



BROOME COUNTY AGRICULTURAL ECONOMIC DEVELOPMENT PLAN

Final draft

January, 2019

This Agricultural Economic Development Plan was produced with funding assistance from the New York State Department of Agriculture and Markets' Farmland Protection Planning Program. The Broome County Department of Planning and Economic Development would like to thank the project steering committee for their assistance in guiding the development of this plan:

Broome County Legislature

Ron Keibel, District 9 Legislator and Project Liaison

Department of Planning & Economic Development

Frank Evangelisti, Director

Stephanie Brewer, Planner

Cornell Cooperative Extension of Broome County

Laura Biasillo, Agricultural Economic Development Specialist

Broome County Farm Bureau

David Johnson, President

Lindsay Wickham, Area Field Advisor

Broome County Soil & Water Conservation District

Chip McElwee, Executive Director

The Agency – Broome County IDA/LDC

Stacey Duncan, Deputy Director of Community & Economic Development

The Broome County Department of Planning and Economic Development would like to thank the farm and food-business owners and other organizations that participated in the focus group meetings and stakeholder interviews throughout the development of this plan.

Project consultants:



Environmental Design & Research, D.P.C.
217 Montgomery Street, Syracuse NY
www.edrdpc.com



George Frantz & Associates
Ithaca, NY



M.J. Engineering & Land Surveying, P.C.
1533 Crescent Rd, Clifton Park NY
www.mjels.com

CONTENTS

Introduction	1
Existing Conditions.....	5
Identification of Priority Lands for Protection.....	39
Goals and Implementation Actions	45
Potential Funding and Financing Resources	67
Bibliography	71
Other resources	72
Appendix A: Maps	75
Appendix B: Model Agricultural Data Statement.....	77
Appendix C: Background Material for Grant Applications	79

This page is intentionally left blank

BROOME COUNTY AGRICULTURAL ECONOMIC DEVELOPMENT PLAN

INTRODUCTION

“If you eat, you’re involved in agriculture.”

- Wendell Berry

In the early decades of the 21st century, the essential truth of Wendell Berry’s most famous insight remains as relevant as it has ever been. Every person on our planet – rich and poor, old and young, urban and rural – continues to be inextricably dependent on farms and farmers for their very survival. And with the advent of modern systems of production, processing, and distribution, we rely not only on farmers themselves, but on a whole host of people and businesses in between, from truck drivers to factory workers, scientists to equipment dealers, veterinarians to grocers, and so many more.

Yet despite the essential truth behind Mr. Berry’s observation, the connection between farms and forks is often frayed. A century’s worth of growth in the industrial and service sectors has coincided with a steep decline in the number of people who know what it takes to grow, harvest, store, ship, process, and prepare agricultural products for consumption. As the proportion of the public with this shared knowledge dwindles, we risk the loss of hard-won institutional knowledge, valuable experience, and a sense of connection with both the natural world and our neighbors.

The residents and businesses of Broome County have long recognized the inherent worth of agriculture as both a profession and a land use that has helped to define their community identity. The purpose of this Agricultural Economic Development Plan is to reiterate their commitment to maintaining a viable agricultural sector, and to identify opportunities for county agencies and their local and regional partners to support the growth of farm businesses.

A VISION FOR AGRICULTURE IN BROOME COUNTY

Agriculture has a rich history in Broome County, both as a land use and as an opportunity for economic development. In fact, the **American Farm Bureau** traces its history back to 1911, when a Broome County farmer helped to establish a farming-related office within the **Binghamton Chamber of Commerce**, an organization dedicated to the advancement of the local economy. This historic connection between agriculture and business development is

echoed throughout this plan, and in an ambitious and forward-thinking vision for the future of agriculture throughout the county:

In the coming decade, Broome County – the birthplace of the Farm Bureau – will be renowned in the Southern Tier and beyond for the strength of economic connections between farm and fork. Our vibrant and diverse producers will utilize innovative means to reach informed consumers, resulting in a robust agricultural sector and improved quality of life throughout the county.

CRITICAL PROGRAMS AND SERVICES

The involvement of agricultural support agencies helps make Broome County an attractive place for agricultural businesses. The programs and services offered by each of the agencies and organizations summarized below are critically important to the viability of the agricultural sector in Broome County, and to the regional economy as a whole.

Broome County Department of Planning & Economic Development

- Municipal land use and comprehensive planning
- Trainings for local government officials
- NYS Agricultural District Reviews and boundary revisions under NYS Agriculture and Markets Law §25-AA
- Grant assistance for municipalities and community organizations
- Application reviews under NYS General Municipal Law §239
- Administrative support for the **Broome-Tioga Stormwater Coalition**

Cornell Cooperative Extension of Broome County

- Operation of the **Broome County Regional Farmers Market, TasteNY** stores (I-81 Gateway Center and Agricultural Development Center)
- Marketing of agritourism venues in partnership with the **Greater Binghamton Convention & Visitors Bureau**
- Organization/administration of the **Broome County Farm Trail**
- Organization/administration of **Agriculture in the Classroom** program
- Educational and technical assistance/trainings focused on food safety, business development and profitability, marketing, energy efficiency, and more
- Support for the CCE South Central New York Dairy & Field Crops technical assistance program
- Natural resource education (e.g., invasive species management, forest management, composting)

Broome County Soil & Water Conservation District

- Technical assistance to landowners (e.g., farm pond design/maintenance, sediment and erosion control, drainage, flooding prevention/mitigation)
- Critical area seeding
- Watershed assessment
- Nutrient management planning
- Agricultural use value assessment
- Administration of the **Agricultural Environmental Management** program
- Equipment rental (e.g., no-till drill, hydroseeder)

Farm Bureau

- Public policy advocacy at local, regional, state, and federal levels
- Administration of Workers' Compensation Insurance
- Operation of Young Farmers & Ranchers programming (including **Future Farmers of America** and **4-H**)
- Coordination/support of local promotion and educational initiatives (e.g., **Empire Farm Days**, **Ag Literacy Week**, food bank programs, **Agriculture in the Classroom**)
- Coordination of educational and technical assistance/trainings
- Higher education scholarships for children of farm families

Broome County IDA/LDC – “The Agency”

- Administration of revolving/low-interest loans funded by U.S. Economic Development Administration, the Appalachian Regional Commission, and the Broome County IDA/LDC
- Administration of the Southern Tier Regional Economic Development Council's **Rural Initiative Program**
- Property ownership of economic development sites

Broome County Agricultural Task Force

- Informal membership consisting of local farmers, CCE Broome County, Broome County Department of Planning & Economic Development, The Agency, Broome County Farm Bureau, the office of New York State Assemblywoman Donna Lupardo, the office of New York State Senator Fred Akshar, the office of NYS Assemblyman Cliff Crouch, County Legislator Ron Keibel, Broome County Chamber of Commerce, CHOW, VINES, NRCS, the Windsor School District, Broome County Soil and Water Conservation District, and the Rural Health Network of South Central NY
- Meets quarterly to respond to concerns within the farming community regarding regional economic development

Upper Susquehanna Coalition

- Partnership with SWCD staff to provide technical assistance re: Best Management Practices, pasture management, stream fencing, stream restoration, and nutrient management
- Development of watershed and site-specific agricultural plans
- Partnership with the USDA Natural Resources Conservation Service (NRCS) to collaborate on cover cropping best practices
- Collaboration with farmers, SWCDs, research universities, Cooperative Extension offices, NYS Department of Agriculture & Markets (NYSDAM), NYS Department of Environmental Conservation (NYSDEC), and NRCS on the **Conservation Tillage Initiative**

Food and Health Network of the Southern Tier (FaHN)

- Analysis of regional food systems throughout an eight-county service area
- Partnership with the USDA, NYSDAM, Broome-Tioga BOCES, Food Bank of the Southern Tier, and CCE Broome County in developing **Farm to School** programs and services for local producers and school districts
- Provides outreach to elected officials and the general public as part of the countywide **Healthy Food Procurement** initiative

USDA Regional Service Centers (Cortland and Binghamton)

- Administration of local USDA Rural Development loans
- Administration of local NRCS programs
 - Environmental Quality Incentives Program
 - Conservation Stewardship Program
 - Conservation Reserve Program
 - Watershed Rehabilitation
 - Conservation Innovation Grants
 - Others
- Administration of local Farm Service Agency programs
 - Dairy Margin Protection Program
 - Loan programs (e.g., Direct Operating, Micro, Direct Farm Ownership, Guaranteed, Minority & Women Farmers, Beginning Farmers & Ranchers, and Emergency loan programs)
- Project support of the Delaware River Watershed Working Lands Conservation and Protection Partnership

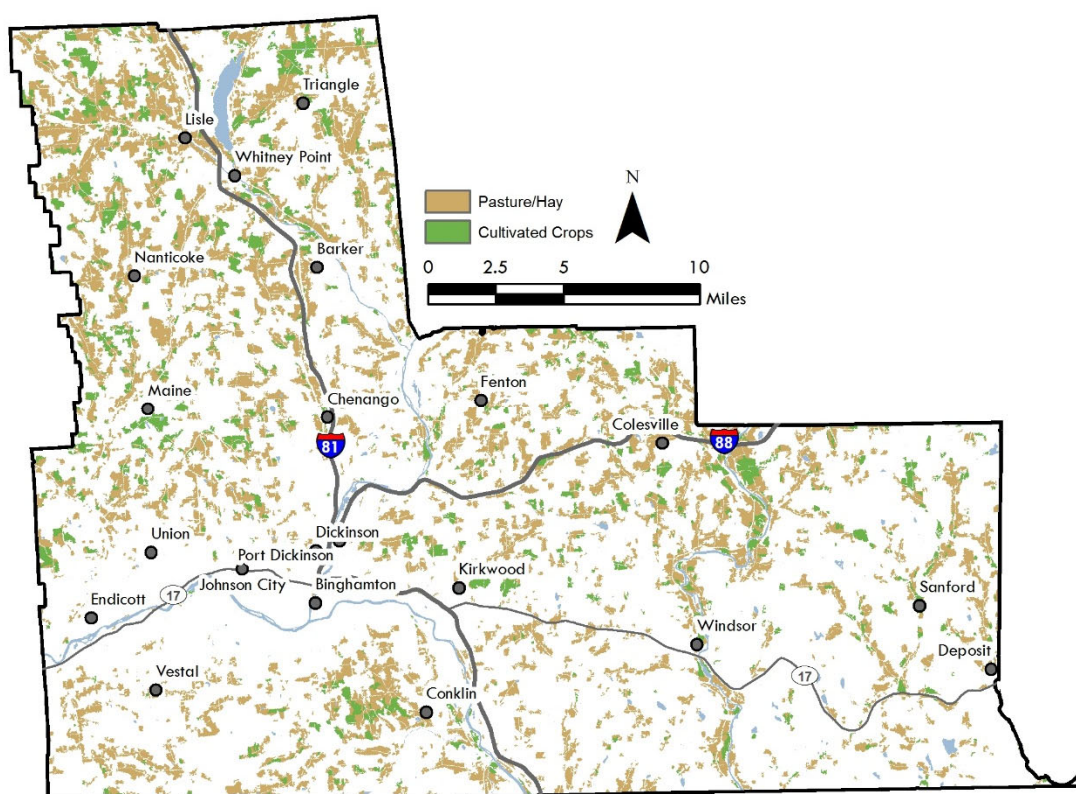
EXISTING CONDITIONS

Note: See Appendix A for additional data and full-size maps to supplement this section.

AGRICULTURAL LAND USE

Approximately 18% of the total land mass of Broome County (more than 79,000 of approximately 452,000 total acres) is used for agricultural purposes. Map 1 shows the distribution of agricultural land cover throughout Broome County according to the National Land Cover Dataset, based on satellite imagery last taken in 2011. Areas shown in beige are pasture or hayfields, and those shown in green are used in crop production (e.g., cornfields, orchards).

Map 1: Agricultural land cover



Source: Homer et al. (2015)

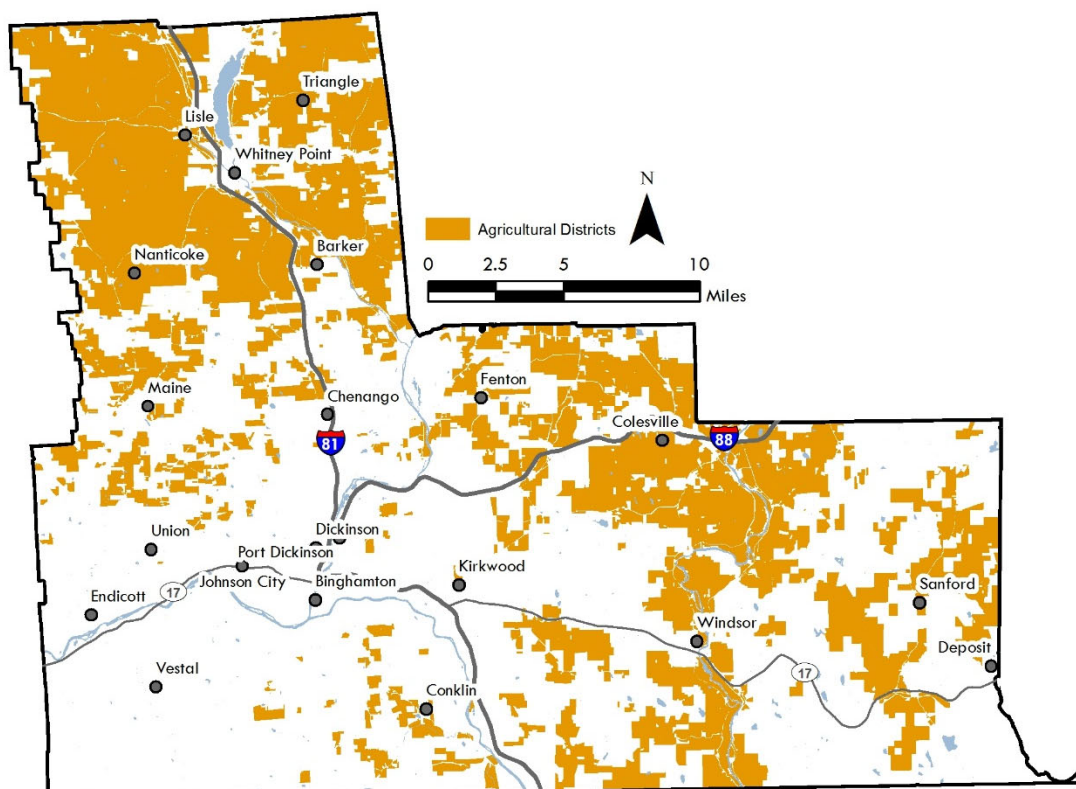
Although there is farmland located in each of 16 towns throughout the county, there are two primary clusters that contain the majority of the county's agricultural operations. The first is within the northern portion of the county, throughout the towns of Lisle, Nanticoke, Barker,

and Triangle, where the gently rolling topography divides the Owego-Wappasening and Chenango watersheds. This area generally features larger, more contiguous fields than other portions of the county, owing in part to more moderately sloped hillsides.

The second cluster of farmland is in the eastern portion of the county, split among the Upper Susquehanna and Upper Delaware watersheds. This concentration stretches north along the Susquehanna River corridor from the Pennsylvania border through the towns of Windsor and Colesville. Although the steeper slopes in this area preclude the contiguity found in the north of the county, this cluster features a greater degree of prime agricultural soils that generally coincide with the floodplains of the Susquehanna River.

Map 2 shows the geography of Broome County's Agricultural Districts, which are certified per Section 300 of Article 25-AA of the New York State Agriculture and Markets Law. The boundaries of these districts are renewed every eight years. Enrollment in the Agricultural Districts program is voluntary, and open to qualified landowners on an annual basis. Enrollment in the Agricultural Districts program has a number of advantages for agricultural landowners. Participants are eligible for: partial property tax relief through agricultural use-value assessment and special benefit assessments; protections against overly restrictive local laws and nuisance complaints; and funding programs for acquisition or construction projects.

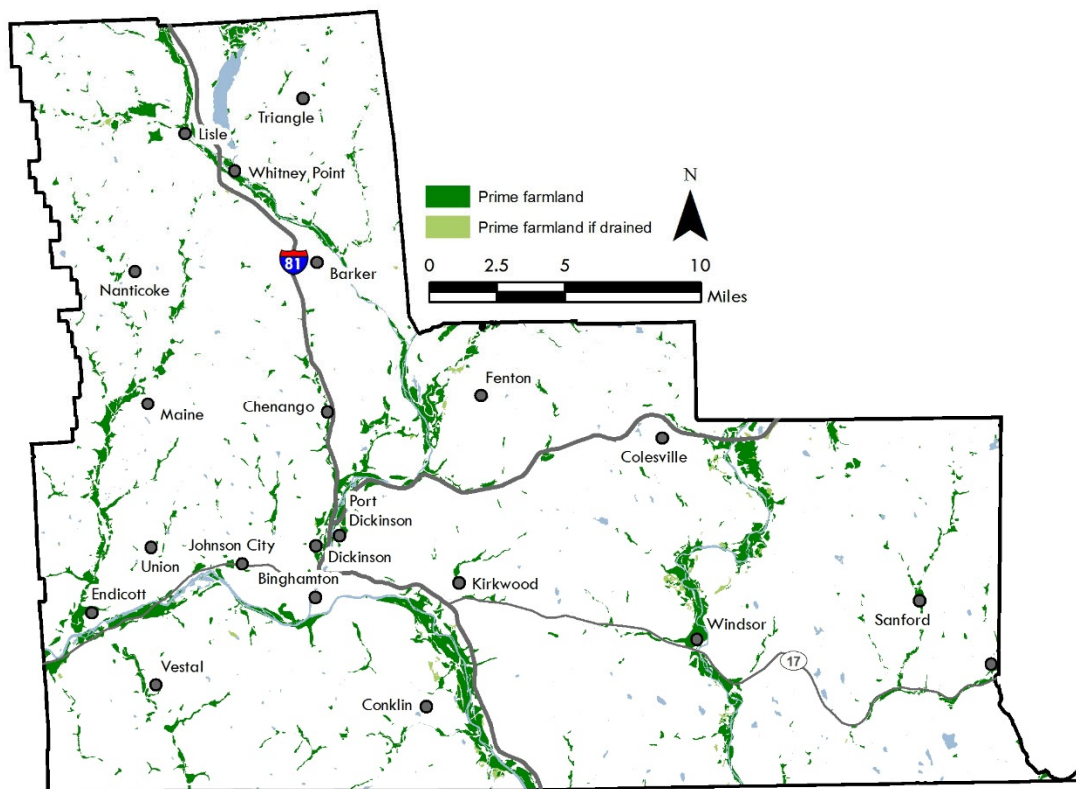
Map 2: NYS Certified Agricultural Districts



Source: Broome County Department of Planning & Economic Development

Map 3 shows the distribution of prime soils within Broome County. Soil characteristics are a critical factor in the distribution of farmland across the landscape. Young, acidic soils are found throughout much of the county. Many upland soils are considered “soils of statewide importance”, indicating that they can be farmed economically with proper care and management. However, these soils are generally shallower and more prone to drying – meaning that they are riskier and more expensive for farmers to work with and profit from. Prime soils are generally deeper, well drained (but not dry), and feature combination of biophysical and chemical properties (e.g., acidity, alkalinity, sodium content, permeability) that are most conducive to the production of food, feed, forage, and fiber. In Broome County, prime soils are generally used to support dairy operations.

Map 3: Prime farmland

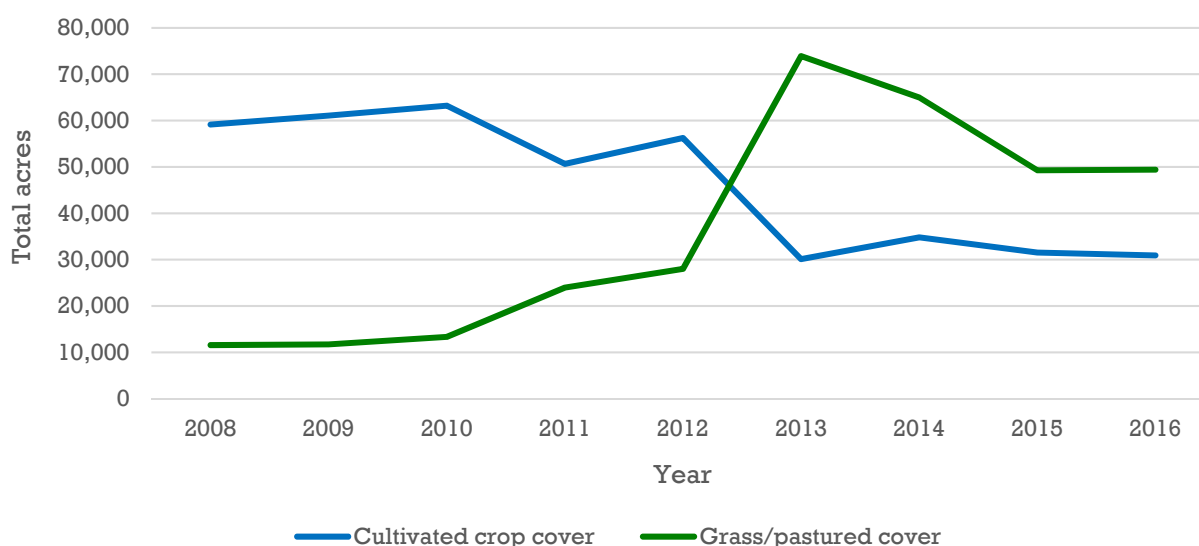


Source: Soil Survey Geographic (SSURGO) Database, USDA Natural Resources Conservation Service

Most farmland within the county has historically been used for crop production, primarily feed corn and soybeans grown to support dairy operations within the county. Multiple data sources point to a decline in cropland in recent years. The USDA Census of Agriculture indicates an 8% decline in cropland in Broome County from 2007-2012, while the USDA's remotely-sensed CropScape data shows a 48% decline in the county's cultivated crop cover from 2008-2016.

However, the same remotely-sensed data shows evidence of emerging growth in grassland and pasture from 2008 to 2016. Several local producers are known to have made (or at least begun) a transition from dairy production to beef production, which may account for some of this increase in pastured land cover and corresponding decrease in cultivated crops. Figure 1 demonstrates this trend.

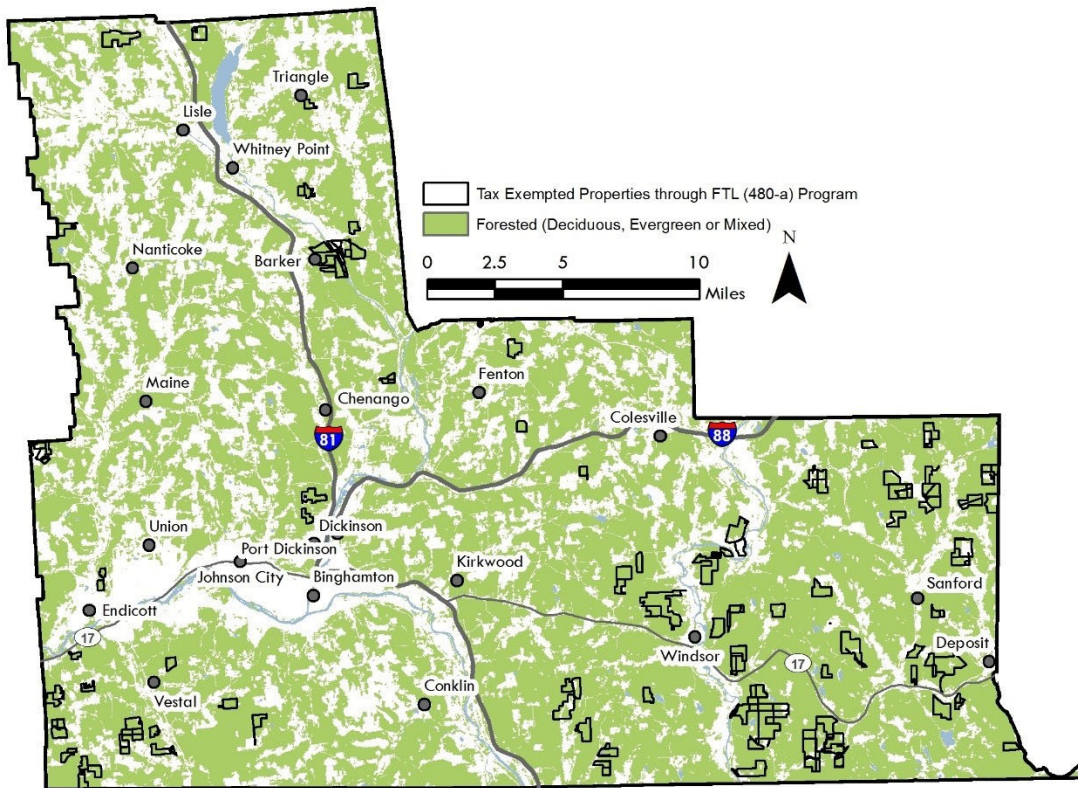
FIGURE 1: GRASS/PASTURED LAND COVER, 2008-2016



Source: USDA National Agricultural Statistics Service (2017)

In contrast to these agricultural land covers, forestland comprises a much larger portion of the county's land mass. In 2016, forests covered more than 320,000 acres, or approximately 70% of all land in Broome County. Many of these forestlands are actively managed for timber and maple syrup harvesting, both of which are agricultural products. Map 4 shows the distribution of forestlands and actively managed forest properties (as indicated by enrollment in the New York State Forest Tax Law Program, commonly known as the 480-a program).

