review and approve or deny such a determination.

2004: Delaware County Board of Supervisors approved the motion to accept the 30-day review period for landowner requests for inclusion in an Ag District

2005: 30-day review period: reviewed six applications from landowners, covering seven parcels for a total acreage of 334.13 with 108.5 acres proposed to be added to District 12, twelve parcels (659.6 acres) to District 9, and 12.24 acres to District 8. The AFPB found these to be viable agricultural activities and voted to schedule a public hearing.

2005: 8-year review of Ag District #1: BOS resolved to continue the district as modified by the AFPB, with 8,383.01 acres removed, 1,025 added for a total of 49,191 acres.

2005: 8-year review of Ag District #18 (2,100 acres)

2006: 8-year review of Ag District #4: Based on feedback from area farmers, endorsed the continuance of the review.

2006: 30-day review period: endorsed two requests for inclusion – one in the Town of Harpersfield and one in the Town of Delhi.

2007: DCBOS approved the proposed modifications for Ag District #6 and the dissolution of Ag District #18 and submitted these to NYS Ag & Markets for approval.

2008: 30-day annual agricultural district review period: Reviewed and approved landowner requests for a total of approximately 4141 acres.

2008: 8-year review of Ag Districts #3 and #9 – Made resolution to set the required public hearing

2009: 8-year review of Ag District #3: conducted, modified and recommended by the Board

2010: 303-b Annual Inclusion period: Reviewed the request and recommended that a parcel in the Town of Stamford be added to Ag District #1.

2010: 8-year review: Recommended approval of modifications to Ag District #12



**2) Review of Municipal Agricultural & Farmland Protection Plans**

2010: Reviewed and recommended approval of the Ag & Farmland Protection section of the Town of Hamden's newly updated comprehensive plan.

2011: Reviewed and recommended approval of the Town of Stamford Agricultural & Farmland Protection Plan section of the town's Comprehensive Plan.

2012: Reviewed and recommended approval of the Town of Meredith Agricultural & Farmland Protection Plan section of the town's Comprehensive Plan

**3) Review of WAC related activities, easement committees:**

Reviewed draft guidelines of the WAC Easement Program

2003 Reviewed and approved the applications of two Meredith farms for WAC conservation easements

2004: reviewed and issued a letter of support for a WAC Easement proposal in the Town of Stamford

2006: Generated a letter of support for an application to the NYS Department of Ag & Markets for a conservation easement in the Town of Kortright with WAC as the Steward of the Easement

2010: Reviewed an easement proposal for farm in the Town of Delhi.

**4) Input/guidance/issues resolution with Farmers/Landowners:**

2005: Reviewed a request by a Deposit landowner concerning a pending NYSDOT construction project, siting the potential loss of agricultural land. AFPB generated a letter to NYSDOT requesting that it choose an option that would not involve the agricultural land in question

Worked with a Meredith farmer on a property maintenance issue and conflict with neighboring landowner.

2007: Provided a Masonville farm family with guidance and support on a lawsuit brought against them by a neighbor. A board member agreed to testify on behalf of the FPB that the property had been in the agricultural district since its inception.

**5) Purchase of Development Rights applications**

2008 & 2009: Provided guidance and written support to a Hamden landowner to apply for a grant from Ag & Markets for the purchase of development rights which would in turn be farmed by a Hamden farmer – grant was denied.

**6) Special Issues:**

2004: Reviewed and approved the Delaware Opportunities Site Plan application for a new facility in the Hamlet of Hamden

2004: Reviewed and approved the Bovina Center Sewer District/Stormwater Project proposal

2004: Reviewed and approved a proposal for a non-profit retreat to be located in the Town of Andes

2005: Reviewed and denied a lead agency request concerning a major subdivision proposed for Deposit. Referred the matter to the County Planning Board as a significant impact on agricultural resources.

2006: Generated a letter of support for a grant proposal to NYS Department of Ag and Markets to study the impacts on agriculture resulting from agricultural tax assessments, conservation easements and development.

2006: reviewed application for an 8-lot subdivision in the Town of Kortright; Recommended that the Town of Kortright Planning Board assume lead agency. Reviewed project information on the South Kortright Septic/Stormwater project, NYCDEP and advocated for the inclusion of the entire Hamlet of South Kortright be included in the project

2006: Reviewed Meredith Planning Board Scoping document referral for a subdivision proposed in the Town of Meredith. Moved to have the Planning Department advocate for alternatives that would minimize the permanent loss of prime agricultural soil lands within the subdivision.

2007: Provided commentary to EPA on the 10-year filtration avoidance determination (FAD)

2007 Reviewed and approved the lead agency request/application by the Town of Roxbury for the wind energy facility proposed in the Towns of Stamford and Roxbury.

2010: Farm Worker Legislation proposed in the Senate and Assembly: reviewed and moved to support opposition to the bills in conjunction with the DCBOS.

2012: Reviewed the proposed Constitution Pipeline Project and issues expressed by landowners at two CCE sponsored informational meetings

Cornell Cooperative Extension of Delaware County (CCEDC) works with local farmers to help negotiate farm land leasing and selling, as well as working out details in farm succession.

Begun in 2004, Cornell's "**New York FarmLink**" helps farmers throughout the state achieve personal, managerial and financial success through free counseling and assistance. The NY FarmLink website provides listings of farms for sale or rent and lists of people seeking to purchase or lease farmland in New York: <http://www.newyorkfarmlink.org/>

In an effort to create a more visible link between retiring farmers and new farmers, regional partners created "**Catskills FarmLink**" which is an Internet-based listing of available farmland. Partners include: The Watershed Agricultural Council, Cornell Cooperative Extension of Delaware, Schoharie, and Sullivan Counties, the Catskill Mountainkeeper, the Delaware Highlands Conservancy, FarmCatskills, Farmhearts, and the New York City Department of Environmental Protection.

Created in 2002, the **New York State Conservation Partnership Program** (NYSCPP) is a public-private partnership between DEC and the Land Trust Alliance that invests in New York land trusts. Grants are funded through the NYS Environmental Protection Fund (EPF) annually. The NYSCPP is managed by the Land Trust Alliance in coordination with DEC. Since the program's inception in 2002, NYSCPP has awarded \$6,677,500 in grants for 434 projects benefiting 79 different land trust organizations across the state and leveraged more than \$13 million in additional funding. These funds have helped create employment and advancement opportunities in the conservation field and helped local communities permanently conserve

15,500 acres of farmland, wildlife habitat, recreation areas and urban open space. The Alliance administers the Conservation Partnership Program in coordination with the DEC. In 2012, Farm Catskills received a grant to support a program for accepting land or easements for affordable farmland. <http://www.landtrustalliance.org/about/regional-programs/ne/nyscpp>

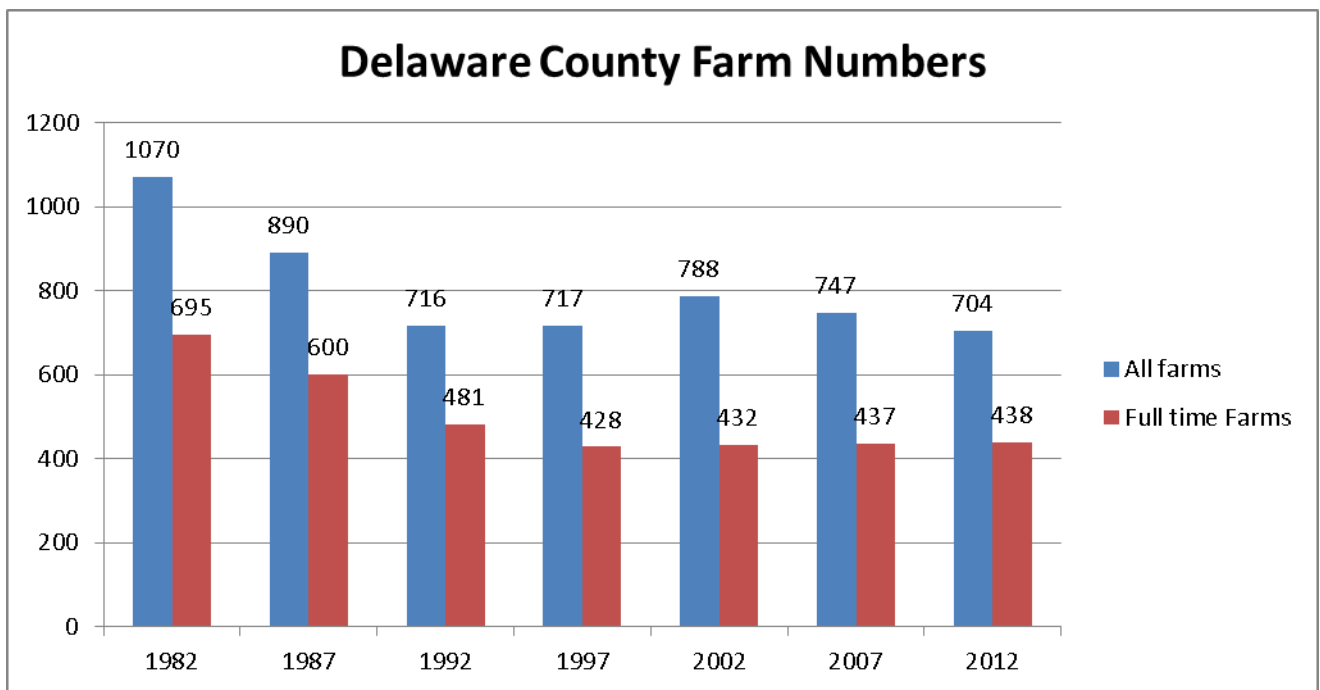
In 1997, the NYC Watershed Agreement stipulated that the “DEP solicit watershed properties that contain streams, wetlands, floodplains and other sensitive natural areas that are important for water quality protection”. There are three programs that a NYC watershed farmer or property owner could access that are funded by the DEP. The **DEP’s Land Acquisition Program** operates on a willing seller/willing buyer basis and landowners are solicited to either sell their land outright, sell a conservation easement, or can contact the Watershed Agricultural Council to sell an agricultural conservation easement. In Delaware County, landowners and farmers have sold the development rights on 17,542 acres of land to the Watershed Agricultural Council’s Easement Program in the form of agricultural conservation easements. 23,723 acres have been eased in the entire NYC Watershed to date in this program, making Delaware County the largest participant with 74% of the total acreage that the development rights have been sold. In addition, 34,799 acres have been sold outright to NYC DEP. 10,435 acres have been sold to NYC DEP as conservation easements. For more information on these programs, visit [http://www.nyc.gov/html/dep/html/watershed\\_protection/programs.shtml](http://www.nyc.gov/html/dep/html/watershed_protection/programs.shtml)

**Farmland Tax Analysis Study:** This study was conducted by the Delaware County Agricultural and Farmland Protection Board in 2009. It identified issues with farm assessments and provided recommendations for Delaware County and New York State. Specifically:

1. In each town, data collection should be systematized and scheduled every 3-5 years.
2. Delaware County could provide assistance to towns in developing baseline valuations for farms each year, and in doing the data collection.
3. Cooperative Extension should continue to provide information to farmers to help them understand their assessments and could support assessors and towns to improve data collection and farm assessments.
4. NYS Department of Agriculture and Markets should provide guidance on valuing farm buildings or work to create a farm building exemption for farmers. Also, the State should consider a larger exemption for farmers who make a majority of their income from farming.
5. Delaware County could raise additional funds to help improve the viability of farms with a ‘working landscape’ tax on homes of non-Delaware County residents (second homes). An alternate to this could be an additional mortgage tax applied to all mortgages.

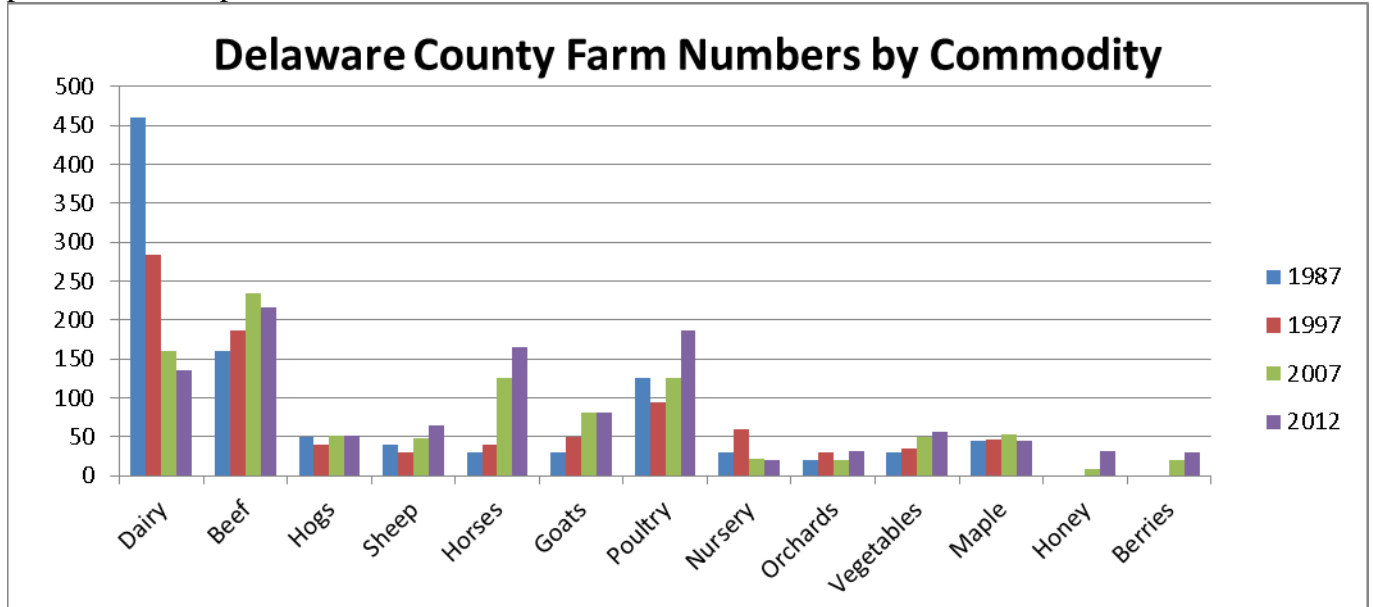
## Agriculture in Delaware County: Recent Trends and Characteristics

Farm numbers between 1992 and 1997 recovered from a steep downward trend since 1982. From 1982 to 1992, Delaware County lost 354 farms, 214 of which were full-time. Full-time farm numbers have leveled out recently and even increased with dairy farms diversifying instead of going out of business and with increases in beef and livestock enterprises that are full-time. Total number of farms has increased with more specialty kinds of farms such as organic vegetable farms, berry farms, more poultry and egg enterprises and other diversified operations. During the 10-year period from 1997 to 2007, total farm numbers increased by 30 farms. The 2012 Census Data indicated that full-time farms remained essentially unchanged while total farms declined by 43.



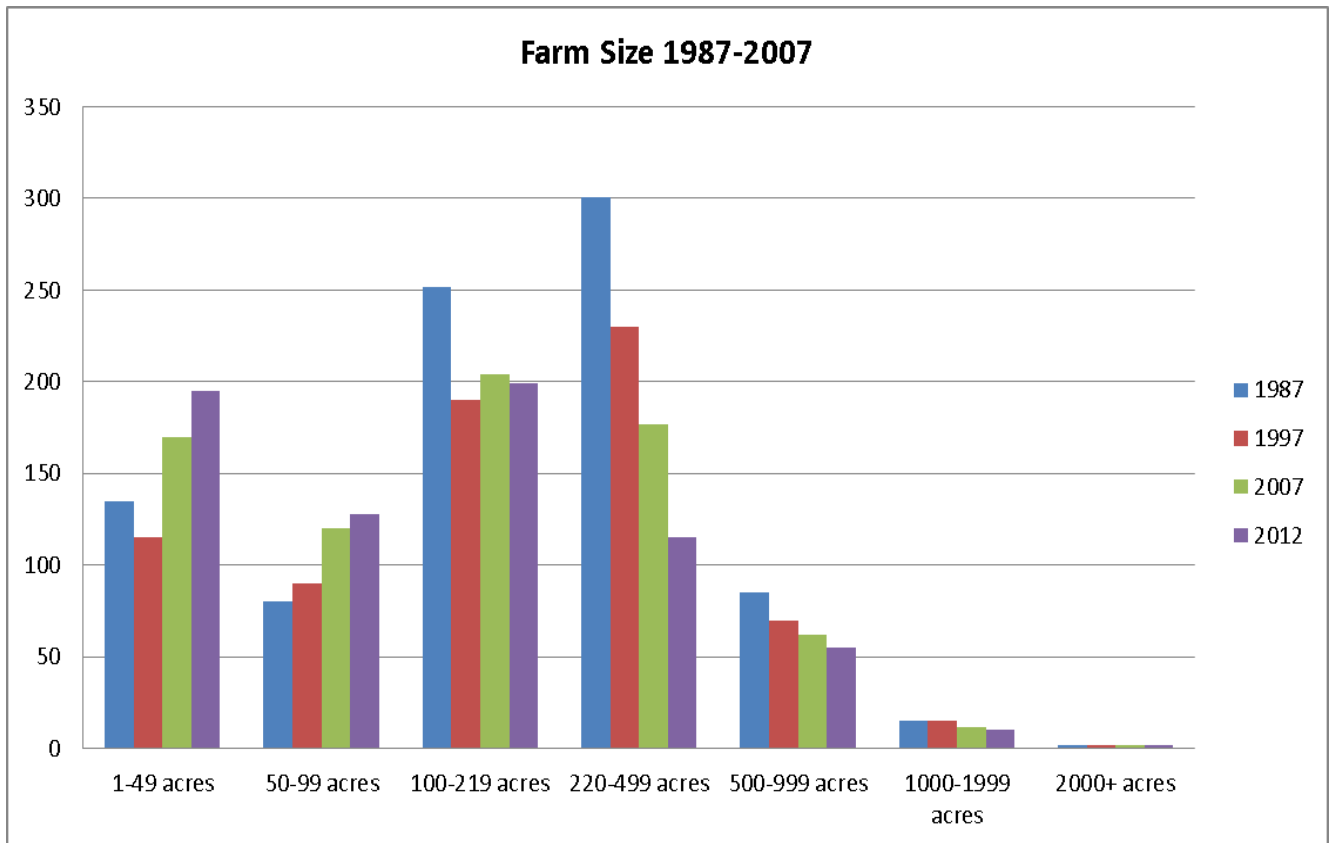
In 2012, farm operators by sex are 81% male and 19% female. There were 12 farms with gross incomes of \$500,000 or more, 39 farms between \$250,000 and \$499,000 and 72 between \$100,000 and \$249,000. These are primarily dairy farms. 374 farms had less than \$10,000 in sales. The total value of agricultural products sold was \$48 million with income from dairy farm (including milk, cull cows, calves and crops) around \$35 million and the balance among livestock, poultry, crops, maple, honey, nursery and greenhouse and smaller niche operations. Total cattle and calves numbered about 23,125 with rabbits, layers, horses, sheep and goats making up about 8,956 animals altogether. New York is 2<sup>nd</sup> in maple production nationally and Delaware County is home to many maple operations. Our heavily wooded county is a prime location for 45 maple producers with 6303 gallons produced. In 2012, maple production increased to 574,000 gallons in New York. There are 31 honey producers in the county with 118 colonies that collected 6.686 pounds of honey in 2012. Bee farmers are increasing. Increased

education by Cornell Cooperative Extension in recent years has helped both maple and honey producers start up new ventures.



Between 2007 and 2012, Delaware County lost 26 dairy farms that generate the largest sales and 135 dairy farms remain. Beef production in Delaware County has been increased by the development of several, large beef operations and the county is now fourth in New York State in beef production with 3800 mature beef cows. Farms with goats, poultry, vegetables, berries and honey all increased during that time. Diversified farms that raise livestock may also produce maple or berries, etc. Various niche products are being produced, including value-added dairy products on a number of farms, mainly cheese.

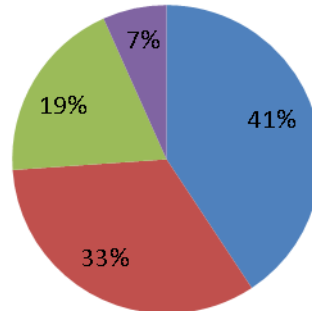
Land in farms in Delaware County decreased by 10% from 2007 to 2012 from 165,572 acres to 145,608. The average size farm also decreased from 222 acres to 207 acres during that same time period. Large tracts of land that were formerly farms have been subdivided and purchased for second homes that take advantage of recreational opportunities such as hunting and snowmobiling, or to enjoy the land for beauty, peace and quiet. Smaller tracts of land have become more popular as land 1-49 acres has increased in number while land from 220-499 acres has decreased in prevalence.



According to the 2012 Census of Agriculture, land in farms in Delaware County totaled 145,608 acres making up 15.5% of the total land mass of 939,900 acres. Cropland acres totaled 59,331 acres, pasture made up 28,248 acres, woodland made up 48,342 acres and other uses consisted of 9,756 acres. From 2007 to 2012, land in farms decreased 12% from 165,572 acres to 145,608 acres or a 19,964 acre decrease. Poorer land falls out of agriculture when a farmer retires, or there is no successor and the land is either sold for recreation or subdivided for homes. While some non-farmer owners of farmland like the benefits of having a farmer use or rent the property, others prefer to leave the land fallow. The benefits of agricultural production include keeping the land clear and useful while receiving a more favorable tax status in the form of a partial tax exemption. However, some landowners do not want the odors of manure, spreading of fertilizer, tillage for row crops, or they just want the land for recreational uses. The result is fallow land that soon becomes brush and trees.

## Land in Farms by Type

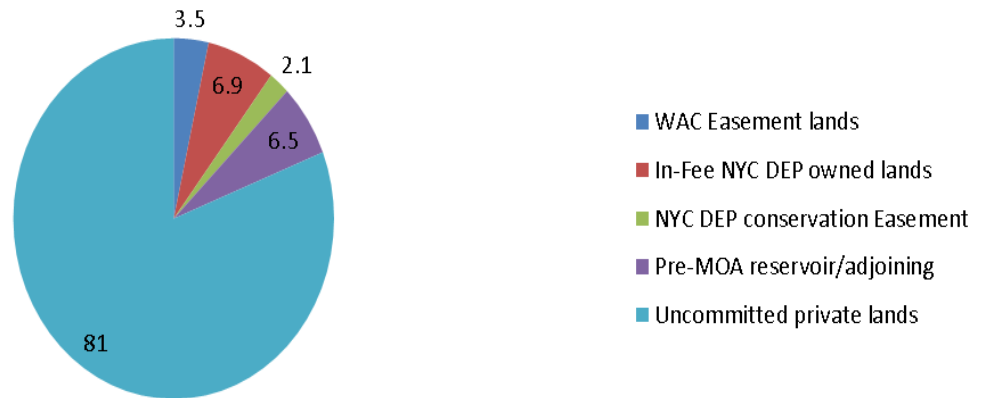
■ Cropland ■ Woodland ■ Pasture ■ Other uses



While dairy farm numbers have decreased, dairy farming is still the top agricultural enterprise in Delaware County. Dairy farm income includes milk, cull cows, calves, breeding stock, crops, custom work, and government payments. It makes up 73% of total agricultural receipts in the county. In recent years, dairy farmers nationwide have faced large fluctuations in the price received for milk. The antiquated pricing system has not been substantially changed in many years and making a decent living has been beyond the reach of most, with many dairy farmers having no choice but to sell out. All farming is difficult and requires sacrifices but when there is no profit, farmers have no other choice but to sell the assets and find another line of work.

Some farmers in the Watershed of the City of New York have taken advantage of the WAC Agricultural Easement Program to either facilitate a transfer to the next generation, to fund retirement, or to ease debt pressure. 17,542 acres in Delaware County are now part of the Watershed Agricultural Easement Program. In addition, land has been sold outright to NYC DEP in a willing seller/willing buyer program. To date, 34,800 acres have been sold in Delaware County to the NYC DEP. Also, a NYC DEP conservation easement program buys the development rights from landowners. To date, 10,435 acres have been committed to that program. The trend shows that more and more land is being controlled by the NYC DEP by outright purchase or conservation easement. A steep increase in farmers selling their development rights to the Watershed Agricultural Council is likely due to financial pressures in agriculture and the need to generate retirement income.

## NYC Watershed Committed Percentages in Delaware County

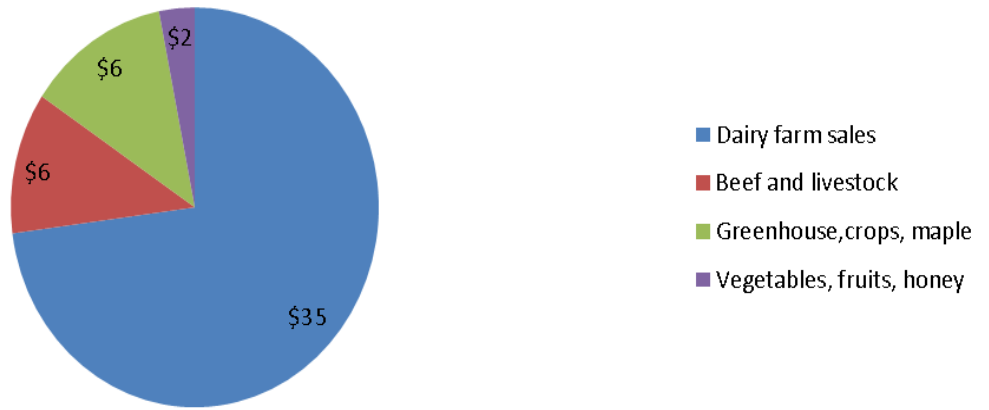


## Dairy Cow Numbers and Milk Production

Dairy production receipts outweigh any other commodity in the county with respect to dollars generated. Delaware County is well-suited to milk production with many farms in the 80-100 cow range and there are a few farms larger than 200 cows with the largest farm being around 500 cows. The trend in dairy is fewer total cows with higher milk production per cow. Improvements in genetics, increased use of new technology and better crop and cow management lead to increases in milk/cow. Due to the hilly terrain, small dairy farms are more prevalent. There are few areas where large herds can exist, mainly due to topography and land availability. Since there are few economies of scale to be gained on smaller farms, these farms can be profitable if they make use of grazing, make excellent quality crops, can limit debt exposure and have family labor. There are 135 dairy farms in the county with about 8,500 mature dairy cows and as many young stock. Dairy farming continues to be challenging mainly due to small profit margins. As more dairies disappear, agricultural infrastructure leaves with it. The trend, however, is the same total number of farms with more diversity such as beef, poultry, sheep and goat, crop, honey and maple.



### Sales in Millions



## **MUNICIPAL AGRICULTURAL PLANNING EFFORTS**

### **A number of Delaware County Towns have applied for and received NYS Agriculture & Markets enacted local Agriculture & Farmland Protection Plans**

#### **Town of Hamden**

The Town of Hamden received NYS Agriculture & Markets funding for the development of a Farmland Protection Plan. The plan, developed in conjunction with the Town Comprehensive Planning effort was drafted to meet the statutory requirements of Section 324-a of Article 25 AAA of the New York State Agriculture and Markets Law. This included an inventory of farms and farmland, a look at the economic impacts of agriculture and a summary of existing plans, policies and programs. The plan featured a breakdown of area strengths and opportunities in contrast with limitations and issues facing agriculture such as farmland affordability, conservation easements, and taxation of Ag lands and structures. The Town plan was approved by the Commissioner of Agriculture & Markets in 2010.

#### **Town of Meredith**

The Town of Meredith received NYS Agriculture & Markets funding for the development of stand-alone Agriculture & Farmland Protection Plan to examine all aspects of agriculture in the Town. Both a farmer and a resident survey were conducted to gather input. In addition to a comprehensive inventory of agricultural assets reflected in both statistical breakdowns and extensive mapping, the plan featured a breakdown of state and county policies relating to agriculture. Based on the information gathered a series of goals and strategies were included to reflect area strengths and opportunities and address the threats and limitations agriculture in the Town.

