



2020 Guilford County *Farmland Protection Plan*

PRESERVING THE AGRICULTURAL ECONOMY

2020 Guilford County Farmland Protection Plan

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photography by Julie Meyers

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EXECUTIVE SUMMARY

A. Plan Overview

In order to maintain viable agricultural communities in Guilford County, this Farmland Protection Plan has been developed to address the issues of farmland preservation and provide realistic tools to sustain the future of agriculture and agribusiness. Per the requirements of grant funding received from The North Carolina Agricultural Development & Farmland Preservation (NC ADFP) Trust Fund, the Guilford County Farmland Protection Plan satisfies the following requirements:

- > The Plan contains a list and description of existing agricultural activity in Guilford County.
- > The Plan contains a list of existing challenges to continued family farming in Guilford County.
- > The Plan contains a list of opportunities for maintaining or enhancing small, family-owned farms and the local agricultural economy.
- > The Plan describes how Guilford County plans to maintain a viable agricultural community. The Plan also highlights feasible farmland preservation tools and agricultural economic development tools.
- > The Plan contains a schedule for implementing the plans/recommendations and an identification of possible funding sources for the long-term support of the plan. (G.S. 106-744(e))

B. Preserving the Agricultural Economy

According to the NC ADFP, agriculture and related business in North Carolina is valued at over \$70 billion annually, making it the top industry in North Carolina. In Guilford County, the impact of agriculture and agribusinesses is \$2.27 billion (2008). The success of implementing this Farmland Protection Plan means preserving the land that sustains this agricultural economy, maintaining family farm income and retaining agriculture-related jobs.

But farmland preservation is more than just an economic issue. Maintaining the agriculture communities in Guilford County preserves the integral rural heritage and landscape of our region. Moreover, North Carolina residents are becoming increasingly concerned with where food is grown and processed. Eating locally is more than a trend that can only be upheld through sustaining the agricultural land and industry throughout the state and in Guilford County. Farming is vital to North Carolina and to Guilford County, and it is imperative that local decision-makers — and community members — understand the importance of preserving our agricultural economy.

C. Summary of Recommendations & Implementation Schedule

The recommendations in the table below will accomplish farmland preservation in two ways. They outline strategies to protect the actual land so that it remains in agricultural production, and they also offer tools to help the agricultural economy thrive, thereby keeping farmers on the land making a viable livelihood. Both of these components in coordination with one another will help ensure a sustainable future for agriculture and rural lands in Guilford County.

Recommendation	Implementation Timeframe			Responsible Agency	Possible Funding Sources
	Short-term (1-3 yrs.)	Medium-term (4-6 yrs.)	Long-term (7-10 yrs.)		

FARMLAND PROTECTION STRATEGIES

Update Voluntary Agricultural District (VAD) ordinance to include Enhanced Voluntary Agriculture Districts (EVAD).	X			County	Staff time
Promote establishment of municipal VAD/EVAD.	X	X	X	County	Staff/volunteer time
Mitigate the potential for conflicting land uses and nuisance suits by educating the public/realtors about farming on the rural-urban fringe.	X	X	X	County	Staff time
Create and fund a County Farmland Preservation Program focused on purchasing agricultural conservation easements to leverage state and federal funds that are available.	X	X	X	County, Partners	Staff time, Grants, County funds
Protect farmland owned by Guilford County with deed restrictions or other legal instruments to preserve it in perpetuity as working farms/productive land.	X	X	X	County	Staff/volunteer time

