Alamance County, North Carolina Farmland Protection Plan

Executive Summary

Agricultural Land Use Plan

Agricultural Development Plan



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EXECUTIVE SUMMARY

INTRODUCTION

The purpose of this project is to analyze and understand the foundations of Alamance County's agricultural economy and to create a Farmland Protection Plan that will address a suite of issues facing today's farmers in the County today as well as setting the stage for agricultural growth in the future.

The project output is intended to encourage long-term policy formation in support of agriculture while providing a specific short-term framework to guide local programs regarding specific agricultural economic development and land use initiatives. Because the Farmland Protection Plan addresses so many divergent issues ranging from land planning to industrial development, the plan is broken into two separate, but inter-related sections. These sections are:

- 1. The Alamance County Agricultural Land Use Plan
- 2. The Alamance County Agricultural Development Plan

Each component of the Plan is intended to support agriculture as a continuing and economically productive land-use. The result of the process is a series of findings relative to agricultural business and land use conditions. As well, the study team has made 11 recommendations for action to improve these conditions in advancement of both the agricultural industry and local communities.

DEFINITION OF AGRICULTURE

This study uses a broad definition of agriculture that includes all aspects of the cultivation and production of plant material and animal products; as well as the marketing, processing and distribution of these products; and other secondary on-farm activities, (e.g., agricultural tourism, forestry, and aquaculture.)

FINDINGS

Agriculture in Alamance County, North Carolina, is an extensive industry consisting of 831 farm enterprises on nearly 98,000 acres of farmland. In 2002, the last year for which comprehensive data is available, Alamance County's farm output totaled over \$32 million and employed nearly 450 people.

The industry, however is in rapid transition. Much of this change is structural and has been driven by the loss of tobacco markets. Full transition and recovery may take a decade or more to accomplish. The net result to Alamance County's economy is what appears to be a temporary decline in overall agricultural productivity while agricultural markets readjust. During this period of tobacco transition (2000 to 2005), net returns to

farmers have declined nearly 16%¹ annually driven by significant losses in crop revenue. Since 2004, gains in livestock revenue have begun to offset this change due mostly to growth in poultry operations. Non-traditional operations, such as wineries and equine operations have also been on the rise during this period.

These economic changes have occurred at a time when Alamance County is adding households at a rate greater than both the State and region. This is due to its lower cost of housing and its convenient location between the cities incorporating the Triad, to Alamance County's west, and the Triangle, to the east. Most of the growth in housing is occurring along the I-85 corridor or is oriented toward Orange and Chatham Counties to the South.

The capacity of the incorporated and unincorporated areas to manage this growth will be a long-term question that has implications for farmland protection. Issues of annexation and land use regulation will become a high priority of non-farming residents, particularly in the incorporated areas and will have important implications for farmland owners and agribusiness operators as the influence of Extra-Territorial Jurisdictions (ETJ) influence a larger proportion of the County.

The combined effect of the above conditions has been a net loss of farmland over the last decade, a trend which is expected to continue over the next decade.

RECOMMENDATIONS

The recommendations in this report are divided into three distinct groups.

Recommendations 1 through 3 offer programs and processes that address the land use issues facing both the County and local farmers. These recommendations bridge training and education that focuses on defining the needs of agriculture as an industry with refining the land use planning and regulatory functions of the County and municipalities to be more supportive of agricultural uses.

Recommendations 4 through 7 relate to improving conditions specific to the health and well being of local agricultural enterprises through training, business planning, network development, mentoring, finance, research and development support, and similar services. These recommendations are offered with an understanding that the overall health of the agricultural industry is intricately tied to the financial health of the underlying enterprises.

Recommendations 8 through 11 address critical structural and industry-wide concerns that impact the long-term viability of agriculture in Alamance County. The proposed solutions are based on current economic needs and opportunities and seek outcomes that

¹ Source: Regional Economic Information System, Bureau of Economic Analysis, U.S. Department of Commerce, Table CA45.

have a direct benefit to the community through such effects as industry stabilization, job creation, enhanced tax base, and improved quality of life.

	: Agricultural	and Farr					tions
Recommendation	Priority	Implementation Timeline					
	Ranking	Short-Term			Long-Term		Implementation
	(1 is Highest	1 st	2 nd	3 rd	5-Years	10-Years	implementation
	Ranking)	Year	Year	Year			
1. Support Farm Friendly County Based Land Use Policies and Programs	1	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	VADB, County and Municipal Planning, Soil Conservation
2. Expand County Land Preservation Programs	1	\checkmark	\checkmark				VADB
3. Formally Adopt the Agricultural and Farmland Protection Plan as a County Policy Guidance Instrument	2	\checkmark			V	\checkmark	VADB, Alamance Planning Department
4. Promote Understanding and Appreciation of Agriculture to the Non-Farm Public	3				V		VADB, Cooperative Extension, Farm Bureau, Soil Conservation District
5. Develop an Agribusiness Retention, Expansion, and Attraction Strategy	2		V				VADB, Alamance Chamber of Commerce
6. Expand Agribusiness Education and Training Programs	3		\checkmark	\checkmark	V	\checkmark	VADB, Cooperative Extension, ACC
7. Develop a Regulatory and Policy Action Program	2		\checkmark	\checkmark			VADB
8. Support Agricultural Leadership Development	2	\checkmark	\checkmark	\checkmark			VADB
9. Enhance Business Development Programs and More Fully Incorporate the Interests of the Agriculture and Forest Products Industry	1			\checkmark	\checkmark	\checkmark	VADB, Cooperative Extension, Alamance Chamber of Commerce, Higher Education
10. Support Development of a Regionally Focused Food Processing and Agribusiness Enterprise Center and Incubator-Without-Walls	2		\checkmark				Cooperative Extension, VADB
11. Support Broadened Access to Capital for Agribusiness	1		\checkmark		\checkmark	\checkmark	VADB

Alamance County, North Carolina Agricultural Development Plan

~Prepared for the~ Alamance County Voluntary Agricultural District Board

October, 2007

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TABLE OF CONTENTS

Acknowledgements	i
Table of Contents	
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STATEMENT OF NEED FOR ACTION	
Project Background	
Authority for County Action	3
MARKET FINDINGS	4
Economic Impact of Agricultural Production in Alamance County	
SWOT Analysis: Challenges to Agriculture in Alamance County	
CASE STUDIES	7
Loudoun County Virginia	
Oneida County New York	
Cheltenham Farmers' Market	
Coulee Region Organic Produce Pool	
Iowa State Agricultural Support Program	
ALAMANCE COUNTY INDUSTRY TRENDS	9
Tobacco	-
Livestock	
Dairy	
Greenhouse and Nursery Production	
Fruit and Vegetable Production	
Equine	
ECONOMIC DEVELOPMENT TOOLS FOR ENHANCING AGRICLUTURE	NI
ALAMANCE COUNTY	
RECOMMENDATIONS AND ACTION STEPS TO ENSURE A VIABLE	
AGRICULTURAL COMMUNITY IN ALAMANCE COUNTY	20
Recommendation 1: Develop an Agribusiness Retention, Expansion, and Attraction	•
Strategy	
Recommendation 2: Expand Agribusiness Education and Training Programs	
Recommendation 3: Develop a Regulatory and Policy Action Program	
Recommendation 4: Support Agricultural Leadership Development	
Recommendation 5: Enhance Agribusiness Development Programs	
Recommendation 6: Support Development of Regional Enterprise Center and Incuba	
Recommendation 7: Support Broadened Access to Capital for Agribusinesses	
CONCLUDING REMARKS	34

STATEMENT OF NEED FOR ACTION

The Alamance County Voluntary Agricultural District Board (VADB) undertook an analysis of the County's agricultural industry as a component to the County's Agricultural Development and Farmland Protection Plan. In doing this, the Board acknowledges both the important economic role that agriculture plays in the County, as well as the vital role that farm profitability plays in maintaining the County's land resources.

Recommendations from this study will be used to support and develop innovative agricultural programs that promote successful farm operations. The outcome of this analysis is encompassed in the following elements of the "Agricultural Development Plan."

The "Agricultural Development Plan" uses a study of empirical data, case studies, indepth interviews with key industry players, and an analysis of industry trends to establish a 10-year strategic vision for Alamance County agriculture including a series of shortterm action items. Collectively, these action items will direct cooperative efforts between the private and public sectors to target improving the economic climate facing farmers and agribusinesses. This ambitious plan for the future of Alamance County agriculture supports an expanding mission of the Voluntary Agricultural District Board:

Investigate methods to support, promote, develop and preserve the agricultural industry in Alamance County.

To be successful in this endeavor, the study team identified two key focus areas in which to undertake 7 new initiatives or renew current efforts. These focus areas are:

Economic Development – The purpose of the four economic development recommendations is to create an environment where traditional and non-traditional agricultural operations thrive and benefit the larger community. Economic Development initiatives will focus on improving the structural conditions under which agriculture operates by directing public resources to enhance industry infrastructure, recruit and retain valuable input and output industries, integrate farming and non-farming communities through education and outreach, create agriculturally related jobs, improve wages and proprietor's income, enhance tax base, support supplier/vendor networks, and enhance the quality of life.

Business Development – The three business development recommendations will provide Alamance County farmers with access to operational support, training, and financing to maintain and nurture continued economic viability at the farm level. The ultimate goal of the business development recommendations is to increase on-farm profitability.

This document addresses each of these areas with respect to a Ten-Year Objective and a Five-Year Action Plan. The Ten-Year Objective sets the tone for the overall plan and provides long-term guidance for implementation. The Five-Year Action Plan is the work plan, the current and immediate portion of the plan. These are presented together so that the reader can understand how the long-range goals will be implemented.

The following project background informs the reader of the processes and information used to develop this plan.

PROJECT BACKGROUND

Recommendations in this strategic plan are drawn from empirical and anecdotal evidence collected during the study period of March, 2007 through August, 2007. Interpretations of this data were utilized in preparing the Ten-Year Objective and Five-Year Action Plan and in developing the project's findings.

Also critical in this analysis is the inclusive definition of agriculture that should motivate future agricultural programs in Alamance County.

DEFINITION OF AGRICULTURE

This study uses a broad definition of agriculture that includes all aspects of the cultivation and production of plant material and animal products; as well as the marketing, processing and distribution of these products; and other secondary on-farm activities (e.g., agricultural tourism, forestry, and aquaculture).

INFORMATION RESOURCES

<u>Empirical Data Sources</u>: A statistical analysis of the region was conducted using information from the United States Census of Agriculture, Bureau of Economic Analysis, Regional Economic Information System, and County Business Patterns. Information from these sources was adjusted for rural and urban bias and inflation. Trend analysis was conducted over the last twenty years as appropriate.

Because the agricultural economy reaches beyond the County's borders, ACDS, LLC defined a regional market area from which to draw comparative data. This market area includes the counties of Alamance, Caswell, Chatham, Durham, Guilford, Orange, Person, Randolph, and Rockingham. Collectively, these counties are used as a comparative benchmark.

<u>Anecdotal Data Sources</u>: Interviews were conducted with approximately 40 farmers, agricultural service professionals, public officials, and other interested parties throughout the region. Information was gathered on individual perceptions of the agricultural industry, potential for future growth, and the impact of public policy. This information was used to validate trends discovered in the empirical analysis as well as to discover underlying issues of importance to the industry.

Individual comments focused on seven broad issue areas. The seven issue areas are farm transition, land use, market access, finance, education and training, regulation, business development, and infrastructure. The viewpoints expressed ranged from pessimistic to optimistic. One commonality among the farmers interviewed was the desire to continue farming and pass the farm on to a next generation. Interview results are integrated into the recommendations of the overall "Agricultural and Farmland Protection Plan."

AUTHORITY FOR COUNTY ACTION

In order for a strategic plan to be effective over the long-term, it must be a dynamic, living document. To maintain its focus and vision, the Alamance County Agricultural Development Plan should become an integral part of the Voluntary Agricultural District Board's annual work plan and should be supported by county, state and local agencies. The Voluntary Agricultural District Board should work with the County Commissioners; the Alamance County Planning Department; North Carolina State Cooperative Extension; the Soil and Water Conservation District; Alamance County Chamber of Commerce; Municipal Governments; and others to develop specific, measurable goals and to report progress toward those goals on an annual basis.

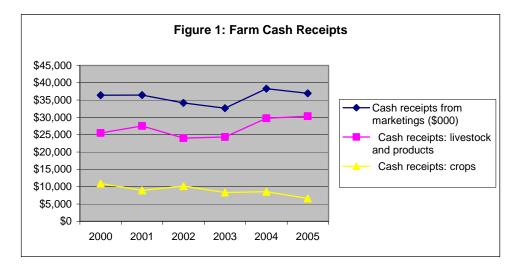
Furthermore, the Voluntary Agricultural District Board should undertake a periodic review of progress made toward fulfilling the long-term priorities set forth in this document and to update them as appropriate to current conditions. It is further recommended that the review process be open to the public as a means to receive up-to-date input.

MAJOR FINDINGS

This section of the Alamance County Agricultural Development Plan presents a snapshot of agricultural economic conditions and offers an industry self assessment in the form of a strengths, weaknesses, opportunities, and threats (SWOT) analysis.

ECONOMIC IMPACT OF AGRICULTURAL PRODUCTION

Agriculture in Alamance County is an extensive industry consisting of 831 farm enterprises on nearly 98,000 acres of farmland. In 2002, the last year for which comprehensive data is available, Alamance County's farm output totaled over \$28 million and employed nearly 450 people. The industry, however is in transition. Much of this structural change has been driven by the end of the tobacco program and consolidation of dairy markets, which may take a decade or more to effectuate a true market restructuring. The net result to Alamance County's economy is what appears to be a temporary decline in agricultural economic conditions, while agricultural markets readjust. During this period of tobacco transition (2000 to 2005), net returns to farmers declined nearly 16%¹ annually with a slight recovery evident only since 2004. As Figure 1 demonstrates, crop receipt losses were a primary contributor to this condition.



Despite structural change that has both farm numbers and farmed acres declining, Alamance County has maintained and, in some cases grown, a vibrant agricultural economy. This is supported by the fact that agriculture and agriculturally related industries account for 1.3% of private employment in Alamance County and that livestock production continues a slow and steady increase in cash receipts.

Generalized highlights of local and regional agricultural economic conditions, as reported in the 2002 Census of Agriculture, can be found on the next page.

¹ Source: Regional Economic Information System, Bureau of Economic Analysis, U.S. Department of Commerce, Table CA45.

Figure 2: Farm Highlights							
		40 Miles			Alamance		
	units	2002	1997	percent change	2002	1997	percent change
Farms	number	7,668	7,264	5.56%	831	890	-6.63%
Land in farms	acres	1,009,801	929,741	8.61%	97,793	113,548	-13.88%
Average size of farm (acres)	acres	131.6			118		
Market value of agricultural products sold	(\$1,000)	443,532			28,713		
Average per farm market value of agricultural products sold	dollars	468,625			34,552		
Market value of crops sold	(\$1,000)	128,199			10,490		
Market value of livestock, poultry, and their products sold	(\$1,000)	315,331			18,223		
Principal occupation- farming	number	4,193			436		
Principal occupation- Other	number	3,071			395		
Total sales	(\$1,000)	443,532	500,828	-12.92%	28,713	35,065	-18.11%
Total sales of crops	(\$1,000)	117,709	162,144	-27.40%	10,490	13,216	-20.63%
Total sales livestock, poultry, and their products	(\$1,000)	315,331	338,685	-6.90%	18,223	21,849	-16.60%
Total sales direct to consumer	(\$1,000)	2,029	712	184.97%	453	117	287.18%
Farms with net gains	farms	3,230			340		
Farms with net losses		4,043			505		
Source: 2002 Census of Agriculture.							

SWOT ANALYSIS: Challenges to Agriculture in Alamance County

SWOT analysis is a tool used by strategic planners and marketers to assess the competitive environment of a region, industry, business, or product. It is a very simple technique that focuses on the <u>S</u>trengths, <u>W</u>eaknesses, <u>O</u>pportunities, and <u>T</u>hreats (SWOT) facing Alamance County agriculture.

For the purpose of this study, the strengths, weakness, opportunities, and threats were assessed for the agricultural industry overall to include production agriculture, as well as agricultural support industries. The SWOT criteria identified are drawn directly from the study team's interviews with the agricultural industry and public officials. As such, this analysis should be considered an industry self-assessment.