#### **Town of Stamford**

The Town of Stamford received NYS Agriculture & Markets funding for the development of a Farmland Protection Plan to examine the current conditions of agriculture in the Town. The plan, developed in conjunction with the Town Comprehensive Planning effort was drafted to meet the statutory requirements of Section 324-a of Article 25 AAA of the New York State Agriculture and Markets Law. Highlights included an inventory of farms and farmland, developing a comprehensive set of maps of farms, farmland and environmental conditions related to agriculture, and an analysis of this data.

A town-wide survey was employed to identify attitudes towards agriculture, trends & issues facing farmers, a summary of current agricultural needs and opportunities with specific strategies to help the Town reach their agricultural vision and goals. The Town plan was approved by the Commissioner of Agriculture & Markets in 2011.

## **EMERGING ISSUES & TRENDS:**

### **MARCELLUS SHALE**

The following is taken from the Cornell Cooperative Extension (CCE) Natural Gas Resource Center which brings together information from a variety of sources, including academic research, industry analysis, local government officials and citizens. There may be material and resources herein that express viewpoints that are not those of Cornell University, Cornell Cooperative Extension or the Delaware County Agricultural and Farmland Protection Board. Material produced by Cornell is identified as such. A key goal is to provide sound information that will support informed decision making.

#### **Emerging Trends in the Marcellus Shale**

*By Jeffrey Jacquet and Richard Stedman, Cornell University*

The Marcellus Shale is a geologic shale bed that extends across much of Pennsylvania (PA) and southern New York State (NYS), and is estimated to contain one of the world's largest deposits of natural gas. Despite reduced natural gas commodity prices in the fall of 2008 and the current economic recession, natural gas development continues in many areas of PA. In particular, Bradford and Susquehanna counties, just south of the NYS border, have experienced some of the most intense drilling in all of the Marcellus Shale. Energy companies plan to nearly double the number of drilling rigs by the end of the year, with more increases projected in the years to follow. Given the larger current economic considerations, this development illustrates the attractiveness of market proximity and the quality of Marcellus Shale gas, and portends what may lie ahead for NYS.

Development of the Marcellus Shale natural gas requires "unconventional" extraction methods. The increased depth, horizontal drilling techniques, and hydraulic-fracturing are much more industrial, labor-intensive, and time-intensive than the conventional, shallow-gas drilling historically used in the region. Well drilling activity typically requires about 5 acres of land, plus nearby locations for pipeline and compressor stations, with truck and machinery activity similar to that of a heavy industrial site. The active drilling process can last for 45 days or longer at each drilling rig location. Hydro-fracturing can require 3 million or more gallons of water per well, requiring extensive water withdrawal and disposal practices.

In addition to these environmental and land use issues, there are potential social and economic impacts. Significantly larger workforces than shallow gas drilling are required, and areas of intense development can require thousands of temporary workers. And, compared to shallow gas wells, the royalties from producing gas wells can provide land owners with much larger incomes. Given all of these issues and the pace and scale of development occurring in PA, the Marcellus Shale has the potential to create significant environmental, land use, economic, and social changes in the communities of NYS's southern tier.

While development activity in PA is increasing rapidly, the NYS Department of Environmental Conservation (DEC) has put an effective “moratorium” on Marcellus Shale development within NYS as the agency completes a review of the state’s regulatory policy towards these unconventional drilling methods.

## **The Emergence of Landowner Coalitions and other Advocacy Groups**

A number of citizen based groups are forming in response to Marcellus gas exploration. One particular type of group is landowner coalitions. Individual landowners have historically faced informational and other disadvantages in their one-on-one negotiations with gas companies. More recently, large coalitions of rural landowners have formed across southern NYS for the purpose of bargaining collectively with energy companies over leasing contracts. These coalitions, many representing hundreds of landowners controlling tens of thousands of acres, represent a historically unprecedented level of collective action among rural residents in NYS. While the majority of coalitions have not yet signed leases with energy companies, they have been central to the education of local residents. With vast acreages under their influence, these coalitions may potentially exert greater control over the development of the Marcellus Shale than local, state, or federal governments. However, it is unclear what influence these coalitions might have on environmental impacts and land use during and after the energy development process, and what their role might be after leases are signed.

Impacts extend beyond property owners. Other local advocacy groups have formed to express their concerns over potential environmental impacts, as well as negative economic impacts, increased inequality, the pace and magnitude of gas exploration, and procedural justice. These groups have organized community forums, hosted experts, provided materials, and lobbied government officials on these issues. As with the landowner coalitions, the current moratorium provides time for these advocacy groups to clarify their positions, and organize their membership.

## **State and Local Regulation**

Many questions will remain unanswered until the DEC releases their final SGEIS and accompanying rules governing this kind of gas development technology. On the environmental side, the DEC could either leave current regulations untouched or implement much stricter environmental standards. However, the full scope of their authority over many aspects, including socioeconomic concerns, is currently unknown. The DEC has indicated their intention to analyze potential socioeconomic impacts, including cumulative impacts, impacts to community character, and local government participation. Possible regulation in this area could alter development procedures and local government control. Some local governments have asked the DEC and the state legislature for local controls such as enhanced notification procedures, detailed information on the presence of hazardous materials, authority over storm water and erosion control, participation in the state environmental impact review process (SEQR), and a portion of the proceeds of a severance tax to offset local expenses. The ability of these potential controls to be engaged through the SGEIS process is unknown. Some may require additional legislative action, and state legislators are looking into these and other regulations.

State and local regulatory authority over gas development is most clearly articulated within the NYS Environmental Conservation Law (ECL), specifically, Section 23-0303, which states that the state regulations “shall supersede all local laws and ordinances relating to the regulation of the oil, gas and solution mining industries; but shall not supersede local government jurisdiction over local roads or the rights of local governments under the real property tax law”. This is a strong contrast to the ‘home rule’ tradition of NYS, where local jurisdictions typically have a great deal of control over local land use. As is often the case when new controversies arise, the interpretation of this law is being debated within New York legal circles. The precise boundary of local government authorities over “local roads” or “real property tax law” has not been concretely litigated. The Supreme Court of Pennsylvania, ruling on the bounds of a nearly identical Pennsylvania law, found that local governments have the ability to reasonably regulate the location of natural gas development within a land-zoning regime, but are not able to regulate the methods of the extraction process. The decision is being watched closely by NYS officials, as it illustrates the breadth of interpretation available within a similar law.

## **Community Task Forces**

A number of counties and municipalities in southern NYS have created community task forces to gather information and prepare local governments for impacts from natural gas development. Using the time afforded by the SGEIS review process, these task forces can determine the areas with the greatest potential for development, update ordinances, industrial permitting fees, and roadway inventories, differentiate local jurisdictions, educate residents on the development process and applicable laws, and monitor impacts to local government agencies from natural gas development.

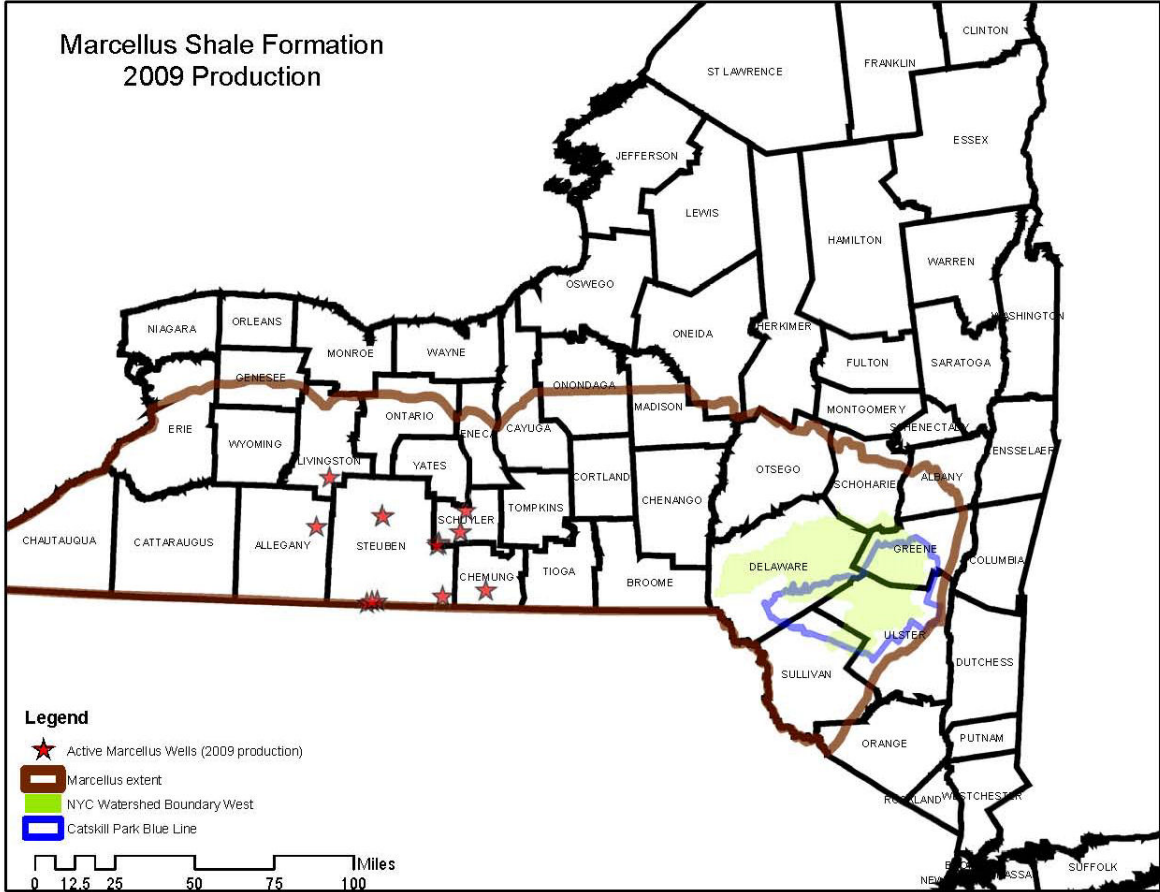
## **Future Research**

Continued pressure for the development of NYS’s energy resources and the uncertainty of its impacts highlights the need for new research on the social, economic, and environmental impacts of such developments, and effective mitigation measures. Two Cornell University-funded projects are underway that will emphasize the socio-economic impacts of energy development in the region. Each will examine how changes to such areas as land use, economic inequality, municipal preparedness, environmental quality, and citizen participation may affect human communities both positively and negatively. The results of these research projects will be linked to ongoing research on the environmental impacts of development. Especially because of the potential scale of change that may be experienced with aggressive energy development, it is critical to understand the full range of affected people and environments in these efforts.

*Source: BRIEF/ISSUE NUMBER 30/JULY 2009 The Research & Policy Brief Series is a publication of Cornell University’s Community & Rural Development Institute (CaRDI), edited by Robin M. Blakely.*

1 Sullivan County Task Force, 2009. *Preparing for Natural Gas Development: Understanding Impacts and Protecting Public Assets*. Available online: <http://www.co.sullivan.ny.us/documentView.asp?docid=768>

2 Penn State Cooperative Extension, 2008. *Marcellus Shale Exploration and Development: Organizing a Community Task Force*. Available Online: <http://gasleasing.cce.cornell.edu/documents/ua451.pdf>



Source: New York State Department of Environmental Conservation [Note: the NYC Watershed Boundary West is light-green yellow on the map – not green as indicated on the legend.]

## **WIND POWER IN NEW YORK STATE**

New York's wind resource has the potential to provide approximately 8,000 megawatts (MW) of clean energy. As of the spring of 2012, eighteen wind energy projects (445 KB) are operating with a rated capacity of about 1,407.6 MW in Erie, Clinton, Franklin, Herkimer, Lewis, Madison, Steuben and Wyoming counties. One wind project is currently under construction in Clinton County. Approximately 19 wind projects (21.6 KB) are under active review or with permits granted but which have not yet begun construction.

### **Environmental Review**

Wind energy development is an important component of New York's clean renewable energy initiative as well as of New York's ability to achieve the Renewable Portfolio Standard of twenty-five percent (25%) of energy produced from renewable sources by the year 2013. Although wind power creates no toxic air emissions or greenhouse gases, DEC must nevertheless conduct an environmental review to evaluate potential issues related to the construction and operation of wind energy projects:

### **Noise and aesthetics**

Residents that live nearby to wind power projects may have concerns about the noise from the turbines or consider them unsightly.

### **Environmental impacts**

Another concern is the possibility of birds and bats being injured or killed by rotating blades. Ongoing research conducted throughout New York and the northeast will help scientists and the public better understand the effects of wind power development on birds and bats. DEC must also evaluate conditions related to the construction and operation of wind farms to avoid adverse effects on forests, grasslands, wetlands or sensitive ecosystems.

The role DEC plays in reviewing and positioning wind power projects in New York includes issuing Article 15 and/or Article 24 permits for wetland and stream crossing impacts, reviewing potential impacts to state listed threatened and endangered species, and recommending appropriate pre- and post-construction bird and bat surveys. With increased construction of wind turbines comes increased potential for birds and bats to collide with the towers and rotating blades.

*Source: New York State Department of Environmental Conservation*

### **Delaware County Towns:**

In 2007, the Bovina Town Board banned wind turbines from this scenic Catskill town. The Town of Harpersfield has reviewed and approved a single turbine for a residential property. In Franklin a wind farm proposal is moving forward. In the Towns of Stamford and Roxbury a proposal for a large scale ridgeline based farm was made in 2007. A Draft Environmental Impact Statement (DEIS) was prepared – current status is unknown. In Walton a small wind farm application has been made to the Town of Walton Planning Board.

## **THE CATSKILL GRASS BIO-ENERGY PROJECT**

Grass biomass is receiving interest as a renewable alternative energy source as energy prices have dramatically increased in recent years. Production and combustion of grass biomass pellets for heating is a very promising option that offers the following advantages:

- Local energy loop
- Very efficient energy conversion
- Very environmentally friendly (low net greenhouse gas production)
- Existing infrastructure on farms to harvest haycrop
- Compatible with livestock and crop operations
- Maintains open space
- Annually renewable crop

In an effort to facilitate the development of a local grass bioenergy system, Cornell Cooperative Extension of Delaware County and the Catskill Watershed Corporation are piloting a “production to consumption” grass bioenergy pilot project:

- To work with farmers to produce and test grass biomass feedstock suitable for combustion purposes.
- To work with local grass biomass processors, in particular EnviroEnergy LLC of Franklin, NY ([www.enviroenergyny.com](http://www.enviroenergyny.com)), to produce and test grass biomass pellets.
- To test and demonstrate bulk delivery and on site handling of grass pellets.
- To install, research, and demonstrate residential and small business/municipality scale combustion technologies (pellet stoves and outdoor boilers) that are known to work with grass pellets.

The project includes outreach and education with the farmers and the public regarding grass biomass production. Demonstration sites featuring burning technologies were set up in Andes, Franklin, Hunter, Jewett, at the Ashokan Center, the Catskill Watershed Corporation, The Catskill Center for Conservation and Development, and the Pine Hill Community Center.

The project is slated to run until January, 2014, and is funded by the Catskill Watershed Corporation.



## **FARM ENERGY, CARBON, AND GREENHOUSE GASES**

Farmers today face rising energy costs and uncertainty about future energy policies that affect agriculture. Many farmers are responding by improving the energy efficiency of their operations and exploring alternatives to traditional fossil fuels such as wind, solar, and biofuel crops.

Being “energy-smart” when it comes to farm design and management improves the bottom line, is good for crops and soils, and reduces emissions of greenhouse gases (GHGs) to the atmosphere.

### **Energy Challenges:**

- Fluctuating and rising energy costs reduce profits, making it hard to plan ahead.
- Dependence on foreign oil is a long-term risk.
- Nitrogen fertilizer input costs are linked to energy prices.
- Burning of fossil fuels contributes to climate change.

### **Energy Solutions:**

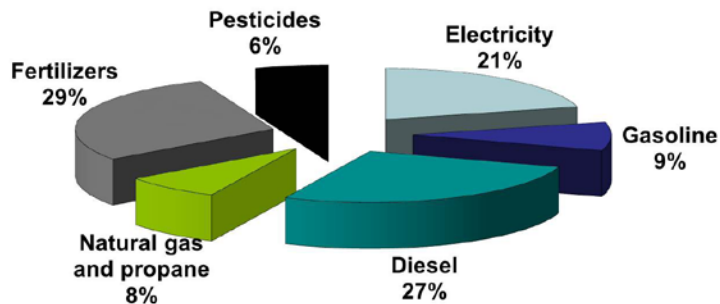
- Optimize building insulation and ventilation; design landscapes for shade and evaporative cooling.
- Select site and building orientation to optimize summer cooling, winter warming, and natural lighting.
- Replace heating and cooling equipment to meet needs with maximum efficiency.
- Use energy-efficient appliances and keep them well-maintained.
- Periodically conduct a comprehensive whole-farm energy audit.

### **Crop Production:**

- Reduce fuel consumption, e.g., by reducing tillage frequency and intensity.
- Reduce transportation costs and fuel consumption by buying local inputs and exploring local market outlets.
- Purchase fuel-efficient vehicles and equipment and keep them well-maintained.
- Explore use of biodiesel and other renewable fuel alternatives for vehicles or greenhouse heating.
- Minimize use of energy-intensive products such as synthetic fertilizers, pesticides, and herbicides.

Delaware County Cooperative Extension in partnership with SUNY Delhi, Delaware County Economic Development and the Board of Supervisors, offered an Energy Symposium in 2013 to highlight energy efficiency and new technology. This was born out of the County Energy Committee that has been put in place to explore ways that the County and local citizens can be more efficient using energy. Another Symposium is planned for 2014.

## Farm Energy Use by Source



## Renewable Energy

Traditional fossil fuels (e.g., oil, gas, and coal) bring up carbon-rich energy from deep in the earth and add new CO<sub>2</sub> to the atmosphere when burned. In contrast, renewables essentially recycle carbon and energy already at the surface, and do not add to the CO<sub>2</sub> in the atmosphere. Many farmers are exploring renewable energy options such as “growing” their own fuel in the form of biofuel crops, using animal or other waste as an energy source, or investing in solar or wind energy systems.

- **Fuel crops** (e.g., corn, switchgrass, soybeans, and willow) produce abundant biomass, starch and sugars, or vegetable oils that can be used for energy, either directly or after various levels of processing.
- **Anaerobic digesters**, including covered lagoon systems, decompose manure or other farm waste to create “biogas” fuel. Currently economical for larger-scale operations (greater than 250 head), costs are expected to come down as demand increases and manufacturing becomes more efficient. In the meantime, farmers have found ways to defray some of the costs through grants, low-cost loans, or cost-sharing among several farms.
- **Solar power systems** range from passive approaches that optimize the use of sunlight for heating or lighting, to the use of photovoltaic (PV) solar cells to generate electricity. Smaller PV systems (e.g., less than 1 kW) are economical for running electric fences, water pumps, and other farm equipment, especially in remote locations.
- **Small wind turbines** producing 75 kW or less are becoming increasingly popular to supplement electricity needs. Factors to consider before investment include adequate wind, local ordinances that restrict height of structures, and net metering/billing laws that affect whether you can store or sell excess energy generated during peak periods.

## Energy Conservation Financial Assistance and Incentive Programs

- The New York State Energy Research and Development Authority (NYSERDA) website describes programs that assist with farm energy audits, improve facility energy efficiency, and explore options with anaerobic digesters or solar and wind systems ([www.nyserdera.org/programs/agriculture](http://www.nyserdera.org/programs/agriculture)).
- The USDA Natural Resources Conservation Service (NRCS) has an Environmental Quality Incentives Program that can be helpful in meeting energy-efficiency goals ([www.nrcs.usda.gov](http://www.nrcs.usda.gov)).

## **Carbon Sequestration: Capturing and Storing Carbon in Soils, Crops, and Trees**

The energy solutions discussed above reduce CO<sub>2</sub> emissions on the farm, but farmers can do more than that. Trees, crops, and soils can capture atmospheric CO<sub>2</sub> and store (sequester) it in the form of carbon-rich living biomass and soil organic matter. Building up the organic carbon content in agricultural soils has the added benefit of helping crops thrive. Some best management practices are:

- Reduce tillage to minimize soil aeration, which stimulates the breakdown of organic matter and releases CO<sub>2</sub>.
- Use manure, composts, biochar, or other high-carbon soil amendments for improved crop productivity and carbon storage.
- Plant winter cover crops to increase annual carbon capture from the atmosphere.
- Manage woodlots to maximize long-term carbon uptake and storage in trees.

## **The Other GHGs: Nitrous Oxide (N<sub>2</sub>O) and Methane (CH<sub>4</sub>)**

Nationally and globally, CO<sub>2</sub> is the biggest contributor to climate change, but for the agricultural sector, nitrous oxide (N<sub>2</sub>O) and methane (CH<sub>4</sub>) are of particular concern. They are such potent GHGs that on a CO<sub>2</sub> equivalent basis, their emissions from the agricultural sector contribute more to global warming potential than CO<sub>2</sub> emissions from the burning of fossil fuels.

### **Nitrous Oxide Challenges:**

- The concentration of N<sub>2</sub>O in the atmosphere has risen by about 20% since the pre-industrial era. It is a potent GHG with 310 times the global warming potential as CO<sub>2</sub>. On a CO<sub>2</sub> equivalent basis, N<sub>2</sub>O accounts for almost half of GHG emissions from U.S. agriculture.
- Over 70% of annual U.S. N<sub>2</sub>O emissions can be attributed to agriculture cropping practices, in particular the use of nitrogen fertilizers.

### **Nitrous Oxide Solutions:**

- Use green manure (legume) rotation crops that provide “free” nitrogen, reducing fertilizer requirements.
- Use manure and composts instead of synthetic nitrogen fertilizers.
- Split fertilizer applications, optimize timing and amount applied based on crop demand, soil tests, and new web tools such as Cornell’s Adapt-N program(<http://adapt-n.cals.cornell.edu/>).
- Plant winter cover crops, such as winter rye, to help store soil nitrogen within the root zone, reducing nitrate leaching and leaving more nitrogen available for cash crops.

### **Methane Challenges:**

- The atmospheric concentration of CH<sub>4</sub> has more than doubled since the pre-industrial era. Methane has about 23 times the global warming potential as CO<sub>2</sub>. On a CO<sub>2</sub> equivalent basis, CH<sub>4</sub> accounts for over a third of total GHG emissions from U.S. agriculture.
- On an annual basis, over 25% of U.S. CH<sub>4</sub> emissions can be attributed to agriculture.
- These emissions are largely linked to ruminant livestock (e.g., cattle, sheep) and the bacterial enteric fermentation process of their digestive system.
- To a lesser extent, methane emissions from decomposing manures on wet soils, uncovered lagoons, and from flooded rice fields play a role.

### **Methane Solutions:**

- Utilize new feeding strategies and feed amendments to reduce dairy cow methane emissions and boost milk production efficiency.
- Use covered or tank storage of manure and store at low temperatures.
- Remove manure promptly from barn floors.
- Calibrate manure spreaders for crop fertilizer needs and incorporate manure into soils immediately.
- Create energy from manure waste with an anaerobic digester.

Source: Prepared by: David Wolfe, Jeff Beem-Miller, Allison Chatrchyan, and Lauren Chambliss, Cornell – Climate Change Fact Sheet, November 2011



*Photo by Ellen Wong*



Cornell Cooperative Extension, in partnership with the Delaware County Solid Waste Management Center, offers Delaware County farmers a way to recycle their agricultural plastics through Cornell's Recycling Agricultural Plastics Project (RAPP).

Plastic films are used to wrap forage, to cover greenhouses, and to mulch fields of vegetables and soft fruits. Most nursery containers are made of plastic along with irrigation and maple tubing. However, farmers have not had good options for disposing of used plastic as some plastic is buried on farms and in the landfill, which wastes this valuable, energy-rich resource and takes up a growing amount of space at the Waste Management Center.

The Recycling Agricultural Plastics Project has developed recycling infrastructure and markets for dairy, livestock and horticultural plastics. Recycling converts plastic into new products. RAPP is a collaboration of Cornell University with agriculture producers and agricultural, environmental, economic development and solid waste/recycling agencies, organizations and businesses.

The Delaware County Solid Waste Management Center has taken it one step further with farmers being able to drop off their plastics in bags without the baling required in other New York counties. These bags are later trucked directly to the recycling facility.

This program is offered to Delaware County farmers for free and training is provided through Cornell Cooperative Extension of Delaware County. It provides Delaware County farmers with a no-fee alternative to waste disposal and helps keep agricultural products out of the waste stream and off of the farms.

# NEW YORK'S CHANGING CLIMATE

We know that the climate is already changing based on weather station records and based on scientists' and farmers' observations of the changing environment in the Northeastern United States. The living world is already responding. For example, a recent evaluation of historical records for our region going back to the 1960s indicates that: apples are blooming eight days earlier; lilacs are blooming four days earlier; and grapes are blooming six days earlier.

**Potential Impacts on New York's Agricultural Community:** Some regions and crops could benefit from warmer temperatures, a longer growing season, potential beneficial effects of increased atmospheric carbon dioxide (CO<sub>2</sub>) on crop growth, and new market opportunities. Other regions and crops will face new risks and economic challenges due to weather changes due to weather extremes, water stress, increased weed and pest pressure and costs of adaptation and changing market competition.

**Heat Stress Challenges:** With New York's changing climate, large portions of the Northeast are likely to become less suitable for growing some varieties of apples, blueberries, cabbage, potatoes, cranberries, and grain crops.

**Heat Stress Solutions:** Shift planting dates to avoid heat stress; Explore heat-resistant and adapted crops; Diversify production to reduce reliance on heat-sensitive crops.

**New Crops for a New Climate:** Since the 1960s, the growing season has lengthened by almost a week. This, in combination with New York's changing climate, has allowed farmers to experiment with new crops, varieties and markets. Some of the crops that will be favored by the changing climate are peaches melons, tomatoes, and European red wine grapes.

**The Maple Industry:** Climate conditions that are optimum for maple forests will gradually be shifting northward this century as New York's climate changes. In addition, the timing of tapping for sap harvest will be earlier and more difficult to predict, and the duration of tapping in some years may be shorter or more broken up during the spring. This will create new challenges for those in the syrup industry. However, a recent study concluded that with adaptations such as using more sophisticated weather forecasts to optimize tapping, using new tapping equipment, and expanding the number of trees harvested, the New York industry can remain viable.

**Precipitation:** The good news is that annual precipitation in our region is not expected to decline, and may even go up slightly. Some climate models project a seasonal shift, with a slight increase in winter and early spring rainfall and a slight decrease in summer rain. One well-documented trend that we are already observing (and is expected to continue) is that more of the rain that we do get is coming in heavy downpour events (more than 2 inches in a period of 48 hours). At the same time, an increase in the frequency of short-term summer droughts is expected due to a longer summer growing season and warmer summer temperatures, which increase crop water demand.

**Flooding:** Challenges: Soil compaction/erosion, delay in planting, root damage, reduced crop yield, and contaminated waterways from agricultural run-off.

Solutions: Increasing soil organic matter for better drainage; Planting more flood tolerant crops, and shifting planting dates to avoid wet conditions; Investing in tile/other drainage systems for problem fields.

**Drought:** Challenges: Declining/more variable yields of rain-fed crops and a decline in the quality of fruit and vegetable crops.

Solutions: Increasing irrigation capacity; Capturing and reusing roof run-off; Planting more drought tolerant crops and shifting planting dates to avoid dry periods.

**Invasive Species:** New evidence has shown that New York's changing climate will require farmers to invest in earlier and more intensive pest and weed management. Anticipating these challenges will allow for better control and more cost-effective management.

**Insect Challenges:** Expansion of spring populations of insect pests; More insect generations per season; Insect species typical in southern states are migrating northward.