FARMLAND PROTECTION PLANNING POLICIES

Adopt the Guilford County Farmland Protection Plan as a reference in the Guilford County Comprehensive Plan during its next update. The map that prioritizes farmland protection areas should be used by Planning Staff, the Planning Board and the Board of County Commissioners for future rezoning decisions in Guilford County.	X	X	X	County	Staff time
Have Guilford County Planning staff consider additional ways to measure the net fiscal impact of County income vs. County services of new residential subdivisions prior to rezoning from agriculture land.	X	X	X	County	Staff time
Establish agreements between Guilford County and Greensboro and High Point not to extend public utilities into priority agriculture areas.		X		County, Municipalities	Staff time
Exempt federal- and/or county-registered farms within town and municipality jurisdictions from zoning and building code regulations for agriculture land uses and agriculture structures, per the North Carolina general statutes.	X			County	Staff time

Recommendation	Implementation Timeframe			Responsible Agency	Possible Funding Sources
	Short-term (1-3 yrs.)	Medium-term (4-6 yrs.)	Long-term (7-10 yrs.)		

FARMLAND PROTECTION PROPOSALS FOR GUILFORD COUNTY DEVELOPMENT ORDINANCE

Consider additional land uses allowed in the Agricultural Zoning District, which support new or alternative agricultural endeavors.	X	X		County	Staff time
Provide a density incentive to encourage "conservation subdivisions", where prime soils are protected for food production (e.g., sustainable community farm operations).	X			County	Staff time
Update the Rural Family Occupation provision in order to allow more agriculturally related businesses in rural areas without a Special Use Permit.	X			County	Staff time
Research possible revisions to the Guilford County Development Ordinance to facilitate the development of more farmers' markets in Guilford County.	X			County	Staff time
Update the agri-tourism section of the Guilford County Development Ordinance to facilitate more agri-tourism business.	X			County	Staff time

ENSURE ECONOMIC OPPORTUNITIES FOR LOCAL AGRICULTURE

Create a County staff position to support the agricultural economic development and implementation of this Plan.	X	X	X	County	Grants, County funds, Other funds
Support the dairies, of which there are only six remaining in Guilford County.	X	X	X	County, Partners	Grants, Staff time
Provide more advertising for existing farmers' markets and other venues that sell local foods and agricultural products; facilitate the creation of more of these venues.	X	X		County, Market staff /vendors	Grants, Staff time
Support additional agriculture infrastructure.	X	X	X	Interested Stakeholders	Grants, Private equity
Create public composting operations in Greensboro and High Point to collect urban food waste and produce nutrient rich soil amendments for urban agriculture projects.		X		Interested Stakeholders	Grants, Public or private funding

Recommendation	Implementation Timeframe			Responsible Agency	Possible Funding Sources
	Short-term (1-3 yrs.)	Medium-term (4-6 yrs.)	Long-term (7-10 yrs.)		

SUPPORT LOCAL FOOD PRODUCERS

Conduct interagency department analysis of existing agriculture community programs to eliminate overlap and promote improved communication.	X			County	Staff time
Recruit young and minority farmers as members and leaders for the Coop. Ext. Advisory Board, the Soil & Water Conservation District Board, the Ag District Advisory Board, and other local boards and commissions.	X	X	X	County/ Municipalities	Staff time
Adopt the “10% Campaign” for Guilford County employees and catered events sponsored by the County.	X		X	County	Staff time
Expand opportunities for urban agriculture, such as community gardens and urban orchards.	X	X	X	County, Interested Stakeholders	Grants, Staff time
Initiate a branding campaign for Triad-grown foods.	X	X		County, Interested Stakeholders	Grants, Private Funding
Investigate coordinating a regional farm tour that gives area residents the chance to visit local food producers.	X			Partners	Grants, Private Funding

EDUCATION & OUTREACH

Establish a County Farmer Transition Program to link aging farmers and landowners with aspiring farmers who need land and instruction about agriculture.	X			County	Grants, Staff time
Establish a farm incubator to train young farmers.		X		County, Interested stakeholders	Grants, Volunteer time
Provide education for farmers on crop diversification, rotational grazing, agri-tourism and other sustainable farming opportunities.	X	X	X	County	Staff time
Provide education for residents on permaculture, xeriscaping, water conservation, and other urban agriculture topics.	X	X	X	County	Staff time
Re-establish agriculture education programs in the Guilford County School System.	X	X		County	Grants, Staff time

I. INTRODUCTION

Between the years of 2003 and 2006, North Carolina lost 5,500 farms and 300,000 acres of farmland. In addition, thousands of acres of forestlands have been converted to development. This has put a strain on Guilford County's budget, the local and state economy, and natural resources — and it is a significant loss to agricultural heritage. The foundation of North Carolina's number one industry needs to be protected from unsustainable conversions to other uses.