FIGURE 3: SWOT ANALYSIS MATRIX					
INTERNAL FACTORS					
Strengths	Weaknesses				
Accessible Consumer Markets	Development Patterns				
Supportive Community	New Generation's Ability to Afford Transition				
Agricultural Infrastructure	Labor - Availability and Cost				
Transportation Infrastructure	Grain and Feed Marketing Facilities				
Diversified Production Base	Disparity of Soil Conditions (loss of best soil first)				
Public Sector Support	Land Fragmentation				
Agricultural Region with Strong Production	Competition for Farmland from Non-Farmers				
Clusters					
Tourism Linkages Between Agriculture and Other	Loss of Farmland				
Industries					
Industry Cooperation and Integration	Transportation Infrastructure				
Economic Strength of the County	Risk Management				
Natural and Physical Assets	Lack of Livestock Finishing Capacity				
Strong Wood Products Industry	Farmland Consolidation				
Good Manufacturing Location	Wood Lot Management				
Competitive Utilities	Newcomers Unfamiliar with Ag Issues				
	Disappearance of Primary Wood Products				
	Manufacturing				
EXTERNAL	FACTORS				
Opportunities	Threats				
Regional Business Attraction, Retention, and	Regional Development Patterns				
Expansion of Agribusiness					
Industry Consolidation	Regional Competitiveness				
Ethnic Market Development	Diminished Capital Investment in Agriculture				
Food Venture Development	Market Concentration				
Alternative Energy Development	Commodity Price Fluctuation				
Recreation and Tourism Development	Cost of Doing Business				
Regional Land-Use Planning Coordination	International Market Access				
Leadership Development	Farm Consolidation				
Jordon Lake Rule Making	Extra-Regional Business Recruitment				
Regional Economic Development Support	State and Local Fiscal Conditions				
Regional Demographic Changes	Federal and State Regulatory and Policy Structure				
Coordinated Statewide Farm Transition Assistance	Change of Long-term Leadership at Cooperative				
Expertise	Extension				

CASE STUDIES: AGRICULTURAL DEVELOPMENT PROGRAMS

The ACDS study team feels that a brief overview of selected public and private sector development initiatives proves as an instructive introduction to agricultural development. The study team interviewed and evaluated the best practices employed by selected agricultural viability projects throughout the United States. Summaries of these programs are provided below.

LOUDOUN COUNTY, VIRGINIA

Loudoun County has had an agricultural development program for 20 years. The Agricultural Development Program has operated under the guiding principles of several strategic plans. Policy work, agritourism programs, advice to farmers, publications and the development of a farmers' market system are key program areas of the Agricultural Development Program. Production of marketing guides, listings of specialty producers, spring and fall farm tours and a website are the primary tools of the program and have proven very successful. Full color glossy publications include *Spring Farm Tour and Product Guide 2000, Loudoun Valleys Color Farm Tour and The Loudoun Wine Trail.* Their two newest programs are the farmland viability program and the Purchase of Development Rights Program. The Agriculture Development Program conducts 5 major events throughout the year attracting nearly 50,000 visitors to local farms. These events target non-agricultural citizens in an effort to educate and increase their awareness of the agricultural industry and to enhance on-farm and off-farm marketing.

ONEIDA COUNTY, NEW YORK

Oneida County has had an Agricultural Development Program for seven years. However, the current Agricultural Development Program Officer has been in place just a short time. The Agricultural Development Program is focused on increasing farm numbers, enhancing food processing and manufacturing, and improving markets for local products. The Agricultural Development Officer has actively pursued various market opportunities, such as H'Allal meat packing for the large Muslim market between New York City and Detroit in an effort to rekindle meat packing in the State. The Agricultural Development Officer also makes frequent recruiting trips to the Mid-Atlantic states to recruit farmers to the region.

CHELTENHAM FARMERS' MARKET, MARYLAND

The Cheltenham Farmers' Market was constructed by the State of Maryland to serve as an export oriented tobacco warehouse. Due to the market's location, as well as structural changes in tobacco market, no tobacco was ever moved through Cheltenham. Instead, the market was handed over to local farmers, many of whom are Amish and Mennonite. This group of farmers operates the facility as a vegetable, hay, and horticultural auction. While the facility has never operated beyond financial break-even, it provides a vital linkage to nearby urban markets and serves as a network development system for local farmers. This has been particularly true for the plain sect communities who have parlayed relationships made at the market into large, farm-based wholesale operations that directly supply produce and horticultural items directly to retailers in the Washington, DC market area. In recent years, the market has operated a delivery truck to service Washington area restaurants and retailers.

COULEE REGION ORGANIC PRODUCE POOL, WISCONSIN

As a marketing cooperative, CROPP is focused on producing a wide variety of high price point, value-added organic foods for distribution through wholesale channels nation-wide. CROPP's sales are dominated by its full line of dairy products which account for 90% of sales activity. Eggs account for an additional 6% with the balancing 4% composed of meat, produce, and juice products. CROPP maintains its market leadership by constantly up-dating its product line of nearly 100 products to match changing consumer tastes and trends. CROPP's nearly 200 customers are dominated by retailers ranging from small buyer cooperatives to retail giants such as Wal-Mart. Nearly 85 percent of distribution goes through wholesalers while the remaining 15 percent goes directly to chain store warehouses like Wal-Mart and Publix.

CROPP farmers are organized by geography and commodity lines in highly dispersed production pools. As CROPP grows and expands, it uses a market demand model to determine the best method to expand or add production pools. For instance, if market demand for organic dairy products sharply increases in the Southeastern United States, CROPP would conduct a market demand assessment to determine if it should develop a local dairy production pool in the Southeast or, for instance, try to serve that market by expanding its mid-Atlantic/Northeast pool. Members of CROPP production pools become full members of the cooperative and share in all cooperative decision-making.

Much of CROPP's success in attracting members to its production pools has been attributed to its grower payment model. This model is built on the philosophy that growers should be paid a stable, equitable, and sustainable pay price for pooled products. Compensation is based on the cost of production plus an estimated fair return. Under the current pricing scheme, CROPP's New York diary members average approximately \$31.00 per hundredweight of milk including quality and component adjustments. Egg farmers are paid roughly \$1.30 per dozen, well in excess of the national average.

IOWA STATE AGRICULTURAL SUPPORT PROGRAMS

The State of Iowa has been actively supporting innovations in agriculture through the Iowa Agricultural Development Authority (IADA) and the Iowa Agricultural Finance Corporations (IAFC) since 1981. During the last two decades, Iowa has financed over \$200 million in agricultural and agriculturally related improvements using a combination of capital instruments. The stated reason Iowa has engaged in such a comprehensive approach is to "facilitate private investment capital in this under-served industry." The primary tools employed by the IADA and the IAFC are: 1.) the tecTERRA Food Capital Fund, 2.) the Value-Added Agricultural Products and Processes Financial Assistance Program, and 3.) the Aggie Bond Program.

ALAMANCE COUNTY AGRICULTURAL TRENDS

The following analysis is intended to provide a snapshot of Alamance County's primary industry sub-sectors. Data used in completing this analysis comes from interviews as well as the National Agricultural Statistics Service.

TOBACCO

Tobacco was historically the largest crop commodity of North Carolina's agricultural economy accounting for an average of 30% of the State's agricultural cash receipts through the 1980's. However, in the past 20 years, Tobacco has lost much of this share, now accounting for no more than 10%. This decline is evident in Alamance County as well, where the value of harvest tobacco has dropped 50% between 1997 and 2002 alone, due in large part to changes in federal policy.

Alamance County's tobacco is a significant agricultural sector representing the majority of the County's crop farms; eventhough this number, along with the amount of planted and harvested acres, has been rapidly declining over the 10 years between 1997 and 2002. Interviews with farmers indicated that there is a slight resurgence in tobacco due to higher levels of contract production and the expansion of the Burley tobacco market. Despite some expansion in Burley, Alamance County's tobacco industry remains rooted in the Flue-Cured market.

Figure 4: Tobacco Data for Alamance County, NC: 1997 to 2002					
ltem	1997	2002	1997 to 2002 % Change		
Number of Tobacco Farms	137	89	-35%		
Number of Harvested Acres	3,126	1,365	-56%		
Total Value of Harvested Tobacco (\$1,000's)	\$10,343	\$5,059	-51%		

Source: U.S. Census of Agriculture, 1997 and 2002.

Based on interviews, tobacco farmers seem relatively bullish on the crop's future, but understand that the tobacco market is unlikely to recover its former dominance in the State and region. Because of this, transitional strategies are important and are expected to be varied based, in part, on the interests of the next generation. Land acquisition, finance, market development, and labor availability (and quality) are important factors for these operations and are very important elements of transition.

LIVESTOCK

Over sixty percent of Alamance County's farms are involved in livestock production, contributing approximately \$18 million annually in sales. A significant portion of this activity can be attributed to Alamance County's large poultry industry that provides a supply of predominantly layers to regional and national markets. Alamance County's

livestock sector, exclusive of dairy products, produces nearly 62% of the County's annual agricultural output.

Most livestock farms are beef farms. Most sales are in poultry. The number of poultry farms grew significantly in the past five years even as farms as a whole declined. Hogs make up only a modest portion of the livestock sector and represent no significant commercial operations. The final, and smallest, sector is the growing number of small ruminants and alternative livestock producers who typically produce for personal consumption, freezer trade, or ethnic markets.

Figure 5: Livestock Production for Alamance County, NC: 1997 to 2002							
ltem	1997	2002	1997 to 2002 % Change				
Cattle and Calves							
Farms*	520	405	-22%				
Inventory Sold	10,260	7,476	-27%				
Value of Sales (000)	\$4,116	\$3,816	-7.3%				
	Po	ultry					
Farms	55	71	31%				
Inventory Sold	2,655,933	2,586,461	-2.6%				
Value of Sales (000)	Withheld	\$13,848	NA				
Hogs and Pigs							
Farms*	10	12	20%				
Inventory Sold	2321	Withheld	NA				
Value of Sales (000)	\$272	\$190	-30%				

Source: U.S. Census of Agriculture, 1997 and 2002

*Includes only Farms with inventory sold during census year.

Based on interviews and project team experience, the opportunity to support the livestock industry will have the most significant and meaningful impact as it relates to beef producers. This group is made up of many small, often part-time, producers who function independently to produce purebreds, feeders, or stockers. Unlike the poultry industry whose activities are supported by integrators, these beef cattle producers independently source inputs, including supplies, services, and genetics as well as output markets, whether they be auctions, brokers, or processors. The result is a disaggregated cattle market with modest, if not unacceptable, returns. Because of this, many livestock farmers are looking for means to sell directly to consumers and retailers in the region and are in need of business development services. As well, it will be important to introduce local producers to quality assurance programs for both small and large ruminants, in order to enhance returns.

Poultry farmers' interest is primarily in maintaining an infrastructure within the region to supply inputs and maintaining a good public image to avoid the regulatory problems faced by the hog industry.

DAIRY

Alamance County's dairy sector is a significant agricultural sector representing approximately 14% of the County's overall agricultural output, a proportion that has been declining rapidly over the last decade. Despite losing a significant proportion of its dairy operations between 1992 and 2002, Alamance County dairies remain a significant driver of land use, particularly in the southern portion of the County where dairies and their support ground, particularly corn ground, prevail.

Alamance County farmers fall under Milk Marketing Order Number 5, the Appalachian Milk Marketing Order. Within this order, there are only 5 pool plants in the State of North Carolina. Order 5 is generally known to have lower mailbox prices than Orders 1, 6, and 7, which means those producers who are large enough to economically assemble a load, will ship into other orders.

Figure 6: Dairy Data for Alamance County, NC: 1997 to 2002					
ltem	1997	2002	1997 to 2002 % Change		
Number of Dairy Farms	35	40	14%		
Number of Dairy Cows	2,987	1,695	-43%		
Total Value of Dairy Products (\$1,000's)	\$7,019	\$4,213	-40%		

Source: U.S. Census of Agriculture, 1997 and 2002.

Low regional dairy production means that there is little dairy infrastructure to support Alamance County's dairy sector. Low dairy numbers and the small overall size of dairies (average of 42 head) contributes to an overall sense that current dairy conditions are unfavorable for the continuity of the industry unless the operators has very low debt and limited needs for labor, both of which keep costs low and operations nimble. With the industry's need for good quality soils for support ground and corn production, access to affordable land, particularly in southern Alamance County, is critical. Another issue facing Alamance dairies is financing farm transition given high land costs and the high capital investment in the industry.

Existing dairy farmers, while somewhat bearish on the dairy industry, see their future in becoming more integrated in the dairy supply chain. This would likely take the form of at-place processing and marketing focused on direct market sales or sales through a small regional distributor. Given the above issues, the dairy industry is best supported by business development services such as marketing support, product development, management training, financing, and technical assistance services.

GREENHOUSE AND NURSERY PRODUCTION

With sales of nearly \$3.44 million in 2002, Alamance County can be described as having a small but vibrant industry. The major component of the County's industry is open production of nursery stock followed by floriculture, bedding plants and potted flowering

plants, which collectively account for the majority of the production under glass. Most production is concentrated among a few growers making the overall success of the industry highly correlated to a few firms.

Key trends of note in the local greenhouse and nursery industry include the following:

- Outside of the largest players, nursery and greenhouse operations tend to be small and niche oriented.
- Coordination among the industry's divergent operations is poor. The nursery and greenhouse sector does not have a strong local voice.
- Overall, the local industry is well integrated with regional landscape architects, installers, and designers.
- The industry is dispersed throughout the County.
- The sector tends to be highly compatible with residential uses.
- Growth in this sector tends to follow high development pressure.
- The nursery and greenhouse industry does not have strong local service and supply networks, but instead relies on regional networks.
- This sector has high labor force requirements relative to the other agricultural sectors found in the County.

At its current sales and production levels, nursery and greenhouse production represents the fourth largest industry sector and it fits well within the overall agricultural industry as a solid transition option for tobacco farmers. Yet, many new entrants to this sector are likely to be relocations from the region and will be driven by the area's affordable labor and land as well as its solid access to markets in both the Triad and Triangle. By virtue of its production characteristics, it is likely that this industry will have a more significant impact on agricultural land sales over the coming decade with a focus on acquiring high quality soils and/or locations close to the Interstate. If past development trends hold, much of the new production will be open field production, with modest growth in production under cover.

Because of its unique characteristics, the nursery and greenhouse industry is likely to benefit from economic development programming related to business retention and attraction. As well, it is a candidate for business development and finance programs since Nursery and Greenhouse operations often have heavily front loaded development expenses and long production horizons. Furthermore, this sector is also likely to benefit from workforce development such as job/life skill training, English as a second language programs, and affordable housing programs.

FRUIT AND VEGETABLE PRODUCTION

Alamance County is a not a significant contributor to North Carolina's produce industry and accounts for an estimated \$323,000 in fruit and vegetable output in 2002. While fruit and vegetable production is not an anchor for the local agricultural economy, it is closely linked to regional consumer markets particularly in Orange and Chatham Counties. The County's soils are amenable to an expansion of fruit and vegetable production, particularly at small and mid-sized production level. Despite not having a large population base, Alamance County has been able to capture on-farm direct marketing and agritourism opportunities related to its fruit and vegetable sector. This is particularly notable in the development of the Haw River Wine Trail, which focused on relatively high end value-added development. In addition, other local growers have been successful at marketing fruits and vegetables to local retailers and restaurants, suggesting that there may be robust drivers for growth in the local market. Efforts such as the Company Shops Marketplace and B. Christopher's local foods project exemplify this trend and establish a framework for growth and development in this sector.

Based on interviews at both the production and consumption levels, there is strong interest in expansion of the fruit and vegetable sector. Because of the disparity in the production base and grower interests, it may be difficult to offer economic development based responses to this sector. The most effective support approach will be based on a business development model whereby individual grower, or buyer, interests are addressed such as market access, product development, and labor force development.

EQUINE

The equine industry remains one of the most poorly understood and poorly measured of Alamance County's agricultural industries.² The primary contributing factor is the difficulty in defining an industry that straddles agriculture and recreation. However, it is largely understood that Alamance County's equine industry is growing in economic and land-use importance. This assertion is supported by interviews with equine operators and large animal veterinarians. Its diversity is wide ranging and includes both working uses and recreational uses that range from breeding and training to boarding and trail riding. These sectors tend to be highly divergent in their interests, trends, and patterns and tend to be disaggregated and unorganized.

Based on interviews, maintaining the equine industry is important to the health of agriculture due to its linkages to agricultural production (e.g., hay) and agricultural infrastructure (e.g., animal nutritionists, large animal vets, and feed/equipment dealers). Other important characteristics, though not easily quantified, are the equine industries' impact on tourism, recreation, quality of life, and land-use/viewshed impacts.

Supporting the horse industry through economic and business development programming in Alamance County will prove challenging given the part-time and avocational nature of most operations and the divergent interests of its constituencies. It is difficult to pinpoint specific opportunities for enhancement. There are, however, some common themes such as expanding trail access, assisting new entrants to the industry with financing and land acquisition, and addressing a shortage of public event space. Services such as animal health training/mentoring, pasture management, business management for boarding operations, and nutrient management will be important to offer to this industry as many entrants are new to farm management and animal husbandry.

² According to the 2002 Agriculture Census Alamance had \$353,000 in equine sales in 2002.

ECONOMIC DEVELOPMENT TOOLS FOR ENHANCING AGRICULTURE IN ALAMANCE COUNTY

Local communities often benefit by providing structured economic development support to regionally important industries. Agriculture is no exception. In fact, public policy efforts to protect the farmland base, such as land use planning and purchase of development rights, are often more effective when combined with economic development programming.