**Weed Challenges:** Favored weed growth over crop plants; Longer weed-seed production and weeds will have to be controlled for a longer amount of time; Weed species restricted to the south are already migrating northward (similar to insects); Reduced efficacy of certain common pesticides and herbicides.

**Insect and Weed Management Solutions:** Improve rapid response plans and regional monitoring efforts; Enhance monitoring and implementation of integrated pest management.

**Dairy and Livestock Industries:** The dairy industry is the most important agricultural sector in the region (with an annual production of \$3.6 billion). The availability and cost of animal feed will fluctuate as New York's changing climate affects crops like grain and silage.

- The dairy industry is especially vulnerable to the rising temperatures in New York's changing climate, because even slightly warm temperatures (above 80°F) in combination with moderate humidity can cause a decline in milk production and lower birth rates.
- In 2005, milk production was reduced 5-15 lbs per cow per day (losses of 8-20%) because of unusually warm temperatures.

**Low-cost Solutions:** Reduce over-crowding and improve barn ventilation; Reduce heat exposure; Increase water availability and adjust diet; Utilize pre-coolers for milk harvesting.

**Moderate to High-cost Solutions:** Improve cooling capacity; Insulate barns; Build new barns with adequate cooling capacity.

*Source: David Wolfe, Ph.D. Cornell University, 2012*

# **Delaware County Comprehensive Emergency Management Plan (CEMP)**

## **Executive Summary**

This plan results from the recognition on the part of local government and state officials that a comprehensive plan is needed to enhance Delaware County's ability to manage emergency/disaster situations. It was prepared by County officials working as a team in a planning effort recommended by the New York State Emergency Management Office (SEMO). This plan constitutes an integral part of a statewide emergency management program and contributes to its effectiveness. Authority to undertake this effort is provided by both Article 2-B of State Executive Law and New York State Defense Emergency Act.

The development of this plan included an analysis of potential hazards that could affect the county and an assessment of the capabilities existing in the county to deal with potential problems.

### Comprehensive Approach

Dealing with disasters is an ongoing and complex undertaking. Through implementation of risk reduction measures before a disaster or emergency occurs, timely and effective response during an actual occurrence, and provision of both short and long term recovery assistance after the occurrence of a disaster, lives can be saved and property damage minimized.

This process is called Comprehensive Emergency Management to emphasize the interrelationship of activities, functions, and expertise necessary to deal with emergencies. The plan contains three sections to deal separately with each part of this ongoing process.

### Management Responsibilities

County departments' and agencies' emergency management responsibilities are outlined in this plan. Assignments are made within the framework of the present County capability and existing organizational responsibilities. The Department of Emergency Services is designated to coordinate all emergency management activities of the County. Delaware County intends to use the Incident Command System (ICS) to respond to emergencies. ICS is a management tool for the command, control, and coordination of resources and personnel in an emergency.

County responsibilities are closely related to the responsibility of the local levels of government within the County (cities, towns and villages) to manage all phases of an emergency. The County has the responsibility to assist the local governments in the event that they have fully committed their resources and are still unable to cope with any disaster. Similarly, New York State is obligated to provide assistance to the county after resources have been exhausted and the County is unable to cope with the disaster.



The plan describes in detail the centralized direction of requests for assistance and the understanding that the governmental jurisdiction most affected by an emergency is required to involve itself prior to requesting assistance.

Specific emergency management guidance for situations requiring special knowledge, technical expertise, and resources may be addressed in separate annexes attached to the plan. Examples of this type of situation are emergencies resulting from hazardous chemical releases, dam failure, and power outage.

### Conclusion

The plan provides a general, all-hazards management guidance, using existing organizations, to allow the County to meet its responsibilities before, during and after an emergency.



*Photo by Ellen Wong*

## Upper Susquehanna Coalition and the Chesapeake Bay

The Upper Susquehanna Coalition (USC) was established in 1992 to work on nonpoint source water quality issues in the headwaters of the Chesapeake Bay. In 2006 it transitioned to a pure Conservation District Coalition using a Memorandum of Understanding (MOU) based on NY and PA state law that allows Districts to enter into multi-District agreements. The Chesapeake Bay is an extremely diverse ecosystem and the largest estuary in the United States that receives freshwater from a 64,000 square mile watershed. The Upper Susquehanna Coalition encompasses the headwaters of the Susquehanna River and thus the headwaters of the Chesapeake Bay. The boundaries of the Coalition are defined as those lands and waters of the Susquehanna River upstream of Towanda PA.

Each Bay state will be given a load allocation to meet for sediment, nitrogen and phosphorus. The New York Department of Environmental Conservation, in partnership with the Upper Susquehanna Coalition, has developed a tributary strategy to reduce these loads as New York's contribution to clean up the Bay. New York State's official approach is to target the highest quality practices that will help reduce its nutrients and sediment loads, regardless of the geographical location.

The Upper Susquehanna Coalition (USC) consists of 19 Soil and Water Conservation Districts (16 in NY and 3 in PA) that cover 99% of the headwaters of the Susquehanna River upstream of Towanda, PA. USC Watershed Statistics are as follows:

- 7,500 square miles
- 13,000 miles of roads and 17,000 miles of stream
- 69% forest, 23% agriculture, 3% urban/suburban, 4% open water/wetlands

In January, 2013, the New York State Department of Conservation submitted a final draft of its Phase II Watershed Implementation Program (WIP). Joseph Martens, Commissioner for the New York State DEC added the following caveat to the cover letter for this program:

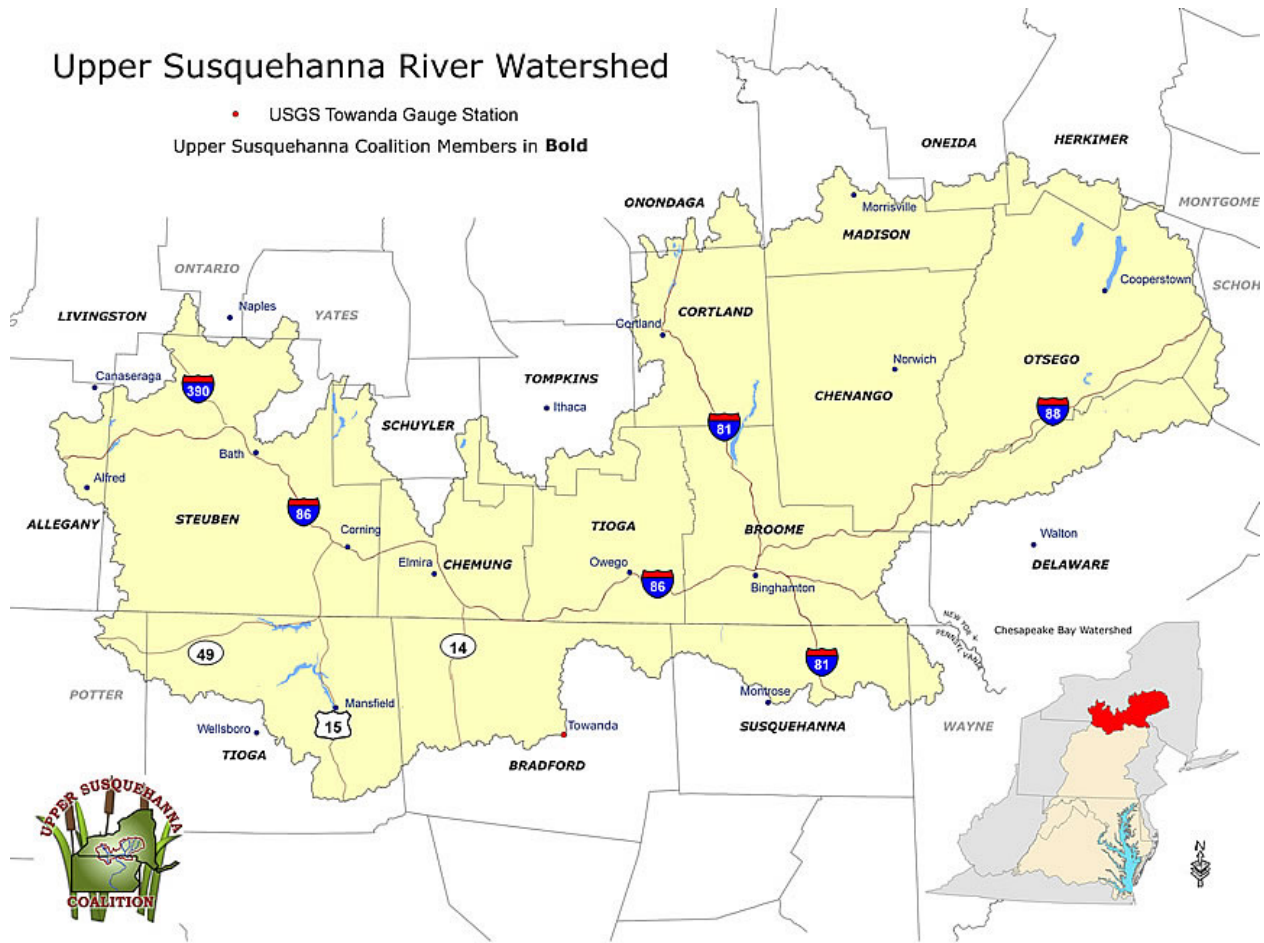
***“DEC acknowledges collectively that we must achieve compliance with water quality standards associated with nitrogen, phosphorus and sediment loadings into Chesapeake Bay under the Clean Water Act. In that regard, New York is committed to doing its fair share to achieve water quality standard compliance. DEC looks forward to working with EPA and the United States Department of Agriculture to assure the fullest possible level of federal assistance to New York so as to off-set the significant costs of these programs to New York's hard-pressed farmers and municipalities.”***

For more information on these issues go to:

<http://www.epa.gov/reg3wapd/tmdl/ChesapeakeBay/RestorationUnderway.html?tab2=2&tab1=3>

# Upper Susquehanna River Watershed

• USGS Towanda Gauge Station  
Upper Susquehanna Coalition Members in **Bold**



## SELLING AND BUYING LOCALLY GROWN FOOD

Consumer desire for a stronger connection to the farmers who grow their food is creating a demand shift in the U.S. produce industry. The move is highlighted in a February, 2013 report released by Rabobank's Food & Agribusiness Research and Advisory (FAR) group titled "Local Foods: Shifting the Balance of Opportunity for Regional U.S. Produce."

The report finds the growing local food movement, in which consumers seek out and purchase foods grown in closer proximity to them, is causing smaller regional producers to take market share from established producers who do not qualify as locally sourced.

Local buying opportunities such as farmers' markets and roadside stands have long existed, but in more recent years, have gained popularity with consumers who want a better understanding and connection to their food. Such interest has changed the competitive landscape of the U.S. produce industry as supermarkets and restaurants have latched onto the local trend. This movement has evolved into a permanent mainstream trend, which is generating more opportunities for regional U.S. growers who traditionally had less market share than larger, more well-established national suppliers.

The report highlights the explosion of regional U.S. production in areas such as Oregon, Washington, Michigan, the Ohio Valley, Georgia, Florida, Wisconsin, New York, New Jersey and the Carolinas. Many growers in those regions have seized the opportunity and expanded their acreage to accommodate the increased demand. *Source: Market Wired*

This growing mindset has also affected the way New York government is viewing, and supporting, New York's farm-food system. The 2010 Farm-NY agenda states: "The growing trend in favor of locally grown food presents a great opportunity for New York farmers to find new markets. New York currently has about 450 farmers' markets and 1,000 community gardens in the State but this success can be expanded and other innovative markets developed. Expanding markets will generate additional revenue and have the added benefit of providing New York communities with healthier foods. *Source: Farm-NY – Growth through Innovation – Cuomo 2010*



*Photo by Ellen Wong*

## FOREST LAND AND FORESTRY IN DELAWARE COUNTY

Forest land has taken an important role in the agricultural community of Delaware County, NY. It began when greater numbers of European settlers arrived in the 1800's and began clearing the forests to make way for food and animal crops. They used many of the trees for building, tools, barrels, tanning, charcoal, and acid production. Some of the trees and forest products were exported elsewhere in NY and the neighboring states, and much of it was merely burned to make way for other crops. The industry that established thriving communities in the Catskills and Delaware County was agriculture, including forest products. It was the impetus for our communities and our life-blood. Now it has subsided and hopefully to its low point. There is some evidence that agriculture is slowly rebounding and may once again have a chance of becoming at least part of what it was.

Approximately 76% of the county is forested, encompassing nearly 718,000 acres. Delaware County ranks fifth in New York State for total acres of forest land. 20% of the 718,000 acres or 143,000 acres are classified as "denied access" forest. This category of denied access land has nearly doubled since 2005. Approximately 39,000 acres of this is in New York State's Forest Preserve. 80% of the accessible forestland is owned by nonindustrial private forest owners. Delaware County has an established forest industry that contributes to the economic well-being of the county, the Catskill region and New York State. Loggers, foresters, sawmills and agribusinesses producing value-added wood products abound, with approximately \$8 million in timber sales generated annually. Non-timber or agro-forestry crops, such as ginseng, mushrooms, herbs, nuts, fruit, maple syrup and Christmas trees, are prominent agro-forestry crops in the county.

Delaware County's volume of wood is growing in large part, due to the reversion of abandoned agricultural land to forest land and the general lack in markets for the large quantity of low-grade wood that is growing. The county's forests are described as "northern hardwood" which is dominated by maple, beech and birch. Other prominent and very important species include black cherry, white ash and red oak. The quality of this hardwood forest is known world-wide, resulting in log processing both in the region and abroad. Less of the processing is now taking place inside the county as mills have been struggling to compete in the expanded, outside market place.

The woodlands of Delaware County represent a large opportunity for diversified farm operations -- especially having the potential of producing energy. New England Wood Pellet is now operating a pellet facility in Deposit, leading this charge. Directly, forests can produce timber and agro-forestry crops such as maple syrup, herbs, nuts, fruit, Christmas trees, wood products and byproducts, and recreational lease payments, such as for hunting rights. Indirect economic benefits to the county include environmental aesthetics important to the tourism industry as well as water, soil protection and wildlife habitat enhancement. Established programs and practices for engaging in these activities are available to farmers and other forest landowners who desire to participate. As with any new business endeavor, proper planning is the cornerstone to success.

New York City, New York State, the United States Environmental Protection Agency, The US Forest Service and others have recognized that forests represent the best land use for maintaining water quality. The Catskill Forest Association, Watershed Agricultural Council, NY State Dept. of Environmental Conservation and Cornell Cooperative Extension provide educational opportunities to farmers and other forest owners to help them meet their forest management goals. Farmers may improve the management of their forests through such programs.

Currently, many Delaware County landowners still underestimate the contributions that proper forest management can make to their farm's financial stability and to the community. Few farms have written comprehensive forest management plans and those that have, don't implement them. Most tend to focus on timber income by cutting the largest, best trees and leaving the rest, a practice known as "high-grading", "selective harvesting" or "diameter-limit cutting". They also exclude other potential management practices and income activities. Timber harvesting is conducted informally, without planning, to satisfy a need for immediate funds rather than as part of a long-term, planned program. Thus, the use of the farm forest as a short-term money maker greatly reduces the potential of that forest land, the long term viability of the farm and the protection of wildlife habitat and the environment. Poor timber harvest planning and the failure to use best management practices also have negative impacts on water quality and soil erosion.

#### **Conclusions:**

- Forest Educational programs like The Catskill Forest Association's, the Watershed Agricultural Council's and the Delaware County Cornell Cooperative Extension's that are already established should be supported by Delaware County.
- Develop an inventory of parcels available to attract entrepreneurs that utilize the wood resource to the region. Along with this, utilize the forest statistics to this same end.
- Establish financial and/or tax incentives to support, retain, expand and attract forest businesses to the area (somewhat like is already done with the rest of the agricultural community).
- Encourage relaxation of zoning regulations where necessary to allow for forest and agriculture business development.
- Include agriculture and wood products as a significant sector in economic development programs.
- Provide training to towns and villages on ways to focus new business development and growth in the agriculture, forestry and agro forestry sectors.
- When identifying farms for farmland protection funding and activities, the forest resources of the farm should also be evaluated. Forest management planning and implementation, forest acreage, volume and productivity of timber species, steepness, soil stability, accessibility to roads and non-timber income activity or potential are primary criteria for evaluating the impact of the forest resource to a farm.

*Source: James K. Waters, Executive Director, Catskill Forest Association (USDA Forest Service Statistics 2010)*

## **An Overview of the Bluestone Industry**

Indigenous to our area are large deposits of sedimentary stone referred to as bluestone. These bluestone deposits range from Sullivan and Ulster counties to Broome, Delaware, and Chenango counties extending into northeastern Pennsylvania. For over 125 years bluestone has been extracted from these areas. Workers are referred to as quarrymen and the sites are called quarries. The removal of bluestone is called quarrying. The color of bluestone can range from green, gray, lilac, brown, and blue. Typically a quarryman will locate a promising vein of bluestone and negotiate a lease with the property owner for a term from one to five years. He sells the product to local stone docks who then will market the material nationwide.

In the 1880's bluestone became very popular as a paving material for sidewalks in the bigger cities and as a building material for the affluent. Quarrying boomed in the Sullivan-Ulster area. Entrepreneur's saw great potential in bluestone quarrying and opened large quarries which employed 25 to 50 men per quarry. Stone docks sprung up in close proximity to these quarries. Many of these quarries housed their employees either in the quarry or close-by in shacks. All work was done by hand other than the loading of stone. That was accomplished by derricks powered by either steam engines or horses. Stone was loaded on horse drawn wagons. Stone was cut or "dressed" as quarrymen called it by using hand tools such as pitches and droves. Stone was sized by the use of plugs and feathers. This type of quarrying began to fade in the early 1900s.

From the 1900s to around the late 1970s, quarrying was done by much smaller crews. Usually a family got into the quarry business and a father-son, brother-brother, or even husband-wife team would work the quarry. More quarry sites were opening in the Delaware County region and overall the industry began migrating in a northerly direction. New stone docks were opened. Several that opened in this time period are still thriving today. The product line changed from heavy sidewalk flagging to pattern stone and treads, typically 1" to 2" thick. The industry became more automated. Gas powered saws allowed quarrymen to saw large blocks of stone and separate material to be finished by cutting with hand held saws. Many quarrymen also used forklifts to load their stone onto trucks. This greatly reduced labor. One could make an excellent living from quarrying during this time.

***Starting in the quarry business at this time, I can remember that it seemed that there were three basic ways to make a living. If you didn't quarry stone, you were either a logger or a farmer. Many times these three things overlapped and someone could do all three. Mitchell Bush***

***From the late 1970's to present quarrying has seen the biggest changes.***

Quarries have increased in size and scope. Today's quarries typically are several acres in size and are operated more with machinery than manpower. The product line has changed dramatically. Quarries that were abandoned because stone became thicker than could be marketed before are now desirable as saw rock quarries. Today bluestone is fabricated in saw shops to close tolerances on computer operated saws. (Continued)

It is common today for quarrymen to have skidsteers, saws, compressors, excavators, torches, dozers , haul trucks, and loaders. Wallstone, steps, and irregular flagging are popular now and help reduce waste in quarries. All of these products increase the profitability of a quarry site. This is the main factor in quarries being larger today. In the past once you exceeded a few inches in thickness you were forced to leave quarrying as it was no longer profitable.

### **Overcoming Challenges**

In the early 1990's the New York State Department of Environmental Conservation (DEC) began to regulate the bluestone industry. A threshold of 1000 tons of removed material was set as the trigger point to DEC intervention. If the threshold was exceeded a quarry would have to be permitted by DEC guidelines. In 1998 the New York State Bluestone Association was formed. In 2003 the Association was able to get an exploratory permit passed, allowing quarrymen the chance to quarry 500 tons for up to two years to see if the site would be profitable to develop. The exploratory was less cumbersome than the full blown permit. The association has a good working relationship with the NYS-DEC.

At about the same time the federal Mine Safety and Health Administration (MSHA) began to regulate the bluestone industry. This has created a federal mindset that making miners and quarrymen safe can be accomplished by excessive regulation and fines. It is becoming increasingly more difficult to operate a business profitably when the playing field changes often and the requirements can't be met. Members of the New York Bluestone Association are not opposed to safety, but would like to see a little common sense and understanding. Regulatory decisions are based on "a one size fits all" mindset. Decisions are based on one particular facet of mining in the U.S.: underground coal mining. The association is working with a national organization to advocate for logical regulatory relief. We also are involved in a "green" study with the Natural Stone Council to determine if this will help market bluestone to a greater degree.

### **The Future of Bluestone Mining in NY**

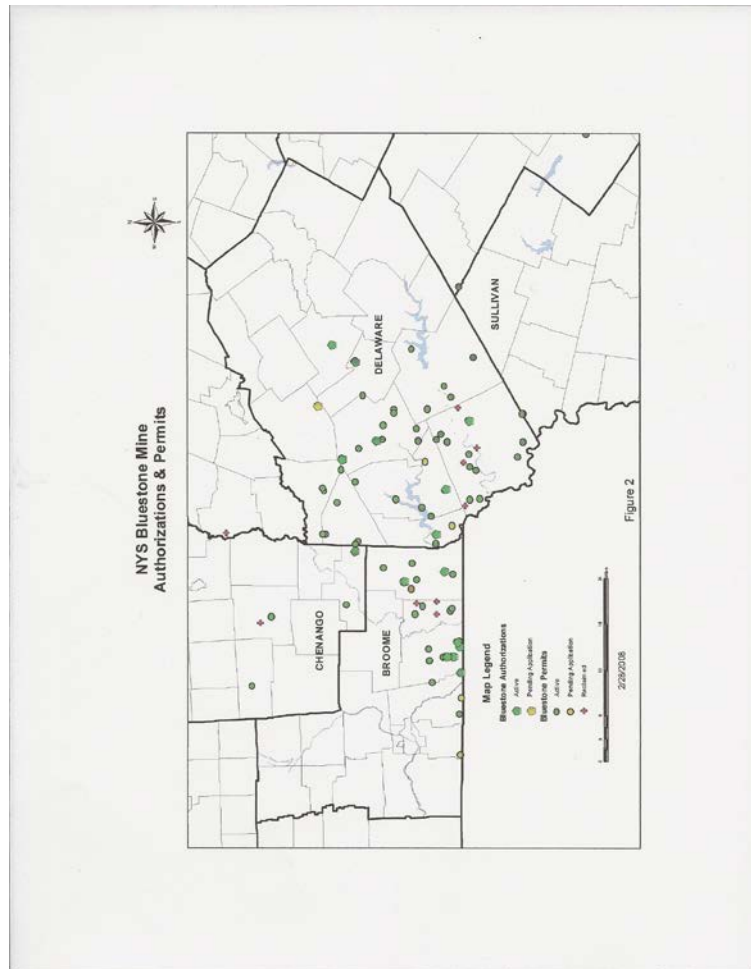
The bluestone industry has had a long and prosperous history but continues to face many challenges. Many people don't realize how critical mining is, both locally and nationally. ***Bluestone in this region contributes around 100 million dollars annually and employs 1000 people directly.*** According to a 2009 study "The Economic Impact of the New York State Mining and Construction Materials Industry", indirect impacts through support sales and services are even higher. It is important to keep mining and the bluestone industry, indigenous to this region, a viable way of life for quarrymen and their families.

Written by *Mitchell L. Bush, President, New York State Bluestone Association*



## NEW YORK BLUESTONE

According to the New York State Department of Environmental Conservation: In 2009 there were 64 permitted bluestone mines in an area extending from Tompkins County on the west to Albany County on the east. The majority of the bluestone activity is in Delaware and Broome counties. In Broome County roughly 90% of the bluestone mines are in the towns of Windsor and Sanford, which border Pennsylvania. In Delaware County the majority of mines are in the western end of the county, with the highest number in Hancock, a long-time core region of the bluestone industry. The growing bluestone industry is important to construction and architecture nationwide. New York's industry is valued between \$40 and \$100 million annually and it employs more than 700 full- and part-time employees. Most bluestone is quarried within a 90-mile radius of Deposit (Delaware County) and is sold for \$3-10 per square foot. Many miners travel daily from Pennsylvania to New York to mine.



*Source of Map: Report to the Governor and Legislature Regarding Bluestone Mining in New York State*

## **Delaware County Wildlife, Ecosystems & Recreational Opportunities**

Delaware County offers a wealth of natural resources that covers over 1460 square miles – a size larger than the state of Rhode Island. Farm lands, forest lands, lakes, ponds, reservoirs, rivers, waterfalls, wildlife – all combine to form a geography and abundance of natural resources that are treasured by farmers, residents and visitors alike.

State Parks in Delaware County include Bear Spring Mountain in Walton, Beaver Kill and East Branch State Forests in Colchester, Little Pond State Park in Andes and Oquaga Creek State Park in Masonville. Seasonal and open camping is available at more than 15 locations in the county. The Catskill Forest Preserve, partially located in Delaware County, is designated to be “forever kept as wild forestlands” where hunting, fishing and camping are allowed only in designated areas.

Miles upon miles of peaceful trails have made biking a popular pastime and attraction in the Western Catskills, especially in Delaware County. Roadways bordering the Pepacton and Cannonsville Reservoirs are popular for tour and mountain bikers. The Plattekill Ski Center in Roxbury offers lift-served mountain biking with 1600 feet of vertical drop and 10 miles of steep wooded single track.

One of the best hiking areas in Delaware County is the Dry Brook Ridge Trail near Margaretville, which leads to the Pakatakan Mountain, one of the county’s highest peaks at 3,100 feet. The trail runs along the spike of the mountain and offers a lean-to, several tent sites and spur trails to Balsam Lake and Graham Mountain. The Western Catskills of Delaware County have miles of country roads where people can enjoy walking and hiking. The Catskill Scenic Trail along the West Branch of the Delaware River is a 26 mile section of a former New York Central Railroad line, perfect for the low grade hiker and also perfect for the cross country skier. For a beautiful view of the Catskills, outdoor enthusiasts can enjoy hiking Mt. Utsayantha, one of the highest peaks in Delaware County. Stamford is also the home of the Headwaters Trails with 30 miles of trails in the Stamford area. In the Cooks Falls-Downsville area, a trail system exists, which includes the Trout Pond Trail, the Campbell Mountain Trail, the Mary Smith Trail, the Touch-Me-Not Trail, the Little Spring Brook Trail and the Pelnor Hollow Trail. The state parks listed above also offer hiking as do parts of the Catskill Forest Preserve. Located in the Town of Hamden, hikers can enjoy an energetic climb through the West Branch Preserve, hiking way up a mountainside and through forests which are the habitat of abundant wildlife.

Delaware County offers 700 miles of trout streams, including the Beaverkill, the East and West Branches of the Delaware River, the Little Delaware, Ouleout Creek and Trout Brook. Sixty-five mile of stream bank provide public access to these streams, where people can find brown trout, rainbow trout, and speckled or brook trout. Special licenses may be obtained from New York City Department of Protection to fish on the Pepacton and Cannonsville Reservoirs during trout and bass season. Now open for non-motorized boating, paddlers can enjoy boating 15.8 miles on the Pepacton and 16.8 miles on Cannonsville Reservoirs. Because both of these reservoirs are

part of the drinking water system for New York City, all boats entering both of these reservoirs must first be steamed cleaned at a steam cleaning station.

Information on the Pepacton and Cannonsville Reservoirs is available on [www.nyc.gov/dep](http://www.nyc.gov/dep). Walleye pike are found in the Schoharie Reservoir and the Susquehanna River. Other fish species which abound in Delaware County include small mouth bass, yellow perch, rock bass, trout, brown bullhead and carp. In the near future, boat access areas will be added to the East Branch and the West Branch River, as well as picnic areas, along with informational kiosks of the waterways, and other nearby attractions.

Deer, turkey and small game (including squirrels, pheasant, grouse, woodcocks, cottontail and snowshoe rabbits, ducks and geese) and even black bear offer a great variety for sport hunters as well as wildlife enthusiasts.