Map 4: Forestlands and 480-a enrollment



Source: Broome County Real Property Tax Services and Homer et al. (2015)

Although land use is not regulated directly by Broome County, the County Planning Department does play a role in influencing agricultural land use through reviews of proposed local comprehensive plans, zoning laws, special use permits, site plans, variances, and subdivisions pursuant to General Municipal Law §239, and through administrative support for NYS Agricultural District applications and renewals. Unlike many counties in New York State, Broome County does not own or maintain sewer or water infrastructure, which also have a substantial impact on the distribution of agricultural land uses.

Broome County's town governments, on the other hand, have a more direct role in land use regulation. In addition to the ten sewerage districts created by local governments, a majority of the 16 towns within Broome County have also adopted regulatory tools such as zoning laws, subdivision ordinances, and Right to Farm laws. Figure 2 highlights many of the factors that make these tools more or less "farm-friendly", and helps to identify the steps that each of the county's 16 towns are taking (or could take) to maintain a viable agricultural land base.

FIGURE 2: BENCHMARK ANALYSIS OF LOCAL LAND USE TOOLS

Law/Code Provision	Barker	Binghamton	Chenango	Colesville	Conklin	Dickinson	Fenton	Kirkwood	Lisle^	Maine	Nanticoke^	Sanford	Triangle^	Union	Vestal	Windsor
Right to Farm Law	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Does the town have an agricultural zoning district?*	N	N	Y	N	N	N	N	N	-	N	-	Y	-	N	N	Y
Is agriculture designated as a preferred use in purpose statement?	N	N	N	N	N	N	N	N	-	N	-	N	-	N	N	N
Does the town define the following terms in their zoning law?																
Agri-business	N	N	N	N	N	N	N	N	-	N	-	N	-	Y	N	N
Agriculture/farm operation	Y	Y	Y	Y	Y	N	N	Y	-	Y	-	Y	-	Y	Y	Y
<i>Is agriculture defined in a manner parallel to its definition in the NYS Ag & Markets Law?</i>	N	N	N	N	N	N	N	N	-	N	-	N	-	N	N	N
Agri-tourism	N	N	N	N	N	N	N	N	-	N	-	N	-	N	N	N
Farm	Y	N	Y	N	Y	N	N	Y	-	Y	-	N	-	Y	Y	Y
Farm/roadside stand	N	N	N	N	N	N	N	N	-	N	-	N	-	N	N	N
Home business occupation	Y	Y	Y	Y	Y	Y	Y	Y	-	Y	-	Y	-	Y	Y	Y
Does the town definition of "junkyard" exclude on-farm scrap piles?	na	na	na	N	N	na	N	N	-	N	-	N	-	N	N	N
Does the town enumerate the following land uses in their zoning law?																
Agri-business	N	N	N	N	N	N	N	N	-	N	-	N	-	SP	N	N
Agriculture	Y	N	Y	Y	Y	N	Y	Y	-	Y	-	Y	-	SP	Y	Y
Commercial horse boarding	Y	N	N	N	N	N	N	N	-	N	-	N	-	SP	N	N
Farm/roadside stand	Y	Y	Y	Y	Y	N	N	Y	-	N	-	Y	-	Y	Y	N

Farm worker housing	N	N	N	N	N	N	N	N	-	N	-	N	-	N	N	N
Veterinary office/hospital	N	Y	N	N	Y	N	Y	Y	-	Y	-	N	-	N	N	Y
Home business occupation	Y	Y	N	Y	Y	Y	Y	Y	-	Y	-	Y	-	Y	Y	Y
Brewery/distillery	N	N	N	N	N	N	N	N	-	N	-	N	-	N	N	N
Winery	N	N	N	N	N	N	N	N	-	N	-	N	-	N	N	N
Does the town allow competing land uses within zoning districts that also allow agriculture?																
Single-family residential, < 1ac.	N	Y	N	N	Y	Y	Y	N	-	N	-	N	-	Y	Y	Y
Multifamily housing/mobile home park	N	Y	N	Y	Y	Y	N	N	-	N	-	N	-	N	N	Y
Office buildings	N	N	N	N	Y	N	N	N	-	N	-	N	-	N	N	N
Commercial uses	N	N	N	N	N	N	N	N	-	N	-	Y	-	N	N	N
Hospitals, nursing homes, sim.	N	Y	Y	Y	Y	N	N	Y	-	Y	-	Y	-	Y	Y	Y
Does agriculture require a special use permit?*	N	N	N	N	Y	na	N	N	-	N	-	N	-	Y	N	N
Do the town's zoning/subdivision regulations allow for:																
Minimum lot size ≤2ac.	N	Y	N	N	Y	Y	Y	N	na	Y	na	N	na	Y	Y	Y
Fixed ratio lot size ≥1:10	N	N	N	N	N	N	N	N	na	N	na	N	na	N	N	N
Cluster subdivision	N	N	N	N	N	Y	Y	N	na	N	na	?	na	N	Y	N
Agricultural infrastructure protection mechanisms	N	N	N	N	N	N	N	N	na	N	na	N	na	N	N	N

* For the purpose of this report, "Agricultural Zoning District" is a zoning district where agriculture and related land uses are identified as the predominant land uses, although residential and other uses are also permitted.

^ The Towns of Lisle, Nanticoke, and Triangle have not adopted local zoning laws/ordinances

** Requiring a special use permit for agricultural uses may contradict NYS Agriculture & Markets Law

This benchmark analysis should be viewed in concert with the land prioritization exercises summarized in Maps 5 and 6. Together they provide a more complete illustration of local priorities in terms of regulations that should be updated. For example, the Towns of Sanford and Colesville feature a relatively high degree of incremental development pressure, largely from small frontage development and the conversion of former recreational properties to residential uses. To the extent that such development encroaches on established agricultural uses outside of targeted growth areas, it is important to have adequate zoning protections that recognize farming as an enumerated and preferred land use, limit the number and intensity of permitted competing uses, and support agricultural landowners with consistent (and well-organized) definitions.

AGRICULTURAL LAND USE: KEY STATISTICS

79,676	Acres of farmland within the county
18%	Proportion of the county land mass dedicated to agriculture
142 / 76	Average / median size (acres) of Broome County farms
48%	Percent of all farmland used for crop production*
31%	Percent of all farmland that is classified as woodland
8%	Decrease in total farmland acreage between 2007 and 2012
13%	Decrease in cropland acreage between 2007 and 2012

Source: USDA National Agricultural Statistics Service (2012)

*See Figure 1 above for evidence of the growth of pastured land cover

AGRICULTURAL LAND USE: SWOT ANALYSIS

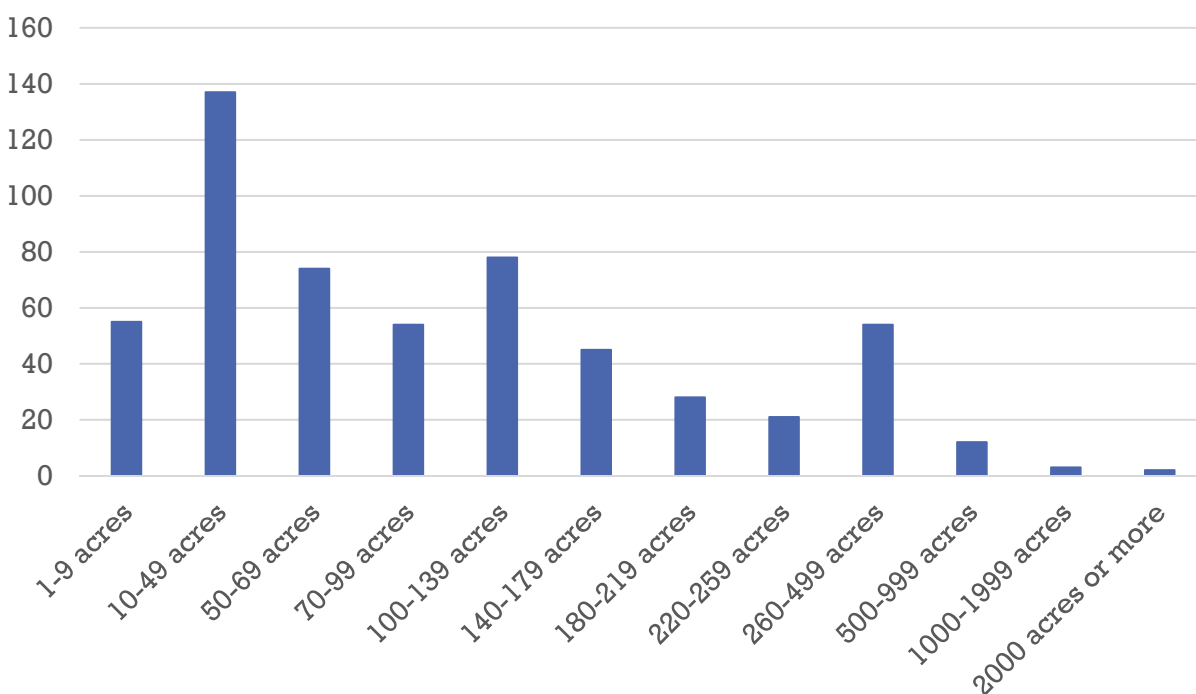
Strengths	<ul style="list-style-type: none"> • Quality soils in the floodplain • Low development pressure in northern Broome County
Weaknesses	<ul style="list-style-type: none"> • Marginal upland soils • Hilly topography • Greater development pressure in eastern Broome County
Opportunities	<ul style="list-style-type: none"> • Growing number of pastured lands • Increase enrollment in NYS Agricultural Districts
Threats	<ul style="list-style-type: none"> • Farmland left vacant is turning to shrubland • Intensity/frequency of precipitation may make upland soil management more difficult in the future

FARM OPERATIONS & OPERATORS

Broome County farming operations are the very definition of local businesses – families, family-held corporations, and individuals own more than 90% of all farms and farmland within the county. Unfortunately, the exact number of farm operations within Broome County is difficult to determine. According to the most recent (2012) USDA Census of Agriculture, there are 563 farm operations within Broome County; however, based on local knowledge this estimate is likely quite high. Perhaps more reliably, USDA also estimates there are 275 farm operators in the county whose principal occupation is farming, and the Broome County's Real Property Tax Service indicates that approximately 330 unique property owners claimed an agricultural use value exemption in 2016.

At a median size of 76 acres, Broome County farms are substantially smaller than the size of operations in neighboring counties (Tioga, Cortland, Chenango, and Delaware), where the median size is closer to 120 acres. Figure 3 shows the distribution of operation sizes across Broome County farms. As shown here, most operations within the county are small – nearly a quarter are between 10 and 49 acres, and almost three quarters are less than 140 acres.

FIGURE 3: FARM OPERATIONS BY SIZE (ACREAGE), 2012



Source: USDA NASS (2012)

Although Broome County's farms tend toward the smaller end of the spectrum as compared to the region, they do offer an important employment opportunity for local laborers. Figure 4 shows that as a matter of staff size, most Broome County farm operations with hired staff employ between one and four hired farmworkers. It is noted that the data shown here, taken from the USDA Census of Agriculture, is likely to underestimate total farm employment due to under-reporting among survey respondents; likewise, many sole proprietorships do not have hired labor.

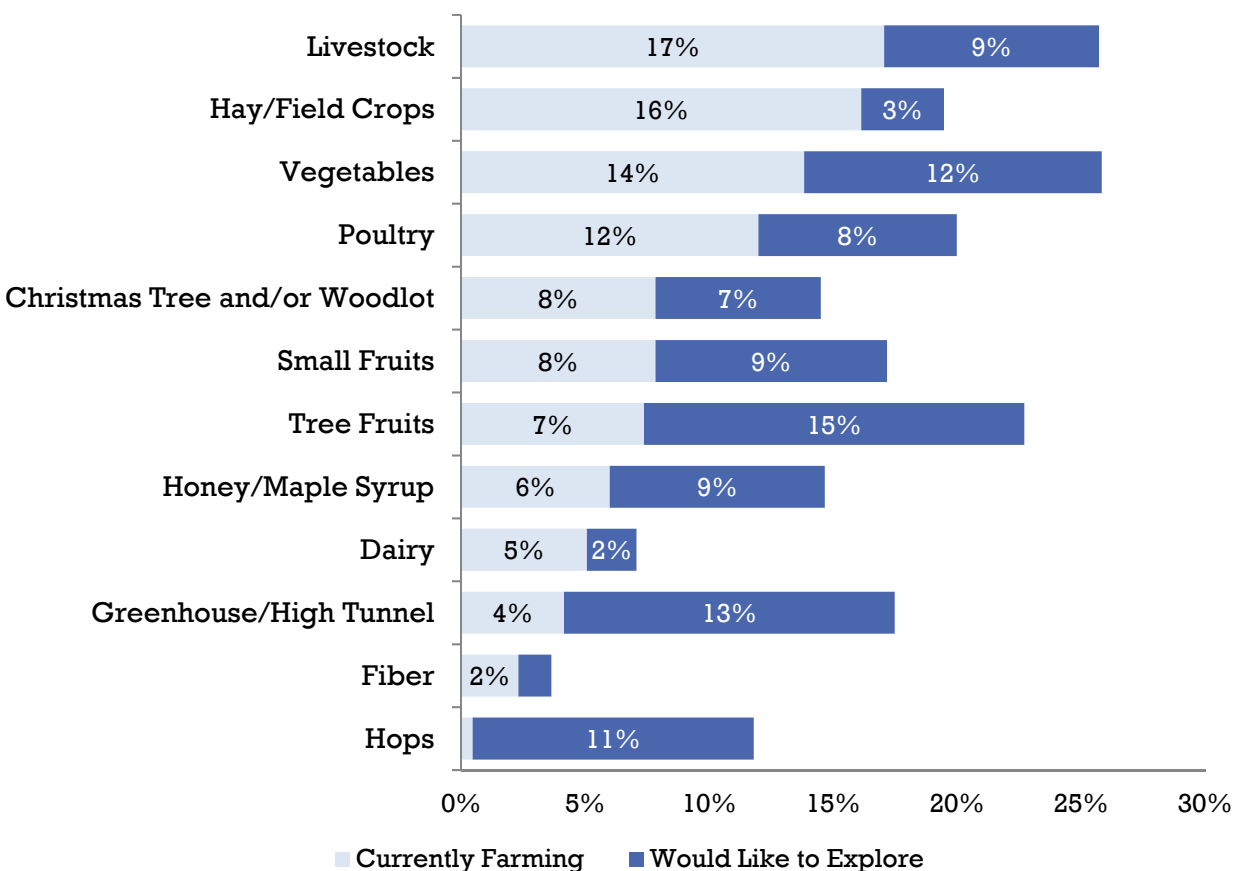
FIGURE 4: FARM OPERATIONS BY SIZE (HIRED STAFF), 2012

Farm size	% of total operations with hired staff, 2012
Farms with 1 worker	23%
Farms with 2 workers	25%
Farms with 3 to 4 workers	29%
Farms with 5 to 9 workers	16%
Farms with 10 or more workers	7%

Source: USDA NASS (2012)

Big or small, Broome County's farm operations offer a diverse array of agricultural products. According to a 2014 survey of local farmers, the most common operation types within the county were non-dairy livestock and hay/field crops, but several other types of operations were also noted. Figure 5 shows the results of this survey question, which suggest that there is room within the local market for a wider array of agricultural products outside of dairy and beef, as well as interest on behalf of farm operators for expanding into new markets (e.g., tree fruit, produce).

It is noted that the results shown in Figure 5 were tabulated prior to emerging interest in the production of industrial hemp, and prior to changes in the regulatory landscape that will allow for increasing its production. Although there was little additional interest in hemp farming in 2014, the expansion of state licenses and the attraction of hemp processing industries to the Southern Tier is expected to increase local interest and production.

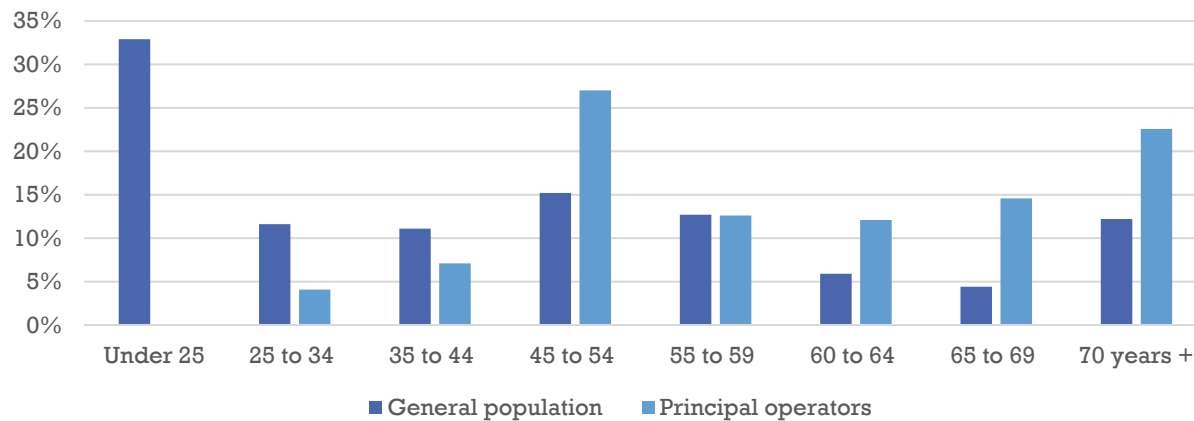
FIGURE 5: FARM OPERATION TYPES, 2014

Source: Broome County Department of Planning & Economic Development

As compared to the general population of Broome county, the farmers who own and manage these operations are disproportionately old and male. Figures 6 and 7 compare the age and gender of principal farm operators against the general population (as measured in 2012, the most recent year for which the farm operators' data is available). It is noted that the number of female principal operators increased by 16% from 2007 to 2012, and that this increase is reflective of trends throughout the agricultural sector that show an increasing representation of women as owners and operators of farm businesses.

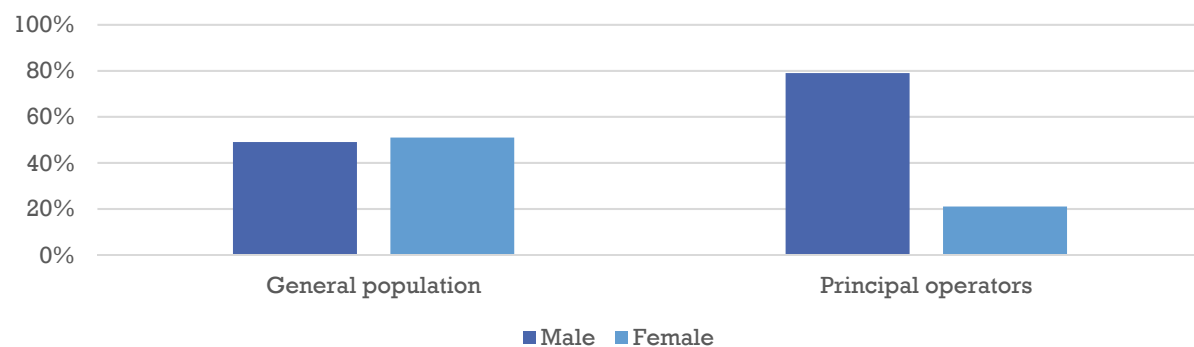
Whether it is through targeted recruitment of women into agriculture or through outreach to younger farm owners more generally, this data underscores the importance of bringing more people from throughout the broader community into the agricultural workforce if Broome County is to maintain a steady supply of local food, fiber, and forage.

FIGURE 6: AGE DISTRIBUTION OF PRINCIPAL OPERATORS, 2012



Source: USDA NASS (2012)

FIGURE 7: SEX OF PRINCIPAL OPERATORS, 2012



Source: USDA NASS (2012)

FARM OPERATIONS & OPERATORS: KEY STATISTICS

92%	Broome County farms owned by families, individuals, or family corporations
275	Principal farm operators whose primary occupation is farming
49%	Local farmers interested in growing/selling new products
57%	Local farms less than 100 acres in total size
23%	Local farms that employ 5 or more farmworkers
59	Median age of principal farm operators
16%	Growth in the number of female principal operators from 2007 to 2012

FARM OPERATIONS & OPERATORS: SWOT ANALYSIS

Strengths	<ul style="list-style-type: none"> • Smaller family farms have greater appeal to local consumers • Diverse production types
Weaknesses	<ul style="list-style-type: none"> • Small operation sizes lack economies of scale • Low level of hired employees puts agricultural sector “under the radar”
Opportunities	<ul style="list-style-type: none"> • High % of farmers interested in exploring new products/markets • Scale of local operations is well-suited for direct-to-consumer sales, co-marketing, and/or agritourism opportunities • Number of female principal operators indicates potential future growth
Threats	<ul style="list-style-type: none"> • Stagnant regional population = stagnant consumer market • Lack of “backfilling” the aging workforce with younger operators

FARM PRODUCTION & INCOME

For all the growth of pastured beef in recent years, Broome County farms are still primarily dairy operations. The total count of cattle is not as high as in several neighboring counties (e.g., Chenango, Cortland, or Delaware), but Broome County farms generally have a higher number of head per livestock operation than their neighbors throughout the region. Figure 8 shows the distribution of cattle inventory and operations with inventory across a five-county region in 2012.¹

FIGURE 8: REGIONAL CATTLE AND COW INVENTORY, 2012

County	All cattle, incl. calves			Beef cows			Dairy cows		
	Inv.	# ops.	Inv/op	Inv.	# ops.	Inv/op	Inv.	# ops.	Inv/op
Broome	15,116	204	74	1,709	141	12	4,929	37	133
Chenango	27,506	410	67	2,474	199	12	12,137	184	66
Cortland	23,239	224	104	1,279	114	11	10,351	91	114
Delaware	23,125	388	60	2,972	216	14	8,530	151	56
Tioga	14,902	267	56	1,684	153	11	6,454	88	73

Source: USDA NASS (2012)

Of the total acreage of cropland harvested in 2012 (31,901 acres), the USDA estimates that more than three quarters of the acreage was used for forageland (i.e., hay, haylage, grass silage, and greenchop). Figure 9 shows the USDA's estimate for the top 10 crops by harvested acreage in Broome County in 2012.

Although it does not register on a list of Top 10 crops within the county, the introduction of industrial hemp to the county's agricultural sector is worth noting. In partnership with the **Binghamton University School of Pharmacy** and **Southern Tier Hemp** (a private marketing company), **Nanticoke Gardens** planted 15,000 hemp plants over five acres in 2017.

¹ These values reflect the USDA's estimate of the total number of farms in these counties, which is generally thought by local agricultural support staff to be higher than the actual number of farms. However, the number of dairy operations in the county as shown here (37) is more consistent with staff estimates

FIGURE 9: BROOME CO. TOP 10 CROPS BY HARVESTED ACREAGE, 2007-2012

Crop/cover	Acres		% change
	2007	2012	
<i>Total harvested cropland</i>	35,971	31,901	-11%
Forage-land (i.e., hay, haylage, grass silage, greenchop)	28,631	24,496	-14%
Corn for silage	5,376	4,312	-20%
Corn for grain	875	2,116	142%
Vegetables	240	193	-20%
Pumpkins	107	41	-62%
Oats for grain	87	113	30%
Sweet corn	66	52	-21%
Blueberries, tame	55	55	0%
Orchards	46	57	24%
Non-citrus fruit (all)	[D] ²	57	n/a

Source: USDA NASS (2012)

Figure 10 shows the total value of all crop and animal sales in 2012. Previous years' estimates are not shown here, as comparisons of these values over time are complicated by both the influence of inflation and a high degree of year-to-year fluctuation in prices received by producers. However, in summary, livestock sales account for a much greater proportion of total sales, owing to the fact that many field crops are not sold on the market but instead used to feed livestock.