Effective economic development tools generally concentrate on supporting the private interest of the industries (i.e., the profit-making potential of individual firms within an industry sector) while providing a clear public benefit such as employment creation, infrastructure improvement, wealth generation, and quality of life enhancement. In the case of agriculture, the greatest public benefit may be the stability of the working landscape and all of the secondary benefits that follow. Examples of economic development programming that can benefit the agricultural industry at the local level are summarized here:

STRATEGIC PLANNING

Many communities undergo economic development processes very similar to, and often coinciding with, the comprehensive planning process. The intent is usually to develop a community vision and a subsequent set of goals that will lead the community to a desired economic development outcome ten or more years in the future. Most often, these plans address the need to enhance the job base, improve quality of life, retain local youth, provide sufficient economic diversity to weather economic cycles, improve tax base, and develop an infrastructure base that will facilitate future growth. Plans can be broad based and visionary or detailed and industry-specific. No matter what the process, the plans must have clear public policy and industry support in order to be effective. Otherwise, these plans will go unimplemented. Economic development strategic plans often include many of the elements described in the balance of this section.

BUSINESS DEVELOPMENT

Business development programs focus on supporting the needs of small businesses, generally fewer than 500 employees, by addressing specific needs such as access to financing or technical and professional services. Nationwide, the U.S. Small Business Administration leads efforts to support small business development through its lending programs as well as technical and grant support. As well, most U.S. counties are supported by technical and professional counseling and mentoring services through a Small Business Development Center (SBDC) and the Service Corps of Retired Executives (SCORE). These services are generally offered through a local community college, economic development agency, or Chamber of Commerce. These agencies often add additional benefit to their services by providing access to a broad network of technical and professional specialists that enhance the base value of SBDC and SCORE.

In addition to the basic services noted above, some communities choose to provide more directed support to small businesses. Often these services are designed to fill a critical local gap in service provision or are designees to support the unique needs of targeted industry sectors. Examples of this type of enhanced business development programming include:

Business Incubators - Business incubators generally provide flexible real estate and business service solutions for selected small businesses. Business service solutions are generally targeted to the needs of high growth industry sectors and may include professional assistance from attorneys, accountants, and marketing specialist; technical assistance from product developers, laboratories, and engineers; as well as administrative assistance with secretarial duties, personnel, and bookkeeping. Business incubators are costly and technically challenging to implement, but when successful, have a proven track record of accelerating small business growth and keeping those businesses in the community. Agribusiness incubators are employed for a variety of uses ranging from developing biotechnology products (e.g., Monsanto's incubator) to supporting value-added food products (e.g., Unlimited Future, Inc. in West Virginia).

Entrepreneurship Training and Support - Entrepreneurship training and support is very similar to business incubation in that it provides support services to start-up and early-stage companies that generally have a high need for specialized technical and professional services. However, these programs often support a wider array of business sectors ranging from agriculture to retail and high technology. These programs rarely offer real estate options or day-to-day business support and are therefore much less expensive to operate versus a business incubator. Agribusiness entrepreneurship training and support programs are becoming popular across the United States including University of Nebraska's NxLevel cohort program.

Small Business Support Networks - Small business support networks tend to be informal, peer-based systems where small businesses counsel one another. These systems are often sponsored, but not operated, by an agency or organization such as an economic development office or industry association and rely on participating businesses to direct their programming. Programming may include a speakers' series relative to topical industry issues, advisory boards, and brown bag lunches. Agribusiness roundtables are popular in many areas of the United States as a means to improve network development among farmers as well as upstream and downstream industries.

Small Business Finance - Small business finance programs generally target gaps in private sector funding such as limited access to equity capital within a region or specific industry sector. Most programs are oriented toward providing revolving credit and include a provision of capital for early-stage businesses, farm ownership, interest rate buy-downs, loan guarantees, down payment loans, and operating capital. One of the greatest challenges in making finance programs

work is developing enough deal flow to cover the costs of operations. Agricultural finance programs, such as Aggie Bonds, are used nationally to improve farmer access to development capital and to enhance capital availability to new farmers.

PUBLIC RESEARCH AND DEVELOPMENT SUPPORT AND TECHNOLOGY TRANSFER

Some communities are driven by a culture that supports innovation and technology development. Many of these communities choose to provide financial resources through grants and direct funding of research at universities and colleges in order to stimulate the creation of platform technologies that may be commercial and thus generate new business activity within the economy. Nationally, support for research and development ranges from production agriculture to biotechnology.

Supporting research and development alone is not sufficient to glean benefits from research and development. A community must be in a position to understand the needs of industry, thereby developing technology that meets a market need, and have a system in place to transfer those technologies to industry. In response to this, communities with a technology or entrepreneurial culture often focus human and financial resources on matching technology needs and technology solutions through a Technology Transfer Office or some similarly focused entity. These offices function as a networking system, matchmaker, and in some cases equity partners in technology deals.

Communities, especially throughout the southeastern United States, have allocated research and development funding for alternative crop research as well as new uses/new sources research. The intention is to improve the competitive positioning of local farmers versus regional and even international competitors.

WORK FORCE ENHANCEMENT

Work force enhancement programs recognize that businesses and economies cannot function without a well-trained and available workforce. When companies, no matter the industry, seek to relocate or expand within a market place, work force conditions, both current and future, are among the first tier of criteria they examine. Because of this, communities often seek to address workforce development from a global, economy-wide, or firm level. At the economy level, communities use public financing through the school system, primarily through higher education, to reinforce the skills sets that are required by that community's industrial base. Transitional economies mean that work force development issues are likely to focus on new job classifications rather than historic job classifications. Firm level work force development assistance is typically used to assist at-place and relocating employers with discrete training needs and is often supported through loans and grants.

Recent collaborations between agricultural industry associations and community colleges have led to the development of distance learning programs to educate field workers. For example, the Advanced Technology Center for Agriculture at Carroll Community College in Maryland developed a CD-ROM based training program in English and Spanish to teach laborers field identification of plants.

BUSINESS CLUSTER DEVELOPMENT

The United States has seen a trend toward concentrated clustering of industries during the last several decades led by access to key infrastructure, workforce characteristics, concentrations of wealth, advances in information technology, and enhanced telecommunications capacity. Communities have responded by developing targeted strategies, many of which are highlighted in this section, to enhance lifecycle development (lifecycle development includes companies at all stages of development, from start-up to mature) of companies within a business cluster (a business cluster includes a primary industry sector as well as its input, output, support sectors). Because business cluster development is industry specific and generally forward looking, it requires that significant community resources be speculatively dedicated to targeted assets in-place as a precursor to industry development. In order for this type of development to be successful, the area must support, or have the capacity to support, at least the minimum needs of the target industry otherwise business cluster development will likely fail.

Agriculture is a business, especially as it relates to upstream and downstream industries and marketing, which is prone to clustering due to efficiencies of scale and the industry's propensity to spin-off new ventures. For example, Lancaster County Pennsylvania has been successful, through its Chamber of Commerce, in attracting a strong agribusiness cluster. This cluster continues to grow in strength despite high growth pressure in the area.

ECONOMIC DEVELOPMENT INCENTIVES

Many communities offer economic development incentives to attract or retain their industrial base. Incentives are often financially based and tied to a corporation's costs of relocation, real estate development, job creation, or expected tax impact. Incentives are best employed as part of a larger economic development strategy and must clearly be understood in the context of their fiscal impact to a community as well as their true impact on relocation decision making. Many incentive programs are put in place as a competitive response to programs in other jurisdictions and often do not match local needs and assets.

BUSINESS RECRUITMENT, RETENTION, EXPANSION, AND ATTRACTION (BREA) PLANNING

Once a community has decided its intended industrial mix, it is important to design a strategy to achieve this goal. A Business Retention, Expansion, and Attraction (BREA) plan is a key step in achieving this end. BREA planning requires that communities identify and understand its core asset base, and how this asset base can be leveraged to generate future growth in a core group of industries. Because the plan is industry focused, it must address the discrete needs of each of its target industries to be successful. For instance, if a community has a strong tourism base due to its scenic vistas, that community would seek to protect its scenic vistas, an economic asset, as part of its strategy for attracting greater tourism investment. In addition, the BREA must develop a method of outreach to the targeted industries to deliver a message about why that community would be a relocation asset to the target industry.

Oneida County New York follows a policy of recruiting both farmers and agribusinesses from throughout the northeast as part of its overall strategy to strengthen the industry. Oneida focuses attraction on its key advantages including workforce availability, land affordability, and workforce quality.

STRATEGIC MARKETING

Strategic marketing is the means by which a community conveys its economic development mission to its various stakeholders, both internal and external. Depending on the messages and the audiences, these programs can utilize a wide variety of media and carry a diversity of messages. Despite this, all strategic marketing plans in economic development must have two key features. The first is a means to reach the constituent base of the community with a message that keeps the broader community, and therefore policy makers, engaged in economic development. At a minimum, this message must convey the community benefit of the economic development and seek continued/sustained support. Second, the message must reach the intended industry markets in a meaningful way. In other words, a strategic marketing campaign such as a BREA must reach a market that has a willingness to respond to the message, or the message will be lost. Even if the public constituency has bought into an economic development campaign, it will be ineffective if the market does not respond. Similarly, an effort to recruit businesses can be very successful in terms of deal flow, but will fail if the community is not willing to support that type of business or industry.

INFRASTRUCTURE DEVELOPMENT

A community cannot be effective in retaining or attracting industry if its basic infrastructure, such as water and sewer, cannot accommodate industry needs. Good economic development planning, therefore, makes sure that the current and future needs of industry are accounted for as communities plan infrastructure. This becomes doubly important when a community is engaged in a BREA or business cluster development activity that requires the development or enhancement of specific infrastructure such as redundant broadband access.

Infrastructure development generally applies to upstream and downstream agribusinesses and includes such examples as Sandpoint, Idaho expanding its sewer and water capacity to accommodate the development of a new dairy processing facility. Currently, this is the only such facility in that region and serves as an important milk outlet for regional farmers.

REAL ESTATE DEVELOPMENT

In today's corporate environment, many relocation decisions are made and implemented with very short development cycles. Communities that have worked with the real estate development industry to pre-position built capacity and/or pad sites often have an advantage in attracting and retaining businesses. As with other economic development tools, the target industries must be clearly understood and a marketing strategy in-place for this tool to be effective. Otherwise, real estate investments may go un-recovered or moved at fire-sale rates.

The State of Georgia uses its system of statewide farmers' markets, including the Atlanta State Farmers' Market, to attract food industry to the region through the specialized development or real estate and infrastructure. Having pre-positioned real estate has allowed the State to close several major food companies that would have located in other parts of the Southeast.

REGULATORY AND POLICY GUIDANCE

As the regulatory environment at the local, state, and federal level becomes more complex, compliance becomes more costly across all sectors. Many communities have developed responses to this issue through their economic development offices as a means to streamline processes and improve efficiency in both the development process as well as on-going corporate operations. Tools such as one-stop licensing, regulatory ombudsmen, and specialized training of enforcement officers have proven both inexpensive and effective.

Some communities, such as Saint Mary's County Maryland, utilize economic development staff to act as regulatory ombudsmen on behalf of farmers. According to local farmers, this process can significantly shorten the development cycle and provides an important feedback loop to politicians regarding the agricultural impact of regulations.

RECOMMENDATIONS AND ACTION STEPS TO ENSURE A VIABLE AGRICULTURAL COMMUNITY IN ALAMANCE COUNTY

The following recommendations should be considered a menu of options for agricultural development opportunities. The study team realizes that the County will not be able to implement all aspects of the recommendations, but expects that this list should spark a debate that helps to further classify, refine, and prioritize agricultural development initiatives.

As priorities are developed, key agencies should adopt them as part of their individual work plans, and the County should seek to integrate them into its general economic development planning as well as working with towns and municipalities to integrate appropriate elements into local plans. It is also noted that the commitment and support of the County along with the municipality and industry is critical to the success of this plan as well as the land-use recommendations included in the "Agricultural Land Use Plan" component of the report.

Note: Each recommendation includes a priority ranking which is based on the frequency and urgency of issues identified during the study; cost considerations that address funding issues, exclusive of personnel requirements, based on the study team's experience; and responsibility which is based on the logical agency(s) to oversee implementation.

ECONOMIC DEVELOPMENT

Ten-Year Objective

Create an economic environment where traditional and non-traditional agricultural operations thrive and have access to a full complement of economic and business development tools. Economic development initiatives will focus on improving the structural conditions under which agriculture operates by directing public resources to enhance industry infrastructure, recruit and retain valuable input and output industries, integrate farming and non-farming communities through education and outreach, create agriculturally related jobs, improve wages and proprietor's income, enhance tax base, support supplier/vendor networks, and enhance the quality of life.

Five-Year Action Plan

RECOMMENDATION 1

Develop an Agribusiness Retention, Expansion, and Attraction Strategy (AgBREA).

Alamance County has an industrial history that includes both production agriculture and manufacturing. Much of this activity was predicated on the area's proximity to textile production, availability of workforce, access to inputs (agricultural and forest products), and transportation infrastructure (rail and interstate). All of these factors are in play, at varying levels, throughout the County today and can be more fully utilized to enhance agriculture. However, there is no countywide plan that coordinates inter-agency and inter-municipal efforts to retain, attract, expand, and develop production and manufacturing clusters built around agriculture and forestry. Without such a program, it will be difficult to vie against regional competitors such as Orange County, North Carolina and Henry County, Virginia, both of which have agribusiness development strategies and goals focused on supporting growth and transition in agriculture and related industries.

ACTIONS

- Develop a targeted marketing plan for agricultural and forestry related input and output industries that focuses on the strategic advantages of Alamance County as well as the needs of Alamance County's farmers and foresters. Such a plan should be integrated with municipal planning and infrastructure development to include further development of :
 - o Accessibility of transportation, energy, and water/sewer infrastructure,
 - o Availability of a qualified manufacturing workforce, and
 - Business friendly public sector.
- Develop a cluster development plan, similar to that employed by Oneida County (NY), to attract new farmers to the area based on assets such as the County's accessibility to high value retail markets and burgeoning wine industry or to attract community scaled industrial activity such as:
 - o Agribusiness related transportation and logistics businesses,
 - o Production agriculture and timber harvest and management
 - Agribusiness and forestry related primary and secondary manufacturing, and
 - Agricultural and forestry related research and development.
- Create a strategy to attract, or develop at-place, agricultural and forestry related energy systems such as biomass, methane recovery, and wind such as the Mid-Atlantic Biodiesel Plant in Clayton, Delaware (newenergycapital.com).
- Seek means to expand agricultural and forest products industry participation in tourism following the example of Loudon County, Virginia.
- Assess existing incentives, economic development programs, and real-estate suitability for sectors outlined for recruitment and development.
- Identify key marketing partners and conduct outreach with generators of agribusiness deal flow:
 - o Site location consultants and real estate brokers,
 - Business park developers,
 - o North Carolina Department of Commerce,
 - North Carolina Department of Agriculture,
 - o Alamance County Chamber of Commerce,
 - Trade associations, and
 - o Agricultural industry.
- Prepare marketing collateral and disseminate critical decision making information through direct mail, industry "ambassador" programs, brokers' tours, etc.

- Develop a pilot program for streamlining and/or fast-tracking agribusiness development projects with towns within the key transportation corridors or key environmental assets.
- Integrate the Agribusiness Retention, Expansion, and Attraction Plan (BREA) within broader economic development initiatives at the town, County, and State levels such as the Economic Development Information System (EDIS) which is maintained by the NC Department of Commerce.
- Develop an outreach program to generate public support and understanding for forest products and agricultural industries.

IMPLEMENTATION RESPONSIBILITY: Voluntary Agricultural District Board (VADB) with assistance from industry associations; Alamance County Chamber of Commerce; North Carolina State Cooperative Extension; North Carolina Department of Commerce; North Carolina Forest Service; Alamance SWCD; USDA; Alamance County Planning Department; and the North Carolina Department of Agriculture.

BUDGET CONSIDERATIONS: The County may consider allocating \$5,000 to facilitate the creation of a BREA component for agriculture within county economic development plans and up to \$25,000 to complete a target market study. Information from the study will be used to identify key prospects as well as an information packet to be distributed to site location firms, industry executives, economic development officials, commercial/industrial property owners, and real-estate brokers. Furthermore, the results of the target market study should be integrated into regional marketing efforts as well as the broader economic development strategy for the county.

ISSUE PRIORITY: The study team considers this recommendation to be of top priority for the Voluntary Agricultural District Board as it may help address the near universal issue of market access particularly for dairy, produce, and beef industry.

FUNDING RESOURCES: Funding for this recommendation will likely require direct county allocation through the VADB. Matching grants from various federal and state programs may be available such as USDA's Federal State Market Improvement Program, the Economic Development Administration, the USDA Forest Service's Economic Assistance Program, Golden Leaf Foundation, NCDA Agricultural Development and Farmland Preservation Trust Fund, and USDA Rural Development.