Today approximately 90 percent of all North Carolina lands are privately owned. The U.S. Census Bureau predicts that our state's population will expand by 4 million people by 2030, and this growth threatens our farmland and forests.

Communities must plan for their agricultural future and prepare for future pressures on working and natural lands. Guilford County must work to preserve its working farms, forests and natural open spaces. The impacts are wide reaching and include economic, environmental, aesthetic, cultural and health-related benefits. This Farmland Protection Plan, prepared by the Piedmont Conservation Council (PCC), provides a framework to sustain the local agricultural industry.

Recommendations of this plan include steering growth away from active farming communities; reducing regulatory barriers; supporting policies that encourage new farming opportunities and address farm tenure and transfer; and encouraging the local public to embrace the value of buying and consuming locally produced agricultural products and services.

A. Agriculture and Agribusiness Trends in Guilford County

The following tables and figures illustrate the current conditions of agricultural activity in Guilford County over time (including agriculture/food industries, natural fiber industries and forestry industries).

FIGURE 1: Guilford County: Trends in the agriculture and

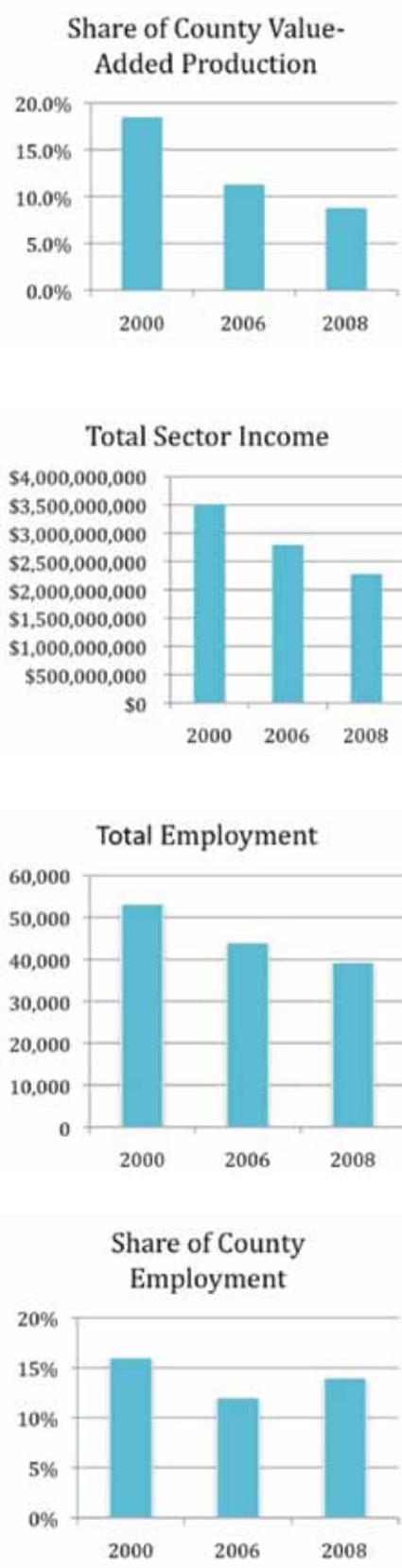


TABLE 1: Guilford County: Trends in the agriculture and agribusiness sector 2000-2008

	2000	2008	% change
Total income of sector	\$3,507,922,821	\$2,277,938,455	- 35%
Share of county value-added production	18.49%	8.8%	- 9.7%
Total employment	53,200	39,721	- 26%
Share of county employment	16%	14.2%	- 1.8%

**AGRICULTURE AND AGRIBUSINESS
IN GUILFORD COUNTY**

The following are statistics of land area in use for agriculture and agribusiness in Guilford County.