Underlying sales data suggest that the average sales value per farm as shown in Figure 10 may be inflated by a relatively small proportion of more profitable farm businesses, as most farms in Broome County reported very low levels of total farm sales in 2012. Approximately 28% of all operations reported farm sales of less than \$1,000, and an additional 50% reported sales of between \$1,000 and \$20,000. As a result, many farm businesses are reliant on farm-related income that is not generated by the direct sale of crops and livestock, but instead through avenues such as customwork, government programs, forest products, and building rentals. In 2012, Broome County farmers with such sources of income received an average of \$7,479. All of this suggests that new models for production, marketing, and profitability could make a significant difference in terms of the viability of local agriculture.

² [D]: Withheld by USDA to avoid disclosing data for individual farms

FIGURE 10: ANIMAL AND CROP SALES, 2012

	Sales value ³	% of total
Total market value	\$30,713,000	100%
Crop sales	\$7,040,000	23%
Livestock sales	\$23,673,000	77%
Average sales per farm	\$54,553	-

Source: USDA NASS (2012)

Despite all of this production, there is evidence of substantial unmet demand for local meats, poultry and eggs, and fruits and vegetables within the regional marketplace. Figure 11 shows the results of a surface-level analysis of demand for local agricultural products within Broome County. This analysis describes local production and market demand in four ways:

- Local quotient is the percentage of category food sales produced within the area. It is calculated at the state level and is overstated if production is shipped to other states. A result of greater than 100% indicates that local demand could be met entirely with local production if it were directed to these markets through a local food system.
- Local food demand is the approximate value of category wholesale sales which could come from local sources if supply were available.
- Local food supply is the approximate value of category wholesale sales produced within the area based on the state-level local quotient, some of which may be shipped to other states.
- Unmet market for local food is the difference between the value of local food demand and area production (supply) in the chosen categories.

It is noted that the analysis summarized in Figure 11 relies partially on statewide data, therefore an additional investigation of regional productive capacity and consumer purchase intent (and the gap between these two metrics) that is specific to Broome County and/or the Southern Tier is warranted. Nonetheless, the magnitude of the potential market for local food shown here suggests that the marketplace could accommodate many more producers of local meats, poultry and eggs, and fruits and vegetables.

³ Measured in 2012 dollars

FIGURE 11: POTENTIAL UNMET MARKET DEMAND FOR LOCAL FOOD

	Dairy	Meat	Poultry & eggs	Fruits & vegetables
Local quotient	149%	12%	14%	30%
Local food demand	\$ 30,960,052	\$ 34,162,112	\$ 14,705,976	\$ 51,288,446
Local food supply	\$ 46,108,118	\$ 4,195,728	\$ 1,986,782	\$ 15,550,807
Unmet market for local food	See note*	\$ 29,966,384	\$ 12,719,194	\$ 35,737,639

Source: New Venture Advisors (2017)

*Note: Per NVA, in this instance, local demand could be fully met with local supply if it were directed to these markets through a robust local food system.

One of several reasons New York State farmers may find it difficult to meet this demand is the continuously increasing cost of doing business. Figure 12 reflects farm production expenses in 2012, with an average value of expenditures per operation at \$51,608. Substantial five-year increases have been noted in the categories of feed and contract labor.

FIGURE 12: FARM PRODUCTION EXPENSES, 2012

Expense category	\$ ⁴
Ag services	
Customwork	\$430,000
Machinery rental	\$118,000
Other	\$3,261,000
Utilities	\$952,000
Animal totals	\$646,000
Excl. breeding	\$433,000
Breeding	\$212,000
Chemical totals	\$320,000
Depreciation	\$3,719,000
Feed	\$9,129,000
Fertilizer totals, incl. lime & soil conditioners	\$703,000
Fuels (incl. lubricants)	\$2,348,000
Interest	\$1,303,000
Non-real estate	\$410,000
Real estate	\$893,000
Labor, contract	
Contract	\$262,000
Hired	\$4,035,000
Rent, cash, land & buildings	\$480,000
Seeds & plants totals	\$662,000
Supplies & repairs (excl. lubricants)	\$3,450,000
Taxes, property, real estate & non-real estate	\$2,555,000
<i>Expense totals per operation</i>	<i>\$51,608</i>

Source: USDA NASS (2012)

⁴ Measured in 2012 dollars

Relatively low sales and increasing expenses results in correspondingly low net income. USDA's estimated net incomes for 2012 are shown in Figure 13, again underscoring the need for new or innovative products, processes, or market development.

FIGURE 13: FARM PRODUCTION EXPENSES, 2012

Net cash farm income	2012 ⁵
Net income	\$3,632,000
Net income, \$/operation	\$6.451
Operations with gains	189
Gains, measured in \$/operation	\$45,273
Operations with losses	374
Losses, measured in \$/operation	\$13,168

Source: USDA NASS (2012)

FARM PRODUCTION: KEY STATISTICS

12	Average number of beef cows per beef operation (2012) – <i>very close to the size where they become more scalable and profitable</i>
12%, 14%, 30%	Percent of local market demand for meats, poultry/eggs, and fruits/vegetables (respectively) that is currently met by in-state production
142%	Increase in harvested acreage of grain corn, 2007-2012
15,000	Number of industrial hemp plants planted in Broome County as part of the statewide expansion of hemp production licenses in 2017
\$30,713,000	Estimated total value of crop and animal sales, 2012
78%	Percent of farms reporting less than \$20,000 in crop and livestock sales in 2012
\$4,035,000	Countywide farm expenditures on hired labor, 2012
66%	Percent of all operations reporting net income losses in 2012

⁵ Dollar values shown here are measured in 2012 dollars

FARM PRODUCTION: SWOT ANALYSIS

Strengths	<ul style="list-style-type: none"> • Close proximity of BC farms to local consumers • High level of dairy production relative to size of the local market
Weaknesses	<ul style="list-style-type: none"> • Low sales values • High expenditure values
Opportunities	<ul style="list-style-type: none"> • # cows per beef operation signals growth opportunity • Growing interest and applications for in industrial hemp in the marketplace • Underserved market for locally-produced meats, poultry/eggs, and fruits/vegetables
Threats	<ul style="list-style-type: none"> • Lack of (personal and local) control over high fixed costs, low prices

PROCESSING

Food processing is simultaneously one of the biggest opportunities and challenges facing Broome County agriculture. Local farmers have an opportunity to use processors to add value to their products, reach new markets and revenue streams, and expand both their product offerings and their seasonal availability. On the other hand, changes in the regional (and national) economy have left fewer options for food manufacturing than in decades past, and what processors remain within the region do not necessarily source their supplies from the surrounding area. Although the market may have changed, there are ways for Broome County producers to respond to local needs as a path toward enhanced viability and growth; likewise, there may be room within the market for new producers to take better advantage of local raw agricultural products.

Recent research from **Cornell University** has provided a portrait of the food manufacturing economy across ten regions throughout New York State. Although the food processing/food manufacturing economy of the Southern Tier⁶ is significantly smaller than other, more industrialized, regions such as New York City and Buffalo, it is important to recognize what the data indicates in terms of what opportunities do exist and could be built upon.

Figure 14 shows the relative value that the food and beverage manufacturing sector contributed to the economy in 2010⁷. Relative to the rest of New York State, the Southern Tier is well positioned in a few subsectors of food and beverage manufacturing: snack foods, animal foods, and dairy processing. In terms of their relative importance to the regional economy, these three are dominant (contributing more than \$300m in value to the larger

⁶ The Southern Tier is defined by Empire State Development to consist of Broome, Chemung, Chenango, Delaware, Otsego, Schuyler, Steuben, Tioga, and Tompkins Counties.

⁷ Per Schmit and Bills (2012): "Output can be generally defined as sales, however; for manufacturers, output includes changes in inventories... *Value added* represents the difference between an industry's total output and the cost of its intermediate inputs; it is a measure of the contribution to gross domestic product (GDP)." (emphasis added)

economy), but alcoholic beverage manufacturing (i.e., breweries, wineries, and distilleries) is not far behind at approximately \$145m. It is noted that the former values may have been influenced by a small number of large companies (e.g., **Frito Lay** and **Crowley**), but also that the latter values were produced prior to the post-2010 growth of local craft beverage manufacturers (e.g., **Binghamton Brewery** and **French Distillers & Alchemists**).

FIGURE 14: FOOD MANUFACTURING VALUE ADDED, 2010

Food & beverage manufacturing subsector	So. Tier region value added (\$m)
Dairy product manufacturing	118.5
Snack food manufacturing	109.1
Animal food manufacturing	81.6
Breweries	67.2
Distilleries	54.3
Wineries	23.2
Seasoning and dressing manufacturing	19.2
All other food manufacturing	11.7
Bread and bakery product manufacturing	10.4
Soft drink and ice manufacturing	4.4
Animal slaughtering, rendering, and processing	4.3
Cookie, cracker, pasta and tortilla manufacturing	4.2
Coffee and tea manufacturing	1.4
Chocolate and confectionery manufacturing	0.1
<i>Food & Beverage manufacturing subtotal</i>	509.4

Source: Schmit & Bills (2012). Values taken directly from report, may not sum to subtotal due to rounding.

Related data from the U.S. Bureau of Labor Statistics (BLS) shows similar strengths in dairy, animal food, and beverage manufacturing within Broome County more specifically. The 2016 “location quotients” from BLS (shown in Figure 15 below) indicate that, as compared to the typical county across the country, Broome County remains well represented in terms of the number of food manufacturers in the local economy. A location quotient of “1.00” represents the nationwide average. All location quotients greater than one indicate subsectors where Broome County is particularly strong as compared to the nationwide average, even if the number of total local establishments within that subsector is small (e.g., distilleries).

FIGURE 15: FOOD MANUFACTURING LOCATION QUOTIENTS, 2016

Food & beverage manufacturing subsector	Broome County location quotient
Seasoning and dressing manufacturing	4.79
Distilleries	3.17
Dairy product, except frozen, manufacturing	2.83
Snack food manufacturing	2.76
Animal food manufacturing	1.93
Bread and bakery product manufacturing	1.11
Soft drink and ice manufacturing	1.09
Breweries	0.76
Animal slaughtering and processing	0.53
Wineries	0.52

Source: BLS (2017)

Several important advancements in the food processing and manufacturing sector have taken hold throughout Broome County in recent years. These include, but are not limited to, the following:

- Farmers Market commercial kitchen*

The creation of the commercial kitchen represents a significant expansion of the Broome County Regional Farmers Market (see also “Marketing and Distribution” section). The commercial kitchen is fully stocked with the standard equipment necessary for small value-added enterprises – ovens, mixers, cold storage, etc. The facility is available for rentals by local farmers, chefs, and other food entrepreneurs, and can also be used for food preparation at Farmers Market events (e.g., banquets). The commercial kitchen offers an opportunity for entrepreneurs to process and package their value-added products (e.g., sauces, cut and washed produce, or other prepared foods), and can serve as a critically important testing facility for the development of new recipes or processes.
- New dairy production and distribution facilities*

Crowley Foods was a staple of regional dairy production (and employment) for many years in Binghamton. Crowley’s departure from their Conklin Ave. facility in 2012 left a large, purpose-built dairy production facility vacant until the arrival of Mountain Fresh Dairy in 2016. With the assistance of the Broome County IDA and other public agencies, **Mountain Fresh Dairy** has begun the production of kosher milk products and other dairy items such as cottage cheese, and expects to employ up to 80 people

at the facility. In 2017, Mountain Fresh was joined at the Crowley site by **Instant Whip**, a manufacturer and distributor of dairy and non-dairy products.

- *Alcoholic beverage production*

As of mid-2017 there were approximately 1,000 craft beverage manufacturers within the state, a more than 180% increase in just six years since the passage of the Farm Brewing Law in 2012. Broome County entrepreneurs have capitalized on these legislative changes to create five breweries (**Galaxy, Binghamton, Water Street and Beer Tree Brewing Companies** and **North Brewery**), a distillery (**French Alchemist**), and a winery (**Lone Maple Farms**). Operations that are licensed under the Farm Brewery/Cidery/Distillery programs must source an increasing proportion of their ingredients from within New York State. In turn, this has created new opportunities for the production of inputs (e.g., malting barley, hops, and fruit), which has helped drive the growth of at least two suppliers (**Farmhouse Malt** and **Willet Hop Farm**) just outside of Broome County. It has also created opportunities for local retail outlets to expand their selection of regional beverages.

In addition, several other processors continue to provide stable or growing opportunities within this sector, including but not limited to:

- **Frito Lay**, which employs approximately 540 people at its Kirkwood plant
- **Sam A. Lupo & Sons**, and the **Rob Salamida Company**, both of which manufacture their signature sauces and marinades in Broome County (Endicott and Johnson City, respectively)
- **Schaff's Custom Meats** (Harpursville), which provides both custom cutting services and a retail operation

Additional research from Cornell University sheds some light on the challenges faced by food and beverage manufacturers in New York State. Figures 16 through 19 below summarize the results of focus group research conducted by Cornell researchers examining common obstacles and opportunities within the New York State food and beverage manufacturing sector.

FIGURE 16: BARRIERS TO GROWTH WITHIN NYS FOOD/BEV MANUFACTURING SECTOR

Barrier ⁸	Average rating (1-5, with 5 being the highest barriers)
High state taxes	4.75
<i>Taxes overall, including property, income, workers' compensation; shrinking tax base; non-competitive with out-of-state plants</i>	
Insurance	4.57
<i>Disproportionate increasing insurance costs; liability; product liability; health</i>	
Increasing state licensing fees/inspection fees	4.16
Potential labor regulations regarding overtime, minimum wage	4.14
Availability & retention of younger, entry-level laborers	3.80
<i>Poor work ethic; less incentive to stay employed; new generation "expectations"</i>	
Ban of trans-fats in foods not packaged (bakery)	3.60
<i>Targeted regulation relation to nutrition and health</i>	
Raw material supply availability	3.50
High energy & utility costs	3.25
<i>Including costs to install new equipment to address efficiencies; multiple sellers/options</i>	
State regulations outdated, inconsistent agency application	3.19
<i>Poorly trained agency employees</i>	
Unreasonable agency reporting requirements	3.17
<i>Duplicative, time consuming</i>	

Source: Schmit et. al. (2012)

⁸ It is noted that the research products cited here were published in 2012. As of mid-2017, several important changes in policy have occurred at the state level, including but not limited to changes in alcohol production licensing and the minimum wage. In addition, issues such as the cost of health care have continued to evolve.

FIGURE 17: OPPORTUNITIES FOR GROWTH WITHIN NYS FOOD/BEV MANUFACTURING SECTOR

Opportunities	Average rating (1-5, with 5 being the greatest opportunities)
Growing demand for local, green, environmentally-friendly products	4.13
Growing demand for functional foods, foods promoting healthy lifestyle	3.93
Supply chain innovations with distributors, etc.	3.75
Trends in consumer demand for heritage, ethnic foods	3.67
Growth opportunities in current product line, expandable per capita consumption	3.55
Sector partnering, across products, retail events, transportation/delivery	3.45
East coast momentum of food, gourmet location, chefs	3.43
Own energy production	3.25
New product development, new products demanded by consumers	3.15
Expanded industry-university collaborations	3.05

Source: Schmit et. al. (2012)

FIGURE 18: PUBLIC POLICIES TO ENCOURAGE GROWTH, AS DEVELOPED AND RATED BY FOOD/BEV MANUFACTURING FIRMS

Public policies	Average rating (1-5, with 5 being the most important policy)
Prioritize improvement in food and beverage manufacturing	4.25
Address overall New York fiscal problem	4.25
Comprehensive regulatory review - duplicate agency reporting, inspections, licensing fees/rates, business taxes	4.08
State promotions/advertising for local-ism, sustainability, health, public awareness	3.86
Increase College/University technical assistance & research programs (energy savings/choices)	3.36
ESD program expansion with Minority of women-owned businesses for food and beverage manufacturing	3.29
Institutional/school curricula development, and food service for "local" Products	3.14
More focus on job retention programs rather than job creation programs	3.04
Export assistance programs	3.00
Increase Cornell Cooperative Extension Economic Development staff and programs	2.98

Source: Schmit et. al. (2012)

FIGURE 19: FIRM-LEVEL STRATEGIES FOR GROWTH, AS DEVELOPED AND RATED BY FOOD/BEV MANUFACTURING FIRMS

Business strategies	Average rating (1-5, with 5 being the most important strategy)
Utilize service agency vendors more for multiple services and training (safety, medical, HR, payroll, staffing)	3.83
Stronger industry association activities for consumer education and product promotion, loyalty programs	3.74
Cross-industry and cross-commodity promotions and special events	3.30
Attendance at trade shows, food shows, etc. for S/D firm connections	3.29
Own/group energy production	3.25
Develop firm networks for operational activities (distribution, bulk buying/shipping, waste management)	3.21
Industry check-off programs to fund research and promotion	2.82
Industry investment/grants for workforce development training programs	2.79
Sharing financial information to establish industry benchmarks	2.68
Shared use/community kitchens for small processors	1.50

Source: Schmit et. al. (2012)

PROCESSING: KEY STATISTICS

\$509.4 million	Value created by the food & beverage manufacturing sector within the nine-county Southern Tier region (of which Broome County is the most highly industrialized)
6	Number of independently-owned alcoholic beverage manufacturers that have opened in Broome County in the past five years
60%	Percentage of ingredients that must be sourced from NYS farms by NYS Farm Breweries, by 2019 – <i>this requirement increases to 90% by 2024</i>
#1	Rank of “demand for local, green, environmentally-friendly products”, among a list of 11 growth opportunities identified by NYS food & beverage manufacturers
95	Anticipated employment of two dairy food and beverage manufacturers that have recently relocated to Binghamton

PROCESSING: SWOT ANALYSIS

Strengths	<ul style="list-style-type: none"> Numerous industrial sites available for reinvestment Active workforce development program (Broome-Tioga Workforce) that engages with manufacturers and tailors programming to suit needs
Weaknesses	<ul style="list-style-type: none"> Many existing vacant industrial sites were purpose-built, difficult to renovate to suit new manufacturing needs High local property tax rates relative to out-of-state counties Decreasing size of workforce Limited regional production of critical inputs for “farm”-licensed beverage manufacturers (e.g., hops, malting barley)
Opportunities	<ul style="list-style-type: none"> Improved integration with local distributors Increased collaboration with higher education partners re: workforce development, technical innovation/research, and food procurement Growing interest in value-added agricultural production
Threats	<ul style="list-style-type: none"> Increasingly competitive craft beverage market a) limits the availability/affordability of NYS-sourced inputs, and b) makes market differentiation more challenging Market uncertainty regarding corporate taxes, health care, etc. reduces willingness of manufacturers to take risks, invest in U.S. processing plants

MARKETING, TRANSPORTATION & DISTRIBUTION

MARKETING ASSETS

Local and regional agencies and agricultural service providers have organized several well-utilized and critically important marketing resources for local farms and food processors. Many of these marketing programs and assets are organized and maintained by Cornell Cooperative Extension of Broome County (CCE), and several represent valuable inter-agency and public/private partnerships.

- *Instructional programming*
CCE offers three workshop curricula specifically oriented toward safe and profitable marketing opportunities for local farmers and food processors.
 - **Collaborative Marketing for Direct Marketers**, which is in development as of mid-2017, aims to fill a gap in information for direct marketers seeking to pool their resources to reach broader markets. This curriculum and associated outreach will address issues of branding, transportation, financial agreements, and more. The collaborative marketing model is an emerging strategy that has high potential for reaching customers outside of farms’ traditional markets,

including opportunities is larger, more urban markets with higher food prices and demand.

- **Food Safety for Direct Marketers** is a second course that aims to reach the same audience, though with a different message. Five modules of this course are focused on food safety relative to direct marketing channels: farmers markets, CSAs, on-farm sales, agritourism, and direct delivery.
- The **Farm to Institution Market Readiness** training is oriented toward producers that are interested in testing the waters of the institutional marketing channel, but may not be ready to make the leap without some organizational assistance.

In the future, these and other instructional workshops will be held at the Agriculture Development Center, located on the same “campus” as the Broome County Farmers Market and CCE offices. The facility is a 3,200-square foot addition to the Cutler House, and houses Broome County’s second Taste NY store (see “Direct sale and resale outlets”, below).

- *Agritourism marketing*

Farms and food processors throughout the region have partnered to create dynamic marketing assets aimed at capturing the attention of the media and the imaginations of the public.

- **Brew Central** is a user-friendly website and media platform created by the tourism agencies of Broome, Chenango, Otsego, Herkimer, Madison, Montgomery, Oneida, and Schoharie Counties. This collaborative effort helps to market more than 30 breweries, pubs, cideries, distilleries, and wineries across the eight-county region, including 12 businesses in Broome County. Among the features of this platform are an interactive map feature, detailed background stories on each participating business, print-ready photos, and media packages that include recommended story ideas.
- The **Broome County Farm Trail / Open Farm Weekend** is a series of two annual events (one in the spring, another in the fall) to showcase Broome County farms and to help educate the non-farming public about their agricultural neighbors and the farming economy. With the help of NYS State Senator Fred Ashkar, CCE’s 2017 Farm Trail events included 13 participating farm businesses over two weekends in May and September. CCE employs diverse outreach strategies to market these events, including a combination of print ads, website and social media, and stories circulated through traditional media (e.g., radio interviews, news stories).
- In partnership with CCE, the Greater Binghamton Convention and Visitors Bureau (CVB) maintains an **Agri-Tourism eBrochure and website**, both of which advertise locations, contact information, and profiles of each participating farm business. The CVB has organized 36 participating businesses into three routes featuring farmers’ markets, fresh foods, fiber producers, tree farms, maple producers, equine operations, and more.
- **Embrace Country Life** is a privately-run website that promotes local farms and farm-related events through an online directory and social media presence. Embrace Country Life provides a comprehensive list of produce/U-pick, niche,

livestock operations, and other businesses (e.g., sleighrides, butcher shops, firewood), and provides contact information and a profile of each listed business. In addition, the website also maintains a coupon book featuring dozens of agricultural businesses for local fundraisers.

- *Direct sale and resale outlets*

There are three critically important marketing channels available for Broome County producers interested in direct-to-consumer and direct-to-retail sales.

- Perhaps the most important development in regional agriculture in recent years is the growth of the **Broome County Regional Farmers Market** on Front Street in Binghamton. This facility hosts the market on Saturdays (year-round) and Tuesdays (June through September), and offers an ideal venue for operations that benefit from direct and personal contact with consumers. CCE's programming of the facility allows vendors to rent space according to their availability and schedule; some vendors rent for only one day at a time, others are there for an entire season or more. The variety of vendors has been a key element of the success of the market; these have included, but are not limited to, local producers of produce, herbs, meats, dairy, eggs, cheese, baked goods, honey and other apiary products, jams and jellies, syrup, and flowers and potted plants. Vendors (and others) also have access to the commercial kitchen facilities for the production or testing of value-added agricultural products.
- Originally developed by CCE of Tompkins County, **Meat Suite** is an online directory of meat producers throughout New York State, and a platform for connecting consumers directly with participating farm operations. Although there is currently limited participation among Broome County livestock operations (four, as of August 2017), local agency support staff estimate that there could be 30-35 beef operations within the county that are large enough to engage in the "freezer trade" (i.e., the sale of beef by the whole, half, or quarter). Freezer trade beef is known locally to be a particularly attractive marketing channel, due not only to the potential profit for producers but also for the potential value it offers to consumers. Should this market continue to grow, there may be increased interest in a service similar to Tompkins County's **Meat Locker**, a companion project to the Meat Suite that provides freezer space for producers and consumers engaged in the freezer trade.
- The Agricultural Development Center also includes Broome County's second **Taste NY store**. Taste NY is an initiative of the New York State Department of Agriculture & Markets. The initiative has resulted in 65 stores throughout the state as of 2017; Broome County's first Taste NY outlet was developed at the Broome Gateway Center on I-81 in Kirkwood. The second outlet, on Front Street in Binghamton, offers greater access for residents and visitors off of the interstate (and in close proximity to the Regional Farmers Market), and features a range of regional and NYS fresh and prepared products.

- *Other marketing campaigns*

Broome County's agricultural support agencies have created two social marketing campaigns that are designed to influence the pro-social or healthy behaviors of consumers through traditional marketing tools. In addition, the Southern Tier East

Regional Planning & Development Board (STE RPDB) has taken steps to highlight regional craft beverage manufacturers.