RECOMMENDATION 2

Expand Agribusiness Education and Training Programs.

As agriculture becomes a smaller element of both the County's land use and economy, it will become increasingly difficult to keep the interests of agriculture in the forefront of policy. Study team members found that keeping policy makers, agricultural industry leaders, and the general public informed and educated goes a long way toward developing better relations. Since the agricultural industry shares common needs in workforce development, farm management, finance, and with other issues, it is sensible to integrate agriculture within the broader industrial training infrastructure.

ACTIONS

- Conduct advanced training and outreach relative to economic development policy with a specific focus on agriculture, food, fiber, wood, and related products.
 - Develop a policy makers' tour, to include key agricultural industry leadership, of areas with recognized and long-standing and successful agricultural development programs such as Lancaster Pennsylvania.
 - Hold periodic discussion sessions with town and municipal officials as well as agricultural industry leaders to discuss industry needs.
 - Conduct an economic development training session inviting agricultural industry leaders and county, municipal, and town policy makers to keep agribusiness development needs in the forefront of policy.
- Work with educational institutions at the post-secondary and continuing education level to develop flexible training modules such as:
 - Language training for managers and workers,
 - o Advanced farm management,
 - Financial planning and farm transition,
 - Alternative financing such as conservation easement, mitigation easements, and carbon credit sales,
 - o Production and business management for beginning farmers,
 - Financial planning and farm transition, and
 - Other issue based training as necessary.
- Work with the Alamance Community College to develop workforce training programs to include:
 - Industry pre-qualification/certificate programs in agricultural practices such as horticultural practices and livestock management,
 - Industry certificates in workplace skills in hydraulic systems, small engine repair, carpentry, welding, and other basic manual labor skills,
 - o English as a second language, and
 - Basic workplace skills such as workplace mathematics and reading.
- Support expansion of Ag in the Classroom to more fully integrate agricultural issues into primary and secondary schools' curricula and educational materials.
- Expand public outreach efforts through the co-development of agricultural forums with civic and religious organizations.
- Coordinate/ replicate the educational training programs with the Sustainable Agriculture program at Central Carolina Community College in Pittsboro.

- Implement or expand Ag programs in County high schools.
- Create coordination between Elon, UNC Greensboro, and North Carolina Ag & Technical college to match students with research/ service learning opportunities that can help local farms.

IMPLEMENTATION RESPONSIBILITY: Action items under this recommendation require significant interagency cooperation with a range of potential task leaders. It is expected that overall leadership will be provided by the Voluntary Agricultural District Board and North Carolina State Cooperative Extension with assistance provided by agricultural industry associations; Alamance Soil and Water Conservation District; North Carolina Forest Service; Alamance County Farm Bureau; the North Carolina Department of Agriculture; Alamance Community College; local school systems; American Farmland Trust; as well as other local and regional agencies.

BUDGET CONSIDERATIONS: Much of the budget encompassed within this recommendation will be found in the dedication of staff time with a limited additional program budget of \$3,000 to \$5,000 to facilitate specific task/program development. Ongoing programs and events should be conducted on a cost recovery basis.

ISSUE PRIORITY: Elements of this task represent long-term, on-going efforts that will become more necessary as farm conversion continues. Therefore, the study team feels that this is a high priority issue that should initiate within the first 24 months of plan adoption.

FUNDING RESOURCES: Funding for this recommendation will require modest, but long-term county support. Various private and public grant resources are available to support specific programs such as USDA's Sustainable Agriculture Research and Education (SARE) program. The Foundation Center should be consulted for specific private funding options.

RECOMMENDATION 3

Develop a Regulatory and Policy Action Program.

The need for a Regulatory and Policy Action Program is two-fold. First and foremost, if the Agricultural and Farmland Protection Plan is to be successfully employed across the County, it will require, at some level, adoption and implementation at the County and sub-county levels. Secondarily, there are situations that may involve the County and the VADB acting as an industry advocate or a regulator with regard to protecting the interest of agriculture. This dichotomy is captured in this recommendation.

ACTIONS

- Seek to have the Agricultural Development Plan adopted by the County and Municipalities
 - Work with municipalities to integrate appropriate elements of the plan into their respective capital programs, comprehensive plans, etc.
 - Encourage municipalities to cooperate with the County and other regional entities to integrate plans and capital improvements to achieve regionally desired outcomes and to ensure compatibility with agriculture development goals.
- Encourage local land-use policies that support production agriculture and forest industries as well as the maintenance of important support industries.
 - Integrate recreation and parks planning with agricultural planning to coordinate open space funding.
 - Support appropriate labor housing within subdivision regulations.
 - Encourage performance based allowance of agricultural and forestry³ uses in all areas of the County to permit agricultural and forestry uses.
- Encourage greater use of fiscal impact analysis relative to land-use planning.
- Develop a water recharge easement⁴ policy to reduce the potential negative impact on agricultural water utilization.
- Develop an energy strategy that promotes expansion of farm and communityscale alternative energy projects.
 - Identify/Map key infrastructure such as high power distribution infrastructure, rail access, large municipal waste systems, and other relevant structures.
 - Create an outreach strategy to work with private businesses, towns, and municipalities that have a concentration of alternative energy assets that, where appropriate, encourages such development.
 - Support independent distribution of renewable fuels.
- Encourage the expansion of education and training programs for regulatory agencies.

³ Performance based allowances allow for non-agricultural and non-forestry uses to occur by right as a supplement to these economic uses with a stipulation that they not exceed a certain sales or land coverage ratio.

⁴ Water recharge easements are used to guarantee access to ground water access by protecting recharge areas through impervious surface restrictions.

- Develop an on-going ombudsman function to support the regulatory, infrastructure, and program needs of individual farmers and industry clusters.
- Conduct periodic workshops with agricultural leadership, county staff and town/municipal officials to review and update policies making them more "farm and agribusiness friendly".
- Work with the transportation and public safety officials to encourage future planning for agricultural transportation such as widening of road shoulders, improvement of site lines, and maintenance of proper speed limits.
- Conduct outreach with realtors and land owners to increase the understanding of agricultural district responsibilities as well as agriculture and forestry incentive programs. Consider creating an approved real estate continuing education credit course with the NC Realtors Board.
- Work to ensure fair treatment of both farm owners and agricultural labor at the federal and state levels.
- Work with neighboring counties to expand regional planning for agriculture and improved agribusiness attraction and retention.
- Work with post secondary research institutions and funders such as the Golden Leaf Foundation to improve applied and basic research and development that is appropriate to the scale and type of agriculture in Alamance County and the surrounding region.

IMPLEMENTATION RESPONSIBILITY: Voluntary Agricultural District Board with assistance from industry associations; North Carolina State Cooperative Extension; Alamance Chamber of Commerce; North Carolina Forest Service; Alamance County Department of Planning; the North Carolina Department of Agriculture; and other agencies as necessary.

BUDGET CONSIDERATIONS: Action items within this recommendation will require a significant administrative budget for local travel as well as the allocation of at least one full time equivalent employee.

ISSUE PRIORITY: The study team feels that this is a high priority issue that should be implemented in the near term. Start-up may be fundable through grants from USDA Rural Development and philanthropic organizations.

FUNDING RESOURCES: County funding should be allocated to cover basic program costs.

RECOMMENDATION 4

Support Agricultural Leadership Development.

The long-term success of agriculture within Alamance County and the region are directly impacted by the quality of the industry's existing and emerging leadership. Specifically, the development of new leadership to set the vision for the future of agriculture is critical to the success of the industry over the long-term.

ACTIONS

- Encourage greater farmer participation in local, regional, and statewide leadership development programs such as Leadership Alamance and Youth Leadership Alamance.
- Encourage youth participation in agricultural organizations such as the Voluntary Agricultural District Board.
- Introduce board and leadership training to existing agricultural organizations and agencies to improve leadership effectiveness.
- Enhance inter-industry communications through formal networking events between farmers and agribusinesses.
- Support greater participation in the Ag Leadership program offered by North Carolina State University.

IMPLEMENTATION RESPONSIBILITY: Voluntary Agricultural District Board with assistance from industry associations, North Carolina State Cooperative Extension, Alamance County Farm Bureau, town officials, and other agencies as necessary.

BUDGET CONSIDERATIONS: Action items within this recommendation will require a limited administrative budget and staff allocation. Provide funding assistance to candidates for leadership programs in the way of a modest, \$1,000 per year, stipend from the VADB.

ISSUE PRIORITY: The study team feels that this is a top priority issue that should be implemented immediately.

FUNDING RESOURCES: County funding should be allocated to cover basic program costs.

BUSINESS DEVELOPMENT

Ten-Year Objective

Alamance County farmers will have access to world class operational support, training, and financing to maintain and nurture continued economic viability at the farm level including transitional support for the next farming generation.

Five-Year Action Plan

RECOMMENDATION 5

Enhance Business Development Programs and More Fully Incorporate the Interests of the Agriculture and Forest Products Industry.

Alamance County has numerous economic and business development programs that have the capacity to support the needs of growing businesses. This recommendation proposes to expand these programs within a targeted business incubation format. As well, general business development programs should incorporate the particular needs of agriculture and related industries with an effort to improve integration with private service organizations.

ACTIONS

- Train business counselors to work with agribusiness and forest products businesses.
- Support integration of workforce development and finance programs with agricultural industry.
- Develop a feedback mechanism to incorporate agribusiness needs in County development programming.
- Support and expand Chamber of Commerce and other program activities that enhance business growth and understanding of agricultural industry needs.
- Implement, in cooperation with regional partners such as ACC and North Carolina State University, the Nxlevel agricultural entrepreneurship that was developed by the University of Nebraska or a similar program.
- Develop a service corps of mentors and counselors with specific professional or technical expertise to provide direct service to agricultural entrepreneurs and to work with Alamance Community College Business Development Center (ACC-BDC) and Service Corps of Retired Executives (SCORE) programs.
- Facilitate the development of formal entrepreneurship focused "masterminding" roundtables of farmers, agribusinesses, and other related industries that may benefit from periodic meetings to discuss business and management issues, market development, and other relevant topics. Special topics should focus on:
 - Livestock marketing and quality control.
 - Direct marketing at the retail and wholesale level.
 - Young and beginning farmer development.
- Conduct quarterly brown bag lunches for farmers in rural areas that focus on networking and the topical discussion of important issues such as farm

management, farm transition planning, marketing, timber management, real estate, policy/regulations, and other relevant topics.

• Work with farmers to improve non-farm income sources such as hunting leases, recreational access, and woodlot management.

IMPLEMENTATION RESPONSIBILITY: Partnership of Alamance County VADB; Alamance Community College Business Development Corporation; North Carolina Forest Service; North Carolina State Cooperative Extension; Alamance County Chamber of Commerce; Elon University; and others.

BUDGET CONSIDERATIONS: The VADB may consider supporting, through match funding, a grant application with the ACC-BDC to expand business development programs through funders such as the Kaufman Foundation, Kellogg Foundation, Golden Leaf Foundation, and the Tobacco Trust Fund.

ISSUE PRIORITY: Given the potential for business development programs to have a very quick return, the study team considers this recommendation to be of moderate to high priority.

FUNDING RESOURCES: Action items within this recommendation will require a limited administrative budget of approximately \$5,000 to \$15,000, as well as a modest staff allocation.

RECOMMENDATION 6

Support Development of a Regionally Focused Food Processing and Agribusiness Enterprise Center and Incubator-Without-Walls.

The success of any industry is incumbent on the success of the businesses and entrepreneurs that control the assets, take the risks, and make the markets. Agriculture in Alamance County is no exception and its long-term success will have as much to do with the savvy and skills of its agricultural entrepreneurs and farm managers as it does with market fundamentals. Enhancing the skills and business networks of these and future entrepreneurs has a significant positive impact on the future of agriculture in Alamance County.

ACTIONS

- Develop, or support, a regional pilot program to package a professional and technical service network made up of private sector expertise and built on the model of a virtual business incubator or Incubator-Without-Walls with services offered to a wide variety of agribusiness and forestry enterprises.
- Support creation of a business enterprise center.
 - Ensure that farmers are engaged in the current food processing incubator feasibility analysis with a particular focus on the needs of livestock and direct market farmers.
 - Encourage an examination of USDA processing capabilities. (www.smithsonmills.com/animalreport.pdf)
 - Encourage the study of pilot scale processing capability.
 - Integrate the incubator facility, if feasible, within Recommendation 1 as a means to attract small and emerging businesses.
 - Encourage the integration of logistics and distribution services within the incubator/enterprise center concept.
 - Examine brokerage and distribution relationships with retailers and restaurants. (www.companyshopmarkets.com)
 - Support the adoption of promotion and merchandising programs.
 - Encourage integration with tourism, wine trails, and direct marketing activities.
 - Encourage integration with Culinary and Culinary Technology programs at ACC and Johnson & Wales University.
- Identify targeted industry sectors for specialized support such as livestock and alternative energy.

IMPLEMENTATION RESPONSIBILITY: Voluntary Agricultural District Board with assistance from industry associations; private businesses; higher education institutions; North Carolina State Cooperative Extension; North Carolina Department of Agriculture; Alamance County Business Development Corporation; North Carolina Forest Service; the North Carolina Department of Agriculture; and other agencies as necessary.

BUDGET CONSIDERATIONS: Designing and implementing a well-qualified service network may take significant resources and is best integrated with Recommendation 1 or as part of a regional effort with neighboring counties. Approximately \$25,000 to \$50,000 should be allocated for the first program year followed by approximately \$10,000 to \$15,000 thereafter to operate and maintain the network.

It is likely that a direct allocation from the County will be necessary to initiate the agribusiness enterprise center. Funds from various programs may be available such as the U.S. Economic Development Administration, Appalachian Regional Commission, USDA Rural Business Enterprise Grant Program, Tobacco Trust Fund, Golden Leaf Foundation, and others.

ISSUE PRIORITY: The study team feels that this is a high priority issue that should be implemented in the near term. Development of the service network, however, is likely to take a significant time commitment, and the VADB may choose to delay its implementation until sufficient staff time can be devoted to this project.

FUNDING RESOURCES: County funding should be allocated to cover basic program costs. On-going programs, such as brown bag lunches, should be conducted on a cost recovery basis. Development of the pilot services network may be an attractive project for national or regional foundations and federal funding sources.

RECOMMENDATION 7

Support Broadened Access to Capital for Agribusiness.

Access to capital is a limiting factor for new farmers entering the market area. This proposal suggests innovative methods to improve such access.

ACTIONS

- Collaborate with statewide efforts to develop sources of "risk" and "patient" capital such as an agricultural angel capital network (<u>www.goldencapital.net</u>).
- Work with existing business finance programs to enhance agribusiness participation. (www.rafiusa.org/pubs/Farmer%27s%20Guide.pdf)
 - Examine gap financing needs in agriculture.
 (www.rafiusa.org/pubs.Farmer_and_LenderProject.pdf)
 - Explore potential for bridge loans, particularly as they relate to agricultural land preservation programming.
- Assist farmers with match requirements for agribusiness development, valueadded, and innovation oriented grants.
- Examine the use of an affirmative agricultural and forestry use covenant⁵ (5, 10, or 20 year) to provide financial flexibility to farm owners and planning flexibility for towns, municipalities, and the County.
 - Pricing of covenants should be studied closely but may follow one of the following models:
 - Price may reflect property tax burden of holding the land.
 - Price may reflect a net present value of the purchase of development rights easement.
 - Covenants may be considered as part of the landowner match for purchase of development rights (PDR) programming.
 - Covenants may include a right of first refusal for purchase of the property for subsequent resale for an agricultural use.
 - Covenants should be applied to match stated land planning goals and infrastructure requirements.
 - Funding could be part of a proposal to the NC Agriculture Development and Farmland Protection Trust Fund.
- Develop a revolving loan program such as Carroll County, Maryland's "Critical Farms" program that bridges the funding gap between farm purchase and enrollment in a PDR program by making a loan of up to 75% of the easement value.
- Explore enhancements to county PDR programs such as Option to Purchase at Agriculture Value.
- Explore regional labor housing finance program to improve rural labor housing conditions.

⁵ Affirmative covenant would require that farmers place a temporary easement on their property with an affirmative agriculture and forestry production clause in exchange for a formula payment.

IMPLEMENTATION RESPONSIBILITY: Voluntary Agricultural District Board with assistance from industry associations; Alamance County Chamber of Commerce; Alamance Community College Business Development Corporation; North Carolina Forest Service; and the North Carolina Department of Agriculture.

BUDGET CONSIDERATIONS: Action items within this recommendation run a wide gamut of budget needs ranging from staff participation in regional planning efforts and network development to financing program development and operations.

If the VADB is to proceed with the examination of an agricultural use covenant, it is recommended that an additional \$15,000 be sought for professional support services that are matched by nearby counties. Determining the level of capitalization for a bridge loan fund is best done in conjunction with planning the level and timing of funding for local, regional, and county purchase of development rights programs.