- > 413,565 total land acres
- > 95,519 acres in farmland (23.1%)
- > 34,986 acres of harvested cropland (36.6% of farmland)
- > 963 farms (2007 Census of Agriculture)

The figures below compare the land area in use to the population of Guilford County from 1950 to present, as well as the number of farms in the County over the same time period. These evidence that Guilford County’s agricultural industry has a huge economic impact, though it has been in decline since 2000.

FIGURE 2: Population vs. Farmland, 1950-2010

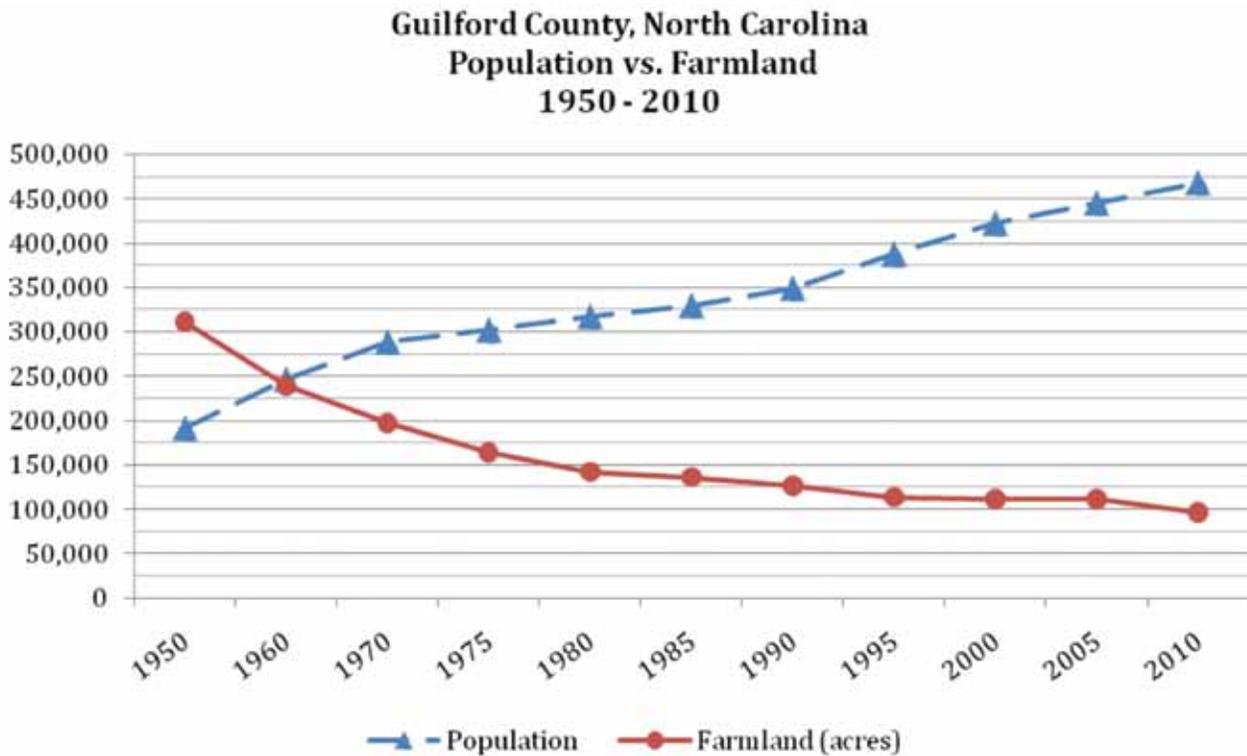
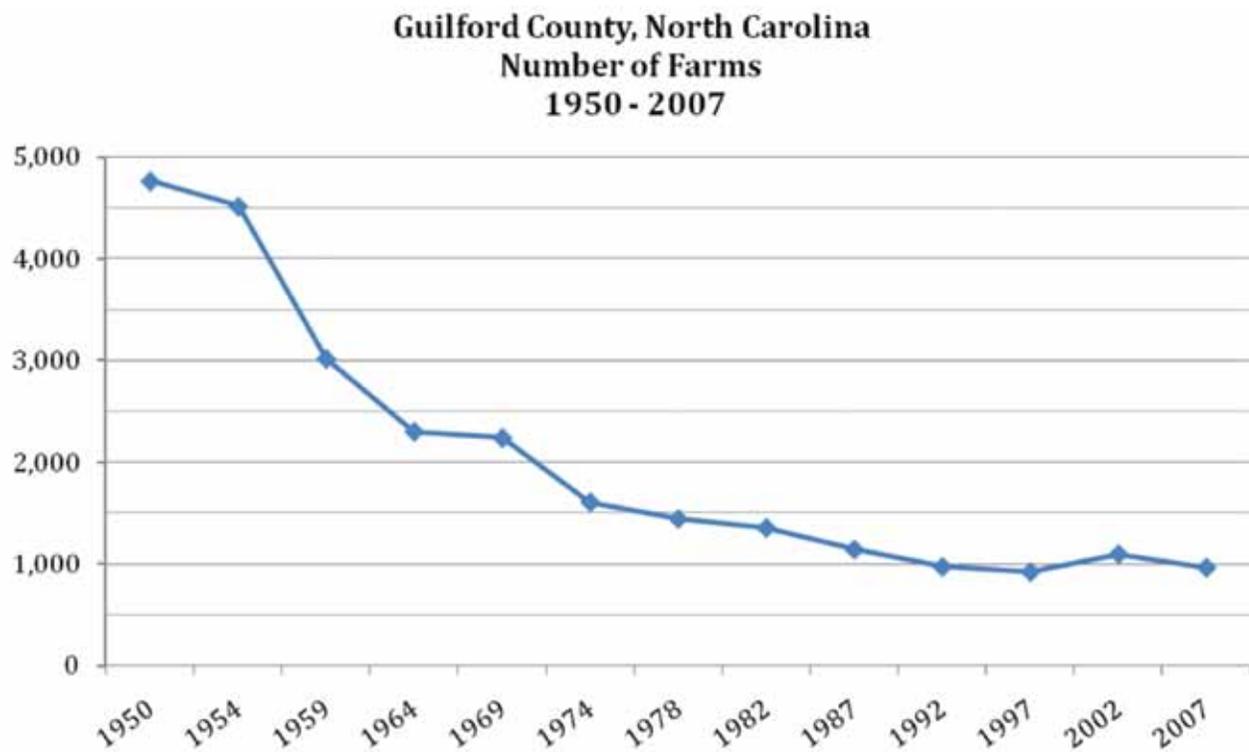


FIGURE 3: Number of Farms, 1950-2007



GUILFORD COUNTY RANK IN MAJOR NC COMMODITIES (AMONG 100 NC COUNTIES):

Out of 100 North Carolina counties, Guilford ranks in the top 50 for 10 major commodities, and in the top ten for strawberries, nursery products and milk cows. These standings demonstrate that Guilford County is an important player in North Carolina's top industry, and Guilford County has a great deal to lose if farms and farmland continue to disappear.