- **Let's Eat NY** is a partnership among CCE of Broome County, **Broome-Tioga BOCES' Rock On Café**, **Wegmans**, and **United Health Services**, with the assistance of **RVSA Advertising**. The Let's Eat NY initiative includes a marketing and merchandising campaign, and educational skits featuring the "Fantastic Foodies" that are performed at elementary and middle schools throughout Broome and Tioga Counties.
- Broome County Farm Bureau's **Buy Local** campaign included the installation of several billboard signs throughout the county, highlighting the health and economic benefits of local foods.
- **Go All Out Broome** is a collaborative effort between Broome County, the Binghamton Metropolitan Transportation Study, the Greater Binghamton Convention and Visitors Bureau, and The Agency. This initiative provides a guide to many outdoor recreation activities and assets throughout the area.

TRANSPORTATION ASSETS

Broome County farmers and food processors are in a geographically advantageous location, with direct access to three interstate highways:

- I-81, serving north/south traffic from the Canadian border to Tennessee;
- I-88, linking Binghamton to New York State's Capital District and New England (via I-90); and
- I-86, which currently connects Binghamton to points west such as Erie (PA), as well as Rochester and Buffalo (via I-390) and which will soon include the easterly route to New York City (via I-87).

Broome County farmers and distributors also have access to Class I freight rail service through the **Norfolk Southern** (NS) and **New York Susquehanna & Western** (NYSW) lines with junctions in Chenango Forks, Vestal, East Binghamton, and the Bevier Street yard in the City of Binghamton. In addition, while the **Greater Binghamton Airport** in Maine does not necessarily process many agricultural inputs or products, it is a potential venue for local food-business retail (such as BGM's existing agreement with Binghamton Brewing Company).

Broome County's position as an important crossroads of interstates and rail lines places producers and distributors within 400 miles of some of the largest consumer markets in the U.S. and Canada, including:

- Albany (138 miles)
- Rochester (160 miles)
- New York City (175 miles)
- Philadelphia (182 miles)
- Buffalo (198 miles)
- Washington, D.C. (301 miles)

- Boston (305 miles)
- Toronto (314 miles)
- Pittsburgh (315 miles)
- Montreal (324 miles)

And although it is among the smallest of these markets from a population standpoint, the nearby Scranton/Wilkes-Barre/Hazleton metropolitan region (68 miles) is an important destination for many food producers, processors, and distributors. Its large transportation and logistics sector (location quotient = 1.98) provides even greater potential access to major Northeast consumer markets.

Access to these markets is of growing interest to local farms and food processors, as many of them feature large and growing populations, greater per-capita demand for fresh, “local” foods, and a wide range of opportunities for collaboration with other producers, distributors, retailers, direct-market outlets, institutions, and restaurants.

DISTRIBUTION ASSETS

Broome County is home to three primary food distribution providers:

- ***Maines Paper & Food Service***
Headquartered in Broome, Maines is the seventh-largest broadline distribution service in the country. Their 460,000 square foot distribution facility in Conklin employs approximately 1,200 people, and features state-of-the-art temperature controls, test kitchens, and training facilities. Maines’ 11 distribution centers serve clients across a 37-state service area.
- ***Willow Run Foods***
Willow Run, which began as a door-to-door egg delivery service serving the Triple Cities area, now employs approximately 400 people at its 280,000 square foot headquarters and distribution center in Kirkwood. In addition to less-than-truckload (LTL) and full-truckload (FTL) food distribution with access to 14 states throughout the northeast, Willow Run’s Kirkwood facility also offers chilled, frozen, and dry warehousing.
- ***Food Bank of the Southern Tier***
In addition to the broadline services of Maines and Willow Run, Food Bank of the Southern Tier is an important, if non-traditional, partner in the regional food distribution market. While the Food Bank is primarily focused on servicing local food pantries and the Council of Churches’ **Community Hunger Outreach Warehouse (CHOW)**, it has also provided LTL distribution for small regional shipments as needs arise and arrangements allow. In addition to providing distribution services, Food Bank of the Southern Tier also has capacity for aggregation and storage services.

The county’s two “homegrown” broadline distributors are critically important to the growth of many regional farming operations, and valued employers within the community. Both have created programs that directly benefit farm businesses and other agricultural/food system

stakeholders. Maines offers a produce distribution program (**Fresh Express**) that eliminates wholesale fees between producers and distributors, allowing farms to access their markets more cost-effectively, and supports many community events within the county. Willow Run offers LTL services to farms within the region, and donates to organizations such as CHOW and the Food Bank. However, many smaller farming operations have limited access to these (or other) larger distributors, due to a number of barriers both actual and perceived, including:

- High requirements for insurance coverage (typically \$5-7 million)
- Requirements for Hazard Analysis and Critical Control Point (HACCP) plans
- Requirements for Good Agricultural Practices (GAP) and Good Handling Practices (GHP) certifications
- Competition with international or domestic corporate farms for warehouse “slots”
- Complicated pricing and rebate structures
- Increased costs associated with brand development/product differentiation

In recent years, the Food Bank of the Southern Tier has begun to service more small farms that may not be able to meet these requirements, at times leveraging access to distribution services in exchange for food donations. Other smaller distributors have tried to respond to the demand for LTL distribution services (e.g., Clawhammer Farms, no longer in business).

However, there remain few options within the county for small farms to aggregate their less-than-truckload shipments with those of other producers to reach larger markets with higher prices, even though several farms within the surrounding area already sell their products through venues such as New York City’s **Greenmarket** and **Just Food CSA**. Two promising options that have grown in recent years are **Regional Access** (Tompkins County) and the **Lucky Dog Local Food Hub** (Delaware County). Regional Access is a distributor of local foods that services retailers, restaurants, cooperatives, buying clubs, institutions and others across the northeast (NY, NJ, PA, MA, CT). Lucky Dog provides bi-weekly distribution services to Manhattan, Brooklyn, Queens, and Sullivan County, and offers services to help create and support producer/buyer relationships.

MARKETING, TRANSPORTATION & DISTRIBUTION: KEY STATISTICS

13	Participating farm businesses included in CCE’s spring and fall 2017 Farm Trail/Open Farm Weekends
15	Approximate size (in cows per operation) where beef operations may become more scalable and profitable in the “freezer trade” marketing channel, according to local staff
800	Average daily customer count at the Broome County Regional Farmers Market

68,182,194	Population (as of 2016) of all U.S. counties within a 300-mile radius of Broome County ⁹
140%	Average price paid for low-fat milk in New York City, as compared to the national average (100%) in 2010 – by comparison, Broome County consumers paid 87% of the national average price ¹⁰
\$5M	Typical insurance coverage for food producers as required by broadline distributors, according to local staff

MARKETING, TRANSPORTATION & DISTRIBUTION: SWOT ANALYSIS

Strengths	<ul style="list-style-type: none"> • Numerous recurring instructional workshops focused on marketing and business development • New facilities at Agriculture Development Center for business development workshops • Active partnerships engaged in marketing agritourism events/venues • Confluence of interstate highways places most of the Northeast within a day's drive of Broome County producers
Weaknesses	<ul style="list-style-type: none"> • Inconsistent engagement/communication between tourism agencies, media outlets, and agritourism venues re: events, hours of operation, etc. • Cost of insurance is a barrier for local operations interested in utilizing two large broadline distributors headquartered in Broome County • Limited options for LTL shipments to major markets outside of the Southern Tier
Opportunities	<ul style="list-style-type: none"> • Expansion of Food Bank as a non-traditional distributor serving smaller producers and retail/restaurant customers • Growing demand for local “wrap-around” co-packing/marketing services • Growing demand for “locally” sourced products – and a concerted statewide effort to recognize/market all NYS products as “local” • Partnerships between large institutions and broadline distributors to increase local procurement and/or engage students in issues of logistics, business management, technology • Emerging interest in Southern Tier among industrial hemp processors
Threats	<ul style="list-style-type: none"> • Federal and state disinvestment in interstate highway infrastructure (e.g., slow pace of I-86 expansion) • Increasing cost of transportation to major markets (e.g., potential congestion pricing @ NYC)

⁹ Source: US EDA (2017)

¹⁰ Source: USDA ERS (2015)

IDENTIFICATION OF PRIORITY LANDS FOR PROTECTION

The New York State Department of Agriculture and Markets requires recipients of Agricultural Protection Planning Program funds to identify lands that warrant protection measures as a result of their contribution to regional agricultural viability. In Broome County, this approach is two-fold:

- First, this analysis examines factors of environmental quality and countywide resiliency. Resiliency refers to the land's ability to absorb and recover from shocks and stresses on agricultural production. For Broome County, flooding often causes these disruptions.
- Second, this analysis examines vulnerability to development, defined here as the land's exposure, susceptibility, or capacity for the conversion of agricultural land to other more intensive uses, such as residential or commercial development.

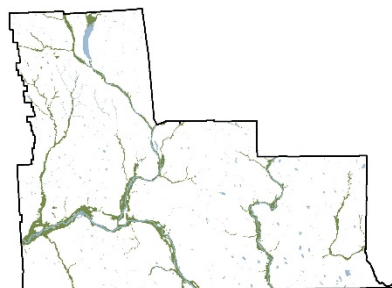
The methodology and results described below will help county and municipal decisionmakers to better understand the impact of land use decisions on issues of resiliency and the long-term viability of the regional agricultural sector.

For the purpose of these analyses, "farmland" is defined as tax parcels that have received agricultural use value assessments. While there are other ways of estimating what lands constitute farmland on a countywide scale (e.g., tax assessors' property classification codes), agricultural assessments are more consistently reliable in terms of reflecting which properties are used for economically active production (Bills, 2008). There are 624 tax parcels in Broome County that receive agricultural assessments for agricultural buildings, agricultural lands (both within and outside of certified agricultural districts), silos/storage tanks, etc., and temporary greenhouses.

FACTORS INFLUENCING ENVIRONMENTAL QUALITY AND RESILIENCY

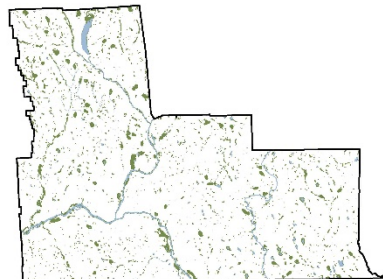
Floodplains

The use of floodplains for agriculture allows the land to continue providing beneficial functions to society, including diminished flood velocities, runoff filtration and habitat protection for diverse species. Agricultural land uses within the floodplain also help to maintain the most productive soils in the county, those that have benefited from periodic flooding spanning millennia. This analysis considers the location of 100- and 500-year floodplains as mapped by the Broome County Department of Planning and Economic Development.



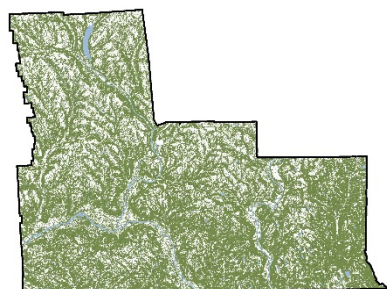
Wetlands

The presence of wetland areas within agricultural parcels benefits countywide resiliency due to the increased absorption of runoff, buffer protection and diminished soil erosion. This analysis considers the location of wetlands larger than two acres.



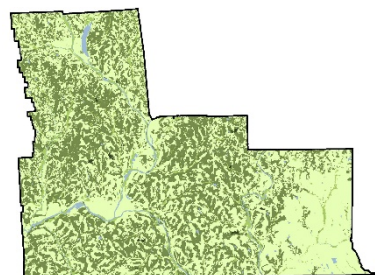
Steep slopes

Steep slopes are areas with a 15% gradient or more. Proper management of these areas can protect against runoff pollution, soil loss/sedimentation of waterways, and other erosion issues decreasing resiliency. This analysis considers the location of slopes 15% or greater.



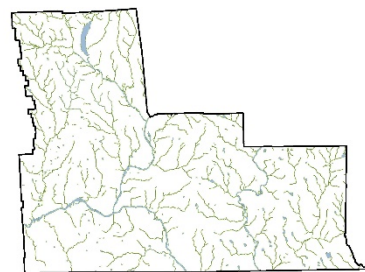
Erodibility

Erodibility is defined by the susceptibility of soils to detachment by water, based upon soil type. Greater erodibility reflects a greater threat to the resiliency of agricultural land and farm businesses; resources should be directed toward areas with greater erodibility as a means to protect against soil loss and waterway sedimentation. This analysis considers the erodibility rating of all Broome County soils, as mapped by the USDA NRCS Soil Survey.



Proximity to surface water

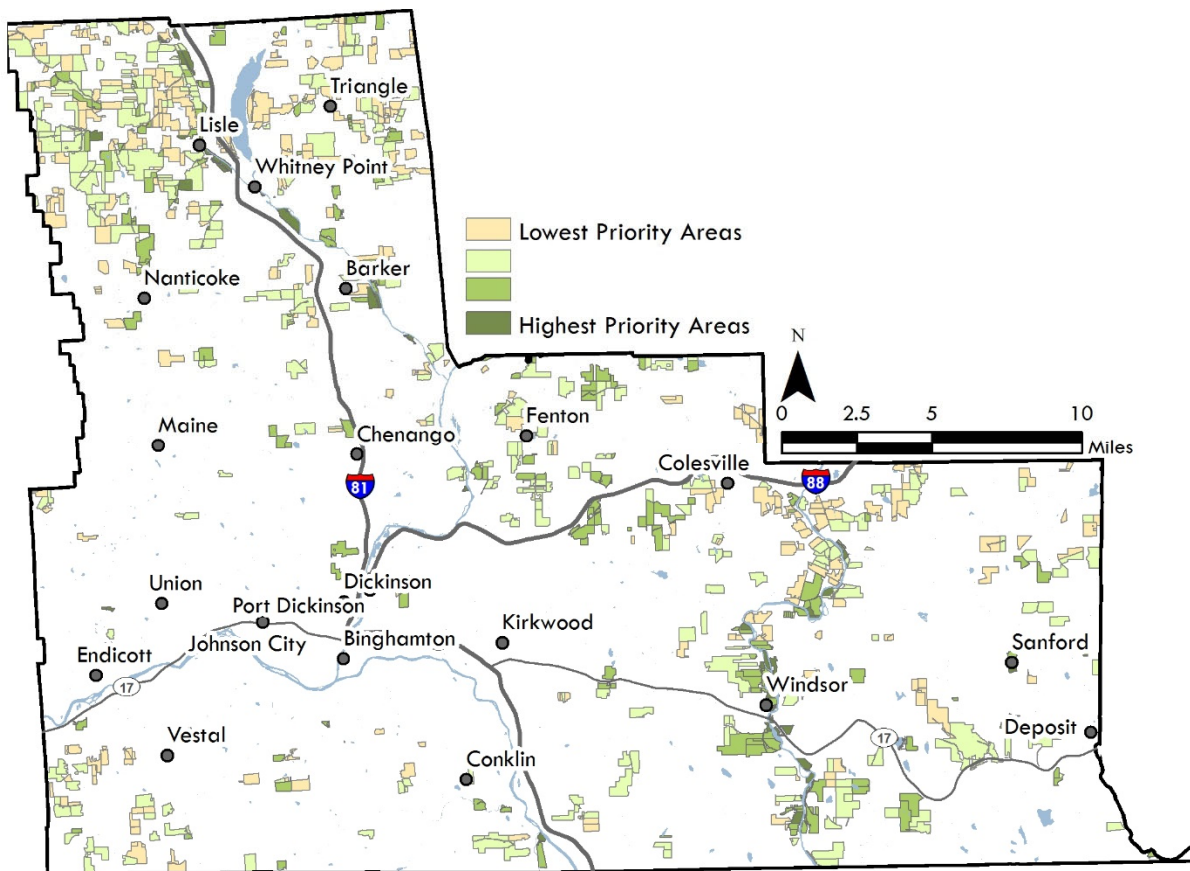
Farmland that is within proximity to surface water resources has a significant impact on water quality relative to nutrient loads, turbidity, temperature, and several other water quality indicators. With proper management practices such as riparian buffers, farmland can help protect local water quality and therefore improve the resiliency of the community. This analysis considers the location of farmland that is within 50 to 100 feet from surface waterbodies; farmlands within 50 feet of surface water are weighted more heavily than those that are further away.



IDENTIFICATION OF PRIORITY LANDS FOR THE IMPROVEMENT OF ENVIRONMENTAL QUALITY AND RESILIENCY

Agricultural lands shown in the darkest green areas are those with the highest “score”. These areas, which are generally concentrated near the floodplains of major waterbodies such as the Susquehanna and Tioughnioga Rivers, should be prioritized by Broome County agencies and support organizations for policies and other measures oriented toward agricultural environmental protection. Prioritizing these areas will result in improved environmental quality and community-wide resiliency.

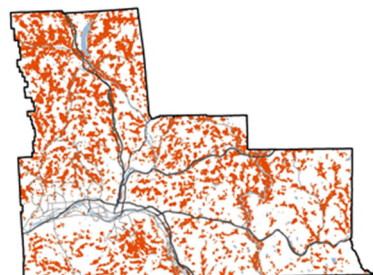
Map 5: Priority lands for the improvement of environmental quality and resiliency



FACTORS INFLUENCING VULNERABILITY TO DEVELOPMENT

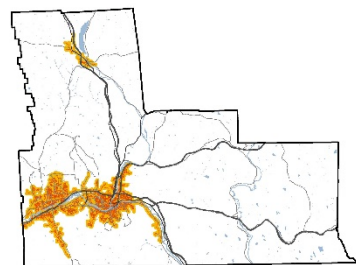
Presence of “open” (cleared) areas

Land that has been cleared of forest and brush cover is less expensive and more attractive for purposes of development. This criterion was mapped by combining three land cover categories from the USGS National Land Cover Dataset: grassland, pasture/hay, and cultivated crops. These areas face a higher vulnerability to non-agricultural development than agricultural lands that feature forest and wetland cover.



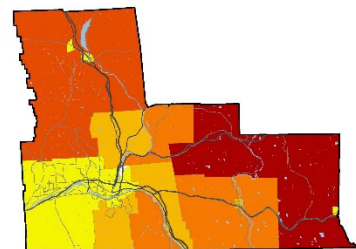
Presence of utilities

Distance to water and sewer lines can either facilitate or impede development. Proximity for this criterion was defined at two levels: 50' and 1000' buffers from existing lines. Parcels within 50' of existing infrastructure are assumed to be more vulnerable to development than those within 1000'. The closest parcels were therefore weighted 50% greater than those further from sewer and water service.



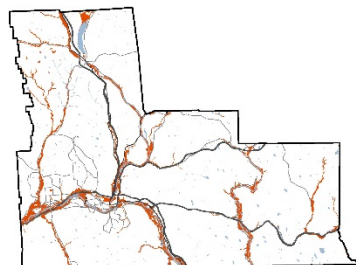
Development trends

For the purpose of this analysis, development trends within the county are defined by the number of annual building permits issued in each municipality, adjusted by the respective population of each town to allow for an “apples-to-apples” comparison. A higher number of building permits per 1000 residents reflects relatively higher vulnerability to development.



Floodplains

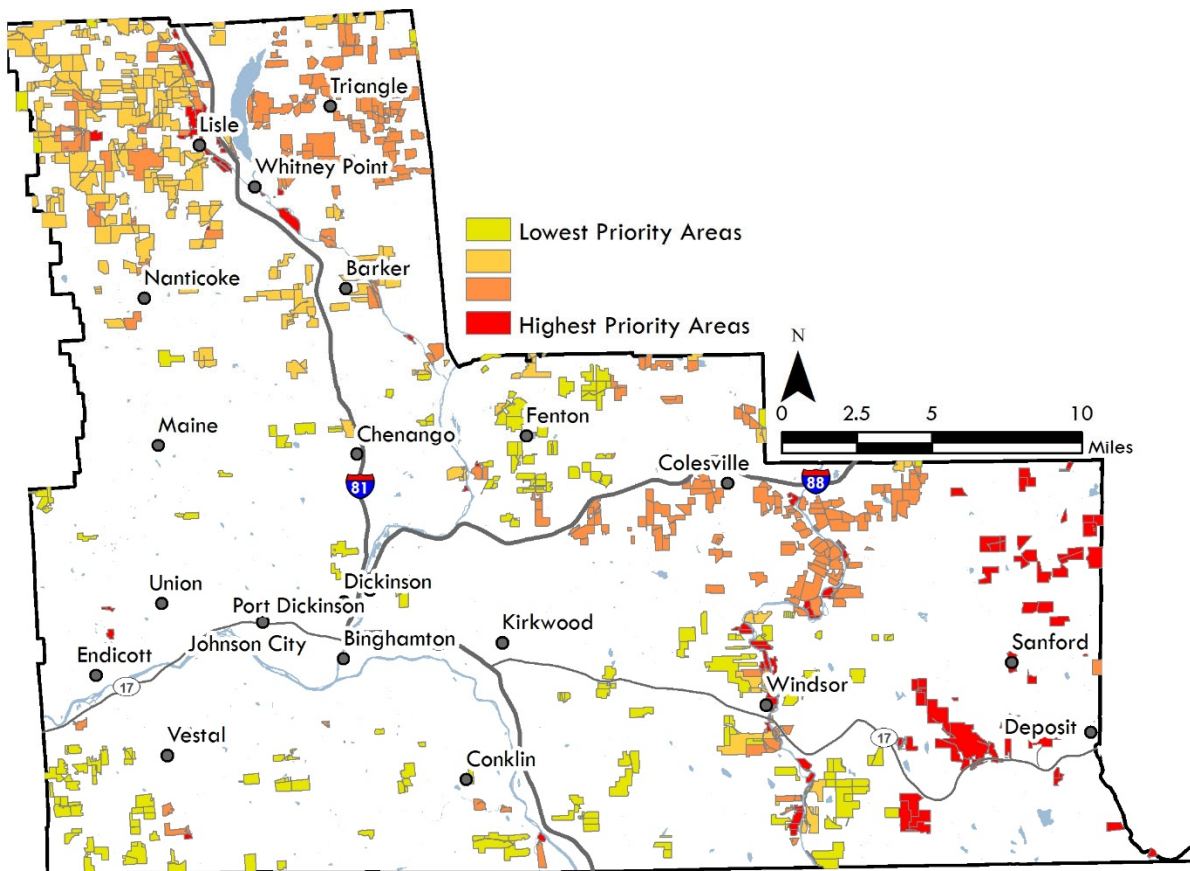
Two of the same characteristics that make floodplains an ideal location for agricultural land uses (flat topography and well-drained soils) also make them well-suited to non-agricultural development. These characteristics, combined with the predominantly hilly terrain of upland areas, are the prime contributors to the prevailing pattern of development throughout Broome County. Competition from non-agricultural commercial and residential land uses, as well as a higher potential for land use conflicts with non-agricultural neighbors, make floodplain areas more vulnerable to conversion.



IDENTIFICATION OF PRIORITY LANDS TO MITIGATE VULNERABILITY TO DEVELOPMENT

Agricultural lands shown in the darkest red areas are those with the highest “score”. These areas, which are generally concentrated in the eastern portion of the county (along the Susquehanna River and in the Towns of Sanford, Windsor, and Deposit) and along the Tioughnioga River floodplain, should be prioritized by Broome County agencies and support organizations for policies and other measures aimed at preventing the permanent conversion of agricultural lands for non-agricultural uses.