In July, 2000, New York State acquired, 2,339 acres of Delaware County forestland, creating two new State Forests, the Relay State Forests, located in Stamford and Roxbury in the northeastern part of the county and Tommanex State Forest, located on the south side of the East Branch of the Delaware River in Hancock and Colchester. Miles of cross-country ski trails have been developed in the Relay State Forest, and hiking trails are planned for a ridge top with peaks ranging from 2,050 to 3,160 feet. Brook and brown trout abound. The Tommanex State Forest provides miles of scenic river front and six miles of abandoned railroad bed can be used for hiking and cross-country skiing. Trout and spring shad fishing are excellent in this stretch of the East Branch and a new fishing access site was created near the Hale Eddy Bridge.

In recent years, NY City DEP has been purchasing land within the New York City watershed portion of the county as a tool for protection of water quality. In Delaware County there are approximately 150 parcels that have been purchased and many of these lands are open to public access for recreational use. Rules for this access vary by parcel, and one should refer to the website [www.nyc.gov/dep](http://www.nyc.gov/dep) for guidance and information about these lands. These lands offer an opportunity to enjoy nature at its finest right here within two and one half hours of the NY City metropolitan area.

The habitat, ecosystems and recreational opportunities that are found throughout Delaware County are economic assets integral to the rural, agricultural character of its communities. Without production agriculture, these streams, trails, wildlife and habitat would be threatened and access to them by the public would be reduced.

*Source: Written by Mary Beth Silano, Executive Director, Delaware County Chamber of Commerce*



*Photo by Ellen Wong*

## Delaware County Department of Watershed Affairs

Watershed Affairs' (WA) charge by the county is to act as the liaison to the Delaware County Board of Supervisors on watershed issues throughout the county. WA represents the county's position on watershed issues. Watershed efforts are implemented under the umbrella of the Delaware County Action Plan (DCAP).

DCAP is comprehensive, including measures to address pollutant loading, including but not limited to nutrients, pathogens, pharmaceuticals, chemicals, and sediment. Delivery is through a variety of programs such as precision feed management, flood mitigation, monitoring of conservation easements, town planning advisory service, stream corridor protection program and highway management plans. Agriculture continues as one of the largest components of DCAP. The position of WA and those of DCAP is that a profitable farming and agricultural industry is the best solution to farmland protection. ***Without farmers willing to farm profitably and safely while gaining equity in their property, who and what are we preserving the land for?***

The purpose of Precision Feed Management (PFM) was to reduce the largest source of nutrient imports into watersheds from purchased grains for dairy cows, thereby reducing excess phosphorus in manure and reducing the amount of phosphorus subject to runoff and/or being stored in the soil. Research showed it did what it was intended to do and helped with farm profitability.

Under DCAP, Cornell Cooperative Extension and the Soil and Water Conservation District, together with their agreements with USDA-NRCS and USDA-FSA, have made it a priority to identify technical and financial resources to assist farmers in implementing BMPs by paying for them.

Watershed Affairs and other members of DCAP were actively engaged the negotiation process of the New York City Water Supply Permit required by NYSDEC that enables the City to buy land in the watershed area. In this process we were successful in achieving changes to the agricultural easement language and improvements in guidelines of WAC's agricultural conservation easement policy guidelines.

WA and its DCAP partners recently negotiated a flood mitigation program in the New York City Watershed. We will make every effort to do the same where we can find resources for areas outside the NYC watershed area.

Management of stormwater under the highway management plans is closely integrated with the management of streams. The proper sizing of bridges and culverts and maintenance of ditches will reduce the risk of flood damage on fields in close proximity to streams.

Our DCAP goals relative to farmland protection will remain the same. We will continue to seek funding to implement programs that can help farmers deal with environmental issues so as they have a positive or neutral impact on farm profitability and water quality.

*Source: Written by Dean Frazier, Commissioner of Watershed Affairs*

## NATURAL RESOURCES FOR DELAWARE COUNTY AGRICULTURE

Delaware County is located in south central New York State. The total land area is 1468 square miles (939,900 acres). The general landscape is rolling hills and river valleys with elevations ranging from about 820 feet in the Delaware River Valley near Long Eddy, Sullivan County, to 3520 feet at the summit of Bearpen Mountain on the eastern county border. The mean county elevation is approximately 2180 feet and mode county elevation 1280 feet. The average growing season is 123 days, typically a few weeks shorter in the higher elevations. Average annual precipitation is 44 inches with 100 inches of snowfall. About 76% is forested (approximately 718,000 acres).

A generalized map of the county is shown at the end of this report, together with a map of prime soils in Delaware County. Table I (page 68) is a legend that briefly describes important qualities of the eight soil groups. A Soil Survey for Delaware County was completed in 2006 and can be found online at: <http://soildatamart.nrcs.usda.gov/Manuscripts/NY025/0/Delaware.pdf> This survey, available through the USDA Natural Resources Conservation Service, will be used to determine the dominant soils on a particular farm or tract of land.

According to the soil survey of Delaware County New York (2006), approximately 52,500 acres (6%) of Delaware County soils are considered “prime farmland” which commonly produces high yields of a variety of crops. These soils are relatively flat (less than 8% slope), deep, well drained and store adequate moisture for crop growth. However, the same soil characteristics are desirable for residential and urban development and most villages have expanded over prime farmland. Some of the best farmland in the county is found along the East and West Branches of the Delaware River, upstream and downstream from the Pepacton and Cannonsville Reservoirs. Following this report is a list of specific prime farmland soils and their extent in Delaware County.

Following is a diagram showing where some of these soil types typically occur on the landscape and the various geologic materials in which the soils developed:



Although not consistently productive as prime farmland, 23% of the county is covered by “farmland of statewide importance” which supports much of the county’s agriculture. These soils are commonly used for hay land and pasture, but can produce good crop yields if managed properly. They have one or more characteristics making them less suitable to use for either cultivated crops or for residential development. For example, steep slopes, seasonal wetness, shallow depth to bedrock, large surface stones, or any combination of these, can interfere with many land uses, thereby increasing the pressure to utilize prime farmland soils instead.

Delaware County straddles the watersheds of the Delaware River system (78.6% of the county), The Susquehanna River system (19.5% of the county) and the Schoharie River/Hudson system (1.8% of the county). Delaware County shares a 23-mile border with Pennsylvania – eight miles along the West Branch of the Delaware River and 15 miles along the main stem of the Delaware River which has been designated a National Scenic and Recreation River. The two primary rivers which drain the county are the East and West Branches of the Delaware River and their tributaries. Both of these rivers supply water to reservoirs which are part of the New York City drinking water supply system. A very small portion of the county’s streams also contributes water to New York City’s Schoharie Reservoir. Of the approximately 1,013,945 acre New York City Catskill-Delaware Watershed, 502,587 acres, or 49.6% lie in Delaware County. The New York City Catskill-Delaware Watershed comprises 53.5% of the Delaware County’s area. Bodies of water comprise 1.5% of the county and residentially and commercially developed areas about 0.65%.

Wetlands delineated and regulated by the New York State Department of Environmental Conservation (generally those wetlands which are 12.4 acres and larger) comprise 0.6% of the county. Other smaller wetlands exist and are regulated by the US Army Corps of Engineers, but mapping is incomplete.

All of the Catskill mountain region lies within the Appalachian Plateau, or Allegheny Plateau “Ecozone”. The Delaware County portion of this ecozone can be further divided into four sub-zones: The Central Appalachians, the Delaware Hills, the Schoharie Hills and the Catskill Peaks. Differences between sub-zones are based on the dominant regional vegetation community and general topography. Many diverse habitat types and community assemblages occur within these larger units. Approximately 10.7% of Delaware County (100,393 acres) lies within the Catskill Park, along the southeast edge of the county (comprising 14.4% of the Catskill Park). Within this Delaware County portion of the Catskill Park, there are approximately 42,196 acres of “Forever Wild” Forest Preserve. Other state lands in Delaware County, including reforestation areas, wildlife management areas and detached forest preserve parcels, amount to more than 32,500 acres of additional public land. Protected Open Space is also held by the NYC Department of Environmental Protection for water supply and watershed protection purposes (limited access).

*Sources: Larry and Magdalena Day, Delaware County Soil and Water Conservation District (2000 & 2013); Chris Olney, Catskill Center for Conservation Development (2000); Jim Waters, Catskill Forest Association (2013); and Cornell University. Delaware County soils are mapped by USDA NRCS, Soil Survey of Delaware County NY, providing much of this data.*

**Delaware County, New York  
From Soil Survey Report**

**Prime Farmland & Their Extent in Delaware County**

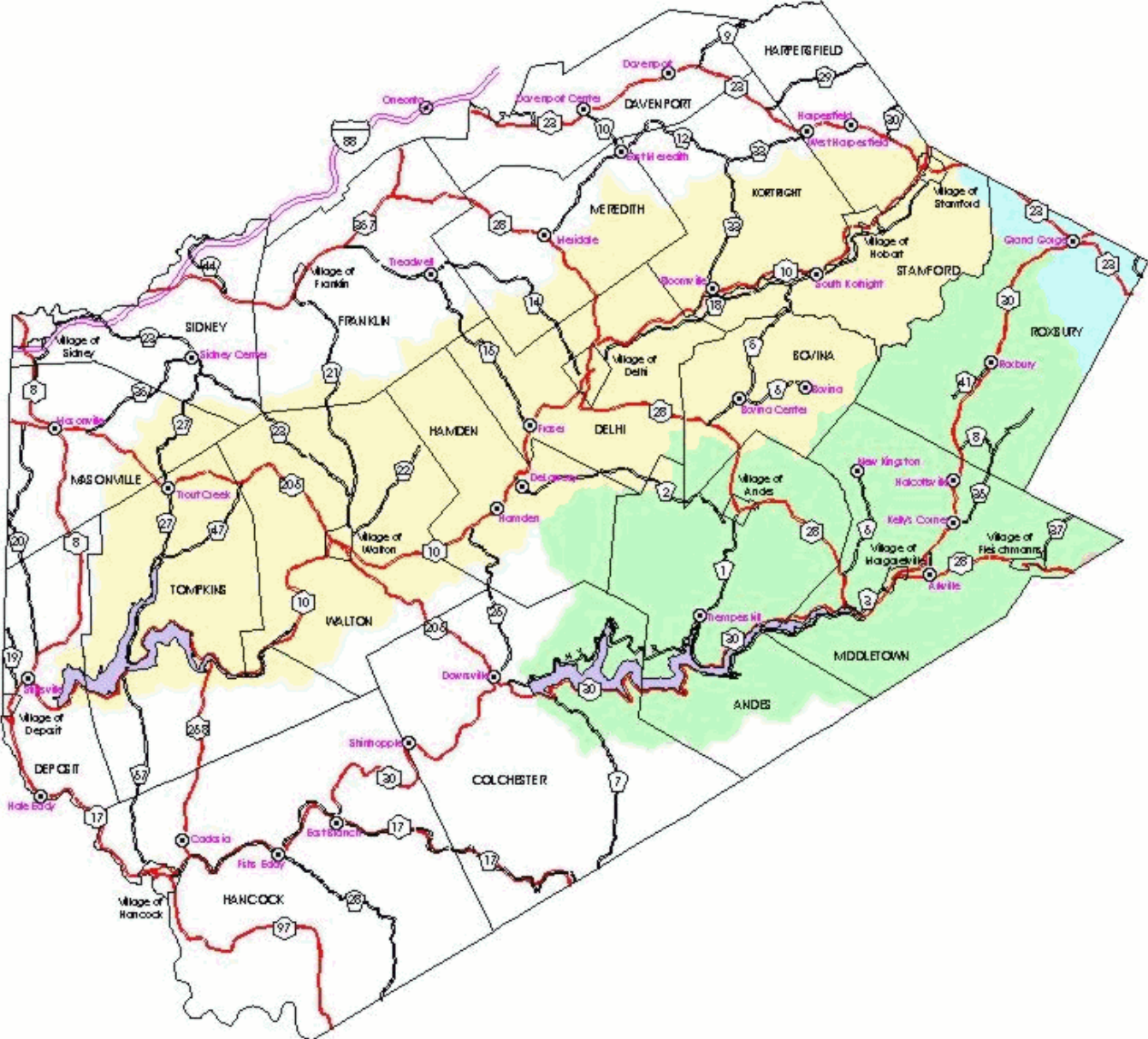
(Only the soils considered prime farmland are listed. Urban or built-up areas of the soils listed are not considered prime farmland. If a soil is prime farmland only under certain conditions, the conditions are specified in parentheses after the soil name.)

<b>Map Symbol</b>	<b>Soil Name</b>	<b>Acres</b>	<b>Percent of County</b>
<b>Bc</b>	Barbour loam	4834	0.5
<b>Bg</b>	Barbour-Trestle complex	5760	0.6
<b>Bs</b>	Basher silt loam	3737	0.4
<b>BtB</b>	Bath channery silt loam, 3 to 8 percent slopes	122	<0.1
<b>ChA</b>	Chenango gravelly silt loam, 0 to 3 percent slopes	587	<0.1
<b>ChB</b>	Chenango gravelly silt loam, 3 to 8 percent slopes	1443	0.2
<b>CoB</b>	Collamer silt loam, 3 to 8 percent slopes	157	<0.1
<b>De</b>	Deposit gravelly silt loam	1812	<0.1
<b>LaB</b>	Lackawanna flaggy silt loam, 3 to 8 percent slopes	973	0.1
<b>LeB</b>	Lewbath flaggy loam, 3 to 8 percent slopes	262	<0.1
<b>LhB</b>	Lewbeach channery loam, 3 to 8 percent slopes	3430	0.4
<b>LoB</b>	Lordstown channery silt loam, 2 to 8 percent slopes	1549	0.2
<b>MaB</b>	Maplecrest gravelly silt loam, 3 to 8 percent slopes	2317	0.2
<b>MkB</b>	Middlebrook-Mongaup complex, 2 to 8 percent slopes	2614	0.3
<b>MnB</b>	Mongaup channery loam, 2 to 8 percent slopes	3772	0.4
<b>Pc</b>	Philo silt loam	997	0.1
<b>Re</b>	Red hook gravelly silt loam (Prime farmland if drained)	912	<0.1
<b>RhA</b>	Riverhead loam, 0 to 3 percent slopes	815	<0.1
<b>RhB</b>	Riverhead loam, 3 to 8 percent slopes	1008	0.1
<b>TkA</b>	Tunkhannock gravelly loam, 0 to 3 percent slopes	1123	0.1
<b>TkB</b>	Tunkhannock gravelly loam, 3 to 8 percent slopes	3944	0.4
<b>TtA</b>	Tunkhannock and Chenango soils, fan, 0 to 3 percent slopes	2583	0.3
<b>TtB</b>	Tunkhannock and Chenango soils, fan, 3 to 8 percent slopes	3540	0.4
<b>Un</b>	Unadilla silt loam	1558	0.2
<b>VaB</b>	Valois very fine sandy loam, 3 to 8 percent slopes	1243	0.1
<b>Wg</b>	Wenonah silt loam	1435	0.2
		<b>52,527</b>	<b>5.6%</b>

2013 Note: Mardin, Oquaga and Vly soils are not considered officially to be “prime” soils anymore.

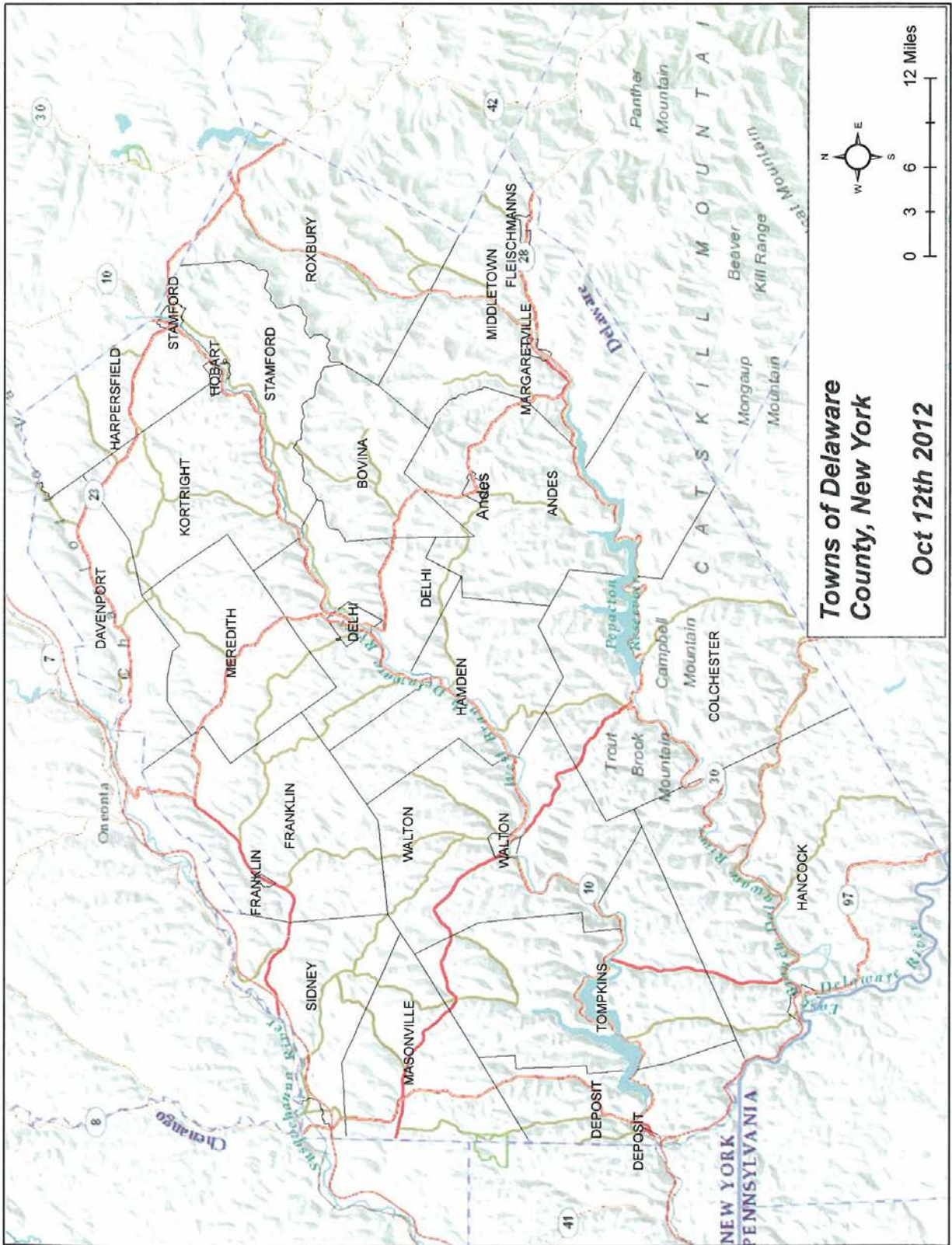
Source of table: Delaware County Soil and Water Conservation District 2013

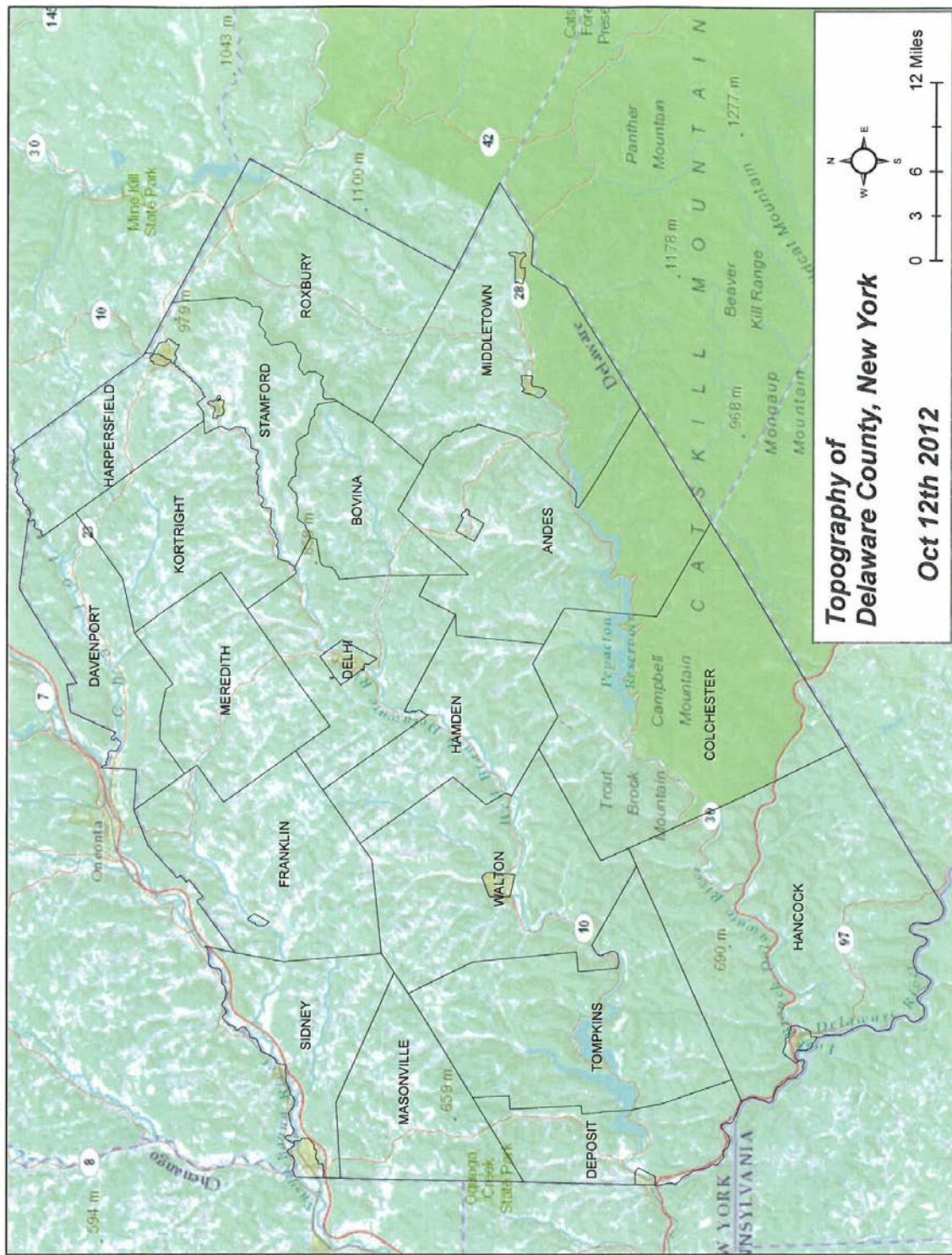
# DELAWARE COUNTY NEW YORK



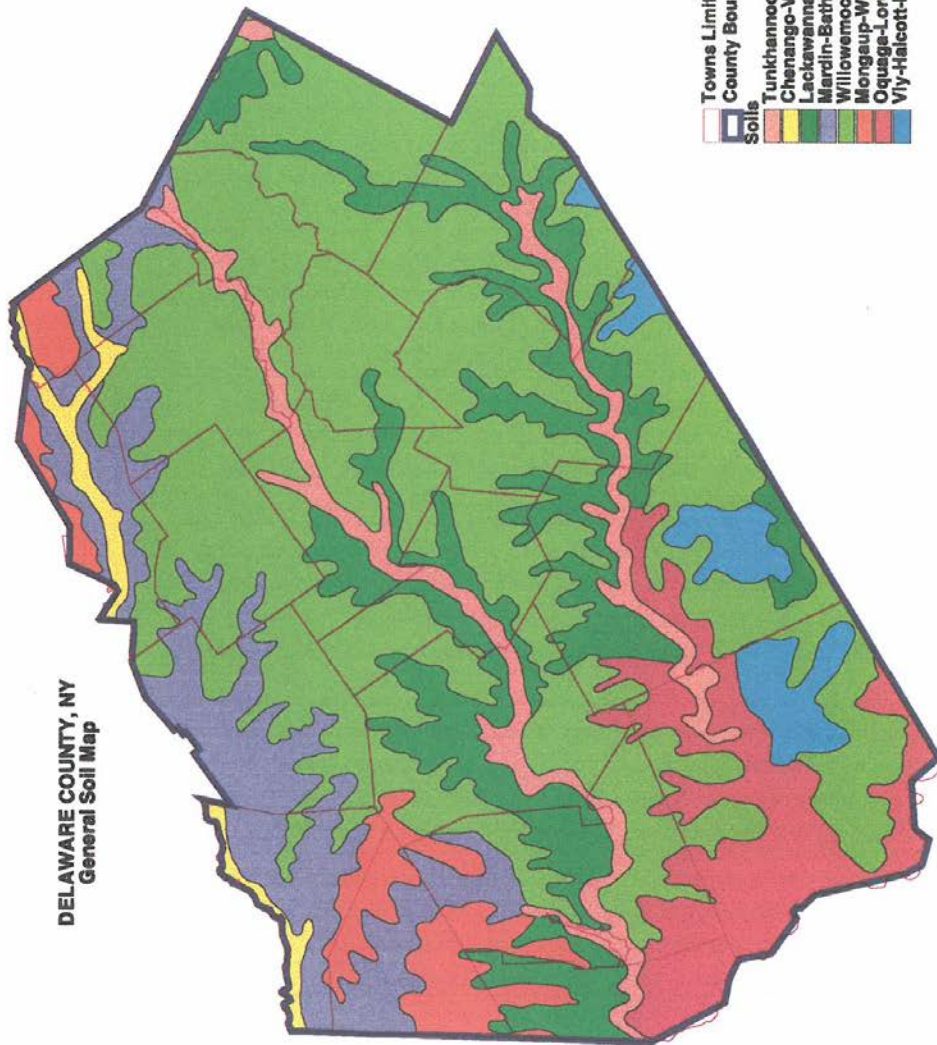
Source: Delaware County website: <http://www.co.delaware.ny.us/maps.htm>