ISSUE PRIORITY: The study team feels that developing alternative finance programs is a high priority issue that should be implemented in the near term particularly for PDR related bridge financing.

FUNDING RESOURCES: County funding should be allocated to cover basic program costs. Grant funding should be sought from the North Carolina Department of Agriculture, the Golden Leaf Foundation, and Tobacco Trust Fund to further explore the development of a model term easement program. Funds for a bridge loan program may be available through various federal and foundation sources such as USDA Rural Development.

CONCLUDING REMARKS

Agriculture in Alamance County is in transition, but remains a key element of the local economy. Consolidation, volatile commodity markets, changing consumer purchasing patterns, and large lot subdivisions are major contributing factors. Alamance County farmers must study the opportunities inherent in these changes and plan to capitalize on the offering. Such changes will not come without growing pains. However, once engaged, the industry will be in a better position to succeed in the long-term.

For political and industrial leaders, the charge is to monitor this change and foster the environment for success. The tools to be employed are limited only by intellect and imagination and begin with the implementation of and commitment to a strong economic development strategy.

Alamance County, North Carolina Agricultural Land Use Plan

~Prepared for the~ Alamance County Voluntary Agricultural District Board

October, 2007

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TABLE OF CONTENTS

Acknowledgements	i
Table of Contents	ii
1.0 POPULATION AND HOUSING	1
Infrastructure Assessment	
Land Use Controls Assessment	
2.0 FARMLAND ASSESSMENT AND OVERVIEW OF ALAMANCE COUNTY AGRICULTURAL ACTIVITY	5
3.0 LAND USE TOOLS AND OPPORTUNITES FOR ENHANCING AGRICULTURAL LAND IN ALMANCE COUNTY	8
3.1 General Land Use Management Tools: Existing Efforts and Agricultural	_
Protection Tools	
Comprehensive Plans	
Zoning	
Subdivision Regulations	
3.2 Specific Farmland Protection Tools and Techniques	
Voluntary Agricultural Districts	
Enhanced Voluntary Agricultural Districts Purchase of Development Rights (PDR)	
NC Agriculture Conservation Easements	
Transfer of Development Rights (TDR)	
Agricultural Tax Relief	
Right to Farm Laws	
3.3 Farmland Protection Tools in Alamance County	
4.0 IMPLICATIONS FOR THE AGRICULTURAL AND FARMLAND	
PROTECTION PLANS: CHALLENGES TO AGRICULTURE IN	
	25
5.0 RECOMMENDATIONS	26
Recommendation 1 : Support Farm Friendly County Based Land Use Policies and	
Programs	27
Recommendation 2: Expand County Land Preservation Programs	
Recommendation 3 : Formally Adopt the Agricultural and Farmland Protection Plan as	
County Policy Guidance Instrument	
Recommendation 4: Promote Understanding and Appreciation of Alamance County	
Agriculture to the Non-Farm Public	32

AGRICULTURAL LAND USE PLAN

Alamance County's agricultural industry is an economic stimulus and important employment base for the County. In 2002, agricultural sales totaled over \$32 million, and there were 831 self-employed farm operators plus 443 farm workers in Alamance County. Agriculture is also a significant land use in the County with 24% (97,793 acres) of the land in farms.

This section analyzes land use trends for Alamance County and their implications for the County's agricultural industry. For comparative purposes, housing and population trends for counties within a 40-mile radius are provided as well as comparative agricultural and farmland statistics for adjacent counties.

1.0 Population and Housing

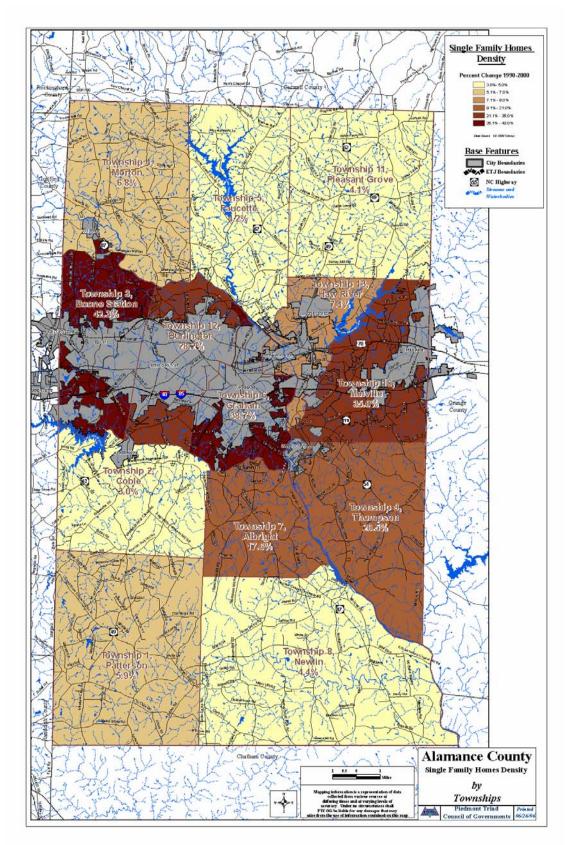
As noted in Figure 1, Alamance County's population is expected to increase by 16.3%, from 2000-2010 to a total of more than 152,000 residents. By 2020, Alamance is expected to add another 24,000 residents. This makes Alamance one of the fastest growing counties in the State as well as the 40-mile market area.

Figure 1: Alamance County Population Projections								
	2000	2010 Projection	% Growth 2000-2010	2020 Projection	% Growth 2010-2020			
Alamance County	130,800	152,136	16.3%	176,293	15.8%			
North Carolina	8,046,813	9,315,141	15.8%	10,682,217	14.7%			
Source: Alamance County "Recreation & Parks Comprehensive Master Plan," January 2007								

As is noted in Figure 2, Alamance County is adding households at a rate greater than the market area, partly due to its lower cost of housing and its convenient location between the cities incorporating the Triad, to Alamance County's west, and the Triangle, to the east. Alamance offers a housing stock that is biased towards lower wage earners, attracting low and fixed income residents, who are often elderly, increasing the County's median age. This population tends to own their own homes, mostly single family, and have much of their equity invested in their residences. Low vacancy rates indicate that housing is in relatively high demand.

As is noted in Figure 3, most of the growth in housing is occurring along the I-85 corridor or is oriented toward Orange and Chatham Counties to the South. Most new housing is single family in nature. Because of this, development patterns are relatively easy to predict and are likely to occur within water and sewer service areas and along major thoroughfares as has historically been the case. Due to its demographics and commute distances to regional cities, development within these corridors is likely to target active seniors and young, working families with moderately priced housing stock. The capacity of the incorporated and unincorporated areas to manage this growth will be a long-term question that has implications for farmland protection. Issues of annexation and land use regulation may become a high priority of non-farming residents, particularly in the incorporated areas.

		Alamance	e County						
		Censu		20	07 2012				
		Number	Percent	Number	Percent	Number	Percent		
Total Population		130,800		144,506		154,475			
•	Annual Rate						1.34%		
Total Households		51,584		57,274		61,387			
	Annual Rate						1.40%		
Median HH Income		\$39,097		\$48,368		\$55,980			
	Annual Rate						2.97%		
Median Age		36.3		38.2		39.8			
Average Household Size		2.45		2.45		2.45			
Total Housing Units		55,463	100.0%	62,097	100.0%	66,774	100.0%		
	Occupied	51,584	93.0%	57,274	92.2%	61,387	91.9%		
	Owner	36,180	65.2%	40,918	65.9%	43,731	65.5%		
	Renter	15,404	27.8%	16,356	26.3%	17,656	26.4%		
	Vacant	3,879	7.0%	4,823	7.8%	5,387	8.1%		
Median House Value		\$96,200		\$116,907		\$137,879			
Average House Value		\$118,373		\$141,952		\$168,670			
Median Monthly Owner Costs					\$961				
Average Monthly Owner Costs	s for Units with Mortga	ige			\$1,074				
Median Rent					\$443				
Average Rent					\$441				
Average Gross Rent (with Uti	lities)				\$559				
		40 Mile Ma	rket Area						
	well, Chatham, Durhar		inge, Person		nd Rockingha		•		
Total Population		1,224,224		1,337,760		1,415,843			
	Annual Rate						1.14%		
Total Households		485,273		538,176		572,069			
	Annual Rate						1.23%		
Median HH Income		\$40,963		\$51,576		\$60,542			
	Annual Rate						3.26%		
Median Age		34.9		36.9		38.3			
Average Household Size		2.44		2.41		2.40			
Total Housing Units		521,688	100.0%	587,054	100.0%	630,597	100.0%		
	Occupied	485,273	93.0%	538,176	91.7%	572,069	90.7%		
	Owner	315,255	60.4%	356,651	60.8%	377,912	59.9%		
	Renter	170,018	32.6%	181,525	30.9%	194,157	30.8%		
	Vacant	36,415	7.0%	48,878	8.3%	58,528	9.3%		
Median House Value		\$105,452		\$136,614		\$161,236			
	A 11 1 1 1 1 1 1	\$134,722		\$176,409	\$1,031	\$209,259			
Average House Value	Median Monthly Owner Costs for Units with Mortgage								
Median Monthly Owner Costs				Average Monthly Owner Costs for Units with Mortgage					
Median Monthly Owner Costs Average Monthly Owner Costs					\$1,166				
Median Monthly Owner Costs Average Monthly Owner Costs Median Rent					\$483				
Median Monthly Owner Costs	s for Units with Mortga								





Infrastructure Assessment

Infrastructure such as roads, water, sewer, electric, gas and telecommunication services are critical to the success of the agricultural sector but can also play a role in accelerating non-farm development. The availability and price of electricity and other resources can significantly influence farm profitability. Additionally, farms depend upon safe and well-maintained roadways to move equipment, receive goods and services and ship farm products. Without appropriate land use planning, infrastructure extensions can occur in a fiscally inefficient and haphazard manner and spur scattered new development in agricultural areas.

Current infrastructure in the County is supportive of agriculture, particularly as it relates to transportation. The major road and rail systems bisect the County predominately on an east-west axis which has the effect of concentrating both development and traffic into a central corridor. The effect is to leave the rural road system largely intact in the southern and northern sections of the County where agricultural operations are concentrated. Despite low or no shoulders on many of these rural roads and often short sight distances, low traffic loads and low speed limits make them manageable for transporting agricultural equipment. Roads carrying higher traffic volumes at higher speeds, such as Route 87, present a greater challenge for farmers in the area. As development radiates from the central development corridor and nearby counties along these roads, the transportation infrastructure is likely to become much less farmer friendly.

Water and sewer infrastructure is currently concentrated in the more urban areas of the County and does not present a universal challenge to farmers by attracting conflicting development uses. As urban areas expand and bring additional capacity to market, this situation is likely to change.

Land Use Controls Assessment

Land use controls are most commonly employed by the incorporated municipalities in Alamance County. These include master planning of infrastructure investments, zoning, and strict subdivision regulations. Agriculture is addressed only peripherally in these regulations with the exception of livestock which is controlled particularly in high density residential areas. Industrial land use categories within the municipalities are generally supportive of agricultural support businesses such as processing, warehousing, distribution, machining and tooling, input sales, and repair.

The unincorporated areas of the County are not zoned and have few land use controls beyond subdivision regulations. This has the potential to encourage haphazard development of these areas.

2.0 Farmland Assessment and Overview of Alamance County Agricultural Activity

In 2002, approximately 35% (97,793 acres) of Alamance County's 275,840 acres were estimated to be in farm ownership or farm use, making agriculture one of the largest land uses in the County. Land in farms in Alamance County includes cropland 44,844 (46%); woodland on farms 32,743 (33%); house lots, ponds, roads, etc. on farms 9,327 (9.6%); and pastureland 10,879 (11%) (See Figure 4). In 2002, 5,290 acres (approximately 5% of the County's land in farms) was rented farmland meaning farm operators control much of the land on which they operate. Based on interviews, much of the rented land is in cropland and hay ground.

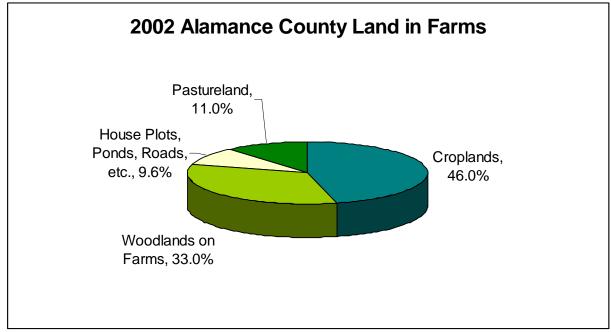


Figure 4: Land in Farms

Source: 2002 U.S. Census of Agriculture

Farmlands in the County are divided by the central development corridor described in the previous section and there are significant differences between the northern and southern agricultural regions (See Figure 5.) The southern region is known to have the highest concentration of prime and productive soils and is generally the area of the county with the highest concentration of field crops and livestock operations. The northern agricultural area is known to have poorer soils and small farm holdings. Tobacco production is centered in this area of the County.

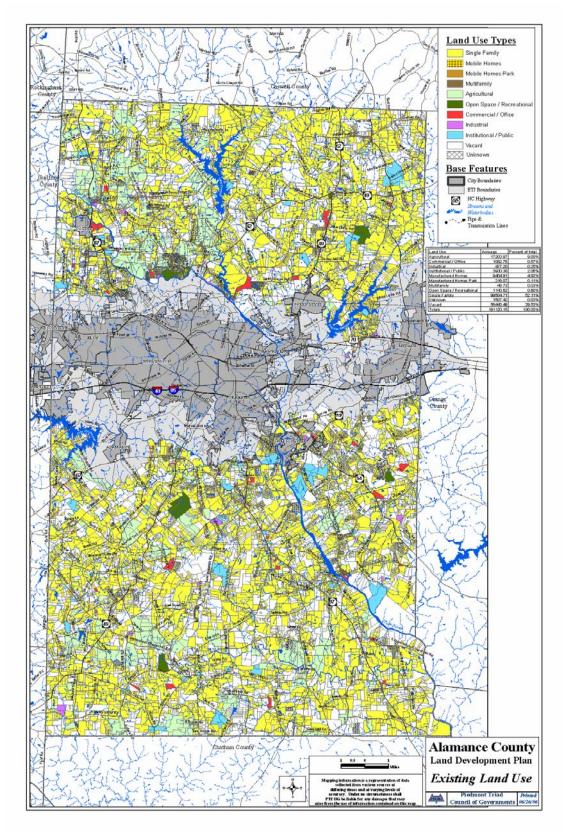


Figure 5 - Alamance County Existing Land Use

Figure 6: Comparative Farm Statistics 1997-2002										
	Alamance County		Caswell County		Guilford County		Orange County		Chatham County	
	2002	Change	2002	Change	2002	Change	2002	Change	2002	Change
Approximate land area (acres)	275,193		271,786		415,631		255,896		437,026	
Percent of land in farms	35.5%	-5.8%	43.0%	-9.0%	26.8%	-2.3%	27.7%	-0.7%	27.2%	-0.1%
Average market value of land and buildings per acre (dollars)	3,867	1,418	2,594	1,064	5,071	1,844	4,874	1,577	3,387	991
Farms (number)	831	-59	517	-127	1095	-53	627	50	1128	-16
Land in farms (acres)	97,793	-15,755	116,753	-24,598	111,382	-9,598	71,010	-1,663	118,752	-712
Land in house lots, ponds, roads,										
wasteland, etc. (acres)	9,327	-511	7,801	-4,295	8,229	-1,726	5,012	-270	8,651	-793
Percentage of total land in farms	9.5%	0.9%	6.7%	-1.9%	7.4%	-0.8%	7.1%	-0.2%	7.3%	-0.6%
Pastureland, all types (acres)	30,826	-4,482	28,215	-6,981	34,367	-626	22,016	1,179	52,632	1,201
Percentage of total land in farms	31.5%	0.4%	24.2%	-0.7%	30.9%	1.9%	31.0%	2.3%	44.3%	1.3%
Total cropland (acres)	44,844	-16,704	39,581	-15,129	54,559	-9,739	34,770	-5,836	45,737	-8,663
Percentage of total land in farms	45.9%	-8.3%	33.9%	-4.8%	49.0%	-4.2%	49.0%	-6.9%	38.5%	-7.0%
Total woodland (acres)	32,743	-5,084	61,261	-4,921	34,944	-4,634	22,672	-1,036	41,834	-1,215
Percentage of total land in farms	33.5%	0.2%	52.5%	5.6%	31.4%	-1.3%	31.9%	-0.7%	35.2%	-0.8%
Source: 2002 U.S. Census of Agriculture										

Figure 6 compares agricultural land use across counties adjacent to Alamance from 1997 to 2002. Like its neighbors, Alamance is losing agricultural acreage, however, it is losing acreage at a higher rate than all but Caswell County. Much of the acreage being displaced is cropland at an 8.3% loss between 1997 and 2002. The loss of cropland is consistent with development patterns since croplands are typically well drained and therefore typically suitable for development. The main issue related to this type of agricultural land loss is the loss of access to productive soils, and, in the case of the livestock and dairy industries, loss of support such as milk haulers and grain dealers.