Map 6: Priority lands to mitigate vulnerability to development



This page is intentionally left blank

GOALS AND IMPLEMENTATION ACTIONS

GOAL 1: EDUCATE THE NON-FARMING PUBLIC REGARDING THE IMPORTANCE OF THE LOCAL AGRICULTURAL SECTOR

Action 1: Improve the dissemination of content from municipal training sessions

While the need for municipal land use trainings is generally high, and increases with new trends and regulatory changes (e.g., solar power generation facilities, SEQR case law), it is also becoming more difficult to gather the county's many planning and zoning board members for centralized, dedicated training sessions. Fortunately, advances in technology have made it easier to disseminate land use training sessions online, providing flexible and cost-effective options through which the county can fulfill its training obligations. *The Department of Planning and Economic Development should institute an online education platform to provide continuing education to board members and code officers on the following topics (among others):*

- Broome County Agricultural Economic Development Plan implementation
- Agricultural exemptions and agricultural use-value assessment
- Agricultural structures and the NYS Uniform Code
- NYS AML §301 and local zoning laws
- Infrastructure investments and their impacts on agriculture
- Agricultural land use conflict resolution
- Tools for improving site plan applications
- Siting considerations for solar power generation facilities (see "Other Resources" at the end of this report)

Action 2: Increase county support for agricultural promotional events and marketing

Broome County has been a reliable supporter of agricultural-related events and programs in the past. *There are several ways in which the county and its respective municipalities can improve upon this support, including but not limited to:*

- Increase event promotion through the **Greater Binghamton Convention and Visitors Bureau**
- Reduce local regulatory barriers to agritourism (e.g., restrictions on temporary uses, special permit requirements)
 - *See also: Goal 5, Action 1*
- Direct financial sponsorship of agricultural-related events on behalf of county agencies and authorities (e.g., the use of Hotel/Motel Occupancy Tax to support Farm Trail Weekend)
- Direct support (either through financial sponsorship or in-kind services) for a **Local Food Promotion Program** planning grant (such as those supported by the USDA Agricultural Marketing Service)

Action 3: Promote agricultural literacy through agency programming

Several county agencies and partnering organizations have an educational component to their respective missions that could help to increase local agricultural literacy:

- CCE of Broome County has previously organized tours of agricultural facilities for the benefit of elected and appointed officials. *Such programming is an invaluable tool in educating decision-makers about the economic impacts of farms and farm-related businesses, and should be expanded to include more regular tours and events. The costs of organizing and implementing these tours (e.g., provision of transportation) should be shared among multiple agencies and institutional partners.*
- The Broome County Public Library (BCPL) organizes educational programming and displays within the central library on Court Street in Binghamton. The BCPL also provides business development services through the Ahearn Business Center. *Traditional agricultural support agencies such as CCE, SWCD, and Farm Bureau should collaborate with the BCPL to provide additional agricultural educational resources to their stakeholders and the public at large.*
- The Broome County Health Department runs two programs that intersect with agriculture and access to fresh foods. Their Chronic Disease Intervention initiative works with local school districts to improve procurement practices and the nutritional value of school lunch programs, and the WIC program they administer offers vouchers for fresh produce, whole grain breads, and low-fat dairy products. *Agricultural support agencies should reach out to Health Department representatives whenever these programs should be advertised or leveraged (e.g., Farmers Market tabling, or outreach re: institutional procurement policies). CCE Broome County currently partners with the Health Department on this initiative.*
- CCE and the Farm Bureau have collaborated to offer the “Agriculture in the Classroom” program to local school districts. *This program is successful in teaching young people about agriculture as a career and as an economic driver within their communities, and should be expanded throughout the county.*

Action 4: Develop and implement food service workshops focused on year-round integration of local agricultural products

A frequent problem faced by farm business owners is the need to educate their customers regarding the proper storage, preparation, and use of their products. This can be a time-consuming task for farmers, many of whom are already stretched thin with competing demands in the field.

*A coordinated outreach program targeted toward management-level food service professionals (e.g., executive chefs, catering managers, institutional purchasers) would help reduce the educational burden on producers, while helping to create new opportunities for marketing and networking between producers and potential customers. CCE’s strengths in outreach and education, combined with their new kitchen and educational facilities on Front Street, makes them an ideal lead for such programming. Partnering with the emerging **SUNY Broome***

Culinary Arts program would also help instill future culinary professionals with knowledge of local agricultural products and resources.

Action 5: Create supply and value chain map products to visualize economic connections among suppliers, farmers, distributors, processors, and customers across the region

Improving agricultural literacy in the digital age will require user-friendly, easily digestible visual products that communicate simple messages about the interconnected nature of the agricultural economy. To educate the public (and elected leadership) about these connections, the Broome County Department of Planning and Economic Development should leverage the advanced GIS capabilities of its staff to create maps demonstrating the origin of agricultural inputs and the destination of agricultural products for local farms and food processors.

The maps provide foundational information to support increased dialogue between community leaders, economic developers, and business owners. Among other things, these maps may highlight:

- The density of farms and farm-related businesses, and the overall “footprint” of the agricultural economy in Broome County
- Geographic connections that should be strengthened through infrastructural investments or agency partnerships
- Underserved distribution markets/transportation routes
- Alternative suppliers or new customers for agricultural inputs/products

*[Note: Similar maps specifically tailored toward the craft beverage industry can be created free of charge through [Source NY](#), a (beta) service of the Carey Institute for Global Good. As of mid-2017, dozens of NYS suppliers, farms, processors, and others have been mapped using this resource; however, only two Broome County businesses (**Binghamton Brewing** and **Java Joe's Coffee**) are among them.]*

GOAL 2: EXPAND AND COORDINATE AGRICULTURAL ECONOMIC DEVELOPMENT PROGRAMMING TO ACCOMMODATE EVOLVING MARKETS, TECHNOLOGIES, REGULATIONS, AND INCENTIVES

Action 1: Complete the buildout of the CCE Agricultural Development Center

CCE's emerging Agricultural Development Center will be a centerpiece of regional agricultural development and agency support in the coming years. *To fully capitalize on its potential, the Agricultural Development Center will require the purchase and installation of distance-learning technologies.* These may include projection equipment, video conferencing technology, Smartboards, or similar equipment.

Action 2: Undertake pre-permitting activities to prepare the Charles Street Business Park for agricultural economic development purposes

Among the many barriers to the attraction or expansion of food or fiber processors in Broome County is the increased cost of property development as compared to competitive counties outside of the state (e.g., Pennsylvania). The Agency and others have a range of tools that they regularly use to attract businesses, from low-interest financing to PILOT negotiation and more. While many of those tools require a specific development proposal, others can be done in the abstract, to help advance generic development concepts in an effort to attract companies to invest in Broome County. *The Agency should undertake a pre-permitting effort at the Charles Street Business Park site to reduce the cost of site development for future food or fiber processing companies.*

In recent years the Broome County IDA has invested in significant infrastructural upgrades at the site, including utilities, lighting, and road work. Approximately 24 acres of the site remain available for light industrial uses, not including the 6-acre Emerson Network Power complex. The site is listed as a high priority action within the City of Binghamton's First Ward Brownfield Opportunity Area (BOA) Nomination Study; the NYS Department of State's BOA program may be used as a potential funding resource to engage in pre-development and pre-permitting activities.

As noted in the First Ward BOA study, the food processing industry cluster could be a good fit for this site, based on location quotients, local demand, location criteria, growth trends, and several other factors. The food processing cluster includes the types of manufacturers listed in Figure 15. While it is highly unlikely that a speculative manufacturing facility would be built prior to the commitment of a tenant, there are several steps that the IDA can take in an effort to make the site more marketable for food processing companies. These include:

- A marketing study to identify a narrower subset of target industries within the food processing industry cluster (e.g., fiber processing, dairy component manufacturing, etc.);
- An engineering feasibility study for a new direct connection from West Street to I-86 via the Prospect Street interchange;
- A generic environmental impact statement (GEIS) analyzing potential impacts associated with target industries identified in the marketing study;

- Outreach to site selection professionals and industry associations within the food processing cluster; and/or
- Application to the NYS Shovel Ready program.

Empire State Development provides grants for strategic plans and feasibility studies that may help Broome County agricultural support agencies fund some of these efforts.

Action 3: Undertake a market study and feasibility analysis for a regional co-packing/processing facility

Co-packing and processing facilities are one way to alleviate barriers to market entry for small to mid-scale operations by reducing the startup capital required for packaging equipment, facilities, permits, and staff. Co-packing and processing facilities can also provide additional “wrap-around” services that can help new and emerging enterprises to be successful. These services might consist of graphic design, sales production, labeling, coding (nutrition fact tables, barcode printing, etc.), presentation displays, over-wrapping, and packaging prototyping prior to production.

To help attract and leverage potential investment opportunities in such facilities within the private sector, The Agency should undertake a market study and feasibility analysis to identify gaps and barriers within the regional market related to the packaging and processing of local value-added agricultural products, as well as any local regulatory or funding barriers that may exist. In addition to examining market support for these services, the study should also establish the financial feasibility for the most viable project, and provide additional detail into the requirements necessary for implementation.

Empire State Development provides grants for strategic plans and feasibility studies that may help Broome County agricultural support agencies fund some of these efforts. Additional materials to satisfy ESD grant requirements are provided in the report appendix.

Action 4: Engage with Cornell Cooperative Extension and NYSDAM to make Broome County the “hub” of statewide hemp-related outreach

In recent years, Cornell Cooperative Extension has created positions in direct support of growing agricultural industries. These have included a malting barley specialist (based in western New York), a hops specialist (based in central New York), and several wine grape specialists (based primarily in the Finger Lakes region). While these professionals travel across the state for various conferences and workshops, their home regions are where most of the development of those crops is taking place.

In an effort to solidify the Southern Tier’s position as the home of New York State’s industrial hemp industry, Cornell Cooperative Extension’s industrial hemp expert(s) should be based in the CCE Broome County office. The most critical need in these early stages of market development are related to market research. Toward this end, the new staff would undertake an analysis to help identify the most profitable and reliable markets for NYS-grown industrial hemp. These markets may include, but are not limited to, the following:

- Building materials
- Pharmaceuticals
- Textiles and technical textiles
- Industrial products
- Paper
- Food products
- Cosmetics and hygiene products

Broome County farmers will rely on such research to determine whether, how much, and how often they should plant industrial hemp; which seedstock(s) is/are most appropriate for the market and for local growing conditions; and which market opportunities fit best within their business models. Based on the results of this research, and as market opportunities become more apparent, staff may also focus on developing and deploying several workshops throughout the region, which could include:

- Input requirements/nutrient management
- Rotational strategies
- STAEIP-eligible hemp production projects
- Hemp enterprise budgeting/business planning
- Value-added opportunities

Action 5: Increase educational programming and technical assistance related to value-added agricultural production

Value-added agriculture is a reliable method of diversification and integration that can create new avenues of profitability for farm businesses. Per the USDA, “value-added” products are defined as follows:

- A change in the physical state or form of the product (such as milling wheat into flour or making strawberries into jam).
- The production of a product in a manner that enhances its value, as demonstrated through a business plan (such as organically produced products).
- The physical segregation of an agricultural commodity or product in a manner that results in the enhancement of the value of that commodity or product (such as an identity preserved marketing system). (AgMRC, 2017)

There is a wide variety of business models for adding value to agricultural products. Some *capture* value through changes in the distribution of value throughout the production chain, others *create* value by offering new products, enhancing products, or unique customer experiences (AgMRC, 2017). All of these models require careful business planning, risk assessment, enterprise budgeting skills, some level of capital investment, and marketing capacity. These are issues that CCE and The Agency are uniquely qualified to address through their current program offerings.

CCE should continue to offer programming such as trainings on the processing/packaging opportunities offered at their commercial kitchen, tours of value-added facilities, and workshops focused on value-added business models. In addition, The Agency should use these

opportunities to promote their microloan, Rural Initiative, and other funding resources that are available to farm businesses and their efforts to expand.

In the near term, the content of these programs should focus on one of the emerging gaps within the local value-added market: a need for co-packing services, as well as the “wrap-around” that co-packers can offer to better connect producers to consumers. These services would include market identification and development, business-to-business networking, label design, and packaging design/innovation. The Greater Binghamton market features individual components of these wrap-around services; however, many local food entrepreneurs may not be aware that such services exist, and they may not necessarily be packaged or scaled to fit the needs of small, local producers. These include, but are not limited to: the food package design services offered by the local design and marketing firm **Idea Kraft** (Binghamton); local container manufacturers **Ardagh Metal Packaging** (Conklin) and **Crown Holdings** (Nichols); and packaging supply services from **R&R Sales** (Binghamton). Educational programming that helps connect producers (or potential producers) of food products to these or any other service provider can help facilitate the business-to-business networks that are vitally important to the growth of small value-added operations.

Action 6: Support emerging investments on behalf of food, fiber, and beverage manufacturers

Three agriculture-related economic development initiatives within Broome County applied for state funding through the 2017 Consolidated Funding Application:

- **Little Venice Retail LLC** has applied for grant assistance to establish a co-packing facility in Broome County. In addition to packaging their own sauce for retail distribution, Little Venice would offer co-packing services to other local businesses. No such facility currently exists within Broome County (with the exception of the commercial kitchen at the Farmers Market, which is not suited for large-scale production). The availability of these services would offer new opportunities for growth for other small businesses seeking product and market diversity.
- **Southern Tier Hemp LLC** has applied for grant funds to build two processing lines for industrial hemp, with the intent of serving the health/wellness and food application markets. This facility would be the first of its kind in New York State, and would offer Southern Tier farmers (including but not limited to Nanticoke Gardens) a nearby opportunity to move future industrial hemp harvests to market.
- **The North Brewery** submitted a CFA for an expansion project that will allow the Endicott facility to increase fermentation, canning, and kegging capacity.

The total request for state assistance included within these three applications is \$750,000, and these grants will leverage an additional \$4.17M in private funds. As a key facilitator of state grant assistance within Broome County, *The Agency has been, and should continue to be, a reliable resource for these and other businesses in terms of navigating the application and implementation processes.*

Action 7: Work with agencies and institutions to reduce barriers to the purchase of local agricultural products

Institutional procurement may be a dry concept steeped in layers of legal and contractual requirements, but it is also a potentially profitable market channel for local farms, as well as an important mechanism for signaling agency support for local agriculture. As part of its ongoing work in identifying and communicating the needs of the county's agricultural sector, *the Agricultural Task Force should identify common institutional procurement barriers related to contract requirements, bidding processes, logistics, and other issues experienced by local farm businesses, and work with public and private-sector procurement agents to incorporate revisions such as geographic preferences in their procurement policies.*

Many public agencies and institutions throughout the county contract with food vendors either directly or through contracted services, and a local Food Policy Council could work with each agency and institution in such an effort over time. These include:

- County Purchasing
- County Health Department
- Veterans Memorial Arena
- Forum Theatre
- SUNY Broome
- Binghamton University

These agencies and institutions can partner with (and take advantage of the lessons learned by) **Broome-Tioga BOCES' Rock On Café** and the **Food and Health Network**, both of which have developed local procurement initiatives to service local school districts. Although some of the agencies listed above do not purchase or sell fresh foods to the same extent as a school cafeteria, these lessons may apply to other products as well (e.g., local craft beverages).

The first step in this effort may be to survey procurement agents to understand the level of local interest, and to understand how all target agencies and institutions handle procurement (e.g., in-house, or contracts through outside vendors). To the extent that there is a viable local interest among local agencies institutions, many may not know where to start, or how to navigate the legal and financial contexts of procurement policies. While New York State law provides substantial latitude to local governments to create local procurement policies (via Executive Order 39, Section 165.4a of the Finance Law, and Section 103(8)(a) of the General Municipal Law), the Agricultural Task Force could advise governments, institutions, and organizations on policies that achieve local purchase objectives while not being overly burdensome or vulnerable to legal challenge. Many communities have used a similar "food policy council" model toward these ends, and training resources are available to build local capacity toward that end (Center for a Livable Future, 2017).

Action 8: Create and support a staff position to assist farm business owners in navigating various development incentives and regulatory environments

Farm business owners have noted the difficulty of navigating the complexities of both the regulatory environment and local, regional, and state financial incentive programs. Although they are served by a variety of local agencies (e.g., local planning/zoning boards, The

Agency, CCE of Broome County, Broome County SWCD), there is currently no central public-sector contact to help coordinate farm business expansion efforts across the multiple agencies and jurisdictions that are often involved in permitting procedures, grant applications, and other services. As a result, many farm business owners do not take advantage of opportunities that are offered to them, such as financial and technical assistance, pre-application consultations, etc.

A project coordinator position staffed by CCE of Broome County could serve as a dedicated resource to Broome County farmers by providing a central point of contact on matters of licensing, permitting, financial assistance, and other issues where farm businesses must interface with public agencies. This staff position could help walk applicants through agency processes that are often difficult for them to manage (e.g., zoning permits, business formation paperwork, grant application requirements). In doing so, the project coordinator can ensure that various regulatory agencies and local officials understand the impact of their requirements on farm businesses, and help to resolve potential conflicts in a mutually acceptable manner. This will help grow local farm businesses, while also nurturing relationships, maintaining communication channels and fostering trust.

The USDA's Rural Business Development Grant program provides grants that may help CCE to fund this effort. Additional materials to satisfy USDA RBDG grant requirements are provided in the report appendix.

Action 9: Undertake a consumer preference survey to assess market demand and willingness to pay for local agricultural products

Larger farm business owners have many resources to draw upon in terms of understanding the market trends that impact their bottom line, including commodity futures, price reports, and USDA forecasts, among others. These resources may help smaller operations to some extent, but are primarily oriented toward farms operating in larger markets that more accurately reflected in nationwide surveys. Smaller farms that serve primarily local consumers have fewer publicly available resources they can use to reliably describe local demand relative to price points and consumer preferences within their markets.

Broome County and its agricultural support agencies should undertake a detailed survey of local consumers to examine their preferences for local products (e.g., which foods or products they prefer to purchase from local producers), as well as their willingness to pay for those products. This exercise could include web or paper surveys, but should also include focus group discussions led by a professional marketing agency. The results of this initiative should help farm business owners address issues including, but not limited to:

- Where do local consumers typically look for locally-sourced products? Where is the availability of "local" foods most important to them (e.g., at the grocery store, or at restaurants)?
- How can producers of fresh local food be more competitive with growing demand for prepared foods and "meal kits"?
- What premium would local consumers pay for value-added processes that extend the local season (e.g., frozen local strawberries), or could help support diversified operations (e.g., adding a creamery operation to a dairy farm)?

Similar studies have been prepared for areas as diverse as Oneida and Madison Counties, Louisville (KY), and rural Colorado, and can lead to valuable insights for farm business owners seeking to meet market demands for local food and farm products.

Action 10: Create a platform for coordination among technical assistance providers aimed at business planning for agricultural and food-related businesses

Many incentive programs such as the REDC's **Rural Initiative** require applicants to submit a business plan, but this can be a difficult task for business owners that may have never prepared such plans in the past. Several resources exist to assist in this effort, including but not limited to The Agency, **FarmNet**, **CCE** and **CCE of Broome County**, the **Binghamton University Small Business Development Center**, the **SUNY Broome Entrepreneurial Assistance Program**, and the new partnership between the **SCORE** and the **USDA Farm Service Agency**. One of the challenges in Broome County is a lack of coordination between these service providers; overlapping missions and service areas can inadvertently create inefficiencies while unnecessarily stressing agency budgets and confusing potential clients. *As Broome County's primary provider of agriculture-related services, CCE of Broome County should provide a platform for coordination to ensure that the business-planning needs of local farmers and food-related businesses are being adequately met in an effective manner.*

This platform could begin with simple annual or semi-annual coordination meetings, held to enhance awareness among service providers of the other business-development programs available throughout the region. As programs, priorities, budgets, and service areas evolve over time, regular coordination would help create a network of service providers that understand how various services may best fit a given client or project.

Action 11: Expand agency programming to recruit producers to satisfy growing demand for NYS malting barley, hops, and other craft beverage ingredients

CCE, both within Broome County and across the state, has led efforts to educate farmers about best practices in growing and marketing these products to meet strengthening demand. As the in-state procurement requirement continues to grow per state law, craft beverage manufacturers will increasingly rely on ingredients grown and processed within New York State. *CCE should accommodate this increasing demand by incorporating more craft beverage-related programming into its annual work plans and budgets.*

Training courses, distance learning, and special workshops should continue to focus on the issues affecting farms and processors in this industry, including:

- Agronomy and pest management considerations for beverage ingredients
- Incorporation of ingredients into rotational schedules (e.g., small grains)
- Navigating the NYS licensing process for craft beverage manufacturers
- Supply and value chain analysis, opportunities for value added (e.g., hop pelletizing, grain drying)
- Trends influencing plant/species selections

The recruitment of new growers to meet demand for malting barley, hops, and other craft beverage ingredients may also require a concerted marketing effort in partnership with local craft beverage businesses. Such an effort would have the added benefit of connecting growers directly to brewers, distillers, and vintners to improve communication of consumer demands and producer capacities. Improved communication between producers and consumers will create an environment that is more conducive of contract purchasing and other methods of risk-reduction and supply consistency.

Action 12: Host periodic “maple school” trainings to educate existing and prospective maple producers about resource management, syrup production, profitability, and market development

Although production continues to grow, New York State is a relatively “untapped” market for maple production as compared to competitor regions such as Vermont and the province of Quebec. New York maple production has grown substantially in recent years, from 222,000 gallons in 2005 to 601,000 gallons in 2015. However, there is still evidence of unmet demand for in-state production, and organizations such as the **New York Maple Producers Association** and **Maple Foundation** continue to grow the market and educate consumers. With substantial forest resources and convenient access to markets, Broome County farmers and landowners are poised to take advantage of this demand; however, some evidence suggests that it is difficult for local producers to scale their operations to meet it. *To help support increased local production of maple products, CCE should continue to host their maple-specific training workshops to their existing suite of educational outreach programming.*

Maple-related outreach programming should focus on the issues faced by new entrants to the maple market, including:

- Integration of maple operations into diversified farms
- Design and maintenance of reverse osmosis systems
- Monitoring technology
- Evaporation/distillation techniques
- Marketing strategies

Action 13: Host regular, informal roundtable gatherings of farm and food-industry professionals to facilitate greater professional networking opportunities

All too often, public agencies and support organizations typically meet to discuss only those issues, projects, or policies that fall within their respective mandates; concentrated opportunities to cross-pollinate across agencies, organizations, and disciplines are relatively few in number. *The creation of the Ag Task Force has opened an opportunity for more regular interaction between these agencies, organizations, and farmers, and this opportunity could be extended to include a more regular series of “roundtable” gatherings to discuss emerging trends and their effect on the agricultural sector.*

An example of a successful model is found in Jefferson County, where the county's Agricultural Economic Development Specialist organizes quarterly "Agricultural Economic Development Roundtable" meetings to discuss specific and relevant issues with a range of farmers, business owners, and agency staff. In Broome County, a number of local and regional initiatives would likely take advantage of the opportunity to make targeted presentations to representatives of the agricultural sector. These may include, but not be limited to, presentations regarding the following projects or groups:

- Taste NY, the Broome County Regional Farmers Market, the Commercial Kitchen, and other CCE-affiliated programs and projects
- NYSDAM New York Grown & Certified program
- FaHN's Healthy Food Procurement initiative
- New York Farm Viability Institute
- Cornell New Farmer Profit Teams
- American Farmland Trust

Such presentations serve to disseminate information about agriculture-related initiatives to those who may benefit most from them, and offer an opportunity for producers to connect with potential customers and service providers. Like a new agriculture-focused website and a dedicated staff position, this initiative could help facilitate improved coordination between farmers and the agencies and organizations whose work impacts the growth and viability of their businesses.

GOAL 3: INVEST IN TECHNOLOGIES AND CAPITAL PROJECTS THAT IMPROVE OPPORTUNITIES FOR FARM-RELATED BUSINESS CREATION, RETENTION, AND EXPANSION

Action 1: Adjust financial incentive mechanisms to attract more agricultural production enhancement projects

The Agency currently provides low-interest financing for agriculture-related projects through two federal programs funded by the Economic Development Administration and the Appalachian Regional Commission. However, the extent to which these funds have been utilized within the food systems sector has been limited to food processing, as opposed to food production. There does not appear to be any one reason that producers have not utilized these programs; they are well marketed, professionally administered, and offer access to capital that is hard to come by elsewhere (e.g., traditional banks). *Given these factors, The Agency should work with Broome County farm business owners to examine ways to make these financing mechanisms more relevant and applicable to their operations and circumstances.*

There are several issues that The Agency, its underwriters, and agricultural stakeholders may want to examine in increasing the utilization of these resources. These include:

- Macroeconomic/structural disadvantages of the agricultural sector in terms of traditional loan metrics (e.g., loan-to-value ratio, rate of return, job creation)

- Packaging of financial products to better suit the farm business calendar (e.g., more flexible combinations of credit lines, bridge loans, and traditional financing to span the months between initial investment and income)
- Methods of risk management (e.g., longer-term purchase contracts)
- Effective strategies to market existing and emerging incentives to farm business owners
- Strategies for compliance with M/W/DBE requirements

The Agency could also enlist the assistance of other farm finance entities (e.g., the **Farm Service Agency** and **Farm Credit East**) to help demonstrate to farm businesses how various financial mechanisms can leverage one another. Likewise, staff could collaborate with accountants that work with farm businesses to demonstrate various methods of depreciation (or other financial mechanisms) that can influence the affordability and tax implications of capital investments.

One emerging alternative is the creation of a microloan program for projects requiring less than \$75,000 in financial assistance. This alternative would require less underwriting, and may be more attractive to new or risk-averse operations. Potential funding sources for this program could include the county's 5% hotel/motel occupancy tax, which was implemented in 1977 to fund activities promoting Broome County. Funding from the occupancy tax could provide enough stability to recapitalize the microloan program every 2-3 years.