**DELAWARE COUNTY, NY  
General Soil Map**



Prepared by Delaware County SWCD  
October 1998

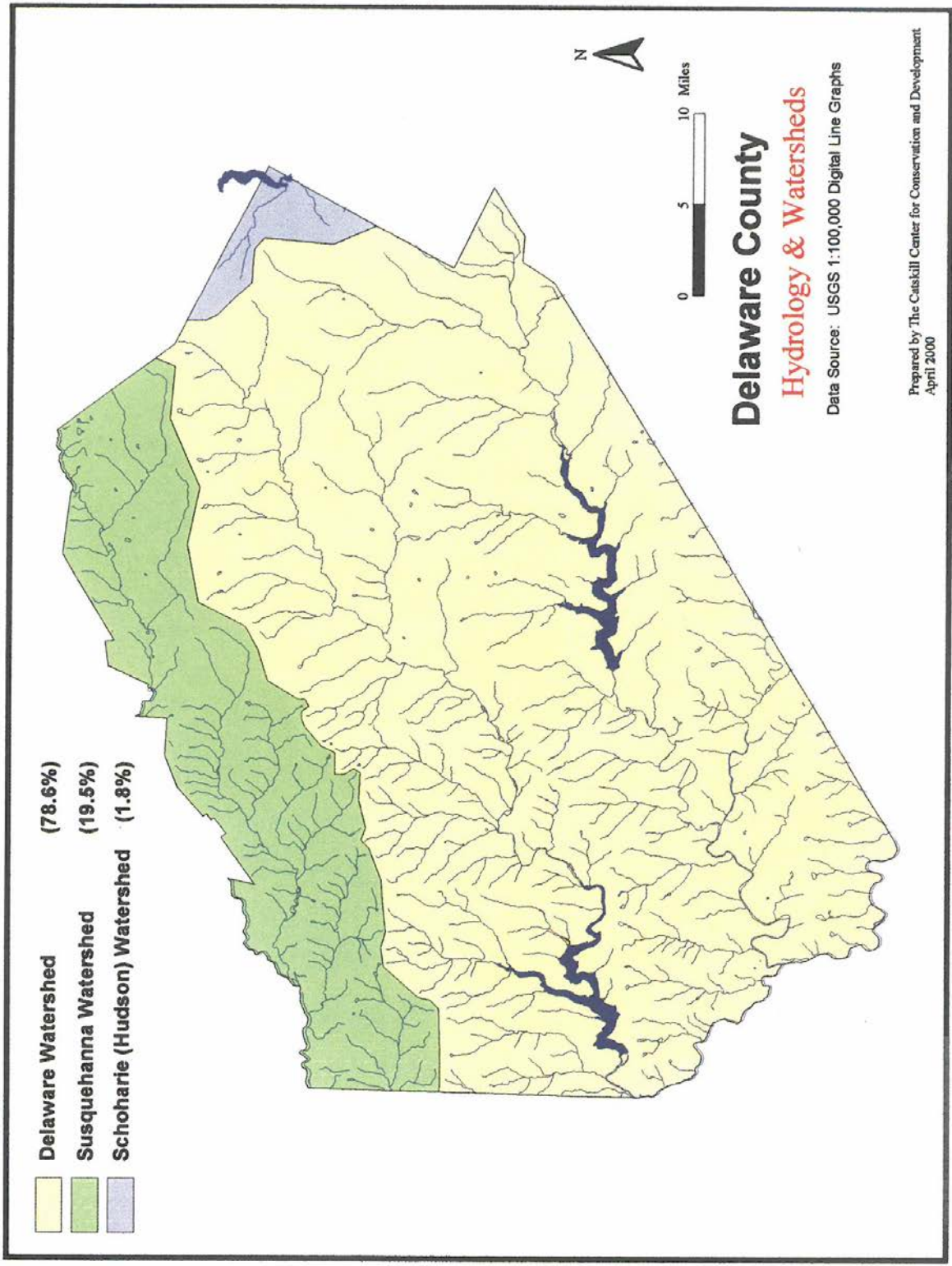
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**Delaware County Agricultural and Farmland Protection Plan**

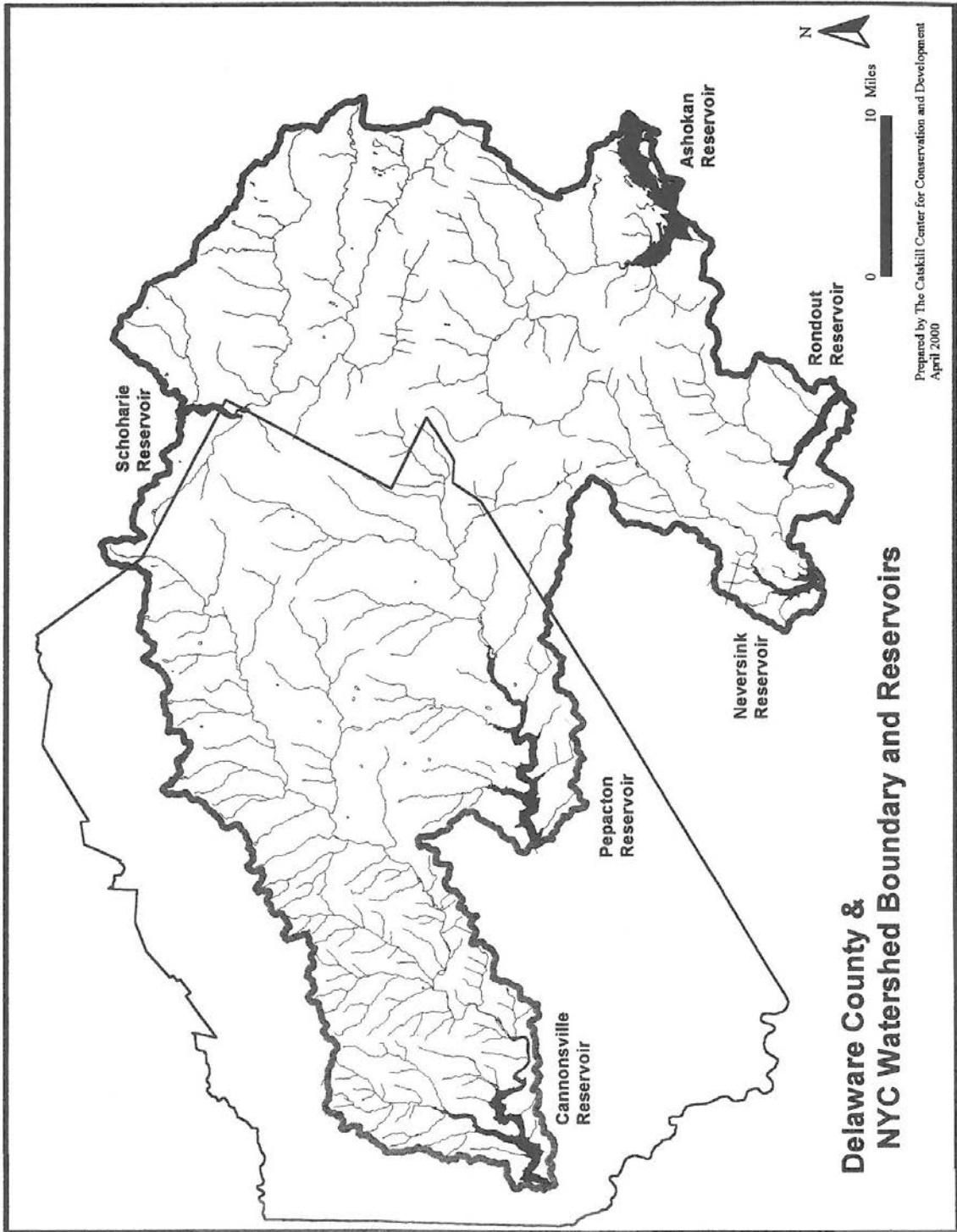
**Table 1 : Brief Descriptions of Soil Groups Shown in the General Soil Map of Delaware County (Figure 1).**

<p><u>Tunkhannock-Maplecrest-Barbour</u>: Nearly level to steep, very deep, somewhat droughty to well drained, medium and moderately coarse textured soils in valleys less than 1750 feet elevation. Comprises about 6% of the county. Consists of 35% Tunkhannock, 30% Maplecrest, 15% Barbour, 20% other soils. Suitability for agriculture is excellent where slopes are &lt;15%.</p>
<p><u>Chenango-Valois</u>: Nearly level to very steep, very deep, somewhat droughty to well drained, medium textured soils in valleys and along valley sides below 1750 feet elevation. Comprises about 2% of the county. Consists of 40% Chenango, 40% Valois, 20% other soils. Suitability for agriculture is good to excellent where slopes are &lt;15%.</p>
<p><u>Lackawanna-Wellsboro</u>: Gently sloping to steep, very deep, well drained to somewhat poorly drained, medium textured soils on uplands below 1750 feet elevation. Comprises about 12% of the county. Consists of 40% Lackawanna, 35% Wellsboro, 25% other soils. Suitability for agriculture is very good to good where slopes are &lt;15%.</p>
<p><u>Mardin-Bath-Volusia</u>: Gently sloping to moderately steep, very deep, well drained to somewhat poorly drained, medium textured soils on uplands below 1750 feet elevation. Comprises about 5% of the county. Consists of 35% Mardin, 25% Bath, 20% Volusia, 20% other soils. Suitability for agriculture is good where slopes are &lt;15%.</p>
<p><u>Willowemoc-Lewbeach-Onteora</u>: Gently sloping to steep, very deep, well drained to somewhat poorly drained, medium textured soils on uplands above 1750 feet. Comprises about 30% of the county. Consists of 40% Willowemoc, 30% Lewbeach, 15% Onteora, 15% other soils. Suitability for agriculture is good where slopes are &lt;15%.</p>
<p><u>Mongaup-Willdin</u>: Gently sloping to moderately steep, moderately deep and very deep to bedrock, well drained and moderately well drained, medium textured soils on hillsides and hilltops in uplands above 1750 feet. Comprises about 4% of the county. Consists of 35% Mongaup, 35% Willdin, 30% other soils. Suitability for agriculture is fair to good where slopes are &lt;15%.</p>
<p><u>Oquaga-Lordstown-Arnot</u>: Gently sloping to very steep, moderately deep and shallow to bedrock, droughty to moderately well drained, medium textured soils on uplands below 1750 feet elevation. Comprises about 5% of the county. Consists of 30% Oquaga, 30% Lordstown, 15% Arnot, 25% other soils. Suitability for agriculture is fair to poor where slopes are &lt;15%.</p>
<p><u>Vly-Halcott-Mongaup</u>: Gently sloping to very steep, moderately deep and shallow to bedrock, somewhat droughty to well drained, medium textured soils on uplands above 1750 feet elevation. Comprises about 35% of the county. 35% Vly, 20% Halcott, 20% Mongaup, 25% other soils. Suitability for agriculture is fair to poor where slopes are &lt;15%.</p>

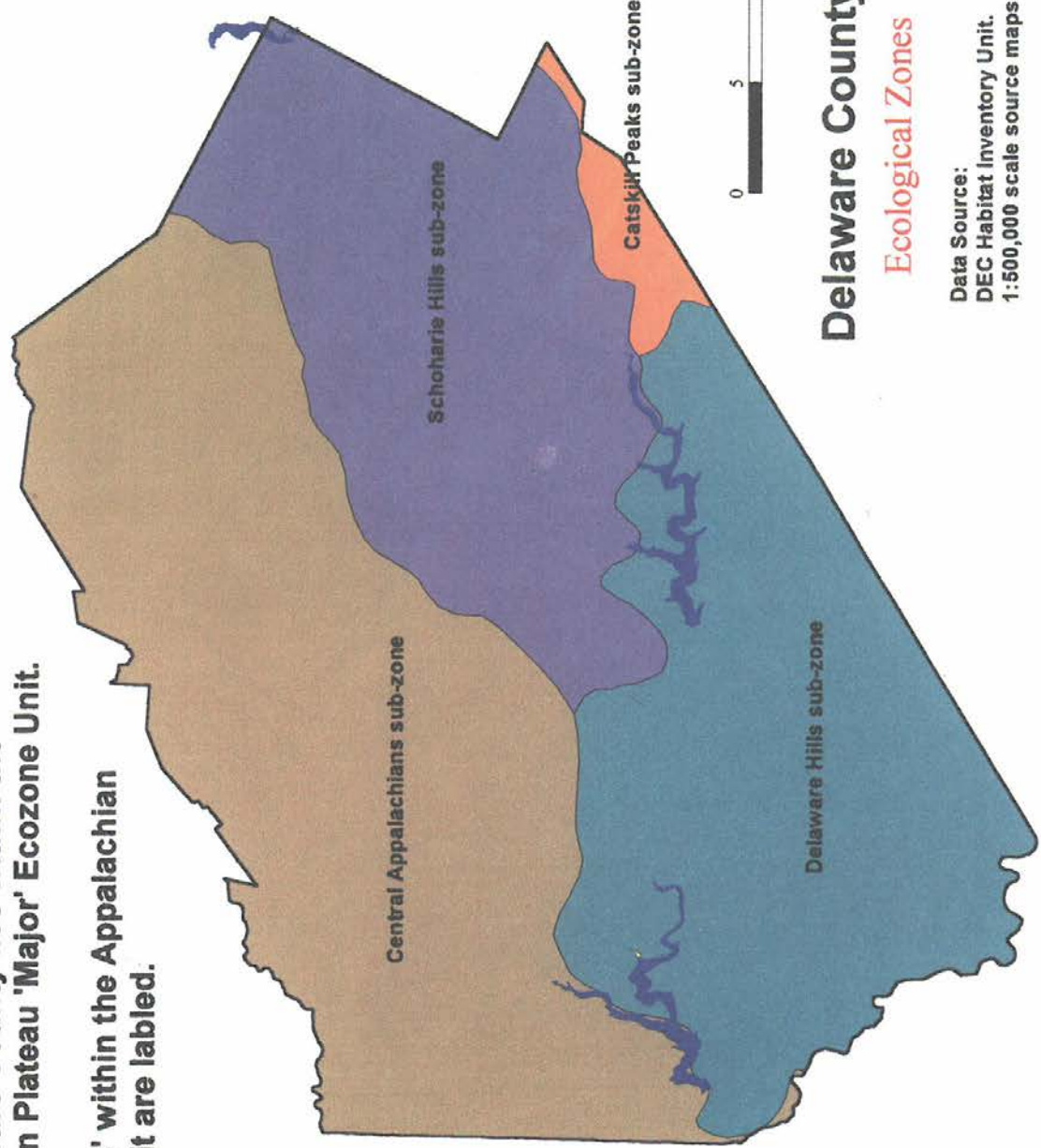




Delaware County Agricultural and Farmland Protection Plan



**All of Delaware County lies within the Appalachian Plateau 'Major' Ecozone Unit. 'Sub-Zones' within the Appalachian Plateau Unit are labeled.**



**Delaware County**  
**Ecological Zones**

**Data Source:**  
**DEC Habitat Inventory Unit.**  
**1:500,000 scale source maps.**

Prepared by The Catskill Center for Conservation and Development  
April 2000

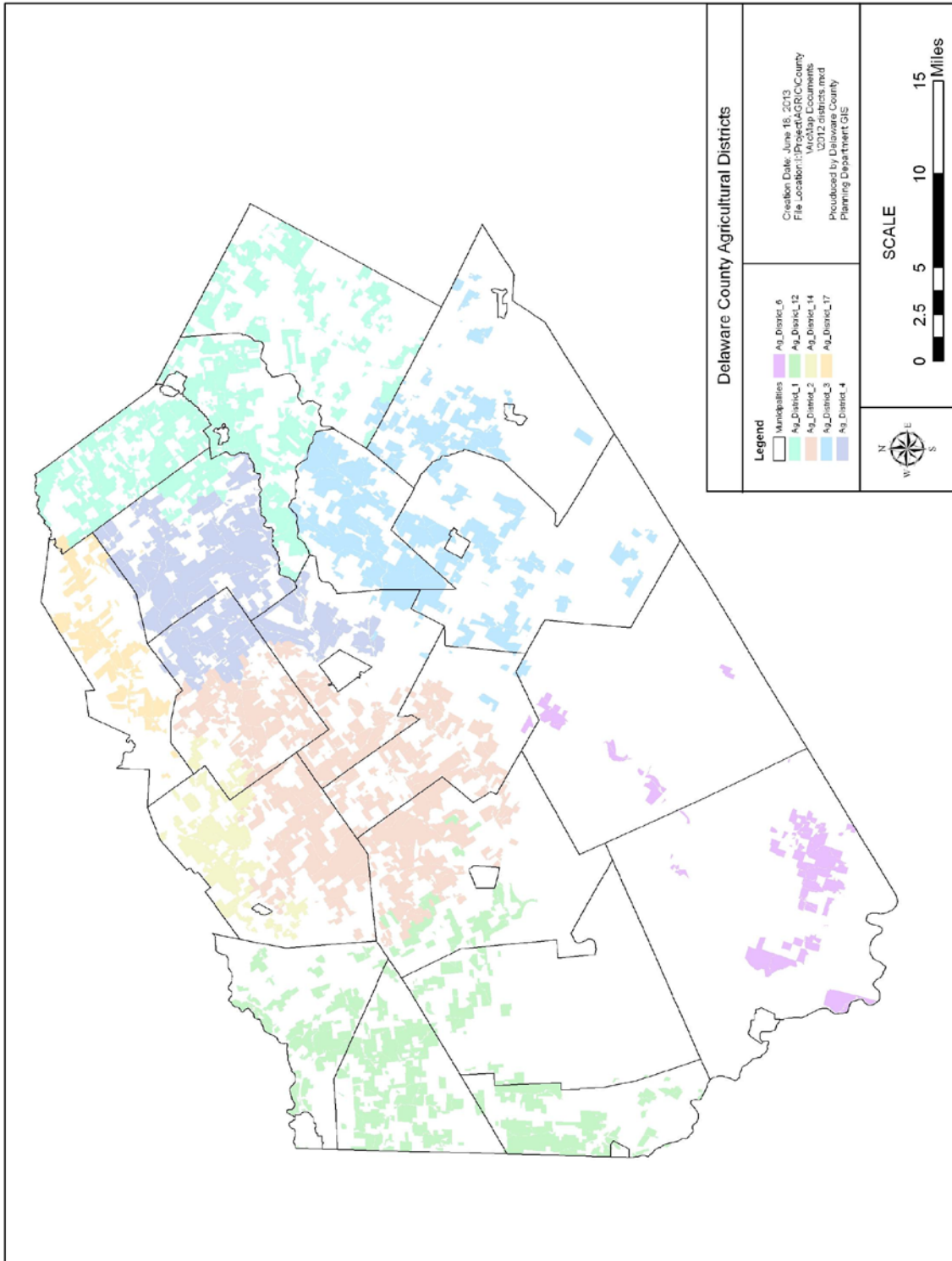


**MATRIX OF LAND USE REGULATIONS  
RELATING TO AGRICULTURAL LAND USE  
IN DELAWARE COUNTY**

VILLAGE	SUBDIVISION	ZONING	RIGHT TO FARM
ANDES	YES	YES	NO
DELHI	YES	YES	NO
DEPOSIT	YES	NO	NO
FLEISCHMANN'S	NO	NO	NO
FRANKLIN	YES	YES	NO
HANCOCK	NO	NO	NO
HOBART	YES	YES	NO
MARGARETVILLE	YES	NO	NO
SIDNEY	YES	NO	NO
STAMFORD	YES	NO	NO
WALTON	YES	NO	NO

**AGRICULTURAL DISTRICTS  
IN DELAWARE COUNTY**

DISTRICT NUMBER	CREATION DATE	ACRES	TOWNS
1	10/23/1973	47,157	Harpersfield, Kortright, Roxbury, Stamford
2	08/11/1974	61,809	Delhi, Franklin, Hamden, Meredith, Walton
3	07/10/1974	25,873	Andes, Middletown, Bovina
4	11/20/1974	34,778	Davenport, Delhi, Kortright, Meredith
6	08/04/1975	11,411	Colchester, Hamden, Hancock
12	04/12/1978	30,775	Deposit, Masonville, Sidney, Tompkins, Walton
14	11/05/1978	10,851	Davenport, Franklin, Meredith
17	03/14/1979	9,152	Davenport, Harpersfield
<b>Total Districts 8</b>		<b>Total Acreage 231,806</b>	



## 2014 GOALS AND OBJECTIVES STAKEHOLDER INPUT

These goals and objectives reflect data from the following stakeholder positions: 2012-13 Delaware County Farmer Survey (Appendix A), Comprehensive Plan of the Town & Village of Delhi, 2012; Comprehensive Plan of the Town of Masonville, 2008; Comprehensive Plan of the Town of Stamford, 2011; Comprehensive Plan of Walton, 2006; Ag & Farmland Protection Plan of Meredith, 2012; Comprehensive Plan of the Town of Bovina, 2002; Comprehensive Plan of the Town of Franklin; Comprehensive Plan of the Town of Hamden Comprehensive Plan of the Town of Roxbury, 2013. These plans can be accessed on the Internet and are not included in the appendix. These Goals and Objectives also reflect data from the following recent surveys: 2011 Regional Food System Assessment for South Central New York; Delaware County Growth and Sustainability Plan 2010-2015; Farmland and Farms Tax & Policy Analysis 2009. These Goals and Objectives also reflect some of the priorities recommended in the 2012 NY Small Farm Summit and the 2010 Farm-NY agenda.

## IMPLEMENTATION PARTNERS

The following **Implementation Partners** will be cited by their abbreviations as indicated in bold type. Any groups or agencies who have an active interest in protecting farms and farmlands but are not listed below should consider themselves partners in this plan. Any omissions are not intentional.

Delaware County farmers (**farmers**)  
Future Farmers of America (**FFA**)  
Boards of Cooperative Educational Services (**BOCES**)  
Cornell Cooperative Extension of Delaware County (**CCE**);  
Delaware County Planning Department (**Planning**);  
Delaware County Economic Development (**Economic Development**)  
Delaware County Agricultural & Farmland Protection Board (**AFPB**);  
Delaware County Soil and Water Conservation District (**DCSWCD**);  
USDA Farm Service Agency (**Farm Service Agency**);  
USDA Natural Resources Conservation Service (**NRCS**);  
Watershed Agricultural Council (**WAC**);  
Watershed Agricultural Program (**WAP**)  
NYS Department of Environmental Protection (**DEP**);  
NYS Department of Environmental Conservation (**DEC**);  
Catskill Forest Association (**CFA**);  
NYS Bluestone Association (**NYSBA**);  
Farm Catskills;  
Delaware County Chamber of Commerce (**Chamber**)  
Chambers of Commerce of Delaware County Towns (**Town Chambers**)  
NYS Farm-Net (**FarmNet**);  
New York FarmLink (**NYFL**);  
Catskills FarmLink (**CFL**);  
New York Bluestone Association  
Center for Agricultural Development and Entrepreneurship (**CADE**);  
Delaware County Board of Supervisors (**DCBOS**);  
Delaware County Farm Bureau (**Farm Bureau**);  
Delaware County Department of Watershed Affairs (**DWA**);  
Delaware County Department of Real Property Tax Services (**Real Property**)  
State University of New York at Delhi (**SUNY Delhi**)  
New York Center for Agricultural Medicine and Health (**NYCAMH**)  
Delaware County Agricultural and Farmland Protection Plan

## **Goal I: Enhance the profitability and economic vitality of farms, agribusinesses, and natural resource-based businesses in Delaware County.**

### **Objectives:**

1. Increase communications between agencies and organizations that are working to serve the agricultural community in Delaware County

*Implementation Partners:* all partners

*Implementation Strategies:*

- Social media outlets of all partners, including farmers, will promote or support the events taking place throughout the county that supports agriculture and agricultural infrastructure
- Partners will support each other's work in obtaining grant funding for farm related projects so that such efforts reflect countywide cooperation and outreach
- As issues or opportunities arise, partners will work together to create a coordinated response

2. Design and implement regional food distribution systems for better access to statewide metropolitan markets

*Implementation Partners:* farmers; Economic Development; WAC; CADE

*Implementation Strategies:*

- Tap into New York State's "Share NY Food" initiative as it develops to expand the use of the Community Supported Agriculture (CSA) in Delaware County
- Explore the use of the state's "Linked Deposit Program" through which small businesses (including farms) can receive low rate loans to modernize facilities and operations, increase access to new markets, and develop new products
- Explore emerging food markets and facilitate farmer access
- Work to link-up regional distributors with local farmers
- Assist in the development of mobile markets and farmers' markets which can serve lower income families with limited access to farm fresh food
- Explore the concept of a central year-round farmers' market located in Delaware County
- The Watershed Agricultural Council's Economic Viability Program will continue initiatives to enhance the profitability and sustainability of all agricultural and forestry enterprises in the NYC watershed and greater Catskill region. The Economic Viability Committee overseeing this initiative will offer area farmers, foresters and landowners a suite of tools, resources and information to enhance the marketing and distribution of products made in the Catskills.

3. Increase the number of small and mid-size food processors in the county and promote access to shared use kitchens

**Implementation Partners:** farmers; Economic Development; CCE, CADE

**Implementation Strategies:**

- Provide farmers with the educational resources needed to process, package and sell value-added foods utilizing resources from Cornell's Northeast Center for Food Entrepreneurship (NECFE)
- Pursue funding through the State's Manufacturing Assistance Program (MAP) as it becomes available to small and medium-sized farm businesses

4. Pursue programs and incentives designed to lower the cost of farming in New York State

**Implementation Partners:** CCE; WAC; Farm Bureau; Farm Catskills; Economic Development; Planning; DCBOS

**Implementation Strategies:**

- Encourage the expansion of the State's Agricultural Energy Efficiency Program to fund energy efficiency improvements on farms
- Encourage the expansion and accessibility to NYSERDA's agriculture program to increase farmer participation
- Continue research on biomass and biofuel production
- Continue research on wind and solar power generation
- Continue research on natural gas production
- Explore new levels of tax assessment based on land use values rather than fair market values, such as Pennsylvania's Clean and Green Program
- Continue outreach to farmers on the federal programs available through the USDA Farm Service Agency, such as low interest loans, operating and emergency loans, disaster payments, and market loss assistance programs
- Facilitate efforts of farmers to secure low interest rate loans for new product development, farm business start-up (See Appendix for Funding Opportunities through Economic Development)
- Include agriculture and wood products as a significant sector in economic development programs
- Establish financial and/or tax incentives to support, retain, expand and attract forest businesses to the area
- Support current efforts by state government to launch the "Grown in New York Plan" which aims to reduce taxes on farmers; eliminate the "18-a" energy tax surcharge; curtail "red tape" and outdated regulations; improve farmers' access to customers by expanding farmers' markets and food hubs; put more New York food products in schools and government facilities; encourage growth of the New York maple, honey, Christmas trees, hops, home-grown breweries, and wine industries; put idle farmland back into production; and improve farm safety by putting NYCAMH's ROPS program back into the state budget (Rollover Protection System) and support other programs from NYCAMH

5. Provide farmers with tools and necessary for agricultural business management

**Implementation Partners:** CCE; NY-FarmNet; Economic Development

**Implementation Strategies:**

- Continue offering dairy farmers the Cornell Dairy Farm Business Summary Program with on-farm guidance and analysis by Cornell Cooperative Extension staff
- Continue offering farm business planning education programs targeting animal production, beginning farmers, commercial horticulture enterprises, sustainable and organic practices
- Develop on-going programs in new technologies designed to make farm businesses run more efficiently in areas of crop production, record keeping, business expansion/diversification planning, marketing outreach, farm event planning and promotion, and integrated pest management
- Support the Dairy Acceleration Program offered by NYS Department of Ag & Markets

6. Support and promote the local brands that helps connect consumers to local farms

**Implementation Partners:** WAC; CCE; CADE; Chamber; Town Chambers; Farm Catskills;

**Implementation Strategies:**

- Utilize farm brands on social media sites, in promotional outreach, etc
- Encourage farms to develop their own brands in conjunction with regional and state farm branding efforts
- Seek funding to help farmers develop effective brands and other storefront selling strategies

7. Advocate for a system of pricing whereby dairy farmers are paid based on a margin above the cost of production

**Implementation Partners:** farmers; Farm Bureau; CCE; FSA; WAC; DCBOS, AFPB

**Implementation Strategies:**

- Meet with legislators during “listening summits”, farm lobby days, legislative hearings and farm tours
- Educate officials and legislators on the contributions of dairy farming to New York’s economic vitality and well-being

8. Unify efforts to access funds from the state agricultural agenda as regional priorities are set and funding opportunities arise

**Implementation Partners:** Economic Development; CCE; WAC; CADE

**Implementation Strategies:**

- Work with all partners to demonstrate a unity of intention when writing grants so as to add to the strength of viable proposals
- Provide a unified voice to legislators to follow through with the pro-farming agenda and its specific intents to safeguard and revitalize programs for farmers
- Work with farmers to write farm business plans and complete complex loan or grant applications

9. Support farmers as they work to lobby for reduction of agricultural taxes and excessive regulation

**Implementation Partners:** Farm Bureau; CCE; WAC; Farm Catskills; Real Property

**Implementation Strategies:**

- Keep the facts and issues in the forefront of public media so that residents understand what is happening, what is at stake, and what can be done
- Work directly with legislators as they fashion agricultural policy, providing facts and the farmer's perspective
- Pursue research on the negative impact of agricultural taxation on the revitalization of farm communities
- Work with state and local officials to lower agricultural assessments on land and farm buildings as legislated by the State of New York
- Support the efforts of the New York Bluestone Association to seek regulatory relief from the federal regulations set by the Mine and Safety and Health Administration
- Support the practical application of the Natural Resources Conservation Service Code 590. This standard establishes the acceptable criteria and documentation for the application of nutrients for plant production. All nutrient sources, including soil reserves, commercial fertilizer, manure, organic byproducts, legume crops, and crop residues shall be accounted for and properly utilized. These criteria are intended to minimize nutrient entry into surface water, groundwater, and atmospheric resources while maintaining and improving the physical, chemical, and biological condition of the soil
- Continue to monitor current legislative initiatives, such as:
  - An act to amend the agriculture and markets law, the tax law, the vehicle and traffic law and the environmental conservation law, in relation to reducing farm-based taxes, fees and regulatory burdens to help grow the agricultural economy and benefit family farms
  - An act to amend the Agriculture and Markets Law in relation to the wood products development council; and to amend the environmental conservation Law in relation to contracts for timber or other forest products
  - An act to amend the tax law in relation to the unified credit against the Estate Tax.