Despite across the board losses in farmland, aggregate land and building value has risen dramatically across the region. Much of this change is driven by increases in raw land value while some of the change is driven by increased investment in infrastructure. Alamance County land and building values increased 57% between 1997 and 2002, which was the second highest growth rate in the region behind Caswell County's 69%. A final point of interest in the farmland use data is the fact that Alamance was the only county to post growth in the acreage committed to house lots, ponds, and roads indicating more intense development of non-operating land assets. This may be indicative of growth in small farms since these features will have a higher lot coverage on small acreages.

3.0 Land Use Tools and Opportunites for Enhancing Agriculture in Alamance County

Loss of farmland and its associated benefits of food production, stabilization of local economies, protection of the environment, and enhancement of the quality of life are being felt to varying degrees throughout the country. Common to most situations is the threat to the land base from sprawling suburban development and the vulnerability of a challenged industry, often in transition. Given the diversity of types of agriculture and the various governmental structures, protection of agriculture and farmland takes many forms. They are often in the form of land use regulations, agricultural economic development initiatives, and purchase of development rights to permanently secure a land base for the industry. The communities around the nation making the greatest strides are those employing some combination of the tools described in this section, as well as a robust economic development strategy – all customized to their respective circumstances.

In this section, land use planning techniques are discussed, as well as programming considerations for Voluntary Agricultural Districts, Purchase of Development Rights (PDR) and Transfer of Development Rights (TDR). Finally, the current menu of options made available to jurisdictions and landowners by the State of North Carolina to help protect agriculture in their communities, completes this section.

Examples of Counties with farmland protection in their land use planning process

<u>Cumberland County, *Buffering Bases*</u>– In response to mounting development pressure from Fort Bragg, the County saw a need to restrict growth within a 1 mile buffer from the base. The Regional land use Advisory Commission recommended a 5-acre minimum lot size for these properties; however, the County has developed a unique solution which offers landowners with 5-acre tracts a compensation payment, equivalent to a percentage of their property taxes, in exchange for 5 or 10 year conservation agreements to limit residential development. This agreement allows all manner of agricultural and silviculture activities, including retail and processing facilities, to remain on the land.

Davie County, *Agribusiness Ordinance*– The Davie County Commissioners approved an Agribusiness Use amendment to the county zoning text, allowing a streamlined permitting process for the construction of buildings, signs, and parking areas associated with existing farm operation. According to Davie County Planning Director Andrew Meadwell, "Ninety percent of our land is zoned rural-agriculture, and we didn't have any guidelines that addressed these situations that would encourage consumers to go directly to farms for sales or festivals. Our permitting process was too cumbersome, and we wanted to speed up the process for new investments."

Source: American Farmland Trust.

General and specific farmland preservation tools are highlighted in the following pages.

3.1 General Land Use Management Tools and Techniques: Existing Efforts and Agricultural Protection Tools

At the county and city level, planning and zoning are important farmland protection tools. When a local area strives to sustain its agricultural economy and protect farmland, these objectives should be reflected in the planning and zoning process. The most commonly used tools are highlighted below.

Comprehensive Plans

Comprehensive plans, also known as master or general plans, allow communities to create a long-term vision for their future. They outline local government policies, objectives and guidelines regarding development. Typically, they identify areas best suited for a variety of land uses, including agriculture, forestry, residential, commercial, industrial and recreational activities.

Comprehensive plans can establish a commitment to local agriculture by protecting natural resources and promoting farm business opportunities. Comprehensive plans can form the basis of a local farmland protection strategy by identifying areas to be protected for agriculture and areas where development will be encouraged. They also should aim to conserve natural resources while providing affordable housing and adequate public services.

Zoning

Zoning is usually the chief tool, along with the water and sewer plan and transportation plan, to implement what the community agreed to work toward in the comprehensive plan. Legally, all zoning requirements must be in accordance with a comprehensive plan. Zoning controls usually function at the smallest level of government. Zoning ordinances segment portions of counties, cities and towns into areas devoted to specific land uses. They also establish standards and densities for development.

Zoning ordinances, lot size requirements, and road specifications may affect agriculture immensely and should be reviewed carefully. According to North Carolina law, counties do not have the right to regulate bona fide farms or forestry activities and they are exempt from county zoning regulations as long as bona fide farming or forestry activities are current and within state guidelines (N.C. Gen. Stat. § 153A-452 (2006)).

Zoning can be used as a form of farmland protection. For instance, maintaining a lower density of development in an area may be beneficial to farming. Fewer neighbors mean fewer potential conflicts. Local governments can reduce the density of development in two ways: by increasing the minimum lot size or by reducing density without requiring large lots that may prove to be "too small to farm and too big to mow."

Several different zoning techniques that may be used to encourage the protection of farmland are outlined below.

Agricultural Protection Zoning (APZ) - Agricultural protection zoning stabilizes the agricultural land base by keeping large tracts of land relatively free of non-farm development. For APZ to be effective, the area's farming industry must be profitable, and farmers must be committed to keeping their land in production. Agricultural protection zoning ordinances designate areas where farming is the primary land use. They discourage development that could impair the land's use for commercial agriculture and they restrict the density of residential development. They generally require building on small lots as opposed to dividing tracts into large, equally sized lots. Most ordinances make use of a fixed density, allowing, for instance, one dwelling for every 25 acres. Others are based on a sliding scale, with the dwelling and acreage allowances more flexible.

Sliding Scale Zoning - Sliding scale zoning uses a scale to determine the number of lots that potentially could be developed in an area. Owners of smaller parcels are allowed to divide more land into lots than are owners of larger parcels. To keep farmland in productive use, maximum lot sizes (usually two or three acres) typically are established. Non-farm development is directed to less productive land.

Cluster Zoning - Cluster zoning ordinances allow or require houses to be grouped close together on small lots to protect open land. They increase density on part of a parcel while leaving the rest undeveloped. This allows the construction of the same number of houses, while minimizing the impact to the area's natural resources.

For example, the zone's residential density is one unit per five acres and the parcel in question is 100 acres. This parcel could be divided into either 20 5-acre parcels or 20 1-acre parcels and an 80-acre undeveloped parcel. In both examples, the result is 20 building lots (not considering the 80-acre parcel as a separate building lot) with a density of one unit per five acres. In the latter example, however, a relatively large, agriculturally viable parcel remains.

Cluster subdivisions may keep land open for future agricultural use, but generally they are not designed to support commercial agriculture. In addition, clustering may create tension between residential and agricultural land uses if new neighbors object to the sights, sounds and smells of commercial farming. To increase its usefulness as a farmland protection tool, provisions should be made to protect commercial farming or recognize that cluster arrangements may be more appropriate near less-intensive farming operations.

Large-Lot Zoning - Generally, large-lot zoning (that designates minimum lot sizes as small as five to ten acres) is not considered a farmland protection technique. In fact, it may encourage the premature conversion of farmland since it often results in the purchase of more residential acreage than homebuilders actually want or need. Large-lot zoning is often used in conjunction with lists of "permitted by right" uses that fail to view agricultural areas as important commercial zones worthy of special protection from incompatible uses.

Performance Standards - Performance standards can minimize the impact of development on farming. They may be used to steer development away from prime agricultural soils and existing farm operations. They usually are applied on a case-by-case basis, and they require discretionary decisions by a local planning board. Some factors that can be used as performance standards are:

- Potential for conflict with agriculture.
- Need to minimize the amount of converted agricultural soils.
- Agricultural productivity of the land and soils involved.
- Compatibility with existing or permitted uses on adjacent property.

Overlay Districts - Some communities have used agricultural overlay districts to direct development away from prime farmland. While overlays lessen the impact of development on agriculture, they generally regulate how–not if–farmland is developed. So far, such districts have not been used to change underlying density requirements or limit non-farm uses. Agricultural overlay districts can be used to trigger cluster zoning provisions, buffer strips or other performance standards.

Subdivision Regulations

Unlike zoning ordinances, which address whether specific uses are permitted, subdivision regulations specify how development will actually occur and exactly what form it will take. For example, zoning ordinances designate how many lots can be developed on a parcel, but subdivision regulations determine where those lots will be located and how the land is developed. Subdivision regulations are usually the home of buffer requirements – the distance of homes or wells from farm operations - that can be critical for continued operation of adjacent farms.

Buffers - In rapidly growing areas, development inevitably will occur adjacent to active farm operations. Based on the concept that "good fences make good neighbors," buffers create physical barriers between potentially incompatible land uses. Buffers may be created by strips of land (from 50 to 500 feet wide) or by vegetation such as existing hedgerows, planted trees and shrubs. Some subdivision ordinances require the developers to provide the buffers. To be effective, buffers must be designed on a site-specific basis and adapted to address different types of agricultural operations. In some cases, they simply may not be effective.

Mitigation Techniques - Mitigation techniques applied to high quality farmland refers to a "no net loss" approach to farmland protection. Land taken out of agriculture use and/or zoning must be replaced with either new land of equal size and productivity being brought into agricultural use, or a fee paid by a developer to permanently protect acreage elsewhere on a one to one basis.

3.2 Specific Farmland Protection Tools and Techniques

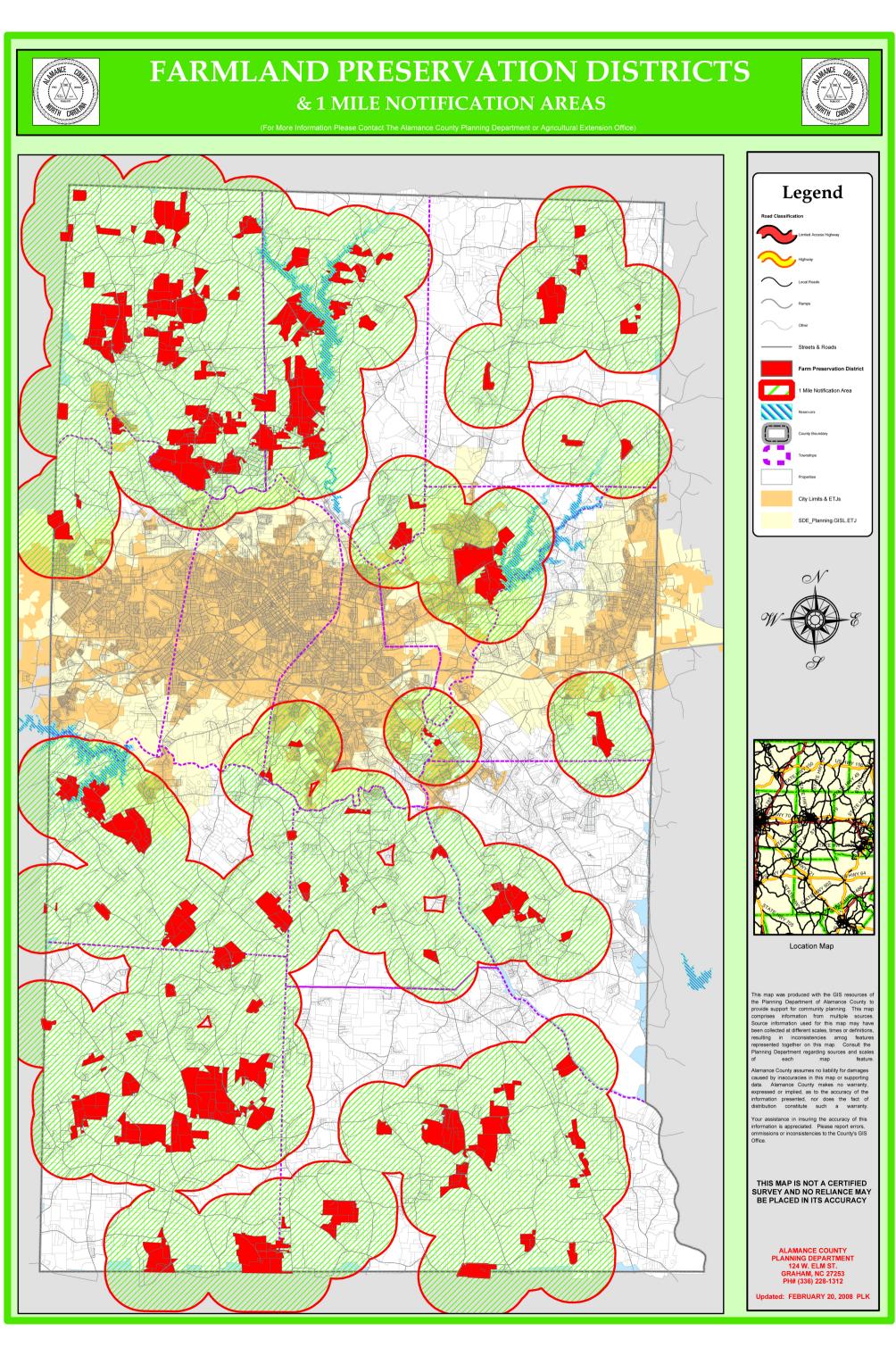
Voluntary Agricultural Districts

In 1985, the North Carolina General Assembly, through the Farmland Preservation Enabling Act set forth the concept of "voluntary agricultural districts" as an effective and politically viable way to protect North Carolina farmland. Voluntary Agricultural Districts (VADs) form partnerships between farmers, county commissioners, and land use planners in order to promote and protect agriculture as an integral part of the County.

Half of North Carolina's 100 counties (including Alamance County) have passed ordinances establishing VADs since 1985, and in doing so, commissioners appoint a local board to oversee the program. This board determines eligibility and guidelines for enrollment, specific to each county. The Alamance County Voluntary Farmland Preservation Program Ordinance states its purpose to provide the following benefits to farmers and county residents:

- The program preserves and maintains agricultural areas within the County;
- The program informs non-farming neighbors and potential land purchasers that the participating farm may emit noise, dust, and smells (this feature may help avoid conflicts between neighbors and potential nuisance claims);
- The program gives the farming community a better voice in Alamance County policy affecting farmland;
- Farmer participation in the program is voluntary and the farmer may terminate his/her participation at any time;
- The program requires the Alamance County Commissioners to use farmland "as a last resort" if they are attempting to condemn county lands;
- The program would provide green space and natural resources as the County's population and development expands;
- The program maintains opportunities to produce locally grown food and fiber.

An agricultural district is initiated when interested landowners submit a proposal to the Alamance County Agricultural Advisory Board. The district shall contain a minimum of 5 acres for horticultural use, 10 acres of agricultural use, and 20 acres for forestry use. This includes leased and/or rented land.



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Enhanced Voluntary Agriculture Districts

Authorized in 2005, Enhanced Voluntary Agriculture Districts (EVAD) create a new category that offers landowners an additional tier of benefits, if they are willing to waive their right to withdraw from the VAD program at any time. These additional benefits include:

- 1. Enrolled farms can receive up to 25 percent of revenue from the sale of other non-farm products, while still retaining their bona fide farming exemption from county zoning.
- 2. Enrolled farms would have lower cost-share requirements for NC Agricultural Conservation Cost Share funds.
- 3. Counties and cities may hold all utility assessments in abeyance for any enrolled farms that choose not to connect to the utility lines.
- 4. State and local agencies are encouraged to tie additional future benefits and funding priority to participants in the EVAD, given their commitment to maintain their farms.
- 5. Municipalities are explicitly authorized to adopt their own VAD ordinances, including the EVAD option.
- 6. Cities are authorized to amend their zoning ordinances to provide greater flexibility and stability to farming operations. This can be particularly important to farms that are newly included within expanded extraterritorial jurisdiction lines.

Purchase of Development Rights (PDR)

In general, landowners possess a variety of rights to their property, including the rights to use water resources, harvest timber or develop the property consistent with local regulations. Some or all of these rights can be transferred or sold to another person. PDR programs, also known as Purchase of Agricultural Conservation Easements (PACE), enable landowners to voluntarily separate and sell their right to develop land from their other property rights. Participating farmers are typically offered the difference between the restricted value of the land and the fair market value of the land. A permanent conservation easement is recorded in the land records binding all future owners. The land remains in private ownership and on the tax rolls.

Conservation Easement

Whether the program is called a Purchase of Development Rights, or Purchase of Agricultural Conservation Easements, the same basic principles apply. Restrictions are placed on the agricultural property, which will limit the use of the property to agriculture and prevent its subdivision in a manner that will harm its agricultural viability. The conservation easement is attached to the deed of the property in order to ensure that the aforementioned restrictions apply to all future owners of the property. Farmers receive the money from the sale of the easement, along with a lower property tax rate, however, the value of the land is lowered and the use of the land is limited.

Local PDR programs can prevent development that would effectively eliminate the future possibility of farming in an area. Selling an easement allows farmers to cash in a percentage of the equity in their land, thus creating a financially competitive alternative to development. Agricultural producers often use PDR program funds to buy and/or improve land, buildings

and equipment, retire debt and increase the viability of their operations. The reinvestment of PDR funds in equipment, livestock, and other farm inputs also may stimulate local agricultural economies.