Action 2: Develop an online platform to guide agricultural and food-related businesses to relevant service providers and programs

Like the need for a centralized point of contact, Broome County farmers would also be well served by a centralized website that would help identify relevant service providers and programs. *Broome County should update its website to include a function to connect agricultural and food-business constituents to specific agency or institutional contacts according to their respective services, not unlike the existing "I Want To..." function.*

This centralized site would act as a distributor to service providers, both at the county level and beyond. It should provide current and updated contact information, short summaries of agencies and programs, and relevant links to other web pages or sites. It should be viewed as the first step in connecting farm and food-business owners to the staff that can assist them regarding financial and technical assistance, development incentives, and other services.

Action 3: Train and equip local support agencies to offer agricultural unmanned aerial vehicle (UAV) services to their constituents

The impact of UAVs (also known as drones) on the agricultural economy is already being felt in fields and farm offices across the country. UAVs can be used in a variety of ways on a farm operation, including but not limited to:

- precision fertilizer application
- crop and soil monitoring
- aerial photography and remote sensing

- mapping
- pest identification

Other agencies and organizations within Broome County have already begun to educate and engage with their constituencies regarding the use and benefits of UAVs for commercial applications. Binghamton University has invested research resources into “**Agrowdrone**”, a specialty application of aerial and ground drones specific to plant health monitoring, and the County Commissioner of Aviation has held UAV workshops to educate operators regarding federal aviation requirements. *SWCD should partner with these and other stakeholders to expand its suite of on-farm services to include UAV technologies.* This will reduce the cost (and training) that would be required of individual farm businesses interested in using the technology, and could be a good fit for shared equipment that is not strictly time-sensitive with periods of high demand.

Action 4: Explore opportunities for expansion of three-phase power to meet the needs of farm businesses in outlying areas

Many farm business owners in the county have struggled to gain access to three-phase power, a necessary component of most modern farming operations due to the heavy loads required by on-farm equipment. Expanded access to three-phase power is dependent on the capital improvement plans of the county’s utility provider, **New York State Electric & Gas (NYSEG)**, as well as other considerations including but not limited to the preferred growth patterns of local communities. However, the options for expanded service may not be limited to an extension of existing distribution lines; they may also include alternatives such as three-phase converters. *To help agricultural power customers better understand their options, and to help NYSEG understand the extent of local agricultural needs, the Broome County Agricultural Task Force should engage with NYSEG and other relevant agencies to explore options for improved local access to three-phase power.*

GOAL 4: RECRUIT THE NEXT GENERATION OF FARMERS AND AGRICULTURAL ENTREPRENEURS TO ESTABLISH NEW OPERATIONS IN BROOME COUNTY

Action 1: Study the feasibility of a Southern Tier Individual Development Account (IDA) program to complement/leverage the New York State New Farmers Grant Program and the Southern Tier Agricultural Industry Enhancement Program

Individual Development Accounts (IDAs) are an emerging tool used across various economic development programs, involving organization-matched savings accounts paired with business and financial training for entrepreneurs. Recipients of these accounts are typically required to enroll in training programs, in exchange for (capped) matching contributions to

savings accounts they can use to invest in their new business. An IDA program tailored to Broome County (or the Southern Tier, more generally) would be an ideal complement to new state and regional programs that are intended to provide access to capital once a new farm business is established.

The Department of Planning and Economic Development, together with The Agency and CCE, in cooperation with other regional partners, should carefully consider the feasibility of establishing a regional IDA program. There are many issues that will need to be discussed to determine whether this is the right fit for Broome County agencies and farmers. Some of the pros and cons of IDA programs are listed below¹¹:

- Pros:
 - Creates a network of farmers building farm-based assets that will be reinvested in the local economy upon program completion
 - Offers additional support for new farm entrepreneurs, preparing them for future success
 - Creates access to capital
 - Creates increased visibility for the regional agricultural sector
 - Builds knowledge about saving, financial record keeping, and sound investments
 - Participants connect with a supportive peer network
 - Participants become more competitive for future traditional financing and other grants
- Cons:
 - Program development and financing can take considerable time and effort
 - Fundraising for an IDA program can compete with other organization priorities
 - IDA programs may be misunderstood as a “handout”, drawing criticism
 - Committing to attendance can be difficult for participants during their busy seasons
 - Budgeting for savings can be a challenge for farms
 - Completing financial education requirements may be difficult if participants aren’t fully committed to all aspects of the program

In determining whether or not an agricultural IDA program is appropriate for the region, these partners should undergo a rigorous self-assessment focused on organizational capacity. This self-assessment should include the following¹²:

- Articulated vision and principles
- Assessment of current relationships with the target audience of participants (i.e., new, low-income farmers)
- Understanding of the components of an Individual Development Account
- Identification of organizational goals for the program
- A look at how an IDA program fits within the mission of lead and partnering organizations

¹¹ Adapted from Bloom et. al. (2014)

¹² Adapted from Bloom, et. al. (2014)

- Exploration of each partner's strengths, weaknesses, opportunities, and threats relative to program development and deployment
- Identification of cost considerations
- Assessment of community resources that may be utilized or leveraged
- Assessment of staffing demands
- Identification of project decision-makers
- A clear, thorough description of the project that can be distributed to generate support
- Identification of a strategy to gain support among program partners and stakeholders

Regional partners could include, but are not limited to, the **Groundswell Center for Local Food & Farming**, **CADE Farms**, the **VINES Grow Binghamton Youth Program**, and regional workforce development agencies. In the future, if Broome County and its partner agencies determine that an IDA program is an appropriate and viable tool for agricultural economic development, participants who complete the program should be given additional credit toward grant and financing applications such as the **New York State New Farmers Grant Program**, the REDC's **Rural Initiative**, and/or the **Southern Tier Agricultural Industry Enhancement Program**.

Action 2: Support SUNY Broome's efforts to develop a "smart greenhouse facility" as a potential workforce development program

SUNY Broome has recently submitted a funding request to Empire State Development for financial assistance toward a feasibility study of a "smart greenhouse facility" on campus. While the concept is in its infancy, the intent is to examine the potential costs and revenues associated with the construction of up to three greenhouse facilities, a control building, and related classrooms, laboratories, offices, and storage facilities. SUNY Broome aims to create the controlled environment agricultural system as a way of integrating research initiatives and training workers for food industry occupations. *Broome County agencies, specifically The Agency and Broome/Tioga Workforce Development, should help support this initiative through technical assistance and in-kind programming assistance.*

Action 3: Proactively advertise programming and agency incentives to local organizations whose constituencies have expressed interest in agricultural careers

In addition to bringing agricultural curricula to adult and vocational learners, agricultural support agencies should proactively engage with other organizations to reach new audiences and attract new entrepreneurs into the field. On both a national and regional scale, some of the audiences that are most interested in agriculture, either as a career or a "moonlighting" opportunity, include veterans, teachers, and immigrants.

Implementation of this recommendation does not require time-intensive partnerships or programming, but rather an examination of opportunities as they arise – and some may be more immediate than others. For example, **Clear Path for Veterans** is opening a Broome County facility that will include agricultural and culinary programming, and the **American**

Civic Association has well-established relationships with immigrant communities. These organizations could offer an opportunity for SWCD, CCE, or others to avail a new constituency to their valuable programming.

Action 4: Engage Binghamton University faculty and students in research projects aimed at reducing barriers to food distribution systems

As the home of one of the four major university centers in the SUNY system and several “home-grown” food distribution services, Broome County has an ideal opportunity to pair the research talent of academia with the innovative spirit of the private sector. *The Agency should spearhead an initiative to involve local distribution providers in project-based research to help tackle some of the distribution barriers faced by small farming operations.*

Binghamton University has several academic programs and offices that may be interested in partnering in this initiative, including the **Watson Institute for Systems Excellence, Center for Collective Dynamics of Complex Systems, Department of Systems Science and Industrial Engineering**, and the **School of Management**. Various businesses and organizations have sponsored research projects to engage these faculty members and their students in resolving issues related to technological change, systems, and processes. The Agency should approach **Maines, Willow Run, Food Bank of the Southern Tier, Regional Access**, and/or **Lucky Dog Food Hub** about sponsoring or otherwise participating in project-based curricula to address known barriers to food distribution among small operations, including:

- Insurance requirements: What are the drivers of high insurance coverage requirements? Are there opportunities to “buy down” these requirements with trainings, certifications, surety bonds, or other tools? Are any of these tools more cost-effective than insurance for small producers?
- Economies of scale: Are there opportunities for aggregation among “competing” operations (e.g., produce operations) that would create an economy of scale to make broadline distribution feasible? Are there opportunities for integration among non-competing operations (e.g, a produce operation, beef operation, and bakery) that open new distribution markets not available to those operations individually? Are there opportunities for local food hubs to help streamline local procurement for broadline distributors?
- Layers of margin: How many layers exist between producers and the ultimate consumer of their products? Do each of these layers add value? Could existing programs/organizations that are engaged in procurement-related work (such as FaHN, or CCE/Taste NY) help reduce these layers, making distribution more economical

GOAL 5: PRIORITIZE AGRICULTURAL USES ON BROOME COUNTY’S MOST FERTILE AND PRODUCTIVE LANDS

Action 1: Work with municipal boards and staff to update and revise their comprehensive plans and land use regulations to provide better support for agricultural uses in appropriate areas

The following issues should be addressed by town legislative boards and/or planning boards, with technical support from the Broome County Department of Planning and Economic Development (see Figure 2 for additional discussion):

- The Towns of Lisle, Nanticoke, and Triangle should consider the adoption of zoning laws or ordinances as a method of protecting agricultural land uses and farm businesses
- All Towns within Broome County should consider the adoption of Right to Farm laws as an affirmative stance providing additional support for farm businesses against nuisance complaints related to standard agricultural practices
- Towns with zoning laws should ensure that agriculture is identified as a preferred use in outlying zoning districts where agricultural land uses are prevalent (e.g., Colesville, Fenton)
 - It is noted that although Chenango, Sanford, and Windsor each currently have an “agricultural zoning district”, where agriculture and related land uses are identified as predominant, none of these identify agriculture as a preferred use
- To better accommodate the evolving nature of the agricultural sector, local laws should specifically define several agriculture-related terms, including:
 - Agri-business
 - Agriculture/farm operation (as a matter of consistency, and to prevent potential conflicts between interpretations of local and state law, this term should be defined in a manner consistent with that provided in the NYS Ag & Markets Law)
 - Agri-tourism
 - Farm
 - Farmstand or roadside stand
 - Home business occupation
 - Junkyard (this term should exclude on-farm scrap piles)
- The following uses should be enumerated as permitted uses (within appropriate districts) within local zoning laws:
 - Agri-business
 - Agriculture
 - Commercial horse boarding
 - Farmstand or roadside stand
 - Farm worker housing
 - Veterinary office/hospital
 - Home business occupation
 - Brewery, distillery, and winery
- Local zoning laws should limit competing land uses within agricultural zoning districts to the extent practicable, including:
 - Single-family residential uses on lots less than one acre
 - Multifamily housing and mobile home parks
 - Office buildings
 - Commercial uses

- Hospitals, nursing homes, and other institutional uses
- As a matter of consistency with state law, and to avoid litigation related to land use conflicts, the practice of agriculture should not require a special permit (as is currently required in the Towns of Conklin and Union)
- Local subdivision regulations should allow for cluster subdivision, flag lots, or other creative approaches to development that minimize land consumption and maintain the potential for agricultural production and access to farmland
- Local subdivision regulations should require protections for agricultural infrastructure, such as drainage tiles and field access points, and applicants should be required to demonstrate impact mitigation strategies where such cannot be avoided

In working with town governments (whether through comprehensive planning initiatives, land use regulation amendments, or even in more focused efforts such as §239 reviews), the Department of Planning and Economic Development should help municipalities to improve the effectiveness and consistency of land use regulations as they pertain to agriculture.

Action 2: Increase technical assistance programming with a focus on flood resiliency, stormwater management, and other environmental management issues

Between major storm events and more common flash flooding, Broome County farmers have dealt with several devastating floods in recent years. *To help prevent and mitigate future flood-related damages, county agencies should work proactively with farm businesses to improve the resiliency of farm operations and reduce the potential for future flood-related environmental issues.* This may be accomplished through several means. These include, but are not limited to, the following:

- SWCD should continue its work related to improving on-farm stormwater management through AEP, EQIP, and other initiatives that help farmers identify and implement best management practices (BMPs). This work has many benefits beyond flood resiliency, and SWCD should expand its reach to more farm businesses to the extent possible.
- The Department of Planning and Economic Development should ensure the participation of the agricultural sector in subsequent updates to the countywide All Hazard Mitigation Plan, which assesses hazard risk and proposes mitigation strategies and projects in each town throughout the county.
- The Department of Public Works should engage with farmland owners to assess the adequacy of county-owned culverts that may pose flooding risks to roadways and farm fields.
- The Department of Emergency Services should consider programming specific to the needs of farm businesses (as it does with homeowners, seniors, and pet owners). Farms have unique needs that are unlike other properties, e.g. those related to livestock, high-voltage power, manure storage, wildfire risks, chemical storage, etc.).

Action 3: Adopt a model Agricultural Data Statement for local permit reviews

Local applications for special permits, site plan approvals, use variances, and subdivision approvals within (or within 500 feet of) a state-certified Agricultural District require the

preparation of an Agricultural Data Statement. State law provides some flexibility to local governments in drafting template statements for applicants to fill; however, this leads to variability among municipalities in terms of how effectively the statements achieve their intended goal of identifying and communicating impacts on agricultural lands and resources. *The Broome County Department of Planning & Economic Development should work with municipalities to standardize their required Agricultural Data Statements to ensure greater effectiveness.* A sample Agricultural Data Statement is provided in Appendix B. The types of issues identified within this model data statement can also be used by the County Planning Board in their §239 reviews.

Action 4: Work with rural communities within the county to improve the consistency of permitting processes and code enforcement across municipalities

The inconsistency of land use regulation, permitting processes, and code enforcement between various communities within the county is a frequently cited frustration for farm and farm-related business owners. This is especially relevant to farms that span multiple municipal jurisdictions, and are therefore subject to multiple interpretations of relevant building codes.

In 2010, Broome County was awarded a grant from New York State to examine opportunities to consolidate code enforcement services among the towns, cities, and villages of the county. A final report presented several options for consolidation and shared-service arrangements, none of which have been implemented. *The Broome County Department of Planning & Economic Development should revive this effort.* Initial resistance to countywide code enforcement and administration suggests that the more appropriate option(s) may be the “regional hub” approach outlined within the final recommendations provided to Broome County.

IMPLEMENTATION MATRIX

The following table summarizes the recommended actions described throughout the preceding pages, and identifies other involved parties and a suggested timeframe for implementation. Some implementation actions are also associated with specific funding sources that may be applicable.

Preliminary cost assessments provided below offer high-level evaluations of cost, from minor (\$) to major (\$\$) undertakings. Though not intended to be specific, these assessments are based on the following considerations:

- Does the action include the development of new programming?
- Does the action represent a significant expansion of programming or service areas currently offered by the project lead?
- Does the action require a multi-year effort, or can it be achieved in one or two years?
- Does the action require any specialized expertise or capital expenditures?
- Would funding require multiple sources, or could the action be implemented as a project in a single departmental budget?

This page is intentionally left blank

FIGURE 20:IMPLEMENTATION MATRIX

GOAL	ACTION	PROJECT LEAD	OTHER INVOLVED PARTIES	TIME FRAME	POTENTIAL FUNDING SOURCE ¹	PRELIMINARY COST ASSESSMENT
Goal 1: Educate the non-farming public regarding the importance of the local agricultural sector	Action 1: Improve the dissemination of content from municipal training sessions	Broome County	NYSDOS Local Government Services Program	Continuous		\$
	Action 2: Increase county support for agricultural promotional events and marketing	Broome County	USDA Agricultural Marketing Service	Continuous	USDA AMS Local Food Promotion Program	\$
	Action 3: Promote agricultural literacy through agency programming	Broome County and CCE	Farm Bureau	Continuous	American Farm Bureau Foundation for Agriculture	\$
	Action 4: Develop and implement food service workshops focused on year-round integration of local agricultural products	CCE	SUNY Broome Culinary Arts Program	Longer-term	Klee Foundation	\$
	Action 5: Create supply and value chain map products to visualize economic connections among suppliers, farmers, distributors, processors, and customers across the region	Broome County	Binghamton University (see also: Goal 4, Action 4)	Near-term	USDA AMS Local Food Promotion Program	\$

¹ Several projects may be funded through departmental budgets or other means. See also: list of *Potential Funding and Financing Resources*

BROOME COUNTY AGRICULTURAL ECONOMIC DEVELOPMENT PLAN | January 2019 Final draft

GOAL	ACTION	PROJECT LEAD	OTHER INVOLVED PARTIES	TIME FRAME	POTENTIAL FUNDING SOURCE ¹	PRELIMINARY COST ASSESSMENT
Goal 2: Expand and coordinate agricultural economic development programming to accommodate evolving markets, technologies, regulations, and incentives	Action 1: Complete the buildout of the CCE Agricultural Development Center	CCE	Broome County	Near-term		\$\$
	Action 2: Undertake pre-permitting activities to prepare the Charles Street Business Park for agricultural economic development purposes	The Agency	Broome County IDA	Longer-term	NYS Department of State's BOA Program	\$\$
	Action 3: Undertake a market study and feasibility analysis for a regional co-packing/processing facility	The Agency	CCE	Near-term	ESD Feasibility Study grant program	\$\$
	Action 4: Engage with Cornell Cooperative Extension and NYSDAM to make Broome County the "hub" of statewide hemp-related outreach	CCE	NYSDAM and Broome County	Longer-term		\$\$
	Action 5: Increase educational programming and technical assistance related to value-added agricultural production	CCE and The Agency	Broome County	Near-term	USDA NIFA Community Food Projects Competitive Grants Program	\$\$

BROOME COUNTY AGRICULTURAL ECONOMIC DEVELOPMENT PLAN | January 2019 Final draft

GOAL	ACTION	PROJECT LEAD	OTHER INVOLVED PARTIES	TIME FRAME	POTENTIAL FUNDING SOURCE ¹	PRELIMINARY COST ASSESSMENT
Goal 2: Expand and coordinate agricultural economic development programming to accommodate evolving markets, technologies, regulations, and incentives <i>(continued)</i>	Action 6: Support emerging investments on behalf of food, fiber, and beverage manufacturers	The Agency	Broome County	Continuous		\$
	Action 7: Work with agencies and institutions to reduce barriers to the purchase of local agricultural products	Agricultural Task Force	Broome County, SUNY Broome, Binghamton University	Near-term	Klee Foundation	\$
	Action 8: Create and support a staff position to assist farm business owners in navigating various development incentives and regulatory environments	CCE	Broome County, The Agency, SWCD	Near-term	USDA Rural Business Development Grant	\$\$
	Action 9: Undertake a consumer preference survey to assess market demand and willingness to pay for local agricultural products	Broome County	CCE, The Agency	Near-term		\$
	Action 10: Create a platform for coordination among technical assistance providers aimed at business planning for agricultural and food-related businesses	CCE	Broome County	Continuous	REDC Rural Initiative Program	\$

BROOME COUNTY AGRICULTURAL ECONOMIC DEVELOPMENT PLAN | January 2019 Final draft

GOAL	ACTION	PROJECT LEAD	OTHER INVOLVED PARTIES	TIME FRAME	POTENTIAL FUNDING SOURCE ¹	PRELIMINARY COST ASSESSMENT
Goal 2: Expand and coordinate agricultural economic development programming to accommodate evolving markets, technologies, regulations, and incentives (<i>continued</i>)	Action 11: Expand agency programming to recruit producers to satisfy growing demand for NYS malting barley, hops, and other craft beverage ingredients	CCE	Broome County	Near-term		\$\$
	Action 12: Host periodic “maple school” trainings to educate existing and prospective maple producers about resource management, syrup production, profitability, and market development	CCE	Broome County	Longer-term	SARE Professional Development Grant Program	\$
	Action 13: Host regular, informal roundtable gatherings of farm and food-industry professionals to facilitate greater professional networking opportunities	Agricultural Task Force	Broome County	Continuous	Northeast Agricultural Education Foundation	\$

BROOME COUNTY AGRICULTURAL ECONOMIC DEVELOPMENT PLAN | January 2019 Final draft

GOAL	ACTION	PROJECT LEAD	OTHER INVOLVED PARTIES	TIME FRAME	POTENTIAL FUNDING SOURCE ¹	PRELIMINARY COST ASSESSMENT
Goal 3: Invest in technologies and capital projects that improve opportunities for farm-related business creation, retention, and expansion	Action 1: Adjust financial incentive mechanisms to attract more agricultural production enhancement projects	The Agency	Broome County	Near-term	Broome County's 5% hotel/motel occupancy tax	\$
	Action 2: Develop an online platform to guide agricultural and food-related businesses to relevant service providers and programs	Broome County	CCE	Near-term		\$\$
	Action 3: Train and equip local support agencies to offer agricultural unmanned aerial vehicle (UAV) services to their constituents	SWCD	Broome County	Longer-term		\$\$
	Action 4: Explore opportunities for expansion of three-phase power to meet the needs of farm businesses in outlying areas	Agricultural Task Force	Broome County, NYSEG	Longer-term		\$

BROOME COUNTY AGRICULTURAL ECONOMIC DEVELOPMENT PLAN | January 2019 Final draft

GOAL	ACTION	PROJECT LEAD	OTHER INVOLVED PARTIES	TIME FRAME	POTENTIAL FUNDING SOURCE ¹	PRELIMINARY COST ASSESSMENT
Goal 4: Recruit the next generation of farmers and agricultural entrepreneurs to establish new operations in Broome County	Action 1: Study the feasibility of a Southern Tier Individual Development Account (IDA) program to complement/leverage the New York State New Farmers Grant Program and the Southern Tier Agricultural Industry Enhancement Program	Broome County	The Agency, CCE	Longer-term	Mee Foundation	\$\$
	Action 2: Support SUNY Broome's efforts to develop a "smart greenhouse facility" as a potential workforce development program	The Agency	Broome/Tioga Workforce Development	Near-term	Empire State Development	\$
	Action 3: Proactively advertise programming and agency incentives to local organizations whose constituencies have expressed interest in agricultural careers	Broome County	CCE, SWCD	Continuous		\$
	Action 4: Engage Binghamton University faculty and students in research projects aimed at reducing barriers to food distribution systems	The Agency	Broome County, SUNY Broome, CCE	Continuous	Maines, Willow Run, Food Bank of the Southern Tier, Regional Access, and/or Lucky Dog Food Hub	\$\$

BROOME COUNTY AGRICULTURAL ECONOMIC DEVELOPMENT PLAN | January 2019 Final draft

GOAL	ACTION	PROJECT LEAD	OTHER INVOLVED PARTIES	TIME FRAME	POTENTIAL FUNDING SOURCE ¹	PRELIMINARY COST ASSESSMENT
Goal 5: Prioritize agricultural uses on Broome County's most fertile and productive lands	Action 1: Work with municipal boards and staff to update and revise their comprehensive plans and land use regulations to provide better support for agricultural uses in appropriate areas	Town legislative boards and/or planning boards	Broome County	Continuous	Community Foundation of SCNY Community Fund	\$
	Action 2: Increase technical assistance programming with a focus on flood resiliency, stormwater management, and other environmental management issues	The Agency	Broome County, CCE, SWCD	Near-term		\$
	Action 3: Adopt a model Agricultural Data Statement for local permit reviews	Broome County	Municipalities	Near-term		\$
	Action 4: Work with rural communities within the county to improve the consistency of permitting processes and code enforcement across municipalities	Broome County	Municipalities	Continuous		\$

This page is intentionally left blank

POTENTIAL FUNDING AND FINANCING RESOURCES

COUNTY AND REGIONAL RESOURCES

- The Agency (Broome County IDA / LDC)
 - Broome County Revolving Loan Program
 - Southern Tier East Economic Development Revolving Loan Program
 - Grow Broome Fund
 - Title IX Economic Adjustment Revolving Loan Fund Program
 - Taxable and tax-exempt industrial development bonds
 - Sales tax exemptions
 - Real property tax exemptions
 - Mortgage recording tax exemptions
- Southern Tier Regional Economic Development Council
 - Regional Council Capital Fund
 - Rural Initiative Program (administered by The Agency)
 - Southern Tier Soaring: Upstate Revitalization Initiative
 - Shovel Ready Program – Infrastructure Fund
- Conrad and Virginia Klee Foundation
- George A. and Margaret Mee Charitable Foundation (nonprofits only)
- Stewart W. and Willma C. Hoyt Foundation
- Community Foundation for South Central New York