10. Support activities to keep NYC DEP-owned farmland available to farmers.

*Implementation Partners:* WAC; Planning; Economic Development; Farm Bureau, DWA

*Implementation Strategies:*

- Keep the dialogue open and productive between farmers and NYC DEP
- Provide officials with facts concerning best management practices for water and air quality
- Provide continued education on whole farm planning and sustainable agriculture

## **Goal II: Increase educational programs for farmers, agribusinesses, natural resource-based businesses, county government, community leaders, residents and youth.**

### **Objectives:**

1. Provide targeted educational programs, resources and opportunities that will help Delaware County farmers increase skills in sustainable production methods, farm business planning, marketing, regulatory compliance, forest management, succession planning, and enterprise start-up or diversification

*Implementation Partners:* CCE; FFA; WAC; CFA; New York FarmNet;

*Implementation Strategies:*

- Continue offering CCE's annual farmers' tax school and Cornell's farm accountant tax school that reflect changes in the tax code so that both farmers and farm accountants are able to tap into all possible tax credits and incentives
- Provide beginning farmers will with information on tax credits and incentives, agricultural tax assessment and USDA funding opportunities
- Provide local and county tax assessors with information they request
- Partners will respond to the educational needs of farmers based on farmer requests, emerging trends and consumer demands
- Assist farmers in their efforts to develop written business plans for the purposes of acquiring funding
- Provide forest education programs to forest landowners, including timber harvesting, habitat preservation, and best practices for environmental conservation
- Provide programs on estate and farm transfer planning, as well as one-on-one financial counseling

2. Provide educational programs, resources and opportunities to help farmers tap into the economic potential of the natural resources of their land, including forests, bluestone, water, streams, ponds, wildlife and natural habitat.

*Implementation Partners:* CCE; CFA; WAC; DCSWCD; NRCS; NY Bluestone Association



***Implementation Strategies:***

- Provide farmers and landowners with information on best practices for soil and water quality conservation as well as funding or cost-share opportunities relative to these issues, as they become available
- Provide educational programming and resources on forest management planning and implementation, wildlife habitat, pond maintenance, practices to prevent soil erosion, invasive species, and wood products
- Provide beginning farmer workshops and programs on alternative agricultural enterprises based on the natural resources and habitat of the farm
- Include agriculture and wood products as a significant sector in economic development programs

3. Increase educational outreach to youth regarding the importance of production agriculture and the opportunities that exist for farm ownership and employment.

***Implementation Partners:*** CCE; WAC; Farm Catskills; BOCES; FFA

***Implementation Strategies:***

- Continue to support a strong educational programs offered through the CCE 4-H program, the BOCES program; and the local FFA program where youth can obtain the knowledge and skills needed to pursue careers in agriculture and natural resources
- Seek funding to support local efforts to start school gardens and integrate agriculture into the school science curriculum
- Continue to offer and promote Cornell's Ag in the Classroom program
- Promote local agri-tourism efforts to reach families and teach them about the role of agriculture in their lives and in their communities
- Seek funding that supports agricultural programming for schools and support local efforts to obtain such funding
- Offer agricultural workforce training to youth, veterans, and new farm workers

4. Increase educational outreach to county officials, leaders and the public regarding the contributions farms in Delaware County make to its economy, community life, rural character, tourism and scenic beauty

***Implementation Partners:*** CCE; Chambers of Commerce; Farm Bureau; DC Economic Development

***Implementation Strategies:***

- All partners with websites should promote the agri-tourism events taking place in Delaware County
- All partners with websites should provide a link to the farmers' markets in Delaware County, their location and hours of operation
- CCE's farm business resource educator will continue to provide county legislators with an annual "State of Farming in Delaware County" presentation and fact sheet.

- Farm Bureau will continue to speak on behalf of Delaware County farmers on all issues that affect their prosperity and success

## **GOAL III: Protect this county’s active farmland through supportive land use policies, incentives and programs.**

### **FARMLAND OF IMPORTANCE TO BE PROTECTED**

In accordance with NYS Agriculture and Markets Law Article 25AAA, Chapter 324, the Delaware County Agriculture and Farmland Protection Board considers certain lands to be important to agriculture and worthy of protection. They are:

- All lands currently considered viable for agricultural production that are currently being used for farming or could be used for farming in the future.
- Prime soils and soils of statewide and local importance located within the river valleys and better upland soils. These lands make up 5.6% of the county land and 52,527 acres.
- Lands used for agriculture along major transportation corridors that are also considered prime areas for residential and commercial development. Zoning that preserves agricultural land behind the highway corridor yet still allows for some development along the highways is one way to preserve farmland in this area.
- Prime hardwood forest land is important to local economies for maple production and/or timber sales. Forested land should not be overlooked since it also provides a mechanism to clean air, wildlife habitat, and aesthetics of the area.

Agriculture continues to change according to new practices, consumer preferences, changes in population dynamics and demand for food and fiber locally and regionally. While dairy farms are fewer in number, beef and livestock farms have grown. Dairy and livestock can be grazed on marginal soils, crops can be grown on soils suited to row crop production, and hay can be grown on most soils. Corn, hay, soybeans, small grains, berries and vegetables can all be found growing well in Delaware County.

Another factor that influences land use is climate change with more frequent flooding of river valleys and some upland areas. While many of the flood plains have been re-drawn to prevent residential and commercial development of those areas, it is important for farmers to use techniques that preserve soil itself on lands prone to flooding. Soil cannot be replaced after it washes away and education regarding no-till forage production, keeping cover crops in place during winter months, and using buffers to keep soil in place near streams are critical measures that will help mitigate soil loss. Farmers should be encouraged to take advantage of Federal and local programs to help them preserve soil in the flood plains and by streams.

Threats to Delaware County agriculture lands include but are not limited to:

- The purchase of prime agricultural lands by non-farmers for recreational uses only

- The sale of prime agricultural lands to NYC or other “forever wild” organizations
- Commercial and residential development on prime farmland along major highways due to convenience without considering alternative sites on less valuable soils that would accomplish the same purpose
- Sprawl from larger communities such as Oneonta, Sidney, Delhi and Walton

Mitigation of these threats in order to protect the best farmland, the farmers that farm that land, and the productive forests are needed. Efforts by the Delaware County Agriculture and Farmland Protection Board should include:

- Support and encouragement of all kinds of agriculture in the County by favorable agriculture policies such as the Right to Farm Law
- Bringing a greater understanding to the citizens and local governments of the importance of agriculture both economically and socially
- Enforcing the penalty when agricultural land is converted to non-agricultural use and receiving an agricultural exemption
- Discouraging landowners from selling farmland outright to New York City or any other organization to be “forever wild”
- Educating local town governments on the merits of zoning, right to farm laws and measures that can be taken to mitigate farmland loss
- Continue to strengthen agricultural districts by timely reviews and accurate data
- Support local, state and federal initiatives to educate farmers in order to bolster farm income since profits from agriculture keep farmers on the land
- Continue to review major commercial developments of agricultural land and try to find suitable, alternative sites that are not prime agricultural soils
- Encourage the use of conservation practices by farmers that will preserve soil in flood-prone areas

#### **PRIORITY CRITERIA:**

1. Locations within an agricultural district
2. Soil suitability – priority is given to acreage classified by USDA NRCS as prime, of statewide importance and unique soils
3. Slope – priority is given to farmland with slopes of 15% or less
4. Location under development pressure
  - parcels with significant road frontage
  - parcels in close proximity to hamlets and existing development
  - parcels in close proximity to protect open space

5. Prospects for succession as a farm
6. Locations that limits access to state and other programs for “purchase of development rights” and conservation easement programs.
7. Levels of current farm management practices
  - farm business plan
  - forest management plan
  - whole farm plan
  - conservation plan
8. Century farms – farms that have been in continuous production in the same family for at least one hundred years
9. Recreational, tourism, and natural resource potentials - priority is based on the following:
  - scenic beauty
  - historical significance
  - natural habitat (wildlife, wetland, species or communities of concern, etc.)
  - natural resource potential
10. Forest land acreage – priority is based on the following:
  - Volume and productivity of timber species
  - Slope
  - Soil Suitability
  - Road accessibility
  - Non-timber agro-forestry income (current or potential)
11. Road access

## Objectives

1. Support programs and incentives designed to counter farmland conversion pressures

**Implementation Partners:** DCAFPB; Planning;; DCDED; CCE; DCFB; DWA; DCBOS; Real Property

**Implementation Strategies:**

- Delaware County town governments should support and fully utilize the New York State District law. Enacted in 1971, this law is designed to encourage the continuation of commercial farming and to counter development pressures. As of 2013, Delaware County landowners formed a total of 8 agricultural districts, covering a total of 231,806 acres, approximately 24% of the county's total land mass. Major provisions of the law are included in the Appendix, page 98.

2. Identify viable farmland and forest lands for purposes of agricultural and farmland protection efforts and other land use incentives designed to help farmers reduce costs and continue farming

**Implementation Partners:** Planning, CFA; DCAFPB; WAC; USDA NRCS; DCSWCD;

**Implementation Strategies:**

- When identifying farms for farmland protection funding and activities, the natural resources of the farm should also be evaluated. Forest management planning and implementation, forest acreage, volume and productivity of timber species, steepness, soil stability, accessibility to roads and non-timber income activity or potential are primary criteria for evaluating the impact of the forest resource to a farm

3. Support and promote programs designed to keep farmland in production agriculture, including a voluntary program that is funded with New York State agricultural and farmland protection funds for Purchase of Development Rights (PDR), Lease of Development Rights (LDR) or Agricultural Conservation Easements and other land trust initiatives.

**Implementation Partners:** DCAFPB; CCE; Planning; WAC;

**Implementation Strategies:**

- Assist farmers in the application processes for PDRs, LDRs, conservation easement opportunities, land trust opportunities, including review, written approval if appropriate, written support if appropriate

- Upon review, promote these programs and opportunities if they are designed to provide realistic economic relief for production farms
  - Promote easement terms that provide for Purchase of Development Rights with agricultural value re-sale
  - Continue to review NYC DEP and WAC easement rules to make them farm-friendly
4. Protect the rights of farmers to engage in sound agricultural management practices, maintain Agricultural Districts throughout the areas of prime farmland as described in the above cited criteria

**Implementation Partners:** DCAFPB; CCE; DCSWCD; Planning; DCFB; Delaware County townships;

**Implementation strategies: (non-prioritized)**

- Delaware County townships can promote land use policies that are supportive of agriculture and protect farmland
  1. Support agricultural districts
  2. Create a voluntary “Purchase of Development Rights” type program utilizing existing state, federal and private funding streams
  3. Support local agricultural easement programs
  4. Support the Delaware County Soil and Water Conservation District’s Agricultural Environmental Management Program (AEM) which provides expertise and funds to assist farms in areas of stream bank stabilization; wetland restoration; riparian buffers, agricultural plastic recycling, agriculture, farmland protection and more. (See Appendix for an overview of the Delaware County AEM program, page 107.)
  5. Pass right-to-farm ordinances to supplement the state and county right-to-farm laws; or revise existing laws to include dispute resolution and disclosure requirements
  6. Develop an inventory of forested and woodland parcels available to attract entrepreneurs that utilize the wood resource to the region
  7. Encourage relaxation of zoning regulations where necessary to allow for forest and agriculture business development
  8. Include an agricultural policy in local comprehensive and master plans

9. Consider developing and adopting zoning and subdivision regulations that offer incentives to protect farmland

- The Delaware County Ag & Farmland Protection Board will monitor the progress of the Delaware County Agricultural and Farmland Protection Plan through periodic review and updating
- Local assessors should enforce tax abatement roll-backs (penalties for farmland conversion to non-farm use). Such enforcement is essential to maintain the integrity of the agricultural value exemption program
- Cornell Cooperative Extension will continue to work with Delaware County Department of Planning in agricultural district review
- Cornell Cooperative Extension of Delaware County and the Delaware County Soil and Water Conservation District will continue to promote the Agricultural District Assessment Program and provide assistance to farmers who are new to the process
- Cornell Cooperative Extension of Delaware County will continue to provide farmers with information on the following programs and incentives: the farm building exemption portion of the Real Property Tax Law, Section 483; the New York State Farmers' School Tax Credit; the New York State 480A Program for forestland; and other programs that become available

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*Photo by Ellen Wong*





Cornell University  
Cooperative Extension  
of Delaware County



Resource Center  
34570 St Hwy 10  
Hamden, NY 13782  
t. 607-865-6531  
f. 607-865-6532  
delaware@cornell.edu  
www.ccedelaware.org

## FIVE QUESTIONS ON FARMING IN DELAWARE COUNTY

### *First things first – a bit about YOU:*

Name (not required if you prefer) \_\_\_\_\_

Location of farm \_\_\_\_\_

Acres of farm land you own or rent or both: \_\_\_\_\_

Farm Products \_\_\_\_\_

1. What can be done specifically to make farms more profitable?
2. What ideas do you have to keep farmland available to farmers?
3. What can state and local officials do to best help farmers stay in business and make greater profits?
4. What is the greatest obstacle to sustaining a farm in Delaware County and what are YOUR ideas on how it can be overcome?
5. What is one “doable” thing that would really help Delaware County farms succeed and grow?

### ***Building Strong and Vibrant New York Communities***

Cornell Cooperative Extension of Delaware County provides equal program and employment opportunities.

## 2012 FARMER SURVEY REPORT

In 2012 Cornell Cooperative Extension of Delaware County developed a brief survey for farmers to give their opinions on 1) what can be done to make Delaware County farms more profitable; 2) how to keep farmland available to farmers; 3) what state and local officials can do to help farmers stay in business; 4) what is the greatest obstacle to farming in Delaware County and ideas on how it can be overcome; and 5) what is one “doable” thing that would help our farmers succeed and grow.

The following represents a compilation of the thoughtful responses received in this survey. Some direct quotes are included. These opinions and ideas should provide a basis for further action in working to keep this county’s land in agriculture and to improve the profitability of all types of farms.

Following are words one farmer put in quotes – it has been said by many but bears repeating: ***“Houses are the last crop.”***

### 1) Increased Profits:

- Foster niche products and small-scale farm enterprises
- Lobby for pricing that covers production costs
- Lower the gross income level required for agricultural assessment access
- Increase the ability of landowners to stabilize their streams and utilize them for hydropower;
- Provide easier access to low interest farm loans for equipment and farm start-up
- Create a county farm product distribution system that coordinates local access to urban and local markets
- Provide a local processing center where resources can be shared and value-added products can be produced
- Maximize use of grass through well-managed pastureland
- Allow wind turbines
- Protect the mining rights of landowners/farmers
- Low or NO taxes on production farm property

### 2) Access to Farmland:

- Taxes on farmland need to be lowered
- Rivers should be dredged to protect farmland from erosion
- Fewer restrictions and lower costs for farmland
- Increase tax incentives for farmers and landowners who rent land for farm purposes
- Work to set a policy in place that equates the “watershed” to the “New York Foodshed”
- Continue working with the NYS DEP to use their lands for farming
- Encourage new landowners to keep the land in production

### 3) Local Action:

- Establish “Farm Empire Zones”
- Increase Workforce Training to increase available labor
- Develop more farm markets that are available at low cost
- Establish a countywide tax base for all farmland so taxes in one town are not higher than the next
- Decrease restrictions and lower taxes on locally grown farm products
- Ease NYS DEC regulations on stream restoration
- Assist farmers in developing and/or fine-tuning a business plan
- Support AGRICULTURE over DEVELOPMENT in Delaware County

### 4) Greatest Obstacle (and how to overcome):

- Reliable labor – Generate informal or formal farm-to-farm agreements to operate cooperatively, in labor equipment sharing.
- Land prices
- Start-up costs
- Lack of disaster relief
- The cost of production goes up but farmers have to keep their prices down to compete locally – tax breaks are needed for both large and small scale farms
- Even with agricultural assessment property taxes are excessive and need to be lowered
- Trying to farm in ways that our land cannot support. We need to capitalize on our strengths like the ability to grow grass economically, large nearby urban markets; the beauty of farms and farmland as an incentive for tourism; the recreation offered through the streams, reservoirs also contributing to increased tourism favorable to local farm markets.
- Some parts of the county are remote from state highways, making transport for farm products to urban markets difficult and expensive. We must continue to keep roads in repair and encourage local tourism and local markets.
- Keep taxes at affordable levels for farmers.

### 5) One DOABLE thing:

- Eliminate taxes for farmers
- Create a local “farm corp” where people are properly trained and motivated to farm
- Offer tax breaks for crops
- Co-ordinate markets for locally produced meats, produce and value-added products
- Intensify effort to market grass-fed livestock products
- Organize a farmer cooperative buying program for supplies
- Make health insurance affordable for farm families
- Change land and stream regulations to be more pro-farming

Compiled and written by Janet L. Aldrich, Senior Extension Educator, Cornell Cooperative Extension of Delaware County

## **DELAWARE COUNTY AGRICULTURAL AND FARMLAND PROTECTION BOARD**

The Delaware County Agricultural and Farmland Protection Board consists of eleven members, at least four of whom are active farmers. One member of the board represents area agribusiness and another member represents an organization dedicated to agricultural land preservation. These six members are required to reside within Delaware County. The Board membership also includes the chairperson of the County Soil and Water Conservation District's board of directors, a member of the Delaware County Board of Supervisors, a county Cornell Cooperative Extension Educator, the county Planning Director and the county Director of Real Property Tax Services.

### **FARMER REPRESENTATIVES:**

Ken Balcom, Andes  
Ray Christensen, Davenport  
Wilber Haynes, Kortright  
Fred Huneke, Delhi  
Chairman: Frank Bachler, Meredith

### **AGRI-BUSINESS REPRESENTATIVE:**

Adolf Schaefer, Deposit/Masonville

### **DELAWARE COUNTY APPOINTEES:**

Dennis Valente, Davenport  
Nicole Franzese, Delaware County Planning Department  
Dennis Hill, Delaware County Soil and Water Conservation District  
Mariane Kiraly, Cornell Cooperative Extension of Delaware County  
Mike Sabansky, Director, Delaware County Real Property Tax Services

## **NEW YORK STATE AGRICULTURAL DISTRICT LAW BRIEF OVERVIEW OF MAJOR PROVISIONS**

***Limitations on Local Regulation of Farm Structure & Practices:*** Local governments are constrained from regulating farm structures or practices by ordinances.

***Ad Valorem Limitations:*** Land used for agricultural production within an agricultural district cannot be taxed for certain municipal improvements such as sewer, water, lighting, non-farm drainage and solid waste disposal or other landfill operations. In addition, farmland owners can request the governing body of a fire protection or ambulance district to adopt a resolution to state that agricultural assessment values be used to determine taxes levied by that district.

***Notice of Intent Limitations:*** Section 305(4) limits public actions affecting farmland in agricultural districts. Recognizing that public projects can have significant impacts on agriculture, it requires entities proposing an action subject to 305(4) to send *Preliminary Notices* and *Agricultural Impact Statements* to NYS Agriculture and Markets, as well as county Agricultural and Farmland Protection Boards. The board can provide a local perspective on potential agricultural impacts and the NYS Agriculture and markets will decide whether the proposed project would unreasonably affect the viability of farm enterprises within agricultural districts.

***Coordination of Local Land Use Decision Making with Agricultural Districts Law:***

This provision requires an “Agricultural Data Statement” (ADS) to be made on applications affecting property within 500 feet of a farm operation located in an agricultural district. This includes applications for special use permits, site plan approvals, use of variances or subdivision approval under local review. The municipality must notify landowners identified on the ADS so they may comment on the effect of the proposed changes to their farm operations. Also, the municipality’s review board must evaluate the possible impacts of the proposed project so that local land use decisions to not contradict the goals of the Agricultural District Law.

***Right to Farm Protections:*** These include determinations on sound agricultural practices, definition of agriculture and disclosure notices.

***Sound Agricultural Practice Determinations:*** Section 308 provides protection from nuisance suits brought by neighboring property owners to those farmers using “sound” agricultural practices. It authorizes the Commissioner of Agriculture and Markets to issue opinions, on a case-by-case basis, about whether particular practices are sound.

***Disclosure Notices:*** Section 2010 requires landowners who sell or transfer property located in an agricultural district to provide prospective residents with a disclosure notice prior to assigning a purchase contract. The notice is intended to advise property buyers

about modern agricultural practices before they purchase property in an ag district. It also informs them that it may limit their ability to access water and sewer services. Local real estate agents and attorneys are responsible for advising property owners about this requirement.

#### The Agricultural and Farmland Protection Board Should

- Educate real estate agents and attorneys on an annual basis of their obligations under this law.
- Encourage realtors to include agricultural disclosure notices as part of multiple listing services for properties in or adjacent to agricultural districts.
- Encourage towns to adopt right-to-farm ordinances that include the requirement of placing agricultural disclosure notices on subdivisions.

***Definition of Agriculture Determinations:*** This provision authorizes the Commissioner of Agriculture and Markets to determine, on a case by case basis, whether particular land uses located within an agricultural district are agricultural in nature. This provision may offer protection to farmers when there is debate about whether or not a farm operation is allowed under a local zoning ordinance.

***Formation of County Agricultural and Farmland Protection Boards:*** A county Agricultural and Farmland Protection Board is authorized to:

- Advise the county legislative body about agricultural districts
- Review notice-of-intent filings
- Make recommendations about proposed actions involving government acquisition of farmland in agricultural districts
- Prepare and update the county agricultural and farmland protection plans
- Request review of state agency regulations that affect farm operations within an agricultural district
- Review and endorse applications for New York Purchase of Development Rights funds.

## FUNDING SOURCES FOR FARMERS

Some programs may not have been funded for a given year – check with program administrators before applying.

### **2014 NYS Consolidated Funded Application (CFA)**

As part of the 2014 NYS Consolidated Funded Application (CFA), the Southern Tier Regional Council Rural Initiative Program is available to access loans up to \$300,000 to new and existing agricultural and forest-based businesses located in the Southern Tier, including Delaware County. This presents an opportunity to grow and diversify its agricultural industry in a variety of ways ranging from implementation of new technology to extending the growing season, promotion of regional products, creation of value-added products to support for renewable energy, enhancing other regional industries such as agri-tourism and more. Funding is available for projects and activities related to the growing, storage, processing, purchasing, promotion, and distribution of agricultural and forest-based goods. Funding is also available to support intergenerational farm transfer and new farm establishment, as well as renewable energy related projects.

The Rural Initiative Program will provide capital through loan funds. Priority will be given to projects that demonstrate:

- New agriculture and forest-based jobs created and maintained.
- Development and promotion of value-added agriculture and forestry-based products.
- Development of new farm markets.
- Support of renewable energy initiatives.
- Increase agricultural, grass or forest land in productive use.
- Growth in net revenue for agriculture and forestry business.
- Private investment in application of new technology.
- Leveraging other sources of funding such as the Farmers Market Initiative.

**Farm Service Agency Beginning Farmer and Rancher Program** - [www.fsa.usda.gov](http://www.fsa.usda.gov) 315-477-6300; Delaware County Office: 44 West Street, Walton, NY 13856; 607-865-4005.

The Farm Service Agency (FSA) provides direct and guaranteed loans to beginning farmers and ranchers who are unable to obtain financing from commercial credit sources.

A beginning farmer or rancher is an individual or entity who: (1) has not operated a farm or ranch for more than 10 years; (2) meets the loan eligibility requirements of the program to which he/she is applying; (3) substantially participates in the operation; and, (4) for farm ownership loan purposes, does not own a farm greater than 30 percent of the average size farm in the county. All applicants for direct farm ownership loans must have participated in business operation of a farm for at least 3 years. If the applicant is an entity, all members must be related by blood or marriage, and all stockholders in a corporation must be eligible beginning farmers.

### **Commercial Banks**

Most banks have a commercial lending department to handle business loans, but few banks have an agricultural lending department prepared to work with agricultural business. Check with your

bank to see if they write agricultural loans (some will if you have a Farm Service Agency or Small Business Administration guarantee).

Following is a partial list of NY banks with known agricultural lending departments:

Farm Credit – [www.farmcrediteast.com](http://www.farmcrediteast.com) (with branches in NH, NY, NJ, RI, MA, and CT)

M&T - <https://www.mtb.com/personal/Pages/Index.aspx> 800-724-2440

NBT Bank – <http://nbtbank.com> 800-NBT-BANK

Community Bank, NA – [www.communitybankna.com](http://www.communitybankna.com) 800-724-2262

National Bank of Delaware County

### **Micro-Enterprise Loan Funds or Revolving Loans Funds for Small Business**

Some county governments have micro-enterprise loan funds with attractive interest rates and repayment terms that can be used to finance farm operations. Delaware County Department of Economic Development: One Courthouse Square, Suite 4, Delhi, NY 13753; Phone - (607) 746-8595; Fax - (607) 746-8836; Email: [info@dcecodev.com](mailto:info@dcecodev.com)

### **Investors**

With the concept of “Slow Money” ([www.slowmoney.org](http://www.slowmoney.org)) gaining popularity, investor circles nationwide are forming to fund local food systems. Depending on your location and farm plans, you may be able to attract investors to fund start-up or expansion of your farm. Many Community Supported Agriculture farmers have used the strategy of fundraising from their membership to secure their land or build new facilities, usually offering repayment + interest in the form of farm products. You will need to check in with legal and tax advisors about the implications for your farm, and you will also need to crunch the numbers and write a business plan to determine whether this is a strategy that can work for you. Search online for “slow money”, “local investing opportunity networks” and “small farm angel investors” to learn more about the possibilities for your farm.

### **Farm Credit’s FarmStart Program**

First Pioneer Farm Credit has launched a program called FarmStart – visit <https://www.farmcrediteast.com/Products-and-Services/FarmStart.aspx>. FarmStart is a relatively new venture with a mission to provide investments of working capital in farm businesses and farmer cooperatives that show sound promise for business success. The program can make loans to beginning farmers who do not meet Farm Credit’s internal credit standards. It requires no down payment or equity for five-year loans up to \$50,000, as long as the business has a positive cash flow and has a good chance of succeeding.

### **U.S. Small Business Administration Microloan Program**

The Microloan Program provides small, short-term loans to small businesses and certain types of not-for-profit child-care centers. The SBA makes funds available to specially designated intermediary lenders, which are nonprofit community-based organizations with experience in lending as well as management and technical assistance. These intermediaries make loans to



eligible borrowers. The maximum loan amount is \$50,000, but the average microloan is about \$13,000. Microloans may be used for the following purposes:

- Working capital
- The purchase of inventory or supplies
- The purchase of furniture or fixtures
- The purchase of machinery or equipment.

Proceeds from a microloan **cannot** be used to pay existing debts or to purchase real estate.

**NEW YORK STATE SOURCES:** <http://www.agriculture.ny.gov/> – **Funding Opportunities** or call 518-457-7076

### **NYS Good Agriculture Practices/Good Handling Assistance Certification Program (GAP/GHP) –**

the Department will pay up to \$750 for having a private or NYS Dept. of Agriculture audit, including water tests, to verify a farm's food safety program. This certification applies to produce farms and many retail and wholesale buyers are requiring GAP Certification for certain crops. Applications must be approved prior to the audit. Funds are available on a first-come first-serve basis until the funds are depleted or December 31. Questions: 518-457-2090. (Funded by USDA Specialty Crops Program).