Benefits

- Protects farmland permanently, while keeping it in private ownership.
- Participation in PDR programs is voluntary.
- Allows farmers to capitalize on unrealized assets-their land.
- Can be implemented by state or local governments, or by private organizations.
- Can provide farmers with a financially competitive alternative to development.
- Can protect ecological as well as agricultural resources.
- Removes the non-agricultural value of land, which, in some places helps keep it affordable to farmers.

Drawbacks

- It is expensive.
- PDR programs generally are oversubscribed. In North Carolina, funding for PDR has been limited, with demand far exceeding available funds.
- Purchasing easements is time consuming. Participants in the State program generally must wait at least a year before all details regarding their easements are finalized.
- Monitoring and enforcing easements requires an ongoing investment of time and resources.

North Carolina Agricultural Conservation Easements

The conservation easement is the legal instrument that protects the land for agriculture over time. It is a voluntary deed restriction that landowners place over their own land. Ownership is maintained and the land may be sold or passed to heirs, however, future owners must abide by the easement. Most conservation easements are permanent. The farmland owner retains all other rights of ownership and can continue to farm the land as he or she did before. The land remains private and on the tax rolls.

Because agriculture is always evolving, agricultural conservation easements must be flexible and tailored to meet its ever-changing conditions. Generally, they:

- Extinguish virtually all non-farm development rights (i.e., the right to build residential or non-agricultural structures).
- Limit future uses of the land that degrade the agricultural value or productivity of the land.
- Encourage the business of farming.
- Permit the construction of new farm buildings and farm employee housing.
- Do not require public access.

Landowners in North Carolina must find a government entity, such as a county or Soil and Water Conservation District (SWCD), or a conservation organization, such as a land trust, to agree to monitor the property forever to be sure that the terms of the easement are fulfilled in perpetuity. Landowners who *donate* an agricultural conservation easement may receive a

federal income tax deduction, as well as a reduction in the value of the property for estate tax purposes. North Carolina has a state conservation tax credit available for donations of property or easements for conservation purposes.

The effectiveness of PDR programs depends on how well communities address several key issues. These include deciding what kind of farmland to protect, which geographical areas to focus on and how to set priorities; what restrictions to put on the use of the land; how much to pay for easements; how to raise purchase funds; how to administer PDR programs; and how to monitor and enforce easements.

Setting Priorities

Setting priorities for a PDR program is an exercise in achieving balance. Since the program is voluntary, it needs to be attractive to the farmers who own the county's prime agricultural resources. Flexible easement conditions and reasonable prices to facilitate participation by farmland owners are as important as raising the public funds to buy the easements. The process of setting priorities assumes funding and participation. It takes a number of forms.

With the development of Geographic Information Systems (GIS), strategic farmland mapping is a relatively new expression of a jurisdiction's priorities. It is a very effective way to graphically depict what are the most important and the most vulnerable land so that purchases with limited funds can be strategic. This sort of mapping is also an indispensable tool for education of the public and local officials about the connection between the agricultural resources and public infrastructure decisions.

Eligibility criteria are minimum requirements for participation. Sometimes they are reflections of purpose clauses or other legal requirements in state PDR enabling legislation or local ordinances. They often include categories such as location, develop-ability, parcel or farm size, soil quality, and stewardship provisions. These criteria are the first round of a selection process because they decide who can apply to sell easements.

Once applications are received, a ranking formula is used to decide the order in which offers will be made until the funds allocated to that 'batch' of properties is spent. It is a means of stating preferences among eligible applicants. Because the goal of the program is the long-term protection of the land base, ranking formulas typically are heavily weighted for soil quality and size characteristics and for adjacency to other farmed and/or protected land. However, they often contain categories of points measuring economic productivity, capital investment, ease of development/threat, and degree of public policy support (i.e., agricultural protection zoning) context for the purchase.

Determining Easement Value

In general, the value of an easement is the fair market value of the property minus its restricted value, as determined by a qualified appraiser. For example, if the market value of an unprotected parcel of farmland is \$200,000, but worth only \$100,000 if protected with an agricultural conservation easement, then the farmer is paid the difference of \$100,000 for selling the development rights. Landowners may choose to donate some or all of the value of their development rights as a way to permanently protect their farmland and potentially reduce income and estate taxes.

Program Costs

Most PDR programs (including North Carolina's) require a local dollar match from the land owners, a land trust, county or municipal government, or other another source for the implementation of PDR projects. If a county is to implement its own PDR program, as is the intent in Alamance County, the county government must provide funding to leverage additional state and federal dollars. The following outlines several ways local communities can finance their PDR programs. There are, of course, many other innovative ways to fund land preservation.

Bonds - In the past decade, many North Carolina communities have recognized that farmland conservation is a long-term investment. While Bonding has been successful in other States, no North Carolina county has bonded directly for farmland protection. Wake County issued bonds for watershed protection, with a portion being used for farms. Orange County has issued bonds for public recreation facilities and has matched the amount with a general appropriation for farmland protection.

General Revenues - Other communities have set aside annual appropriations to pay for farmland protection projects by using current revenues. The Counties of Buncombe, Orange, Currituck, Rowan, and Forsyth have all used general appropriations to fund conservation easements. Alamance County has allotted fifty thousand dollars for easement funding, this fiscal year.

Real Estate Transfer Taxes – Many states and local governments fund the purchase of development rights through real estate transfer taxes at a rate of 1% to 2% of the transaction value. This option was not available in North Carolina until less than a year ago. A change in State law will allow a community to link the revenue needed to preserve farmland to the source of development pressure that is causing farmland transition. Most areas exempt low income and elderly from the requirements.

Purchase of Development Rights (PDR) Grants - In 1985, the North Carolina Department of Agricultural and Consumer Services established an Agricultural Development and Farmland Preservation Trust Fund (ADFPTF), to act as the primary state-wide purchaser of agricultural conservation easements (PACE).

From 1998- 2002, the ADFPTF gave out \$2.4 million in five grant cycles, protecting 4,412 acres on 33 farms. The General Assembly has only appropriated minimal funding since then.

House Bill 607, in 2005, revived the fund for \$8 million, which is now guided by a 19 member advisory committee providing recommendations to the Commissioner of Agriculture, although funding was allocated until the 2007 budget. It has a particular interest in supporting local VAD programs. In 2006, five pilot programs promoting local partnerships, conservation easements and the development of VADs, received grants

Additionally, the Clean Water Management Trust Fund issues grants to local governments, state agencies, and conservation nonprofits to purchase conservation easements on farms that serve as riparian buffers to priority waterways. The North Carolina Tobacco Trust Fund Commission has provided funding to land trusts to purchase development rights on tobacco farms in transition.

Public/Private Partnerships - Some communities have successfully used partnerships with private organizations to facilitate their PDR programs. In some areas, local land trusts, once formed primarily by conservationists concerned about vanishing habitat and open space, have formed to tackle the challenges of preserving farmland. It is possible for a private land trust to have the needed easement settlement and administration expertise that communities may lack.

For example, a land trust may play a key role in assembling PDR applications; holding, monitoring and enforcing easements; managing the PDR program; or providing a portion of the local match as in-kind credit or in cash. In addition, land trust involvement may increase the incentive for farmer participation, since landowners who donate an easement or a portion of their property to a nonprofit land trust may receive a federal tax deduction, thus offsetting some of their capital gains tax liability.

Stewardship and Monitoring

When landowners sell or donate an agricultural conservation easement to the State, municipality or a qualified nonprofit conservation organization, that agency or organization then 'holds' the easement. The holder of an easement is obligated to monitor the land involved and uphold and enforce the terms of the agreement.

Known as stewardship, the process of holding and maintaining easements is an important consideration to any PDR program. Good stewardship will help ensure the perpetual nature of the easement. The entity holding the easement should set up a system for administering, monitoring and enforcing the easement terms. That involves

creating baseline documentation, maintaining a good working relationship with the landowner, monitoring the property, and, if needed, addressing violations.

Transfer of Development Rights (TDR)

Transfer of development rights programs, also known as density exchange programs, allow landowners to transfer the right to develop one parcel of land to a different parcel of land. (By contrast, cluster zoning usually shifts density within a parcel.) TDR programs can protect farmland by shifting development from agricultural areas to areas planned for growth. *It is important to recognize that TDR programs do not reduce the number of building rights. TDR programs simply reallocate them geographically.*

Since TDR programs are based on having a definable right to development, any area seeking to implement such a program must have a means, preferably statutory, to allocate such rights. Typically this is done through zoned density and in areas without zoning, may be achieved through an assignment of engineering capacity in accordance with subdivision regulations. Without a means to assign such development rights, a TDR program simply can not be implemented.

The TDR legislation itself provides the legal framework under which development rights are transferred from one lot, parcel or area of land in any sending district to another lot, parcel, or area of land in one or more receiving districts. To implement TDR, receiving and sending districts are designated and mapped in accordance with a comprehensive plan. Sending districts may include agricultural land and the receiving districts must have the infrastructure needed to support increased development. Development rights are documented as conservation easements that are enforceable by the town or other designated entity. They may be bought or sold by the municipality for deposit in a development rights bank.

Flexibility is important throughout the TDR process. For TDR to work, communities must build consensus on its use as a way to protect resources and direct future growth. A market must exist for both the development rights (either in the private sector or via a community development rights bank) and the higher density development that will result. While the TDR technique holds promise in theory, it has not been greatly utilized in North Carolina due to the complexity of its administration and its unproven track record, however, Orange County is currently in the third and final phase of a study to develop a TDR program.

Agricultural Tax Relief

Tax relief is an important issue for farmers. Farms need land to operate and property taxes on farmland are a significant expense. Taxes on farm buildings are often substantial as well. Farmers often say, "Cows don't go to school," which reflects the concept that taxes on agricultural land should be proportionate to its demand on municipal services and its ability to generate income. As the 2006 Alamance County Cost of Community Services study defined, farmland provides more in property tax revenues than it requires in public services, keeping it in production may help control the cost of community services.

Since overtaxed agricultural land may be more susceptible to conversion to non-agricultural uses, tax relief measures may also be considered a farmland protection tool. The expense of property taxes may discourage farmers from buying land and can force existing farmers to sell. Farmers' savings from property tax relief programs can be significant and may make the difference between staying in business and selling out. Several federal, state and local programs now exist to offer various kinds of property tax relief for farmers.

Property - Present Use Value assessment allows for agricultural and forested land to be taxed at is farming value, rather than market value for development. When land is no longer in agricultural production, the owner is subject to a rollback penalty of the deferred taxes for the year of disqualification and the three preceding years, with interest. Owners of agricultural land need to apply to the county tax assessor to receive this assessment. Farmers are entitled to a state income tax credit equal to the amount of property tax paid on farm machinery, attachments and repair parts.

Sales - Commercial farms can receive an exemption for sales tax on items used in their farm operations, such as farm machinery, containers, tobacco drying equipment, grain storage facilities, fuel, potting soil, feed, seed, and fertilizers. Farmers must obtain an exemption number from the North Carolina Department of Revenue.

Estate - The donation or sale of an agricultural conservation easement usually reduces the value of land for estate tax purposes. The Internal Revenue Code also contains certain valuation exemptions, which can reduce estate taxes for working farms.

Income – Local jurisdictions may use tax policies to stimulate investment in agricultural sectors. In other states, this has included providing incentives such as a reduction in property taxes for participants in VAD programs or the elimination of business taxes for value-added processing facilities.

Right-To Farm Laws

The continued development of agricultural areas has increased the potential for conflicts between farmers and their neighbors. North Carolina implemented right-to-farm laws to protect farm and forestry operations from being declared a nuisance as long as they have been in operation for at least one year. They are, however, not protected if there is evidence of negligence or improper operation. Other state protections include the notice of proximity provision which is provided as a benefit for participants in a VAD program, and the prelitigation mediation of farm nuisance disputes. With state authorization, counties have the power to adopt stronger right-to-farm laws.

Definition of a Farm

The State of North Carolina (N.C. Gen. Stat. § 153A-340 (2006)) defines *bona fide farm purposes* to include:

...the production and activities relating or incidental to the production of crops, fruits, vegetables, ornamental and flowering plants, dairy, livestock, poultry, and all other forms of agricultural products as defined in G.S. 106.581.1 having a domestic or foreign market.

Swine production in the State of North Carolina is treated as a special case, and local governments may regulate swine facilities designed to handle 600,000 pounds of livestock or more annually.

Agricultural land is defined as: Land that is part of a farm unit that is actively engaged in the commercial production or growing of crops, plants, or animals under a sound management program.

Horticultural Land is defined as: Land that is ... engaged in the commercial production or growing of fruits or vegetables or nursery or floral production.

N.C. Gen. Stat. § 105-277.3 (2006) provides further specifics for the three classes of farmland. Agricultural and horticultural land must produce and average gross income of at least \$1,000 and be under a sound management program. Forestland must be following a written sound forest management plan for the production and sale of forest products. Agricultural land must include 10 acres, forestland must include 20 acres, and horticultural land must include 5 acres in production.

Protection Tool	Definition	Benefits	Drawbacks	Applicability/Status- Alamance County
Comprehensive Plan	Guiding vision of what a community wants to be in the future and a strategy for achieving that.	An organized way to identify productive farmland and set growth and protection goals. Serves as basis for land use regulations.	Not legally binding may be changed or ignored by officials as they rule on development proposals.	Alamance County is in the process of creating a comprehensive land development plan that is intended to adopt the goals and recommendations of this document.
Differential Assessment	Taxation of farmland based on its agricultural use rather than its development value.	Modest incentive to keep land in commercial farming.	Also benefits land speculators waiting to develop land.	Tax benefits through Present Use Tax Valuation are available to Farmers in Alamance County, and must be applied for. Additional tax benefits are available to stimulate farm level investment through income tax credits, if adopted at the local level.
Agricultural Districts	Designation of an area of viable agricultural land. Initiated and self-selected by landowners, adopted by county. Eligibility, minimum acreage is determined by each county. Land can go in and out at any time. Not tied to agricultural assessment.	Farmed land within district is provided a minimum level of protection from nuisance claims and public condemnation processes. Enhanced districts allow for additional benefits including a higher level of protection.	Area defined by willing landowners and has no real longevity as a protection tool.	Alamance County has enrolled over 12,000 acres in the Voluntary District Program. Many of the enrolled properties represent targets for permanent preservation due to their productive soils and operating characteristics.

3.3 Farmland Protection Tools in Alamance County

Protection Tool	Definition	Benefits	Drawbacks	Applicability/Status- Alamance County
Right-to- Farm Laws	 In NC for land in ag district: 1. Definition of agriculture 2. One-Year of Operation 3. Sound ag practices determination 	Strengthens the ability of farmers to defend themselves against nuisance suits. Shields farmers from excessively restrictive local laws and unwanted public infrastructure. Available to all farms in the State.	Not meant to shield from all legal disputes with neighbors. Does not stop complaints from non-farm neighbors. May not protect major changes in farm operations or new operations.	These protections are afforded to farmland to all farms in the State under North Carolina State Law. Alamance County, with State authorization, may adopt a more stringent Right-To- Farm Ordinance to protect against specious nuisance claims.
Agricultural Zoning	Zoning that allows residential development at a rate of one unit per 20 acres or lower in a predominantly farming area. Ideally, the allowed density can be built on much smaller lots rather than large lots with each residence.	Limits non-farm development in areas intended for agricultural use. Can protect large areas of farmland at low public cost.	Local government can rezone land. Landowners may complain about loss of 'equity value' if land values have begun to escalate due to development pressure.	Unincorporated areas of the County are not zoned, providing no specific protection for commercial farming operations. As land use changes to include more suburban homes, this may become a serious challenge to agricultural operations.
Purchase of Development Rights	Voluntary separation and sale of the development rights from land in exchange for a permanent conservation easement. Typically paid difference between restricted value and fair market value. Land remains in private ownership and on tax rolls.	Provides permanent protection of farmland and puts cash into farm and farm economy.	Public cost may be high. Combined with being voluntary, it may be difficult to protect a critical mass of farmland.	County purchase of development rights program is young and not sufficiently funded to acquire easements. The current Voluntary Agricultural District Board (VADB) planning effort will begin process of setting priorities and goals. Currently the restricted and fair market values of land will have sufficient spread to entice land owners to apply. This is particularly true for expanding operations.