STATE RESOURCES

- Department of Agriculture & Markets
 - Southern Tier Agricultural Industry Enhancement Program
 - Farmland Protection Implementation Grant Program
 - Agricultural Nonpoint Source Abatement and Control Program
 - Good Agricultural Practices Certification Assistance Program
 - Organic Certification Reimbursement Program
 - Specialty Crop Block Grant
- Soil & Water Conservation Committee
 - NYS Climate Resilient Farming Program
- Empire State Development
 - New Farmers Grant Fund
 - Environmental Investment Program
 - Healthy Food & Healthy Communities Fund
 - Regional Council Capital Fund
 - Strategic Planning and Feasibility Studies Program
 - Economic Development Fund
 - Economic Development Purposes Grant Program
- Energy Research & Development Authority
 - Innovation in Agriculture Grant Program

FEDERAL RESOURCES

- **USDA**
 - Market Access Program
 - Beginning Farmers and Ranchers Development Program
- **USDA Natural Resource Conservation Service**
 - Agricultural Management Assistance Program
 - Conservation Reserve Program
 - Agricultural Conservation Easement Program
 - Environmental Quality Incentives Program
 - Healthy Forest Reserve Program
 - Conservation Stewardship Program
 - Wildlife Habitat Incentives Program
 - Emergency Conservation Program
 - Conservation Technical Assistance Program
- **USDA Farm Service Agency loans and other financial assistance programs**
 - Direct Farm Ownership loans
 - Direct Farm Operating loans and microloans
 - Emergency loans
 - Conservation loans
 - Youth loans
 - Land Contract Guarantees
 - Biomass Crop Assistance Program
 - Farm Storage Facility Loan Program
- **USDA Rural Development loan programs**
 - Rural Microentrepreneur Assistance Program
 - Rural Energy for America Program
 - REAP Guaranteed Loans
 - Farm Labor Housing Loans and Grants Program
 - Rural Business Investment Program
- **USDA Rural Development grant programs**
 - Value-Added Producer Grant Program
 - Rural Business Enterprise Grants Program
 - Rural Business Opportunity Grants Program
 - Rural Energy for America Program
 - REAP Grants
 - Energy Audit
 - Renewable Energy Development Assistance
 - Renewable Energy Systems/ Energy Efficiency Improvement Program
 - Rural Cooperative Development Grant Program
 - Small Socially-Disadvantaged Producer Grant Program
- **USDA National Institute of Food and Agriculture**
 - Small Business Innovation Research Program
 - Community Food Projects Competitive Grants Program
- **USDA Agricultural Marketing Service**
 - Farmers' Market Promotion Program

- Local Food Promotion Program
 - Organic Cost Share Program
- US Small Business Administration
 - 7(a) General Small Business Loan Program
 - Microloan Program
 - CDC/504 Real Estate & Equipment Loan Program
 - Disaster Loan Program
- US Environmental Protection Administration
 - Environmental Education Grants

OTHER RESOURCES

- Farm Credit East private loans:
 - FarmStart
 - Young, Beginning, Small Farmer Incentive Program
 - CountryFlex equity loans
- New York Farm Bureau Foundation for Agricultural Education
- Northeast Region Sustainable Agriculture Research and Education (SARE)
 - Farmer grant program
 - Partnership grant program
 - Sustainable Community grant program
 - Graduate Student grant program
 - Professional Development grant program
 - Research and Education grant program
 - Agroecosystems Research grant program
 - Conference and Workshop Support (technical assistance)
- NY Farm Viability Institute grant programs:
 - Agricultural Innovation Center
 - Outreach and Applied Research
- 1772 Foundation Grants for Northeast Farmland Preservation
- The FruitGuys Community Fund
- Wells Fargo Environmental Grant Program
- Monsanto Fund
- Cargill Foundation
- Northeast Agricultural Education Foundation
- The Wallace Center at Winrock International
 - Farm Assistance Grant Program
- Jessie Smith Noyes Foundation Sustainable Agriculture and Food Systems Grant Program
- Animal Welfare Approved Good Husbandry Grant Program
- Surdna Foundation Regional Food Supply Grant Program
- Hannaford Charitable Foundation
- Save-a-Lot community giving program

This page is intentionally left blank

BIBLIOGRAPHY

- Agricultural Marketing Resource Center (AgMRC). 2017. Business Development: Getting Prepared. Available at <https://www.agmrc.org/business-development/getting-prepared/>. (accessed September 2017)
- Barnham, James. 2017. Developing the Case for the Value of Wholesale Markets to their Region. Presentation to the National Association of Produce Market Managers. Available at <http://www.napmm.org/> (accessed September 2017)
- Bloom, Molly, et. al. 2017. A Guide to Developing and Operating an Agricultural Individual Development Account (IDA) Program. Available at www.cafarmlink.org (accessed March 2017). California FarmLink, Santa Cruz CA.
- Center for a Livable Future. 2017. Food Policy Networks. Available at <http://www.foodpolicynetworks.org/> (accessed September 2017).
- Denning, Brannon. P. et. al. 2010. Laws to require purchase of locally grown food and constitutional limits on state and local government: Suggestions for policymakers and advocates. *Journal of Agriculture, Food Systems, and Community Development*. August, 2010.
- Homer, C.G., et. al. 2015. [Completion of the 2011 National Land Cover Database for the conterminous United States-Representing a decade of land cover change information.](#) *Photogrammetric Engineering and Remote Sensing*, v. 81, no. 5, p. 345-354
- Bureau of Labor Statistics (BLS). 2017. Quarterly Census of Employment and Wages; Location Quotients. Available at https://data.bls.gov/cew/doc/info/location_quotients.htm. (accessed July 2017).
- New Venture Advisors. 2017. Local Food Marketsizer®. Available at <https://www.newventureadvisors.net/marketsizer/> (accessed July 2017).
- Schmit, T.M, and N.L. Bills. 2012. Agriculture-Based Economic Development in NYS: Trends and Prospects. Published by the Charles H. Dyson School of Applied Economics and Management, College of Agriculture and Life Sciences. Available at <http://publications.dyson.cornell.edu/outreach/extensionpdf/2012/Cornell-Dyson-eb1211.pdf> (accessed May, 2017). Cornell University, Ithaca NY.
- Schmit, T.M, et. al. 2012. A Study of Food and Beverage Manufacturing in New York State. Published by the Charles H. Dyson School of Applied Economics and Management, College of Agriculture and Life Sciences. Available at <http://publications.dyson.cornell.edu/outreach/extensionpdf/2012/Cornell-Dyson-eb1211.pdf> (accessed May, 2017). Cornell University, Ithaca NY.
- USDA Economic Research Service (ERS). 2015. Food Environment Atlas. Available at <https://www.ers.usda.gov/data-products/food-environment-atlas/> (accessed July 2017). USDA-ERS, Washington, D.C.
- USDA National Agricultural Statistics Service (NASS). 2012. Census of Agriculture. Available at: www.agcensus.usda.gov/ (accessed October, 2016). USDA-NASS, Washington, DC.

USDA NASS. 2017. Published crop-specific data layer. Available at <https://nassgeodata.gmu.edu/CropScape/> (accessed July 18, 2017). USDA-NASS, Washington, DC.

USDA Natural Resources Conservation Service. Soil Survey Geographic (SSURGO) Database. Available at <https://sdmdataaccess.sc.egov.usda.gov>. (accessed February 2017). Washington, DC

US Economic Development Administration (EDA). 2017. StatsAmerica. Available at www.statsamerica.org (accessed July 2017). Washington, DC.

OTHER RESOURCES

FairAcre Traders. 2016. Scaling Local & Regional Food with Broadline Distributors. Available at <http://www.fairacretraders.com/PDFdwnld/Local-Food-and-Broadline-Distribution-2016.pdf> (accessed September 2017).

Bills, Nelson, et. al. 2008. Phase I Project Report: Alternative Methods of Real Property Valuation of Agriculture and Rural Vacant Parcels. New York State Department of Agriculture and Markets. Albany, NY.

Freedgood, Julia, and Jennifer Dempsey. 2014. Cultivating the Next Generation: Resources and Policies to Help Beginning Farmers Succeed in Agriculture. American Farmland Trust. Available at: <https://www.farmland.org/blog/cultivating-the-next-generation-beginning-farmers-success-stories> (accessed August 2017).

Greenhorns. [ND]. Northeastern Beginning Farmer's Field Journal: A Beginners Guide for Young Farmers. Available at: <http://www.thegreenhorns.net> (accessed June 2017).

Greenhorns. [ND]. Affording Our Land: A Financial Literacy Guidebook for Young Farmers (and All Farmers). Available at: <http://www.thegreenhorns.net> (accessed June 2017).

Michigan State University Center for Regional Food Systems and The Wallace Center at Winrock International. 2013. Findings of the National Food Hub Survey. Available from <https://kresge.org/sites/default/files/2013-national-food-hub-survey.pdf> . Accessed on July 3, 2018.

NYS Energy Research & Development Authority (NYSERDA). 2017a. NY-Sun Solar Guidebook for Local Governments in New York State. Available at <https://www.nyserda.ny.gov/SolarGuidebook> (accessed October 2017).

NYSERDA. 2017b. Using Special Use Permits and Site Plan Regulations to Allow Large-Scale Solar Installations While Protecting Farmland. Available at <https://www.nyserda.ny.gov/SolarGuidebook> (accessed October 2017).

NYSERDA. 2017b. Understanding Solar Installations in Agricultural Districts. Available at <https://www.nyserda.ny.gov/SolarGuidebook> (accessed October 2017).

- PolicyLink. 2015. Equitable Development Toolkit: Local Food Procurement. Available at http://www.policylink.org/sites/default/files/edtk_local-food-procurement.pdf (accessed August 2017).
- Southern Tier Regional Economic Development Council. 2014. Rural Initiative Fund Application. Available at <https://regionalcouncils.ny.gov/content/southern-tier> (accessed August 2017).
- Southern Tier Regional Economic Development Council. 2015. Southern Tier Upstate Revitalization Initiative Plan.
- Economic Modeling Specialists. 2015. EMSI Labor Market Analysis. Referenced in the 2015 Southern Tier Upstate Revitalization Initiative Plan.

This page is intentionally left blank

APPENDIX A: MAPS

This page is intentionally left blank

APPENDIX B: MODEL AGRICULTURAL DATA STATEMENT

AGRICULTURAL DATA STATEMENT AND CONTROL FORM

Town of _____ Tax Parcel # (incl. section, block, and lot) _____

Agricultural District No. _____ Street Name _____

NOTE: Section 283-a of the Town Law (effective July 1, 1993) requires that any application for a Special Permit, Site Plan Approval, Use Variance or Subdivision Approval on property within an Agricultural District containing a farm operation, OR on property with boundaries within five hundred (500) feet of a farm operation that is located in an Agricultural District, include an Agricultural Data Statement. *All applications requiring an Agricultural Data Statement must be referred to the Broome County Director of Planning and Economic Development in accordance with amended section 239-m and 239-n of the General Municipal Law (effective July 1, 1993).*

Part I: Agricultural Data Statement

Name of Applicant _____

Mailing Address _____

Description of Project _____

Names and addresses of those owners of land within Agricultural District No. _____ that contain farm operations AND are located within five hundred (500) feet of the project property:

1. _____
2. _____
3. _____
4. _____
5. _____

Attach to this form a copy of a tax map showing the site of the proposed project relative to the locations of farm operations identified above. Farm Operations are defined as “...the land used in agricultural production, farm buildings, equipment and farm residential buildings” according to Section 301, Article 25 AA of the Agricultural and Markets Law.

Part II: Submission and Evaluation (to be completed by Municipal Review Agency)

Type of Submission (Check appropriate type):

Use Variance ___ Special Use Permit ___ Site Plan Review ___ Subdivision Review ___

Municipal Review Authority (Check appropriate agency):

Zoning Board of Appeals ___ Planning Board ___ Town Board ___

Part III: Notice Provision (to be completed by Municipal Review Agency)

Consistent with Section 283-a(3) of the Town Law, written notice of the application described in Part I has been provided to the owners of land identified in the Agricultural Data Statement.

Date Notice Mailed _____

Part IV: Notice to County Director of Planning and Economic Development (to be completed by Municipal Review Agency)

Consistent with Section 283-a(5) of the Town Law, the Clerk of the Municipal Review Authority identified in Part II must refer all applications requiring an Agricultural Data Statement to the County Director of Planning and Economic Development.

Date Referred to County Planning Board: _____

Notice Regarding Disclosure Notice to Prospective Purchasers

As of July 1, 1999:

1. When any purchase and sale contract is presented for the sale, purchase, or exchange of real property located partially or wholly within an agricultural district, the prospective grantor shall present to the prospective grantee a disclosure notice which states the following: *"It is the policy of this state and this community to conserve, protect and encourage the development and improvement of agricultural land for the production of food, and other products, and also for its natural and ecological value. This disclosure notice is to inform prospective residents that the property they are about to acquire lies partially or wholly within an agricultural district and that farming activities occur within the district. Such farming activities may include, but not be limited to, activities that cause noise, dust and odors."*

1a. Such disclosure notice shall be signed by the prospective grantor and grantee prior to the sale, purchase or exchange of such real property.

2. Receipt of such disclosure notice shall be recorded on a property transfer report form prescribed by the state board of real property services as provided for in section three hundred thirty-three of the real property law.

APPENDIX C: BACKGROUND MATERIAL FOR GRANT APPLICATIONS

EMPIRE STATE DEVELOPMENT FEASIBILITY STUDY: REGIONAL CO-PACKING/PROCESSING FACILITY

The following draft text may be used to populate an Empire State Development Corporation Feasibility Study grant application in support of a co-packing and processing facility in Broome County. This application would advance the implementation of Goal 2, Action 3. Additional information about ESD's Strategic Planning and Feasibility Studies Program can be found at <https://esd.ny.gov/strategic-planning-and-feasibility-studies-program>.

Q_575: Project Description. Concisely describe the project, indicating the location, what will be planned, designed, acquired, and/or constructed, the issues/opportunities to be addressed, and expected outcomes and deliverables. Additional details will be collected later in the application process.

Due to its regional location, the Southern Tier Regional Economic Development Council envisions the region to serve as a key aggregation and distribution center given its proximity to key East Coast markets (notably, New York City, Boston, Philadelphia, and Washington DC). This aggregation and distribution of agricultural produce are key elements of defining the Southern Tier as a substantial contributor to the East Coast markets. Besides lending an identity to the region, enhancing the agricultural market potential also benefits farmers. In a national survey of food hubs and producers, producers that were associated with food hubs hired more people, increased their acreage size, and extended their growing season (Michigan State University 2013). This process of scaling up production, however, does not come without hurdles for local farmers, many of which tend to be small scale or mid-sized in their operations.

This feasibility study is anticipated to include two components. First, it will include a market analysis to determine both market-driven and opportunistic demand for value-added processing and packaging facilities within Broome County and the surrounding region. Second, it will include an assessment of the requirements for the most financially viable potential project.

The market analysis should thoroughly examine both the local and regional market, specifically targeting Broome County operations of local value-added agricultural products to address local gaps and market demand. The market analysis should also target existing enterprises involved with the packaging and marketing supply chains for products across the region. Specific topics to include in this market analysis include a determination of gaps in the regional marketplace, scheduling and marketing barriers, and the affordability and accessibility of existing facilities. The market analysis should conclude with a recommendation for a model of co-packing and wrap-around services that may be most viable based on observed demand within the market.

With this model in mind, the second component of the feasibility study will focus on the likely spatial, programmatic, and financial requirements needed to make it a success. This assessment should address potential facility locations and estimates for facility

construction/operating revenues and expenses, labor requirements, transportation and shipping requirements, marketing requirements, and construction timeline.

Q_976: Statement of Need

Co-packing and processing facilities are one way to alleviate barriers to market entry for small to mid-scale operations by reducing the startup capital required for packaging equipment, facilities, permits, and staff. Co-packing and processing facilities can also provide additional “wrap-around” services that can help new and emerging enterprises to be successful. These services might consist of graphic design, sales production, labeling, coding (nutrition fact tables, barcode printing, etc.), presentation displays, over-wrapping, and packaging prototyping prior to production.

Innovative approaches towards co-packing/processing and value-added production can create new possibilities within the local and regional food systems of Broome County. Broome County has the potential facility infrastructure and workforce capacity to establish tailored facilities that support both local producers and regional distributors, particularly those of value-added agricultural products. Value-added agricultural products can support about 2 additional jobs to the economy for every job created directly; further, for every sale dollar, value-added agricultural enterprises have a multiplier of \$1.50 in sales throughout the economy (EMSI 2015).

However, several barriers to success exist for value-added producers in the Southern Tier. According to the Southern Tier Upstate Revitalization Initiative, while value-added processing is a growing sector in the Southern Tier (growing 18% between 2009 and 2013), nascent and mid-sized value-added operations often face challenges related to reaching economies of scale, complying with safety regulations, navigating distribution systems, and creating viable business plans for competing in the growing manufacturing market. Several site-specific challenges also exist for potential co-packing/processing facilities themselves:

- Vacant industrial sites are often purpose-built, making it difficult and expensive to renovate according to food packaging/processing needs;
- Taxes in Broome County are higher than nearby out-of-state counties;
- The size of the local workforce is declining; and
- National uncertainty related to corporate taxes, health care, etc. reduces the willingness of manufacturers to take risks and invest in US processing plants.

To effectively leverage investment opportunities, a feasibility study should be conducted that identifies gaps and barriers within the regional market related to the packaging and processing of local value-added agricultural products, identifies potential projects to address local barriers, and for the most financially viable project, delves into the requirements necessary for implementation.

The Appalachian Regional Commission (ARC) classifies Broome County as a transitional county containing 14 census tracts designated as distressed areas. Depending on future findings from the proposed Feasibility Study, there could be potential to site a project in one of the 14 distressed areas in order to alleviate fiscal stress.

Q_930: Explain what makes your project a regional economic priority - for example creates jobs, economic investment, sustainability and community revitalization, government efficiency or consolidation etc.

In 2018, the most recent REDC progress report, food and agricultural employment and wages in the Southern Tier have increased by 16.5% and 27.7%, respectively since 2011. The feasibility study proposed here for agricultural economic development in Broome County, aligns with Strategy 4 of the original 2011 REDC Strategic Plan to Revitalize the rural farm- and forest-based economy of the Southern Tier and the 2015 Southern Tier Upstate Revitalization Initiative to Transform Food and Agriculture.

The goal of Strategy 4 in the 2011 REDC Strategic Plan is as follows:

The Rural Initiative Venture Fund will invest \$10 million over five years to reduce financial risk and increase sustainability of agriculture and forestry ventures through product development and promotion, business infrastructure development and utilization of new technology. Important returns on investment of this fund include the creation of start-up farm operations and other agribusinesses and the creation of 2,000 new jobs over the five-year period.

The overarching agricultural goal of the 2015 Southern Tier Upstate Revitalization Initiative is as follows:

The Southern Tier will be a world-recognized leader in agriculture technology and serve as a key food supplier for the East Coast of the United States. A strategic mix of projects will transform and grow agriculture and food production, processing and distribution across the region, while also strengthening links to growing tourism and manufacturing industries.

Two key strategies highlighted by 2015 Southern Tier URI support this proposal for a feasibility study:

- Increase the diversity of and access to food processing facilities around the region, including slaughterhouses, meatpacking and poultry processing facilities, dairy processing facilities and aseptic packaging facilities for vegetables.
- Leverage our location at the crossroads of upstate New York via the creation of a “food hub” network that facilitates market connections

Q_3133: Is the proposed project located in a highly distressed area? If so, please provide information that will help ESD confirm that the area is highly distressed.

The Appalachian Regional Commission (ARC) provides information on highly distressed areas for Fiscal Year (FY) 2018. Broome County is considered a transitional county containing 14 census tracts designated as distressed areas. A transitional county, as defined by ARC, is transitioning between strong and weak economies. They make up the largest economic status designation and rank between the worst 25% and the best 25% of the nation's counties. Distress area indicators and thresholds include a median family income no greater than 67% of the U.S. average and a poverty rate 150% of the U.S. average or greater. These designations are revised annually using the latest five-year estimates from American Community Survey (ACS).

Empire State Development (ESD) considers whether an area is characterized by pervasive poverty, high unemployment, and general economic distress based on characteristics

including but not limited to: a poverty rate of at least 20%, an unemployment rate of at least 1.25 times the statewide unemployment rate, decline in population and employment, decline in per capita income, and if 25% or more of the area is vacant, abandoned, or otherwise available for industrial or commercial development. Table 1 below outlines the above characteristics by municipality in Broome County. The Feasibility Study should consider locations of a potential project in a known highly distressed area.

Table 1: Distress Area Indicators by Municipality

Municipality	Change in Pop. (2016-2017)	Poverty Rate	Unemployment Rate	Change in Per Capita Income (2016-2017)	Vacant, Commercial, and Industrial Parcels as a % of Total Parcels
Binghamton (C)	-0.7%	33.3%	11.7%	4.5%	22.9%
Barker (T)	-0.4%	8.4%	6.8%	7.2%	37.9%
Binghamton (T)	-0.7%	5.2%	5.0%	6.5%	30.6%
Chenango (T)	-0.9%	8.9%	4.7%	12.0%	18.5%
Colesville (T)	-0.3%	16.6%	7.3%	-4.0%	28.7%
Conklin (T)	-0.4%	11.9%	5.4%	2.6%	33.7%
Dickinson (T)	-0.7%	11.4%	6.3%	3.1%	23.0%
Fenton (T)	-0.8%	13.0%	6.5%	2.0%	23.9%
Kirkwood (T)	-1.0%	13.9%	6.7%	5.7%	32.6%
Lisle (T)	0.5%	13.4%	8.6%	-0.6%	34.8%
Maine (T)	-0.7%	8.6%	7.6%	5.3%	31.7%
Nanticoke (T)	-0.9%	9.5%	5.8%	-0.3%	34.4%
Sanford (T)	-0.7%	9.6%	8.6%	-3.9%	37.4%
Triangle (T)	-0.4%	10.5%	7.3%	0.9%	38.2%
Union (T)	-0.9%	13.4%	6.6%	2.5%	20.5%
Vestal (T)	-0.1%	13.4%	3.5%	1.0%	18.1%
Windsor (T)	-0.8%	6.6%	4.4%	1.6%	35.2%
Deposit (V)	4.2%	20.3%	10.0%	1.3%	*
Endicott (V)	-0.7%	19.6%	10.2%	2.8%	*
Johnson City (V)	-0.7%	18.6%	6.3%	3.5%	*
Lisle (V)	-1.5%	27.4%	2.8%	7.3%	*
Port Dickinson (V)	7.7%	11.9%	6.5%	0.1%	*
Whitney Point (V)	-0.9%	9.6%	12.4%	-1.1%	*
Windsor (V)	-13.4%	11.6%	3.7%	1.0%	*
New York State	0.5%	15.1%	6.8%	4.3%	25.5%

Source: American Community Survey (ACS) 5-year estimates, 2016 and 2017; Bureau of Labor Statistics (BLS), 2017; and NYS Office of Real Property Tax Services (ORPTS) Municipal Profiles, 2017.

*Village-level percentage values are incorporated into those of the surrounding/underlying towns.

Q_2411: Describe the Applicant's experience in completing strategic development plans, feasibility studies, site assessments, or similar plans or studies.

The Agency is a catalyst, partner, and investor that delivers clear benefits including job creation, development sites and enhanced quality of life for the residents of Broome County. 2017 signature projects totaled \$211,425,524 in investment and included an array of development projects. Signature PILOT projects include:

- Dick's Sporting Goods Regional Distribution Center, a 650,000 square foot state-of-the-art facility servicing more than 200 retail stores in the northeast. This project, located in the Broome Corporate Park in Conklin will create more than 500 new jobs and nearly \$150 million in new investment.
- SaveAround, LLC, a redevelopment of an existing 38,000 square foot building located at 100 Emerson Parkway, to accommodate the existing and future growth of SaveAround, Inc. SaveAround will utilize the facility to combine both their corporate office and warehouse.
- Century Sunrise Development, a mixed-use historic and adaptive reuse of two former Endicott Johnson buildings in Johnson City. This project includes a total of 104 workforce & market-rate apartments and approximately 10,000 square feet of commercial space. These buildings are adjacent to the Binghamton University School of Pharmacy & Pharmaceutical Sciences and Decker School of Nursing

In addition, the Agency has supported the growth of small business by loaning more than \$719,000 through their Business Development and STEED revolving loan programs and created a new program – the Small Business Incentive Program, to assist small projects with sales and mortgage recording tax exemptions. In total last year, the Agency supported more than \$200 million in new capital investment in Broome and are seeing the positive impact of these efforts.