### **NYS Funding for Organic Certification**

Purpose: Reimburse producers for a portion of their annual organic certification renewal costs; can apply annually.

Funding levels: 75% reimbursement up to a maximum of \$750

Information: Ag & Markets – 800-554-4501

website: [www.ams.usda.gov/nop](http://www.ams.usda.gov/nop) – National Organic Program information

Forms can be downloaded from:

[http://www.agriculture.ny.gov/AP/Organic/docs/2009\\_Farmer\\_Application\\_Form.pdf](http://www.agriculture.ny.gov/AP/Organic/docs/2009_Farmer_Application_Form.pdf)

### **NYS Specialty Crops Block Grants Program**

Purpose: Increase the competitiveness of specialty crops, encourage efficiency, partnerships, innovation, and new markets. The RFP includes many areas of focus including: packaging/labeling, environmental quality, distribution, education and outreach, food safety, food security, marketing and promotion, product development, plant health and international trade. 2009 awards were solely focused on plant health.

Eligibility: Funding available to non-profits, for profits, individuals, educational institutions, and government; however, individuals and businesses must partner with others.

Information: Contact: [Jonathan.Thomson@agriculture.ny.gov](mailto:Jonathan.Thomson@agriculture.ny.gov) or Jonathan Thomson at 518-485-8902

### **Grow NY Enterprise Program**

Purpose: provide grants or loans to finance business expansion related to production, processing or marketing of agricultural products.

Eligibility: Municipalities under 50,000 (population) apply on behalf of farm enterprise. Must have other funding in place. Job creation required: 1 job per \$7,500 invested.

Funding: Minimum of \$100,000 up to \$750,000 per community.

Information: Ag & Markets – 800-554-4501; <http://www.agriculture.ny.gov/GNYRFP.html>

### **NYS Dept. of Ag & Markets – Agriculture & Farmland Protection Projects – MUST WORK WITH A MUNICIPALITY AND BE PART OF A COUNTY FARMLAND PROTECTION PLAN**

Purpose: State assistance for the purchase of agricultural conservation easements (development rights) to permanently restrict development of valuable agricultural lands

Eligibility: Counties or municipalities with approved Ag & Farmland Protection – Farmers should contact county/town government if interested in the sale of development rights.

Funding: No cap; State provides 75% of the cost to acquire the easement; farmers or local government provides 25%

Information: <http://www.agriculture.ny.gov/AP/agsservices/farmprotect.html>

### **NYS DEC Water Quality Improvement Projects – (Check with your county Soil and Water Conservation District regarding programs and funds for project implementation.)**

Purpose: Implement practices to improve water quality

Information: contact your county SWCD for information on local funds; funding is not competitive but funds are limited and must meet criteria for water quality protection. Delaware County SWCD: 44 West Street, Suite 1, Walton, NY 13856; Tel.: 607-865-7161

### **NYSERDA-New York State Energy Research and Development Authority Programs – Loans, grants, incentives**

Purpose: Several programs, incentives and loans for farm waste management (biogas); improved energy efficiency; solar and wind generation; and innovative business practices for energy conservation, alternative energy, and energy use. Energy audits available.

Information: 518-862-1090; toll free 1-866-NYSERDA or check <http://www.nyserdera.ny.gov/> – look at current funding opportunities for project descriptions and who to contact for details; For agriculture specific projects, the link is:

<http://www.nyserdera.ny.gov/Page-Sections/Commercial-and-Industrial/Sectors/Agriculture.aspx>

### **Northeast Sustainable Agriculture Research & Education (NESARE)**

**Farmer Grants:** For commercial farmers who want to test a new idea using a field trial, on-farm demonstration, marketing initiative, or other technique. Applications are submitted on line in late November or early December for awards the following spring.

**Partnership Grant:** For agricultural service providers--extension staff, consultants, nonprofits, state departments of agriculture, and other advisors in the farm community--who want to conduct on-farm demonstrations, research, or marketing projects with farmers as cooperators.

Applications submitted on line by early November for awards in the spring. Contact: 655 Spear Street | University of Vermont | Burlington, VT 05405-0107

Phone: (802) 656-0471

Source: Compiled by Janet L. Aldrich, Cornell Cooperative Extension of Delaware County, with data from Cornell Small Farms Program, Cornell University, NESARE, and Small Business Administration.

## **FUNDING SOURCES FOR AGRICULTURAL ECONOMIC DEVELOPMENT IN DELAWARE COUNTY**

**Financial Assistance:** The Delaware County Department of Economic Development offers its expertise in identifying and securing the full range of incentives available to new and existing businesses through local, state and federal programs. Direct grant assistance to businesses is extremely rare and generally limited to specific, small grant programs (for example; main street revitalization) sponsored by local agencies. The majority of financial assistance to businesses is made available through the provision of low-interest loans.

The Department of Economic Development administers a variety of low interest loan programs through the Delaware County Industrial Development Agency and the Local Development Corporation to provide flexible, financing alternatives to businesses located in or relocating to Delaware County. The Department also has significant expertise regarding additional, local State and Federal programs to assist new and expanding businesses. The Department has the knowledge and inter-agency relationships necessary to ensure that businesses eligible for various programs through USDA Rural Development, the Governor's Office for Small Cities, and/or Empire State Development receive any assistance available to them. The Department is also prepared to work with and for businesses participating in these programs to help guide them through the process.

**Low-Interest Loans:** The Department of Economic Development develops and administers a number of low interest loan programs designed to meet the needs of our businesses. The loans will be distributed through the Delaware County IDA or LDC and may be used for any business purpose including; acquisition, construction/renovation, equipment and working capital. In general, loans will be provided at a five (5%) interest rate. The Department of Economic Development will provide potential loan applicants with one-on-one assistance in completing the application process, including, but not limited to, the preparation of a business plan, financial statements, cash flow analyses, etc. It is not necessary for a loan applicant to know or identify the specific loan program they wish to utilize. We will identify the program best suited to meet the specific needs of your business. The following summaries provide a brief overview of the County's low-interest loan programs.

**Micro Enterprise Loan Fund:** This program is designed specifically for micro enterprise businesses – businesses with five or fewer employees, including the owner(s). Low interest loans are available to new and existing micro enterprise businesses that locate or expand within Delaware County. Loans of up to \$50,000 are available to help finance business expansions or start-ups that will result in the creation or retention of jobs.

**RBEG Loan Fund:** The RBEG Loan Funds are available to new or existing Delaware County businesses with fifty (50) or fewer employees. This program is designed to encourage and facilitate the continued development of local small businesses, thereby providing new job opportunities for the residents of Delaware County. Loans of up to \$100,000 are available through this program.

**IRP Loan Fund:** The IRP program is targeted to new and existing businesses located in Delaware County that are making a major investment in their business and creating a significant number of new, full-time jobs. This program does not have any restrictions regarding the size of the business and seeks to provide loans of a minimum of \$100,000. Applications for lesser amounts will be considered where merited. This program places an increased emphasis on the credit worthiness of businesses participating in this program, as well as the sufficiency of the collateral securing the loan.

**Economic Development & IDA Loan Funds:** The IDA is in the process of establishing two additional loan funds to provide manufacturing and employment based businesses (businesses with a minimum of fifty employees) with higher value loans. Funding through these programs is available on a case-by-case basis and as capitalization permits.

**Industrial Revenue Bonds:** Industrial Revenue Bonds offer tax exempt financing alternatives for large scale investments in facilities and equipment. While in general, industrial revenue bonds work pretty much the same way as conventional financing, the interest is exempt from federal income tax, yielding interest rates that are generally several basis points lower than traditional bank financing. Tax exempt industry revenue bonds are available to manufacturing businesses and not-for-profits. While exceptions exist, industrial revenue bonds are most beneficial for projects in excess of \$1 million.

**Incentives:**

**Empire Zones:** The Empire Zones program offers businesses that are located within one of the County's seven zones with the potential for a wide variety of State tax exemptions and credits that are designed to potentially eliminate a business's State tax liability for up to ten years. In order to be eligible for the tax incentives of an empire zone a business must be able to demonstrate new investment and job creation.

**PILOT Agreements :** The PILOT , or payment-in-lieu-of tax, program is available through the Delaware County IDA to assist businesses that are making a substantial capital investment in the construction of new facilities and/or the expansion and renovation of an existing facility. Through this program qualifying businesses may be eligible to receive a property tax abatement on up to 75% of the project cost. The benefits of a PILOT include:

- Real property tax abatement
- Sales Tax Exemption for construction materials and capital equipment
- Exemption from the Mortgage recording tax

Source: Delaware County Department of Economic Development

## What Is CRP? CREP?

CREP is the Conservation Reserve Enhanced Program, an enhanced version of the Conservation Reserve Program (CRP). CRP is a voluntary USDA program that protects environmentally sensitive land by placing it in an approved vegetative cover for a period of 10 to 15 years. In return, farmers are compensated with an annual payment and reimbursement for establishing recognized Best Management Practices (BMPs). When a state or city identifies a specific resource issue such as drinking water, which can be addressed through CRP, they can develop an "enhanced" program to address that issue. The USDA then agrees to enhance the annual payment to farmers, and the city or state provides additional cost share opportunities for the implementation of these best management practices.

CRP is a partnership forged between farmers and USDA. At this time, Delaware County has three watersheds that are eligible for CREP. Farmers in the New York City watershed are eligible for the NYC CREP, while farmers in the Ouleout and Carrs Creek watersheds, which eventually drain to the Chesapeake Bay, are eligible for the New York State CREP.

CREP has a continuous enrollment open year round. To be eligible for CREP, cropland must have been planted to a commodity crop in four of the six years between 1996 and 2001 and be physically and legally capable of being cropped. Marginal pastureland may also be enrolled, provided it is suitable for use as a riparian, wildlife, or wetland buffer.

CRP/CREP improves water quality, enhances fish and wildlife habitat and helps farmers recover some of the costs to do this for the benefit of all.

CREP Best Management Practices (BMPs) that are eligible for cost share assistance on a farm may include:

- riparian buffers
- tree planting
- fencing
- wetland buffers
- filter strips
- wildlife habitat buffers
- alternative water sources
- grassed waterways

The benefits of CRP/CREP include improved water quality, reduced erosion, decreased fertilizer/pesticide runoff, removal of animals from streams, improved aquatic habitat, reduced thermal stress, establishing wildlife habitat, good farming practices and the protection of public drinking water supplies.

*Source: By Carol Dennis, USDA-Farm Service Agency – <http://www.dcsxcd.org>*

## **Delaware County Agricultural Environmental Management (AEM) Strategic Plan - 2007 – 2009 – An Excerpt:**

Our AEM Strategy was authored by an SWCD staff member with direction from an AEM working group representing the following agencies:

- Delaware County Soil and Water Conservation District (SWCD)
- Cornell Cooperative Extension of Delaware County (CCE)
- Upper Susquehanna Coalition (USC)
- United States Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS)
- Watershed Agricultural Council (WAC)
- Delaware County Department of Watershed Affairs (DWA)

This strategy has been reviewed by this group for comment and suggestions. The strategy was then reviewed by the Delaware County SWCD Board of Directors for their approval before being submitted to the New York State Department of Agriculture and Markets.

This will be a dynamic strategy that will reflect changes in goals and methods of achieving those goals, as it is reviewed each year. Our mission and vision is to protect water quality by bringing the voluntary AEM process of farm assessment, planning, implementation and evaluation to farms in Delaware County, while promoting the economic sustainability of farms and the agricultural community within the county.

In December 2000, the Delaware County Agricultural and Farmland Protection Board published the *Delaware County Agricultural and Farmland Protection Plan*. It covers the rich history of agriculture in our County, stating that “Farming is the foundation upon which Delaware County is built”. The plan also discusses the challenges that our farmers face and the increasing trend of farms going out of business. From 1982 to 1992, 214 full-time farming operations were lost in the county. To that end, the Farmland Protection Plan emphasized the importance of “providing a business climate in Delaware County that works *with*, not against, farm businesses”. The executive overview asserts that farmers need to be made aware of economic incentive programs that will help reduce the cost of farming, so that we can keep our farms in business as agriculture is a “critical component of Delaware County’s economic wellbeing”.

This strategy supports the efforts of the Farmland Protection Plan and other county efforts by bringing the state-funded AEM Program to our farmers. The AEM Program will aid in our assessment and planning, with the anticipation that we can secure future funding for implementation of water quality protection practices that also help to keep our farms economically sustainable and active, for the well-being of the farming community and all residents of Delaware County.

### **The Water Quality Coordinating Committee (WQCC)**

The Water Quality Coordinating Committee is an ad hoc committee of various agencies with the lead agency being the SWCD. Other county agencies on the committee include CCE, WAC, the Planning Department, USDA/NRCS, the Farm Service Agency (FSA), the Department of Watershed Affairs, NYS Department of Environmental Conservation (DEC), the NYC Department of Environmental Protection (DEP) and the NYS Department of Health (DOH). The Water Quality Coordinating Committee is charged by the County Board of Supervisors to coordinate the goals and efforts of these groups to effectively protect water quality in the county. The Committees' mission is *"to protect and improve the quality of water originating in or passing through Delaware County"*. Its goals include *"to establish a water quality program(s) that emphasizes local roles in identifying and addressing nonpoint source pollution"* and *"to continue the effort of the County Water Quality Coordinating Committee to identify water quality problems, develop new initiatives to overcome water quality problems, seek funding sources to mitigate them and to make better use of existing programs and funds"*.

### **Delaware County Action Plan (DCAP)**

The DCAP is a county-wide comprehensive strategy developed by the Delaware County Department of Watershed Affairs and partnering agencies to integrate, coordinate and address water quality initiatives in the county. The DCAP addresses water quality issues through several management components including:

- Stormwater and drainage management
- Comprehensive precision farm nutrient management
- Forage management
- Septic systems and septage disposal
- Technical assistance and sub-contracting to WAC by DCAP agencies
- Stream corridor management and rehabilitation

The DCAP's mission is *"to assist the county's residents, farmers, businesses, and communities in meeting water quality parameters and objectives without loss of opportunities for economic vitality."* It is stated within the DCAP revision that *"DCAP is demonstrating that a locally led watershed program is economically frugal and comprehensively effective in protecting water quality"*.

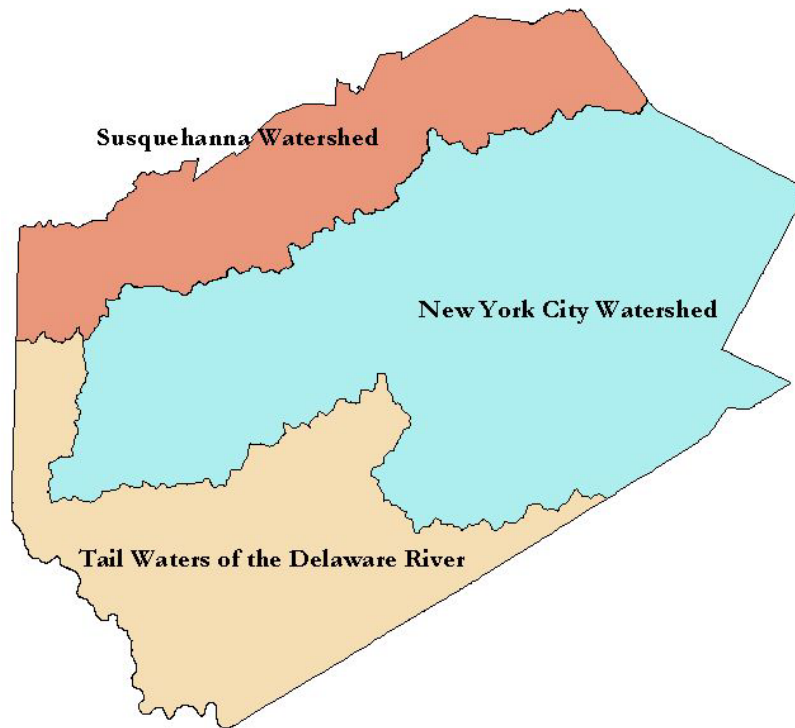
Our county AEM strategy facilitates the goals and missions of the Farmland Protection Plan, the WQCC and the DCAP. Our strategy will be tailored specifically to sound agricultural management and the resulting water quality benefits.



## Planning Unit Strategies

This strategy adopts three planning units that represent the watersheds in this county. They are the *Susquehanna Watershed*, the *New York City Watershed* and the watershed that is comprised of the *Tail Waters of the Delaware River*. (See Figure 1)

Figure 1. **Delaware County AEM Strategy Planning Units**  
(not to scale)



### **Susquehanna Watershed**

The Susquehanna Watershed covers roughly 19.5% of Delaware County. Until 2003, there were few water quality initiatives in this watershed due to lack of funding. Most of this work was through the USDA/NRCS cost share programs, such as the Environmental Quality Incentives Program (EQIP). The Susquehanna Watershed Program began to take shape in 2003 through grant money that allowed for the introduction of the AEM process in this watershed.

In the Susquehanna Watershed, approximately 70 Tier 1 and Tier 2 evaluations were completed in the early part of 2003. Since funding was not available for implementation of BMPs, the AEM evaluation was used as a mechanism to inventory the farms for the start up of the Susquehanna Program. The process was also used as a way to introduce farmers to the AEM Program and the Susquehanna Program. The Susquehanna Watershed Program also works in coordination with the Upper Susquehanna Coalition. This coalition was formed in 1992 as a

multi-county approach to address the growing environmental concerns in the Chesapeake Bay and the Susquehanna River watershed.

The Chesapeake Bay Program is a multi-state/federal effort that has been working toward restoring the Chesapeake Bay since 1983. Continued water quality impairments within the Chesapeake Bay, however, led the EPA and the bordering states to list over 90% of the Bay tidal waters as “impaired” due to low dissolved oxygen levels and other problems related to nutrient (primarily nitrogen and phosphorous) pollution. The Environmental Protection Agency (EPA), as a result of a lawsuit, is required to determine a Total Maximum Daily Load (TMDL) for the Chesapeake Bay in 2011. The court also stated however, that this regulatory TMDL could be avoided if the Chesapeake Bay Program partners could correct all nutrient and sediment problems in the Chesapeake Bay and its tidal tributaries sufficiently to remove it from the list of impaired water bodies under the Clean Water Act by 2010. The Chesapeake Bay Program defined the water quality conditions necessary to protect aquatic living resources (through Chesapeake Bay water quality criteria for dissolved oxygen, chlorophyll a, and water clarity). The Program then assigned load reductions for nitrogen, phosphorus, and sediment needed from each tributary basin to achieve the necessary water quality. The Susquehanna River contributes 50% of the fresh water to the Bay.

In 2000, Governor Pataki joined executives from the other Chesapeake Bay Watershed states and the federal government and signed a Memorandum of Understanding to:

- “Work cooperatively to achieve the nutrient and sediment reduction targets that we agree are necessary to achieve the goals of a clean Chesapeake Bay by 2010, thereby allowing the Chesapeake and its tidal tributaries to be removed from the list of impaired waters.
- Provide for an inclusive, open and comprehensive public participation process.
- Collaborate on the development and use of innovative measures such as effluent trading, cooperative implementation mechanisms, and expanded interstate agreements to achieve the necessary reductions.”

In New York State, DEC has the lead role in developing the Tributary Strategy to address this issue. The USC will be a key partner in stakeholder outreach, developing a scientific basis for strategy development and strategy implementation. Based on a Chesapeake Bay Program Watershed Model, New York was given a cap load allocation for nitrogen, phosphorus and sediment. Agriculture was the largest single source identified as having the potential for significant reductions. The USC will integrate our county AEM into a New York Chesapeake Bay Watershed AEM approach that will describe the agricultural component of how New York will address cap load allocations.

### **New York City Watershed**

As a result of the Surface Water Treatment Rule of the Safe Drinking Water Act, in 1990, New York City developed draft watershed regulations as an alternative to the EPA’s water filtration requirement. The Watershed Agricultural Program (WAP) began in 1992 to assist the NYC DEP in responding to these regulations.

The New York City Watershed comprises 54% of Delaware County. It is part of the Delaware System, which provides roughly 50% of the drinking water source for over 9 million people in New York City. Most of this watershed drains to either the Pepacton or the Cannonsville reservoirs within Delaware County. There is a small portion (roughly 2% of the county) that drains to the Schoharie reservoir in Schoharie County, which is also within the New York City watershed.

The Watershed Ag Program is a partnership of several different agencies working together to protect water quality within the watershed. These agencies include the Watershed Agricultural Council, NYC DEP, state and county Soil and Water Conservation Districts, NRCS, CCE, NYS Department of Agriculture and Markets and the NYS Soil and Water Conservation Committee.

The Watershed Ag Program includes two different programs, the Large Farms Program and the Small Farms Program. The latter was developed in 2000 to address the farms within the watershed that weren't being addressed in the Large Farms Program. The farms in the Small Farms Program are defined as farms earning between \$1,000 and \$10,000 /year in gross agriculture sales with commercial intent. This program uses the Tier 1 and Tier 2 evaluation to determine and prioritize each farm as to which farms need a Tier 3c Whole Farm Plan. They are prioritized based on which farms would have the greatest impact on water quality by following the Whole Farm Plan.

To date, in the Small Farms Program, 217 Tier 1's have been completed and 118 Tier 2's have been completed. 37 Tier 3c Whole Farm Plans have been done and 25 of these have commenced implementation. Of those 25, 10 farms have completed implementation. An Annual Review, as it is called within the program, is equivalent to the Tier 5 Farm Level Review process. These are conducted are once a year on any farm that has started or completed implementation.

In the New York City WAP Large Farms Program, the AEM process is not currently used because the program developed its own assessment tool prior to the development of AEM in New York State. The program uses what is called the Environmental Review Problem Diagnosis (ERPD) to develop a Whole Farm Plan (WFP). From this plan, BMPs are implemented through funding from the WAP. The Large Farms program within WAP will not be covered any further in this strategy as they have their own system already in place and have funding to continue with their assessment and implementation strategy.

To reiterate, for the present time and for the purposes of this strategy, when the New York City Watershed is mentioned henceforth, it will refer only to the Small Farms Program within the WAP, unless otherwise noted. It is interesting to note that the NYS AEM process was developed to reflect many of the diagnostic tools used by the WAP.

### **The Delaware River (Tail Waters)**

The Delaware River Tail Waters within the county covers roughly 26.5% of the county and covers the region below the Pepacton and Cannonsville reservoirs. There has been some work done in this area of the county through various USDA/NRCS programs, including EQIP

and Agricultural Management Assistance (AMA). It is expected that in the near future, at least one farm will be enrolling in the Conservation Reserve Program (CRP).

### AGRICULTURAL STATISTICS:

<i>Watershed:</i>	<i>Active Farms:</i>
<i>Susquehanna</i>	± 140
<i>New York City (large and small farms)</i>	± 250
<i>Delaware River (tail waters)</i>	± 10

It is expected that this table will change and vary as more information becomes available while executing this strategy. Our definition of an *active farm* within these statistics is: any operation that has animals and/or there are farming practice(s) occurring such as cropping, raising animals, etc.

### RESOURCE INFORMATION:

There are numerous challenges that farmers face in this day and age. Many are happening at a national, even world-wide level, including the rising cost of feed and fuel and the fluctuating price of milk. However, closer to home, one major challenge is the pressure of residential development in the county. Due to the increase of second-home owners, the majority of whom are from the New York City area, the value of land and real estate has increased dramatically over the past few years. Many farms have gone out of business because it is more economical to sell the farm rather than struggle with increasing taxes, falling milk prices and the uncertainty of who will take over the farm. These challenges can sometimes make it difficult for farmers to see the benefit of participating in cost-share or incentive-based programs.

The mission of the **Delaware County Agricultural and Farmland Protection Plan** is “to protect Delaware County farmland and natural resources, preserve its viable farmland, and enhance the stability and profitability of agriculture in this county so that current and future farm businesses and agribusinesses are able to thrive.” AEM is consistent with this mission by allowing farmers to voluntarily join an environmental program that will help them maintain clean water while not straining them economically.

#### **Susquehanna Watershed**

There is a strong possibility that water quality regulations could impact farmers if Total Maximum Daily Loads (TMDL) are developed for nutrients and sediment. A TMDL is a regulatory load limit for pollutants of special concern. Farmers in this watershed are very concerned about meeting future regulations, especially in view of the historical lack of funding available to address water quality concerns. The AEM process will help prioritize BMPs and identify funding needs for Susquehanna Watershed farmers, allowing these businesses to meet nutrient and sediment allocations being created for New York State.

The AEM working group has given priority to the Susquehanna Watershed for AEM noncompetitive funding for Tier 1 and Tier 2 assessments, since the NYC Small Farms Program is relatively advanced in the planning and implementation phase of the AEM process.

### **New York City Watershed**

As mentioned previously, the pressure of residential development and the associated rising value of real estate, presents a challenge to preserving agriculture, especially in this watershed, since it is in somewhat closer proximity to New York City.

Funding for the foreseeable future is not an immediate concern in this watershed, as it is fully funded through the NYC DEP PL-566 funding and other subsidy sources. Contracts for agricultural work in this watershed are negotiated every three to five years and WAP administrators are aware of the potential opportunity to integrate AEM with the Large Farms Program. The Small Farms Program will continue to work in coordination with the AEM strategy.

### **Delaware River (Tail Waters)**

There are no documented resource concerns at this time in this planning unit.

## **NATURAL RESOURCE CONCERNS**

### **Soil Resources**

Only about 5.6% of the soils in the county are considered “prime farmland”. Much of the land is on steep slopes and has shallow depth to bedrock and large surface stones. Fragipans and hardpans are common. Drainage is often limited and compounds an already short growing season with additional soil workability restrictions. As a result, crop yields are typically lower than other areas of New York State and present challenges to our farmers’ competitiveness.

### **Soil Loss**

As in most of New York State, soil loss is a prime natural resource concern in Delaware County. Steep slopes on much of the agricultural land increase potential for soil loss and present more considerations in crop production and nutrient management planning. As a result, Delaware County farmers have to be more timely, flexible, and creative in their crop production in order to implement crop rotation and nutrient management plans that meet soil and water conservation standards. Additionally, there is only about 5.6% of the soil in Delaware County classified as “Prime Agricultural Soil” which are well drained, valley floor river flats. With so little prime soil, there is an increased desire to preserve this resource.

### **Soil Quality**

Increasingly, soil quality is recognized as a key factor in crop production in the United States. In Delaware County, farmers are only beginning to understand the role and importance of soil quality. Considering the soil resource restrictions detailed above, it is important that management of soil quality become a routine strategy on Delaware County farms, as our soil

resources present many challenges (i.e., greater risk of economic crop failures on our soils as they often have lower yield potentials to begin with). Soil quality management needs to part of the crop rotation and nutrient management planning.

### **Forage Production**

Due to the above detailed challenges, dairy farms in Delaware County have greater challenges in producing high-yielding, high-quality forage crops, a critical prerequisite to economically and environmentally sustainable farm businesses. They have fewer forage options available to them to begin with, as some crops do not grow well in our soil and climate conditions. Again, as our soils have a lower yield potential and have greater limitations to begin with, there are fewer margins for error in producing high-yielding, high-quality forage crops. When forage quality is below average, dairy farms either lose milk production or have to increase purchased grain imports, or both. This results in decreased farm profitability and increased soil nutrient loading (when grain purchases are increased). In Delaware County, as throughout the Northeast US, this is a primary nutrient management challenge on dairy farms, and has resulted in accumulations of phosphorus in soil.

### **Susquehanna Watershed**

New York contains the headwaters of the Susquehanna River, which eventually enters the Chesapeake Bay. The Susquehanna contributes about 50% of the bay's fresh water. The Bay watershed covers more than 64,000 square miles extending over parts of six states: Delaware, Maryland, New York, Pennsylvania, Virginia and West Virginia. It is the largest estuary in the United States and has a rich diversity of productive agriculture operating in close proximity to nearly 17 million residents. Studies in the 1970's concluded that over-enrichment by nutrients and sediment disposition was affecting water quality and the aquatic habitat. Agriculture has been identified as a significant contributor.