Protection Tool	Definition	Benefits	Drawbacks	Applicability/Status- Alamance County
Transfer of Development Rights	Voluntary separation and sale of development rights from land in one part of a jurisdiction to be used to increase density in another part. Conservation easement placed on sending parcel.	Developers compensate farmland owners. Creates permanent protection of farmland and shifts some costs to private sector.	Difficult to establish and administer. Opposition by landowners in receiving areas. Needs to be an integral part of a jurisdiction's growth management strategy at a time that sending area resources are relatively intact and intensification of receiving areas is feasible.	With rising development pressure in the I-85 corridor, there is justification to explore the creation of a county-wide TDR. As well, there are natural sending and receiving areas. Currently no real means to assign development rights to un-zoned properties. Furthermore, a county- wide TDR program would require inter- municipal agreements with the incorporated areas of the County.
Private Land Trusts	Local non-profit 501.c (3) corporations designed to identify resources to be protected, accept permanent conservation easements from landowners, and monitor their provisions through time.	Can provide permanent land protection. Can forge public- private partnerships. Greatly facilitate the donation of conservation easements from landowners able to benefit from income tax benefits.	Private land trusts rarely have funds to buy easements. Conservation deals sometimes based on allowing limited development. May create islands of protection rather than a critical mass of contiguous lands. Unless specifically designed for agricultural protection, farming may be virtually impossible on conservation easements designed for other purposes.	The Piedmont Land Conservancy is currently the only Land Trust active in the area.

4.0 Implications for the Agricultural and Farmland Protection Plan: Challenges to Agriculture in Alamance County

This analysis of land use trends and projections found the following issues to be of particular importance to Alamance County's agricultural industry:

<u>Residential development and population growth in Alamance County exceeds statewide and regional averages.</u> Such development is impacting agriculture by competing for scarce land resources. This is particularly true in rural areas where there are few development controls.

Although Alamance County has experienced a decrease in land in farms, the agricultural land base is still relatively intact within two agricultural corridors. Once farmland is lost to development of any kind, it is rarely converted back to agricultural use. Maintaining a core land base in active agriculture is necessary for the survival of the industry.

Low density rural residential development occurring in Alamance County has a significant impact on farm businesses. Poorly planned, scattered residential development can bring new non-farm neighbors to the doorstep of farm businesses. These new neighbors may be unfamiliar with agricultural practices and can generate time consuming and potentially expensive conflicts.

The I-85 corridor will continue to be driver of land use change in the County. It is expected that the incorporated and unincorporated areas surrounding will dominate the new residential development. It is likely that growth will radiate from I-85 exits and major north-south arterials.

The rate and type of development that occurs in Alamance County will be influenced by broader economic factors as well as by local land use policies and decisions. Planning for agriculture at the County level can positively affect development patterns within the community so that both agriculture and the broader community benefit.

Land Use Plan decisions made by individual municipalities will have a major impact on unincorporated areas of the County, both through their extraterritorial jurisdiction control and through where they channel growth. Without coordination, land use planning efforts will only go so far.

5.0 Recommendations and Action Steps to Ensure a Viable Agricultural Community in Alamance County

Given that land use policy is determined at the county and municipal level, these recommendations offer guidance to the County and the Voluntary Agricultural District Board (VADB) in supporting preservation activities at all levels of government. As well, the recommendations offer guidance for improving the level of education and understanding of the general public regarding agriculture. The study team realizes that the County will not be able to implement all aspects of the recommendations, but expects that this list should spark a debate that helps to further classify, refine, and prioritize agricultural land preservation initiatives.

As priorities are developed, key municipal and county agencies should adopt them as part of their individual work plans, and the VADB should work with towns and municipal agencies to integrate them into their comprehensive plans. It is also noted that the commitment and support of the County along with the municipalities and industry is critical to the success of this plan as well as the economic development recommendations included in the "Agricultural and Farmland Protection Plan" component of the report.

Note: Each recommendation includes a priority ranking which is based on the frequency and urgency of issues identified during the study; cost considerations address funding issues, exclusive of personnel requirements, based on the study team's experience; and responsibility which is based on the logical agency(s) to oversee implementation.

AGRICULTURAL AND FARMLAND PROTECTION

Ten-Year Objective

Create a land use environment where agriculture is treated as an important economic and ecological land use and not as a holding pattern for residential development. Future agricultural land use initiatives and policy will focus on improving the regulatory, physical, and fiscal conditions under which agriculture operates by directing public resources to enhance industry infrastructure, protecting prime soils, and preparing an environment that supports future agricultural planning such as Purchase of Development Rights (PDR).

Furthermore, the public will have a better understanding of the importance of agriculture as a land use and a better understanding of the importance of agriculture to their particular community. With this understanding, it is the study team's expectation that the general public will support and endorse agricultural planning initiatives including the full funding of programs like Purchase of Development Rights. The County should be prepared to lead the debate and to support such efforts.

Five-Year Action Plan

RECOMMENDATION 1

Support Farm Friendly County Based Land Use Policies and Programs

Local land use policy in North Carolina generally treats agriculture as being in a holding pattern for residential development and thereby encourages the co-mingling of residences with ag-industrial activity. Scattered lot residential development in Alamance County is already having an impact on agricultural land through land value escalation and non-farm neighbor conflicts. Outgrowth from the Research Triangle and the Piedmont Triad has created competition for residential land. Development pressure is acute along the Interstate 85 corridor, bifurcating the agricultural community into two distinct groupings. This development pressure needs to be managed, if agriculture in these areas is going to survive.

On the other hand, these two agricultural communities in the Northern and Southern ends of the County are currently intact and unified (relative to other high-growth sections of the Piedmont), offering great potential for effective agricultural land preservation and growth management initiatives. The Alamance County Land Development Plan Community Meeting and Land Use Preference Survey Report, completed by the Piedmont Triad Council of Governments in April 2006, showed an overwhelming level of support amongst county residents for increased planning for conservation and farmland preservation. The atmosphere is opportune for a new approach to planning in Alamance County.

ACTIONS

- Conduct formal training for political officials, planning boards, zoning board of appeals members, and others involved in land-use decision making relative to land use law and best practices in planning as they relate to agriculture and forestry.
- Enhance subdivision regulations to be more supportive of agriculture.
 - Encourage development on least productive lands.
 - Advocate clustering for agricultural, forestry, and open space uses.
 - Examine planned unit and mixed use development.
- Coordinate the development of regionally significant infrastructure improvements and target future infrastructure siting away from agricultural areas. While many land use decisions are made at the municipal level, the County can encourage and support communication and coordination between municipalities, towns, and other counties to prevent poor decisions made with inadequate information.
- Encourage integration of county and municipal planning efforts as they relate to agriculture, forestry, recreation, and parks into a unified goal setting document.
- Work with municipalities that have interchanges on Interstate 85 to proactively plan for development in those areas while protecting important agricultural resources that might be impacted by new growth. Possible tools to consider include:
 - Further review of density exchange and transfer of development rights through inter-municipal agreements that would shift development from agricultural areas to the urban-suburban core.
 - (http://www.co.orange.nc.us/planning/TDR_files/html/body_publications.html)
 - Establishment of overarching preservation and development goals.

- Cost sharing agreements particularly for infrastructure and community services.
- Definition of at least two sending areas representative of the southern and northern production zones in Alamance County.
- Definition of at least two receiving zones with up to five times the receiving density of the sending areas. These zones should also have, or be planning, adequate public facilities to receive new development.
- Promote performance based land-use policies that will allow for agriculture and agriculturally related uses appropriate for I-85 corridor such as:
 - o Processing,
 - o Transportation and logistics,
 - o Sales,
 - o Forestry,
 - o Horticulture,
 - o Small-scale livestock production,
 - o Agritourism, and
 - o Wineries.
- Work with Register of Deeds and Planning Department to improve VAD notification process.
- Examine the adoption of adequate public facilities ordinances to manage growth in rural areas.
- Adopt a lateral water line restriction policy in county agricultural districts.
- Work with the Department of Agriculture and Cooperative Extension, and other agricultural organizations to develop training programs for local realtors and attorneys (provide continuing education credits when possible) to increase their understanding of agricultural and forestry land use regulations, agricultural district requirements, agricultural conservation easements, farm transition tools, agricultural conservation development techniques, and farmland and forestry conservation incentive programs.
- Provide maps and GIS data to municipal officials to outline the location of productive farmland, Agricultural Districts and other agricultural resources with a goal of better integrating agriculture's interests into municipal planning.

IMPLEMENTATION RESPONSIBILITY: Voluntary Agricultural District Board, Alamance Department of Planning, Alamance Soil and Water Conservation District, Municipal planning departments, Parks and Recreation departments, Natural Resource Conservation Service (NRCS), North Carolina Department of Agriculture, North Carolina State Cooperative Extension, American Farmland Trust, and other regional partners.

BUDGET CONSIDERATIONS: Action items within this recommendation will require a limited administrative budget. Most of the expense will be in allocation of staff time.

ISSUE PRIORITY: The VADB recognizes this as a high priority.

FUNDING RESOURCES: County funding should be allocated to cover local officials training and extra staff support for this recommendation. Grant development should be undertaken to support fiscal analysis.

RECOMMENDATION 2

Expand County Land Preservation Programs

Alamance County is in the initial phases of creating and launching a Purchase of Development Rights program and has the opportunity to be innovative in its approach to building both public support and grower interest. Proper program funding will be an initial hurdle that must be overcome with community level education aimed at both farmers and the general public. Attracting farmer interest, based on the history of other programs in the U.S., will largely be predicated on having choice in funding mechanisms that allow them a competitive return on their development potential.

ACTIONS

- Develop additional local incentives for landowners to enroll in an enhanced VAD (EVAD) program, and pass an EVAD ordinance. State law allows and encourages counties to develop additional incentives as part of their EVAD ordinances, for landowners willing to make a 10-year commitment to limit development. Incentives could include priority for enrollment in PDR and conservation programs, property tax reductions, and business and conservation planning assistance. The county could also relax regulations on non-farm activities and work with municipalities to exempt EVADs from their zoning codes.
- Develop an outreach program to educate the general public about the benefits of farmland, farming, forests, forestlands, and working lands conservation through.
- Develop a farmer outreach campaign to improve understanding of PDR programs.
- Develop an achievable land preservation goal with stated acreage and land quality parameters necessary to maintain an agricultural base in both the northern and southern tiers of the County.
 - Goal should establish minimum preservation targets within specific geographic bounds to ensure a critical mass of farmland that can achieve agricultural protection through consolidation of use.
 - Seek to protect 35% to 50% of remaining agricultural land base.
- Identify and map target regions within the Southern and Northern portions of the County for purchase of development rights based on:
 - 35% or higher concentration of Prime and Productive soils and /or soils of Statewide Importance.
 - Adjacency to permanently protected open space or Agricultural Districts.
 - Proximity to agricultural infrastructure.
 - Adjacency to environmental, cultural, and historic areas.
 - Proximity to areas with higher than county average population/housing growth.
- Adopt an application evaluation procedure, based on the Land Evaluation and Site Assessment (LESA) standard, to prioritize purchase of conservation easement requests. *Field test* draft versions of the ranking system with groups of farmers around the County both to educate about the program's purpose and operation, and to build a sense of ownership of the program amongst rural landowners.
- Evaluate county based funding mechanisms to support PDR such as:
 - Real Estate Transfer Tax,

- Sales Tax, (the new authority given by the State for counties to hold advisory referenda for local real estate transfer taxes or sales taxes (<u>http://ncacc.org/revenueauthority-q&a.html</u>) offers a prime opportunity to explore these new revenue sources for PDR,
- o Agricultural Land Transfer Tax (PUV rollback funds),
- General Obligation Bonds,
- o Utility/telecommunication fees,
- o Impact, adequate public facilities, and mitigation fees, and
- Others as may be appropriate.
- Develop alternative PDR financing tools to encourage greater farmer participation such as:
 - o Installment Purchase Agreements,
 - o Resale options such as Option to Purchase at Agricultural Value (OPAV),
 - Purchase and extinguishment of density exchange and TDR options, and
 - "Critical Farms" bridge loan program (see Economic Development Recommendation 7) to assist farmers with land transfer and land acquisition.
- Provide on-going county financial support for easement monitoring through general funds or roll back funding from land coming out of Present Use Value program.
- Engage public officials in agricultural district renewals by incorporating a tour of sample farms up for renewal. Use this opportunity to inform public officials about the County Agricultural and Farmland Protection Plan.
- Integrate Department of Environment and Natural Resources Green Infrastructure Plan into the Alamance County Growth Plan and County Land Preservation tools.

IMPLEMENTATION RESPONSIBILITY: Voluntary Agricultural District Board, Alamance County Department Planning, NRCS, North Carolina State Cooperative Extension, Alamance Chamber of Commerce, and others as necessary.

BUDGET CONSIDERATIONS: Significant public resources will be required for the implementation of this recommendation. The first three action items will require the concerted effort of staff from the Department of Planning, NRCS, American Farmland Trust, and others as necessary and may be funded using state farmland preservation grants. Development of new County-based funding mechanisms will likely require some level of fiscal impact analysis to determine the actual costs and funding requirements for recommended programs since significant additional funding will be required to fully implement a PDR program that leverages State and federal funding. Such a study should be conducted by an outside, independent source which may require an allocation of \$50,000 for contracted services. The level of financing for PDR's should follow the fiscal analysis recommended above. Easement monitoring can be accomplished by an outside contractor at \$250 per easement annually.

ISSUE PRIORITY: The VADB recognizes this as a high priority.

FUNDING RESOURCES: County funding should be allocated to cover a full time planner position to develop agricultural preservation programs such as easement monitoring.

RECOMMENDATION 3

Formally adopt the Agricultural and Farmland Protection Plan as a County Policy Guidance Instrument

Because Agricultural and Farmland Protection Plans require the efforts of numerous county and municipal departments to be truly successful, it is highly recommended that the Voluntary Agricultural District Board seek formal adoption of the plan by the Alamance County Commissioners. Furthermore, the Plan should be integrated within the County's Land Development Plan and other similar documents.

ACTIONS:

- Seek the explicit inclusion of the Agricultural and Farmland Protection Plan as an element of the Alamance County Land Development Plan.
- Seek inclusion of the appropriate elements of the Agricultural and Farmland Protection Plan within the strategic and/or comprehensive plans of other, related, agencies such as the Alamance County Chamber of Commerce, Department of Public Works, local water and sewer agencies, and others as deemed appropriate.
- Communicate with state legislators and North Carolina State Farm Bureau about the need for programs outlined in the plan. Coordinate efforts to adopt state funding and state legislation, as needed, to support full implementation of the plan, especially where regional cooperation is necessary for successful implementation
- Seek to have regional initiatives, such as the Jordan Lake Rule Making process, adopt and/or fund elements of the land use strategy such as bridge loan funding for Purchase of Development Rights and development of an Installment Purchase Agreement program.

IMPLEMENTATION RESPONSIBILITY: Voluntary Agricultural District Board, Alamance County Department of Planning, North Carolina State Cooperative Extension, NRCS, and other.

BUDGET CONSIDERATIONS: Action items within this recommendation will require an allocation of staff time.

ISSUE PRIORITY: The VADB recognizes this as a high priority.

FUNDING RESOURCES: County funding should cover needed staff time.

RECOMMENDATION 4

Promote Understanding and Appreciation of Agriculture to the Non-Farm Public

Even in Alamance County, where much of the county is rural, people are often removed from direct contact with farms and have limited understanding of modern farming practices. This can lead to farmer-neighbor misunderstandings that have the potential to negatively affect agriculture in the County. In addition, the public (and new residents, in particular) does not have a clear understanding of the economic and environmental contributions made by the local agricultural industry. Many rural communities rely on agricultural businesses as their main economic base and those same businesses are often the fabric of the rural community's heritage. Alamance County's rural nature is attractive to its more urban neighbors, such as Orange and Guilford Counties, and lends itself well to agritourism and agriculture-based events where the "teachable moment" can be used to inform the public about agriculture.

ACTIONS

- Publicize the economic, environmental, and cultural benefits of Alamance County farms. Have appropriate sections of the AFPP and other outreach materials available at public offices.
- Develop an Alamance Agriculture video series to promote public awareness and consumer education, as well market development.
- Identify a key agency/person to be the first contact for agricultural questions and issues and develop a referral system.
- Develop a brochure for use with the non-farm public that explains what farmers do and why they do it. Possible topics: spreading manure, Confined Animal Feeding Operations (CAFO) plans, legal standards, and who to contact with questions.
- Plan a social/educational outreach event appropriate to meet Alamance County's needs by evaluating models used in other areas such as Saratoga County NY's Sundae on the Farm and Loudon County Virginia's fall and spring farm tours.
- Develop a county brochure that highlights agritourism businesses and events available for the public to include farmers' markets, restaurants that serve local foods, and seasonal roadside markets in the brochure. Distribute through schools, realtors, and local newspapers.

IMPLEMENTATION RESPONSIBILITY: Voluntary Agricultural District Board, North Carolina State Cooperative Extension, Farm Bureau, North Carolina Forest Service, NRCS, Alamance County Chamber of Commerce, and others as necessary.

BUDGET CONSIDERATIONS: Action items will require an allocation of staff time. Approximately \$2000 - \$5000 should be allocated for brochure design and printing.

ISSUE PRIORITY: The VADB recognizes this as a high priority.

FUNDING RESOURCES: County funding should be allocated to cover brochure development and printing costs.