- Engineering Manufacturing Technologies (EMT) used its exemption for the acquisition, renovation and refurbishing of 17 Kentucky Avenue, in Endicott, NY. through the elimination of (8%) Sales Tax on qualified purchases related to operating a business or for the expansion, renovation of business operations and a (1%) Mortgage Recording Tax on the purchase of land or buildings for business operations

The Agency has also stepped “outside the lines” of their traditional role and facilitated new initiative such as the creation of the Broome Talent Task Force and developed the Broome County Workforce & Talent Attraction Strategic Action Plan. This three-year strategy will address critical and immediate workforce needs and guide the course to develop a healthy and vibrant workforce for the future. This collaborative effort includes partners in industry, skilled trades, education, non-profits, workforce development and government.

Q_2413: Will the Applicant conduct the project? If yes, please describe the Applicant's demonstrated organizational capacity and experience in completing activities similar to or related to the proposed project. If the Applicant will not conduct the project, what entity is anticipated to do so, how will that entity be selected, and what quality control measures will be used?

The Agency will issue a request for proposals (RFP) for a feasibility study for a regional co-packing/processing facility within Broome County. The feasibility study shall include a market analysis that examines the local and regional markets in order to identify highest

potential sites and uses within the food processing industry. The feasibility study will address potential site location and use, estimates for construction and operating revenues and expenditures, labor requirements, transportation and shipping requirements, marketing requirements, and construction timeline. The RFP will be let for one month and submissions will be carefully evaluated by The Agency. After review of all qualified submittals, a screening will be done to determine which candidate's best meet the objectives of the study. All candidates will then be ranked, and the two-highest ranked candidates will meet with an Agency-selected review panel. Finally, the review panel will select one candidate that is deemed to provide the best overall value.

Q_2424: Describe how the project demonstrates broad community support and participation and ongoing collaboration with state, regional and local, public and private stakeholders.

The Agency, which includes the Broome County Industrial Development Agency (IDA) and the Broome County Local Development Corporation (LDC) and works with other agencies in the County to provide the community with an economic development support system. Residents and businesses of Broome County have long understood the importance of agriculture as a profession and land use, and the proposed feasibility study reiterates and strengthens the community's support for the local and regional growth of farm businesses.

The current development of the Broome County Agricultural Economic Development Plan has received assistance from the project steering committee, which is made up of members from: the Broome County Legislature, Broome County Department of Planning and Economic Development, Cornell Cooperative Extension of Broome County, Broome County Farm Bureau, Broome County Soil and Water Conservation District, Farm Bureau, and The Agency. As one of the priority implementation actions recommended within the Agricultural Economic Development plan, the development of this feasibility study is supported by these valuable stakeholders representing the Broome County agricultural sector.

Q_3647: Identify potential future funding sources and the amount expected to be committed in order to implement the recommendations/findings from the plan or study.

Once the feasibility study has been completed and the findings are ready for implementation, The Agency will consider a range of economic development tools as appropriate, to help facilitate the development of a viable model for co-packing/processing services. Along with our regional partners, The Agency may consider the use of property tax abatement programs, revolving loan programs, bond issuance, or other relevant federal and state funding resources. The Agency may issue a Request for Expressions of Interests (RFEI) from the development community, once specifics of the project have been identified through the Feasibility Study. In addition, the feasibility study will help identify future funding sources for implementing the recommended action steps.

Feasibility Study Scope of Services

The total estimated cost for professional services is between \$100,000 - \$125,000. The feasibility study should include the following components:

- Examine the demand gaps within the regional market for locally-produced value-added operations.
- Develop recommendations for how the development of agricultural packaging/processing facilities can address these gaps.
- In light of the above recommendations, analyze the current capacity of existing and emerging packaging/processing facilities
- Create three alternatives for potential projects that will address market gaps for value-added agricultural products by enhancing existing facilities or developing new facilities.
- Assess the feasibility for the alternative with the highest financial viability. Components of this assessment will include requirements for material, labor, transportation and shipping, marketing, physical location, technology, and target dates for construction/operation.

USDA RURAL BUSINESS DEVELOPMENT GRANT FOR AN “AGRICULTURAL NAVIGATOR” INITIATIVE [CCE]

The following draft text may be used to populate a USDA Rural Business Development grant application in support of an “Agricultural Navigator” program in Broome County. This grant would help advance Goal 2, Action 8. Additional information about USDA’s Rural Business Development Grant program can be found at <https://www.rd.usda.gov/programs-services/rural-business-development-grants>.

Project Description

The Agricultural Navigator Initiative will create a business support center with a need for a ½ to ¾ time position under the Cornell Cooperative Extension (CCE) of Broome County. The position, referred to as the “Ag Navigator”, will serve as a dedicated resource to Broome County farmers, food based businesses and support industries, by providing a central point of contact on matters of licensing, permitting, financial assistance, and other issues where farm businesses must interface with public agencies.

As defined under Section 4280.417 Project Eligibility of the Rural Business Development Grant, a business support center provides “assistance to businesses such as counseling, business planning, training, management assistance, marketing information, and locating financing for business operations.”¹³ CCE of Broome County intends to implement such a model to assist farm and agribusiness owners in their efforts to adjust their operations to accommodate evolving market conditions. The Ag Navigator initiative is an appropriate addition to CCE’s suite of agricultural extension services, and will fill a gap in local business assistance programs that are not designed around the particular needs of the agricultural community.

¹³ <https://www.law.cornell.edu/cfr/text/7/part-4280/subpart-E>

1.1 Project Need and Benefits

Farm and farm related business owners in Broome County have noted the difficulty of navigating the complexities of both the regulatory environment and local, regional, and state financial incentive programs. Although they are served by a variety of local agencies (e.g., local planning/zoning boards, The Agency, CCE of Broome County, Broome County Soil and Water Conservation District (“SWCD”), there is currently no central public-sector contact to help coordinate farm and farm-related business expansion efforts across the multiple agencies and jurisdictions that are often involved in permitting procedures, grant applications, and other services. As a result, many farm business owners do not take advantage of opportunities that are offered to them, such as financial and technical assistance, pre-application consultations, etc.

Under the Agricultural Navigator Initiative, a dedicated CCE project coordinator will help walk farm and farm-related business owners through agency processes that are often difficult for them to manage (e.g., zoning permits, business formation paperwork, grant application requirements). This relationship between program participants, agency representatives, and CCE serves to benefit all involved:

- Farm and farm-related business owners will benefit from the services of a “farm-friendly” advocate that helps navigate difficult permitting and other processes;
- Public agencies gain improved access to the agricultural sector to better utilize the support services they offer, and gain a better understanding of the impact of their programs on the regional agricultural economy; and
- CCE continues to expand its business development services for area farms and farm-related businesses, consistent with its educational mission as a land-grant institution.

In addition to business development benefits, the Ag Navigator initiative will also benefit these parties by nurturing critically important relationships, fostering a greater sense of trust between the farm community and public agencies, and continuing to improve regional communication channels. CCE envisions the Ag Navigator as a reliable mediator between constituencies – one that can help resolve potential conflicts in a mutually acceptable manner and while creating a sustainable foundation for the growth of Broome County’s agricultural businesses.

This initiative is modeled after similar programs including: the Ag Development Specialist at Wayne County Industrial Development Agency, the Ag Coordinator at Jefferson County Civic Facilities Development Corporation, and the Agricultural Navigator at CCE of Dutchess County.

1.2 Eligible Grant Purpose

Under Section 4280.417 Project Eligibility, the Agricultural Navigator Initiative meets the requirements of a “business opportunity” type grant as defined in the RBDG program.

- 1) **Business Opportunity Projects:** As a business opportunity project, the Agricultural Navigator Initiative will establish a business support center. The business support center serves as a dedicated resource for farmers, agencies, and municipal officials by providing information and advice to grow local farm businesses and implement local regulations which impact these local agribusinesses.¹⁴

¹⁴ <http://ccedutchess.org/dutchess-county-agricultural-navigator>

- 2) **Result of Projects:** Reasonable prospect that the Project will result in the Economic Development of a Rural Area.
- 3) **Basis for success or failure:** CCE has established preliminary metrics for the success or failure of the initiative in Section 2.0. Grants may be made only when the application demonstrates a need for the Project and includes a basis for determining the success or failure of the Project and individual major elements of the Project and outlines procedures that will be taken to assess the Project's impact at its conclusion.
- 4) **Local and area-wide strategic plans:** The Southern Tier Upstate Revitalization Initiative Plan outlines key strategies to increase regional wealth.¹⁵ Investing in the food and agriculture industry is a strategy consistent with the business opportunity type grant. From investing \$150 million into a manufacturing facility in Broome County to promoting/leveraging existing and new support structures for growers and producers, the Agricultural Navigator Initiative and Southern Tier Upstate Revitalization Initiative Plan will aid in the coordination of economic development within the Broome County region.

1.3 Area to be Served

The Agricultural Navigator Initiative will serve farm and farm-related business throughout Broome County. The area to be served is defined as a rural area¹⁶ per USDA RBDG guidelines. Municipalities within the area to be served include the following towns:

- | | |
|----------------------|---------------------|
| - Town of Barker | - Town of Lisle |
| - Town of Binghamton | - Town of Maine |
| - Town of Chenango | - Town of Nanticoke |
| - Town of Colesville | - Town of Sanford |
| - Town of Conklin | - Town of Triangle |
| - Town of Dickinson | - Town of Union |
| - Town of Fenton | - Town of Vestal |
| - Town of Kirkwood | - Town of Windsor |

Broome County is also home to several villages and one city, each of which may also be home to farm-related businesses. These include:

- | | |
|---------------------------|-----------------------------|
| - City of Binghamton | - Village of Port Dickinson |
| - Village of Deposit | - Village of Whitney Point |
| - Village of Endicott | - Village of Windsor |
| - Village of Johnson City | |
| - Village of Lisle | |

¹⁵ https://esd.ny.gov/sites/default/files/STREDC_URI_FinalPlan.pdf

¹⁶ 7 CFR 4280.403 defines “rural” or “rural area” in a manner consistent with 7 USC 1991(a)(13)(A) and (D), specifically as “any area other than (i) a city or town that has a population of greater than 50,000 inhabitants; and (ii) any urbanized area contiguous and adjacent to a city or town described in clause (i).” The current population of the most populous municipality within Broome County (the City of Binghamton) is approximately 45,000.

The geographic diversity of the Ag Navigator's service area underscores one of the critical values that this initiative offers to farm businesses and local governments. Each of these municipalities has a different "rule book" that impacts farm business expansion or operational changes in different ways; they have different zoning and subdivision regulations (some more complex than others), different development review procedures, different ways of interpreting and applying building codes, different development incentives and disincentives. Many farms straddle the boundaries of more than one local government – adding to the complexity of a given expansion proposal – and all farms must deal with the "layer cake" of other jurisdictional authorities, each with their own complexities, cultures, and both written and unwritten rules. By serving a broad array of constituents and geographies, the Ag Navigator will help to educate these local governments on best practices for farm-friendly regulations, and level the playing field for farms and farm-related business throughout Broome County.

1.4 Coordination with Area Economic Development Activities

Per the requirements of the USDA RBDG program, this business opportunity grant is consistent with local and area-wide strategic plans for community and economic development, and will be coordinated with other economic development activities in the project area.

CCE of Broome County plays a large role in the education and development of farmers and farm businesses, in an effort to improve the viability, sustainability, and profitability of the agricultural sector. In light of these efforts, CCE of Broome County will incorporate the Agricultural Navigator Initiative into its existing suite of agricultural support services, with oversight from key team leaders, such as the Agricultural Economic Development Specialist.

In recent years, CCE of Broome County has partnered with other local agricultural support agencies and related public sector departments through forums such as the Agricultural Task Force, a collaborative platform intended to improve inter-agency communications. The Agricultural Navigator will become a key program partner on the Task Force by assisting other program representatives in their efforts to reach agricultural constituencies, and likewise by representing those constituents to the Task Force and individual member programs.

Several economic development programs and initiatives throughout the area have focused on issues related to value-added production. As a central point of contact for businesses expanding into value-added production, the Agricultural Navigator will coordinate with several other agencies and their representatives, including but not limited to:

- Broome County Department of Planning (i.e., land use, zoning, transportation planning issues)
- Broome County IDA/LDC and other local municipal development corporations (i.e., project financing, development incentives)

- Broome County Soil & Water Conservation District (i.e., best management practices, impacts on agricultural tax assessment)
- USDA (i.e., loan/grant application and administration)
- Binghamton Small Business Development Center
- SUNY Broome Entrepreneurial Assistance Program
- U.S. Small Business Administration
- Cornell Small Farms Program/Farm Ops Program
- New York State Department of Agriculture & Markets

In particular, the Agricultural Navigator will provide invaluable service in better connecting farm businesses to the economic development incentive ecosystem, which has traditionally struggled to achieve substantial participation throughout the sector. The Broome County IDA/LDC and SWCD have noted the difficulty to attracting farmers' participation in economic development programs such as the Southern Tier Rural Initiative the Southern Tier Agricultural Enhancement Program, due in large part to challenges related to communication and a heavy paperwork burden.

In addition, while not a principal responsibility of the Ag Navigator, CCE expects that this new staff position will play a substantial role in the implementation of the Broome County Agricultural Economic Development Plan, *which specifically highlights the creation of the Ag Navigator position as a high-priority action*. Among the opportunities identified or supported within the plan is nearly \$30 million in unmet market demand for locally-produced meats. CCE has seen a notable increase in the number of farms that are interest in expanding or shifting into meat production, and expects that the Ag Navigator will play a key role in guiding these farm businesses through their expansion and repositioning efforts through assistance with funding applications, serving as a liaison to regional services such as Meat Suite, and helping to connect new producers to regional wholesale/retail consumers.

1.5 Business to be Assisted and Economic Development to be Accomplished

Broome County contains a diverse range of agricultural operations and related businesses that will benefit from the central point of contact offered by the Agricultural Navigator initiative. These include, but are not limited to, the following:

- Dairy and row crop operations
- Beef and other livestock operations
- Fruit and vegetable growers
- Fiber operations (e.g., wool, hemp)

Over the course of the next decade, it is anticipated that many traditional farming operations will explore opportunities to diversify revenue streams, expand their market reach, or otherwise alter their business models through value-added production and other practices. The evolution of the agricultural sector will require investments in innovation, coordination, and integration on behalf of many farms and farm-related businesses throughout Broome County and beyond. These investments and transitions will demand a high degree of skills

and knowledge of processing, marketing, and business management; the Agricultural Navigator is intended to help fill this gap by connecting farm businesses to relevant services and incentive programs, guiding them through regulatory processes, and helping to keep business retention and expansion efforts on track.

The Broome County Agricultural Economic Development Plan consists of several goals and implementation actions that can be accomplished with the involvement of agricultural support agencies. The creation of the Ag Navigator position through CCE of Broome County will help advance several goals of the Agricultural Economic Development plan, including:

- **Goal 1:** Educate the non-farming public regarding the importance of the local agricultural sector
 - CCE believes that the Ag Navigator staff will play a critical role in educating agency staff, board members, and elected leadership as to the impact of local regulations on farm businesses
- **Goal 2:** Expand and coordinate agricultural economic development programming to accommodate evolving markets, technologies, regulations, and incentives
 - The Ag Navigator will be expected to be fluent in the evolving agricultural marketplace, and to help farm businesses understand and prepare for emerging challenges and opportunities for their market niche
 - The implementation actions associated with this goal also explicitly support the creation of the Ag Navigator position: “A project coordinator position staffed by CCE of Broome County could serve as a dedicated resource to Broome County farmers and the next generation of food entrepreneurs by providing a central point of contact on matters of licensing, permitting, financial assistance, and other issues where farm businesses must interface with public agencies.”
- **Goal 3:** Invest in technologies and capital projects that improve opportunities for farm-related business creation, retention, and expansion
 - The Ag Navigator staff will help agency staff to shape their programming in a manner that is more accessible to the farming community (e.g., streamlining paperwork requirements, increased sensitivity to agricultural schedules and calendars)
- **Goal 4:** Recruit the next generation of farmers and agricultural entrepreneurs to establish new operations in Broome County
 - While the Ag Navigator may not be directly responsible for farmer/farm business “recruitment” per se, CCE believes that a dedicated point of contact for new (and existing) farm businesses reduces barriers to new business creation and creates an inviting culture for new farmers entering the sector
- **Goal 5:** Prioritize agricultural uses on Broome County’s most fertile and productive lands
 - CCE believes that the Ag Navigator’s liaison relationship between farm businesses and municipal decisionmakers will complement the Department of Planning and Economic Development’s implementation actions consistent with this goal – specifically to update local comprehensive plans and zoning codes,

and to improve the consistency of permitting processes and code enforcement throughout the county

1.6 Jobs Created/Saved

At the outset, this initiative would directly create a 0.75 FTE position at CCE of Broome County; it is anticipated that this position would become 1.0 FTE in Year 2 of the project. The initiative would likely also support the indirect creation of job opportunities at farms and farm-related businesses.

Although a specific number of jobs created would be difficult to estimate, CCE believes that latent demand for project-related services exists among the local agricultural sector. Recent related projects have demonstrated a positive return on investment in terms of job creation, business expansion, and businesses served. For example, the development of CCE's Regional Farmers Market and Commercial Kitchen (and the business-assistance services included in that project) resulted in:

- the creation of 4 new businesses and 15 business plans;
- 110 businesses served through trainings and technical assistance;
- increased diversity of products and/or marketing channels for 4 existing business;
- increased production of 4 existing businesses;
- the creation of 9 new jobs (4 on-farm, 5 support positions);
- an expanded pool of Farmers Market vendors (15 new vendors in 2017 alone);
- increased hiring among at least 7 Farmers Market vendors;

CCE's capable and mission-driven management of Farmers Market and Commercial Kitchen project grant funds, paired with well-planned and relevant technical assistance programming, have resulted in well over 60% year-over-year increases in vendor sales. The Farmers Market and Commercial Kitchen have added over \$750,000 to the local economy since 2016. While only an example, CCE believes that the Ag Navigator Initiative offers a similar opportunity to find and facilitate opportunities for farm and food business creation and expansion.

1.7 Applicant Expertise

CCE of Broome County serves as a hub for agricultural entrepreneurship and economic development, tapping into new food system initiatives for healthy living and agricultural vitality. CCE of Broome County provides farmers with technical assistance in production, marketing, business planning and natural resources. In partnership with the "World's No. 1 University" for plant and animal science, Cornell University's College of Agriculture & Life

Sciences (CALS), CCE of Broome County works to ensure food and nutrition security, human health and agricultural sustainability.¹⁷

Broome County's farms and agricultural businesses generate \$30.7 million in sales annually and over \$100 million in business investments. According to the most recent Census of Agriculture, Broome County has 563 farms on 79,676 acres of farmland, and 29% of Broome County is in an Agricultural District. CCE of Broome County offers a wide range of programs to support new farmers, from in-person and on-farm technical assistance and one-day workshops to ongoing certification courses, enterprise-specific trainings and business plan writing.¹⁸

The development of the new Regional Agricultural Development Center, the Taste NY store, and the Broome County Regional Farmers Market are examples of how CCE of Broome County collaborates with federal, state, and local government. Through this unique partnership, CCE of Broome County leverages funding through federal and state dollars to grow the local economy and impact the quality of life of Broome County residents.

A summary of key staff responsible for the oversight of this initiative is provided below:

- **Laura Biasillo, Agricultural Economic Development Specialist:** For 13 years Ms. Biasillo has focused on agricultural economic development in Broome County. Projects have spanned from business development, marketing, agri-tourism, farm to institution, farmers market support, and more recently, food safety related to third party food safety audits and the Food Safety Modernization Act. She works with farmers and food-based businesses through one-on-one consultations, online learning and group workshops. Currently she is the Southern Tier administrator for the NYS Grown & Certified Farmer Block Grant program – a \$500,000 grant fund for farms and food processors in the Southern Tier region to access and complete food safety projects to meet the guidelines for the NY Grown & Certified Program. Over her tenure she has received and/or managed local, county and multi-county grant programs over \$1M. She holds a Masters Degree in Public Policy from the Edward J Bloustein School of Planning & Public Policy at Rutgers University, the State University of NJ and a Bachelors Degree from Ohio Wesleyan University.
- **Amy Willis, Broome County Regional Farmers Market Manager & Commercial Kitchen Manager:** Ms. Willis has been the Commercial Kitchen Manager since it's opening in July 2016. She became the Broome County Regional Farmers Market Manager in January 2017 in addition to her other job responsibilities. In her position she helps new food entrepreneurs navigate the quagmire of local and state agencies, including the Health Department, NYS Department of Agriculture & Markets,

¹⁷

<https://s3.amazonaws.com/assets.cce.cornell.edu/attachments/23960/2017FarmerAgHubFlyer.pdf?1497551077>

¹⁸ <http://ccebroomecounty.com/resources/2017-annual-report>

scheduled processes at the Food Venture Center, understanding the licenses, permits, packaging and labeling requirements for specific products. As manager of the farmers market, she manages a year-round farmers market supporting 60+ farms, craft beverages and artisans. She gives technical assistance on marketing, display, product and season extension, among other aspects to enable vendors to remain successful and profitable. Prior to coming to CCE Broome County she worked in a commercial kitchen and in a greenhouse.

1.8 Method and Rationale to Select Service Area and Business Recipients

The initiative is open to all current and new farm/food production business within Broome County. Those looking to work with the Ag Navigator will need to fill out an intake form that will enable the correct information to be brought to the first meeting. This will also help “weed out” those that may still be dreamers and not at a point to actually pursue a business venture. The Ag Navigator will then meet with each business and conduct an initial assessment in order to determine which agencies (and contacts) they will benefit from speaking with, and a plan connecting them. In the beginning this position may facilitate the meetings to help ensure a comfort level with the participants. A critical piece of the journey with the Ag Navigator will be connecting with either the Binghamton University Small Business Development Center, or SUNY Broome Entrepreneurial Assistance Program early in the process. These agencies have tools to enable the business owner to evaluate the profitability and sustainability of their idea so that a large number of resources are not invested into an idea that has “no legs”.

1.9 Work Performance

Work will be performed by an individual within the Cornell Cooperative Extension (CCE) of Broome County office. Responsibilities of this staff position will include but are not limited to:

- Improving the understanding between local governments and farmers, and farmers and consumers/residents;
- Encouraging more farm friendly regulations within municipalities, and communicating the impacts of local regulations on farm businesses to local decisionmakers;
- Coordinating with local economic development and planning agencies to address the needs of farms and farm-related businesses

The Ag Navigator should demonstrate the following:

- Ability to establish and communicate goals and objectives and to plan, market, implement, and evaluate meaningful and achievable program plans.
- Capacity to link industry needs with available expertise, and to apply expert information to local situations.
- Excellent written and verbal communication skills.
- Electronic technology skills commensurate with tasks related to responsibilities.
- Ability to work effectively with a variety of groups and individuals, and establish and maintain effective community networks.

- A commitment to and passion for agricultural community economic development.
- Knowledge of the challenges facing agriculture in New York State.
- Knowledge of adult and extension education, leadership development, and volunteer management.
- Ability to meet the travel requirements of the position.
- Ability to work evenings and weekends as essential job functions requires.

The work of the Ag Navigator will be managed by CCE of Broome County's Agriculture Team Lead and coordinated with other services offered by the local CCE office. An organizational chart is provided in Attachment 1.

2.0 Suggested Performance Criteria

Basis for Determining the Success or Failure of the Program:

- Businesses served (i.e., number, size, employment statistics)
- Job creation among businesses served;
- Number of businesses formed by program participants, and the number that are still in existence in subsequent years;
- Public funds accessed by program participants;
- Private funds leveraged by program participants;
- Number of projects moved to completion;
- Number of grant/loan applications submitted;
- Number of connections made with, for, and between program participants and other stakeholders (e.g., lenders, municipal staff/leadership, etc.)

Metrics will be reviewed on a semi-annual basis throughout the duration of the Agricultural Navigator Initiative.

Financial analysis

CCE of Broome County has budgeted \$238,250 for this initiative, to cover program costs over the first three years of its execution. A financial analysis is provided below.

	Year 1	Year 2	Year 3	Total
Personnel costs				
Salary	\$ 45,000	\$ 52,500	\$ 60,000	\$ 157,500
Fringe benefits	\$ 15,000	\$ 15,750	\$ 18,000	\$ 48,750
Equipment (e.g., desk, phone)	\$ 1,000	\$ 600	\$ 600	\$ 2,200
Program costs				
Program startup	\$ 10,000	\$ -	\$ -	\$ 10,000
Marketing	\$ 2,000	\$ 2,000	\$ 2,000	\$ 6,000
Reimbursables	\$ 1,600	\$ 1,600	\$ 1,600	\$ 4,800
Other admin.	\$ 3,000	\$ 3,000	\$ 3,000	\$ 9,000
Total	\$ 77,600	\$ 75,450	\$ 85,200	\$ 238,250