The Susquehanna River enters at the "head" of the bay, thus nutrients (primarily nitrogen and phosphorous) and sediments are released in the most closed portion of the bay making them an even more important contributor to the bay's problems, as they are not easily flushed from the bay. In addition to the concerns regarding the Chesapeake Bay, the Susquehanna River is also a drinking water source for the city of Binghamton. This fact intensifies the need to reduce nutrients and sediment as well as pathogens within our county's Susquehanna Watershed.

### **New York City Watershed**

From the 1930's to the 1960's the Schoharie, Pepacton and Cannonsville Reservoirs were constructed to provide added drinking water supply for New York City's nine million residents. To protect water quality, activities within these reservoirs' watersheds have been limited by rules and regulations through the city's Department of Environmental Protection. Since the latest and most restrictive regulations went into effect in early 1997, these regulations have profoundly affected many aspects of land use by both local residents and commercial businesses. However, agriculture has been largely exempted from these regulations by the City cooperating with local agencies to create a voluntary program, the Watershed Agricultural Program (WAP), in 1992.

Natural resource concerns within NY City's watershed are similar to those in other watersheds, with strong emphasis on those aspects that could degrade drinking water quality. Without question, *improving and maintaining water quality* is of principal concern.

*Erosion of surface soil* remains a priority issue, due to the connection between sediment entering waterways and its associated load of nutrients, pathogens and resulting water turbidity.

*Turbidity* is of special concern in the Schoharie basin due to the pervasive extent of fine-textured soils in that area; once detached, silt and clay particles tend to remain suspended in surface waters for long periods of time.

*Eroding stream banks* are another related issue, resulting from unstable stream channels that are in turn made less stable by added sediment from eroding surface soils.

*Pathogens*, including *Giardia* and *Cryptosporidium* also pose a threat to water quality and are being addressed in the watershed. *Cryptosporidium* and *Giardia* are resistant to water treatment methods such as chlorination, and can cause severe illness when consumed. Education and outreach about the dangers of pathogens not only to herd health but also water quality, is handled primarily through the CCE of Delaware County.

An *excess of phosphorus* entering surface waters is of special concern. When excessive amounts reach water bodies with warm temperatures, such as reservoirs during the summer months, then algae can grow out of control. At some point these algae die off and begin to decompose, which consumes most oxygen from the water. When raw water containing algae is sanitized with chlorine, harmful chemical byproducts form, such as trihalomethanes. In addition, suspended clay particles in turbid water tend to reduce the ability of chlorine treatment to kill pathogens.

### **Delaware River (Tail Waters)**

There are no documented natural resource concerns in this planning unit at present.

*Note: The above is an excerpt from this 18-page report – the full report can be accessed online by doing citing the title in the search engine.*

# DELAWARE COUNTY RIGHT TO FARM LAW

162 WASHINGTON AVENUE, ALBANY, NY 12231

(Use this form to file a local law with the Secretary of State.)

Text of law should be given as amended. Do not include matter being eliminated and do not use italics or underlining to indicate new matter.

County  
~~City~~ of Delaware  
~~Town~~  
~~Village~~

Local Law No. 1 of the year 19 91

A local law ENTITLED THE DELAWARE COUNTY RIGHT TO FARM LAW  
(Insert Title)

Be it enacted by the Board of Supervisors of the  
(Name of Legislative Body)

County  
~~City~~ of Delaware as follows:  
~~Town~~  
~~Village~~

BE IT ENACTED by the Delaware County Board of Supervisors as follows:

SECTION 1. Title. This Local Law shall be known as the Delaware County Right to Farm Law.

SECTION 2. Legislative Intent and Purpose. It is the general purpose and intent of this Local Law to maintain and preserve the rural tradition and character of the County of Delaware in recognition of the fact that farming makes a substantial economic contribution to the County. It is our intent to permit the continuation of the practice of farming within the County, to protect the existence and operation of established farms, and to encourage the initiation and expansion of farming practices. In recognition of the fact that there are many practices and activities which are inherent to and necessary for the practice of farming, it is the specific purpose and intent of this Local Law to attain the aforementioned goals and objectives by providing that such practices and activities may proceed and be undertaken free of unreasonable and unwarranted interference of restrictions. It is also recognized that it is desirable for farmers to be good neighbors.

### SECTION 3. Definitions.

(a) Unless specifically defined below, words or phrases used in this Local Law shall be interpreted so as to give them the meanings they have in common usage and to give this local law its most reasonable application.

(b) "Farmer" shall mean any person, organization, entity, association, partnership or corporation engaged in the practice of agriculture, whether for profit or otherwise, including the cultivation of land, raising of crops, raising of livestock and the grazing of pasture.



(c) "Farmland" shall mean land used primarily for bona fide agricultural production of those items and products set forth in the Agriculture and Markets Law of New York, Section 301.

**SECTION 4. Right to Farm.** Farmers, as well as those employed, retained, or otherwise authorized to act on behalf of farmers, may lawfully engage in farming practices within the County of Delaware at any and all such times and all such locations as are necessary to conduct the practice of farming. Farming practices shall include any activity now permitted by law, engaged in by a farmer as defined herein, in connection with and in furtherance of the business of farming; and shall include the collection, transportation, distribution and storage of animal waste; storage, transportation and use of equipment for tillage, planting and harvesting; transportation, storage and use of legally permitted fertilizers, lime and pesticides, all in accordance with local, state and federal law and regulation and in accordance with the manufacturer's instruction and warnings; and construction of farm structures and facilities as permitted by local and state building code regulation, including construction and maintenance of fences.

**SECTION 5. Interference Prohibited.**

(a) No person, group, entity, association, partnership or corporation will engage in any conduct, or act in any manner so as to intentionally, knowingly, and deliberately interfere with, prevent, or in any way deter the reasonable practice of farming within the County of Delaware.

(b) Notwithstanding any other provision of this Local Law, agricultural activities conducted on farmland, if consistent with recognized agricultural practices and established prior to surrounding nonagricultural activities, are presumed to be reasonable and do not constitute a nuisance, unless the activity has a substantial adverse effect on the public health and safety. No commercial agricultural or farming operation, place, establishment or facility shall be or shall become a nuisance as a result of changed conditions in or around the locality of such agricultural or farming operation, place or establishment.

**SECTION 6. Construction with Other Laws.** This Local Law and the provisions set forth herein are in addition to and not in lieu of all other applicable laws, rules and regulations, which are therefore continued in full force and effect and unaffected by this Local Law. Conversely, this Local Law is not intended to contradict or contravene any law, rule, regulation, restriction or proscription of the United States, State of New York or County of Delaware, which may now or hereafter obtain.

**SECTION 7. Severability Clause.** If any part of this local law is for any reason held to be unconstitutional or invalid, such decision shall not affect the remainder of this Local Law. The Delaware County Board of Supervisors hereby declares that it would have passed this Local Law and each section and subsection thereof, irrespective of the fact that any one or more of these sections, subsections, sentences, clauses or phrases may be declared unconstitutional or invalid.

**SECTION 8. Effective Date.** This Local Law shall be effective immediately upon filing, pursuant to Section 27 of the Municipal Home Rule Law.

(Complete the certification in the paragraph that applies to the filing of this local law and strike out that which is not applicable.)

1. (Final adoption by local legislative body only.)

I hereby certify that the local law annexed hereto, designated as local law No. 1 of 19 91 of the (County)(City)(Town)(Village) of Delaware was duly passed by the Board of Supervisors on April 24 1991, in accordance with the applicable provisions of law.  
(Name of Legislative Body)

(Passage by local legislative body with approval, no disapproval or repassage after disapproval by the Elective Chief Executive Officer\*.)

I hereby certify that the local law annexed hereto, designated as local law No. \_\_\_\_\_ of 19 \_\_\_\_ of the (County)(City)(Town)(Village) of \_\_\_\_\_ was duly passed by the \_\_\_\_\_ (Name of Legislative Body) on \_\_\_\_\_ 19 \_\_\_\_, and was (approved)(not disapproved)(repassed after disapproval) by the \_\_\_\_\_ (Elective Chief Executive Officer\*) and was deemed duly adopted on \_\_\_\_\_ 19 \_\_\_\_, in accordance with the applicable provisions of law.

3. (Final adoption by referendum.)

I hereby certify that the local law annexed hereto, designated as local law No. \_\_\_\_\_ of 19 \_\_\_\_ of the (County)(City)(Town)(Village) of \_\_\_\_\_ was duly passed by the \_\_\_\_\_ (Name of Legislative Body) on \_\_\_\_\_ 19 \_\_\_\_, and was (approved)(not disapproved)(repassed after disapproval) by the \_\_\_\_\_ (Elective Chief Executive Officer\*) on \_\_\_\_\_ 19 \_\_\_\_. Such local law was submitted to the people by reason of a (mandatory)(permissive) referendum, and received the affirmative vote of a majority of the qualified electors voting thereon at the (general)(special)(annual) election held on \_\_\_\_\_ 19 \_\_\_\_, in accordance with the applicable provisions of law.

4. (Subject to permissive referendum and final adoption because no valid petition was filed requesting referendum.)

I hereby certify that the local law annexed hereto, designated as local law No. \_\_\_\_\_ of 19 \_\_\_\_ of the (County)(City)(Town)(Village) of \_\_\_\_\_ was duly passed by the \_\_\_\_\_ (Name of Legislative Body) on \_\_\_\_\_ 19 \_\_\_\_, and was (approved)(not disapproved)(repassed after disapproval) by the \_\_\_\_\_ (Elective Chief Executive Officer\*) on \_\_\_\_\_ 19 \_\_\_\_. Such local law was subject to permissive referendum and no valid petition requesting such referendum was filed as of \_\_\_\_\_ 19 \_\_\_\_, in accordance with the applicable provisions of law.

\*Elective Chief Executive Officer means or includes the chief executive officer of a county elected on a county-wide basis or, if there be none, the chairman of the county legislative body, the mayor of a city or village, or the supervisor of a town where such officer is vested with the power to approve or veto local laws or ordinances.

# **Delaware County Agricultural Growth and Sustainability Plan 2010-2015**

In 2010 the Delaware County Department of Economic Development received funds from the office of Community Renewal to conduct an assessment of agricultural businesses in the county and to develop a plan to sustain and grow the county's agricultural base. A survey was developed and sent to farms and farmland owners in the county, one-on-one interviews were held with farmers, and a strategic plan was developed. Focus groups were held, comprised of farmers and key agricultural stakeholders to review and refine the plan's key recommendations. Following are the Goals and Strategies for Implementation set forth in this plan: The plan can be accessed at:<http://delawarecountypanning.com/PDFs/DelawareCountyAgriculturalDevelopmentPlanFinal.pdf>

## **Strategic Areas of Focus**

DCED is able to respond to the areas of potential for growth and the key strengths of Delaware County agriculture and provide assistance and coordination in three strategic areas:

4. Product differentiation: marketing and branding Delaware County farm products;
5. Creating new mechanisms for aggregating, selling, and distributing products; and
6. New product development

DCED will coordinate farmer-driven committees in each of these areas, and work to provide needed assistance and resources for each strategy.

### **Product differentiation:**

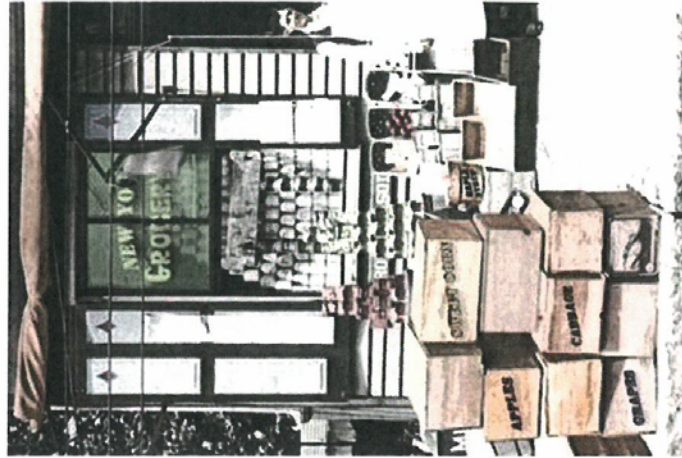
DCED will partner with other organizations and farmers to help differentiate products from Delaware County, beginning with dairy, in ways that help return a higher price to the farmgate. The goal is to build awareness in metro areas that Delaware County farms produce fresh, quality, pure products on family farms that protect the environment. This will be done through developing a branding strategy and partnering with other organizations that are promoting Delaware County, for example Delaware County Tourism.

### **Market exchange development:**

Much of the growth in agriculture in Delaware County is on small farms, not producing enough individually to meet the demands of a larger market. However the quality of these products (eggs, farmstead cheese, vegetables) is extremely high, and in demand from larger metro areas. Large buyers require simple ordering structures, regular delivery, and consistent product – creating a disconnect of scale between small producers and large buyers. Technology offers the potential for aggregating these smaller producers for the purposes of marketing and distribution. DCED will work with partners to create an online 'market exchange' that allows small producers to collectively reach larger buyers, as well as compare and share delivery options by aggregating multiple products.

Source: Delaware County Department of Economic Development

# NEW YORK is an AGRICULTURAL STATE



Year	NEW YORK FARMS Number, Acres, and Value Selected Years			
	No. of Farms (000)	Acres per farm	All land in farms Mill. Acres	Value Land/Buildings Total Per Farm Million \$ 1,000 \$
2007	36.4	188	7.20	15,696
2008	36.6	194	7.10	16,685
2009	36.6	194	7.10	17,040
2010	36.3	193	7.00	16,800
2011	36.0	194	7.00	18,550

### Livestock Products

Dairy and animal production in New York provided \$3.10 billion value of production to farmers in 2011.

### Milk Production

Milk is New York's leading agricultural product and is produced all across the state. Milk sales account for one-half of total agricultural receipts. Production in 2011 was 12.8 billion pounds with a preliminary value of \$2.75 billion. New York is the nation's 4<sup>th</sup> leading producer and Wyoming is the State's leading county.

### Meat Production

New York livestock producers marketed 269 million pounds of meat animals during 2011 bringing in \$274 million in cash receipts. Gross income from cattle and calves accounted for \$261 million while hogs and pigs returned \$21.4 million.

### Poultry Production

The combined value of eggs and the value of sales for chickens was \$83.9 million for 2011. New York ranks 25<sup>th</sup> among all egg producing states in value of production.

### Crop Production

Field crops, fruits and vegetables returned \$2.24 billion to New York farmers in 2011.

### NEW YORK'S LEADING AGRICULTURAL PRODUCTS

Products	2011 Value of Production Million \$
Dairy Products	2,745
Corn for Grain	540
Hay	313
Cattle and Calves	261
Apples	251
Floriculture	171
Cabbage	87
Potatoes	62
Sweet Corn (Fresh)	54
Snap Beans (Fresh)	46
Squash	43
Tomatoes	37
Onions	33



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USDA, National Agricultural Statistics  
Service,

New York Field Office

Department of Agriculture and Markets  
10B Airline Drive, Albany, New York 12235  
[www.nass.usda.gov/ny](http://www.nass.usda.gov/ny)

SEPTEMBER 2012

Agriculture is important to New York State. The value of agricultural production was over \$5.26 billion in 2011. About 23% of the state's land area, or 7.00 million acres are used by the 36,000 farms to produce a very diverse array of food products. Here are some of the items in which New York ranks high nationally:

## FRUITS

The value of New York's 2011 tree fruit and grape crops totaled \$351 million, up 9 percent from the 2010 value.

### Apples

New York ranks 2<sup>nd</sup> nationally with production worth about \$251 million in 2011. Three general areas produce most of the apples: along the southern Lake Ontario shore, along the Hudson Valley, and along the upper Lake Champlain Valley. New York's leading varieties are McIntosh, Empire, Red Delicious and Golden Delicious.

### Grapes

Wine and juice grape production place New York 3<sup>rd</sup> behind California and Washington. The crop value is estimated at \$67.9 million in 2011. Grapes utilized for juice accounted for 70 percent of the total grapes processed with the remaining 29 percent going for wine and 1 percent for fresh market. The four major producing areas are Lake Erie area, the Finger Lakes, the Hudson Valley and the eastern end of Long Island.

### Tart Cherries

Production in New York ranks 5<sup>th</sup> in the Nation. Production in 2011 totaled 5.9 million pounds with a value of \$1.43 million.

### Pears

Production ranked 4<sup>th</sup> in the nation with 12,100 tons and had a value of \$6.96 million.

### Strawberries

Strawberries are the 3<sup>rd</sup> most valuable fruit in New York and places New York 8<sup>th</sup> in national production. Growers harvested 3.60 million pounds in 2011. The crop was worth \$8.46 million to growers.

## VEGETABLES

The value of vegetable production totaled \$356 million in 2011. Fresh market vegetable production ranks 5<sup>th</sup> among all states. Leading crops in New York are cabbage, sweet corn and onions.

### Cabbage

New York produced the second largest crop of cabbage in the Nation. Cabbage is principally grown south of Lake Ontario in Monroe, Genesee, Orleans, Ontario, and Niagara counties. New York cabbage is typically stored for sale as fresh during winter months. Value of the fresh market crop in 2011 totaled \$86.6 million.

### Sweet Corn

Produced statewide, sweet corn had a value of \$53.6 million. Concentrations are found in the Lower Hudson Valley and around the Genesee Valley. Production of fresh market sweet corn crop ranked 5<sup>th</sup> in the nation.

### Onions

An important crop with value of sales of \$33.1 million in 2011. Onions are grown in New York's muck soils in Orange, Orleans, Oswego, Madison and Wayne counties. The state ranked 6<sup>th</sup> in production for 2011.

### Snap Beans

Grown in the Central and Western regions for fresh and processing. The 2011 fresh market and processing crop was valued at \$46.2 million. Fresh production accounted for 67 percent of the total value. New York ranks 4<sup>th</sup> in fresh market production.

### Other Vegetables

Tomatoes:	\$36.6 million,	6 <sup>th</sup> nationally
Pumpkins:	\$23.6 million,	1 <sup>st</sup> nationally
Cucumbers:	\$18.6 million,	3 <sup>th</sup> nationally
Squash:	\$49.9 million,	2 <sup>nd</sup> nationally
Cauliflower:	\$2.40 million,	3 <sup>rd</sup> nationally

## FIELD CROPS

New York produces a variety of field crops largely in support of its dairy industry. Corn, soybeans and wheat are most widely grown. New York ranks 3<sup>rd</sup> in corn silage production with a value of \$428 million. Grain corn ranked 19<sup>th</sup> in production and was worth \$540 million. Soybeans were valued at \$137 million. The state placed 12<sup>th</sup> in oat production, 32<sup>nd</sup> in wheat and 22<sup>nd</sup> for soybean production. Hay receipts put New York 23<sup>rd</sup> and was valued at \$313 million in 2011. Most hay is used on farms and its value is realized through sale of milk and livestock. Fall potatoes production reached a value of \$66.6 million in 2011 and made New York the 14<sup>th</sup> leading producer.

## MAPLE SYRUP

At \$22.1 million, New York ranks 2<sup>nd</sup> behind Vermont in value. New York also ranks 2<sup>nd</sup> behind Vermont in 2012 production with 360,000 gallons.

## FLORICULTURE CROPS

In 2011, New York floriculture products were valued at \$171 million. Bedding and garden plants top the list of commodities. The wholesale value of New York's floriculture output ranks 8<sup>th</sup> nationally at \$171 million. A variety of crops are produced in 25.3 million square feet of covered area and on 670 acres of open ground.

**August 2013  
Lands Acquired by NY City, State  
and Watershed Agricultural Council**

	C.E.	C.E.MOC	F.S.	F.S.MOC	WAC	WAC MOC	Total Acres To date
1998			82.16				1998 82.16
1999			408.58				1999 408.58
2000			1119.82				2000 1,119.82
2001			1040.78		765.84		2001 1,806.62
2002	219.17		4126.51		1481.10		2002 5,826.78
2003	232.73		2726.59		142.13		2003 3,101.45
2004	1050.50		2748.91		2896.21		2004 6,696.62
2005	300.52		1917.32		2109.31		2005 4,327.15
2006	1076.69		1620.36		3403.26		2006 6,100.31
2007	972.47		1541.98		2085.83		2007 4,600.28
2008	641.16		2326.17		809.40		2008 3,776.73
2009	1420.59		1974.21		693.52		2009 4,088.32
2010	1447.19	33	3660.54		1436.95		2010 6,544.68
2011	1324.6	153.3	3001.25	145.19	1564.66		2011 5,890.51
2012	1,178.03	415.44	2,402.10	2,109.22	936.91		2012 4,517.04
2013	108.20	105.89	1,028.78	1,580.36	788.22		2013 1,925.20
	9,971.85	707.63	31,726.06	3,834.77	19,113.33	0.00	60,811.24

	Acquired	Pending	Total Acres
NY State Total Acres	25,564.00		25,564.00
City Pre-MOA Lands	32,658.00		32,658.00
Total Acres in Con Easements	9,971.85	707.63	10,679.48
Total Acres in Fee Simple	31,726.06	3,834.77	35,560.83
Total WAC Easements	19,113.33	0.00	19,113.33
	119,033.24	4,542.40	123,575.64

Del.Co. Acreage	City & State Acquired	%
938,872.00	119,033.24	12.68%
	w/pending moc	
938,872.00	123,575.64	13.16%
<b>Watershed Acres</b>		
502,980.26	119,033.24	23.67%
	w/pending moc	
502,980.26	123,575.64	24.57%

Acres Closed in July '13	Monthly Activity		PURCHASE COST	PRICE PAID PER/ACRE		
	CE	FS			Sale Closed	MOC Pending
					0	0
183.14						
		183.14	107.4			
		0	0			
New Acres to be Acquired	Breakdown:					
107.4		Part time resident				
		Full time resident				
	CE					
	CE MOC					
	FS					
		Kortright	22.44	\$93,574.80		
		Middletown	35.61	\$113,952.00		
		Delhi	78.32	\$195,800.00		
		Roxbury	46.77	\$198,901.80		
	FS MOC					
		Andes	96.6			
		Roxbury	10.8			
	WAC					
	WAC MOC					
			\$602,228.60	Total		
	Total Acres		290.54			

\*\*All data comes from what is registered with the County Clerk Office

## FARM PRODUCTS GROWN IN DELAWARE COUNTY

Following is a list of products known to be grown in Delaware County as of 2013. It is by no means complete as farms continue to diversify in response to consumer interest. It includes natural resource based products such as furniture made from local trees or bluestone.

### Livestock:

Dairy cows  
Dairy replacements  
Dairy cow products (milk, yogurt, ice cream, butter, cream, cheese)  
Beef (grass-fed; grain-fed)  
Free Range & Pastured Poultry  
Swine  
Piglets  
Pork  
Eggs  
Rabbits  
Fish  
Dairy Goats  
Meat Goats  
Sheep Wool & Wool Products  
Dairy Sheep  
Dairy sheep products (milk, yogurt, ice cream, butter, cream, cheese)  
Lamb  
Smoked Fish  
Smoke Meat  
Llamas  
Alpacas  
Beefalo/Bison  
Horses  
Bees  
Goose  
Ducks  
Duck eggs  
Donkeys  
Sheep Dogs  
Pheasant

### Crops:

Hay  
Straw  
Herbs

### Crops (Continued):

Ginseng  
Mushrooms  
Vegetable transplants  
Houseplants  
Cut flowers  
Potatoes  
Nursery Trees & Shrubs  
Aquatic Plants  
Fruit Trees  
Berry bushes  
Perennials  
Annuals  
Aquatic Pond Plants  
Christmas Trees  
Melons  
Rhubarb  
Grapes  
Cherries  
Peaches  
Plums  
Garlic  
Pumpkins  
Lettuce  
Tomatoes  
Sweet corn  
Grain Corn  
Peppers  
Beans  
Onions  
Leeks  
Carrots  
Peas  
Broccoli  
Cauliflower  
Brussels sprouts  
Dried Beans  
Parsnips  
Chard

**Crops (Continued):**

Spinach  
 Cucumbers  
 Gourds  
 Radishes  
 Cabbage  
 Nuts  
 Edible flowers  
 Roses  
 Squashes

**Value-Added:**

Cheeses  
 Yogurt  
 Maple products  
 Honey products  
 Sausages  
 Smoke Meats  
 Butter  
 Jams & Jellies  
 Pies  
 Mustards  
 Vinegars  
 Herb seasonings  
 Specialty Sauces & Marinades  
 Specialty Soaps  
 Breads  
 Cookies  
 Fudge Sauce  
 Gourmet Dog Biscuits  
 Cider  
 Hummus  
 Candy  
 Dried Fruit  
 Dried flowers & herbs  
 Christmas wreaths, swags, garland, etc.  
 Native wood products (furniture, art, cabinetry, etc.)  
 Bluestone furniture, walks, siding, etc.  
 Bottle water  
 Natural crafts  
 Fabric from local fiber  
 Leathers  
 Woolen goods

**Value-added (Continued):**

Distilled spirits  
 Grape wines  
 Blueberry wines  
 Beeswax Cosmetics  
 Beeswax Candles  
 Pollen

**Other:**

Scenic views  
 Horse Boarding  
 Horseback Riding  
 Llama/alpaca Walking  
 Farm tours  
 Farm stays  
 U-Pick family experience  
 Pond fishing  
 Petting Zoos  
 Horticultural therapy  
 Animal therapy  
 Landscaping  
 Fencing  
 Farm Equipment  
 Forestry Equipment  
 Maple Equipment  
 Honey Equipment  
 Horse & Tack Supplies  
 Saw milling  
 Golf courses  
 Snowmobile trails  
 Bike trails  
 Hiking trails  
 Train rides  
 Farmers' Markets  
 County and town fairs  
 Farm tourism events  
 Swimming, boating, Fishing  
 Nature Photography  
 Farm Photography  
 Pony Pulls  
 Tractor Pulls

*List compiled by Janet L. Aldrich, Cornell  
 Cooperative Extension of Delaware County 2013*



## THE DELAWARE RIVER BASIN COMMISSION

The Delaware is the longest un-dammed river in the United States east of the Mississippi, extending 330 miles from the confluence of its East and West branches at Hancock, N.Y. to the mouth of the Delaware Bay where it meets the Atlantic Ocean. The river is fed by 216 tributaries, the largest being the Schuylkill and Lehigh Rivers in Pennsylvania. In all, the basin contains 13,539 square miles, draining parts of Pennsylvania (6,422 square miles or 50.3 percent of the basin's total land area); New Jersey (2,969 square miles, or 23.3%); New York (2,362 square miles, 18.5%); and Delaware (1,004 square miles, 7.9%). Included in the total area number is the 782 square-mile Delaware Bay, which lies roughly half in New Jersey and half in Delaware.

Over 15 million people (approximately five percent of the nation's population) rely on the waters of the Delaware River Basin for drinking, agricultural, and industrial use, but the watershed drains only four-tenths of one percent of the total continental U.S. land area. The 15 million figure includes about seven million people in New York City and northern New Jersey who live outside the basin. New York City gets roughly half its water from three large reservoirs located on tributaries to the Delaware. The Delaware Bay is only a gas tank away for about 23 percent of the people living in the U.S.

In 1961 President Kennedy and the governors of Delaware, New Jersey, Pennsylvania, and New York signed concurrent compact legislation into law creating a regional body with the force of law to oversee a unified approach to managing a river system without regard to political boundaries. The members of this regional body - the **Delaware River Basin Commission** (DRBC) - include the four basin state governors and the Division Engineer, North Atlantic Division, U.S. Army Corps of Engineers, who serves as the federal representative.

The Commission programs include water quality protection, water supply allocation, regulatory review (permitting), water conservation initiatives, watershed planning, drought management, flood loss reduction, and recreation.

### MAP OF THE DELAWARE RIVER BASIN Copyright © Delaware River Basin Commission, 1996-2014