- > Strawberries – #3
- > Nursery, greenhouse, floriculture and Christmas trees (\$22,128,000) – #7
- > Milk cows – #8
- > Hay – #16
- > Cattle – #17
- > Flue-cured tobacco – #31
- > Hogs – #46
- > Wheat – #46
- > Corn for grain – #58
- > Soybeans – #59

- > Cash receipts 2009
 - Livestock, dairy, poultry – #49
 - Crops – #35
 - Government payments – #48

While major commodities in Guilford County provide the most income, many farmers are transitioning to alternative business models based on local foods and specialty crops. Common vegetables for sale at markets include tomatoes, lettuce/spring greens, squash, okra, pumpkins, melons, peas, beans, herbs, and sweet potatoes. Other specialty crops grown in Guilford County include hops, edible mushrooms, blueberries, blackberries, muscadines, vineferra grapes (wine), flax, popcorn, persimmons, pecans, walnuts, chestnuts, peaches, apples, figs, and even kiwis.



flax, hemp, indigo, dairy and honey (Stockard, 1902). Even in the early decades of the 20th Century, County Commissioners made poignant efforts to make — and keep — farming attractive to the County’s residents, especially the women and children. Home Demonstration Groups and vocational efforts in the schools encouraged large- and small-scale farming, farm management, canning and local food distribution.

These efforts, locally and statewide, grew into what became the North Carolina Agricultural Extension Service. Through the years the Extension Service has become an integral source of education and information for aspects of life that intersect with the agricultural community — that is to say, every aspect of life, rural and urban.

B. History

The area that is now Guilford County was first settled by immigrants from Pennsylvania migrating south along the Great Wagon Road because much of North Carolina’s Eastern Swamps were challenging terrain. Guilford County was officially established in 1771. And because settlers entered a land rich in fertile, unspoiled soil, agriculture was then — as it is now — the wealth of the community.

After the Civil War, many County residents were destitute and planned on heading west. However, in order to help the community residents begin anew, 200 acres were purchased by the Quakers (1867) to create a “demonstration farm” (or the Guilford Model Farm) — an effort that attracted statewide attention, as it included state-of-the-art equipment and building construction. The project revitalized the community and, according to the farm’s visionary, Frances T. King, “After three years duration, it has made wonderful progress, revolutionizing the whole neighborhood.” The Guilford Model Farm persisted only until the 1891, but was integral to inspiring and educating County residents in the ways of successful farming life.

Agriculturally, Guilford County is well documented as a productive region where homesteaders provided for themselves with wheat, corn, tobacco,

One example of Guilford County’s commitment to agriculture and how the industry contributes to the community is the Guilford County Prison Farm, where inmates contribute to the farm’s productivity and learn practical skills. Approximately 139 inmates work on the 806-acre farm, which has 350 head of cattle, hay and corn. Inmates also grow a variety of garden vegetables and fruits and greenhouse ornamentals. This is the only such prison farm model in North Carolina, setting Guilford County apart as a leader in farmland preservation.



II. THE ECONOMICS OF AGRICULTURE

Agriculture and agribusiness — defined as food, natural fiber and forestry — account for more than one-fifth of North Carolina’s income and employees. The industry’s contribution to Guilford County is also significant, with total employment (2008) at 42,585, or 11% of County employment. While employment is one factor of agricultural economics, there are several aspects that must also be addressed to capture an accurate picture of Guilford County agriculture, its trends, challenges and opportunities. (See Appendix A for the full Guilford County Agricultural Report, developed in preparation of this Farmland Protection Plan.)

A. Agricultural Economic Trends

RURAL PROPERTY VALUES: A LOOK BACK (1950 TO 2010)

As part of the preparation for this Farmland Preservation Plan, PCC and its partners completed a study of the evolution of agricultural land prices in Guilford County in order to help analyze possible stress on farmland. The evolution of property values and property tax rates since 1950 was surveyed to study the relevant changes in Guilford County. (See Appendix B for the full report.)

Using the available resources and extensive research (see Appendix B for details), average rural land prices per acre in Guilford County were compared between 1950 and 2007 (see Figure 4). These data were then graphed while adjusting for inflation using multipliers provided by the United State Department of Treasury database, so all prices would reflect the purchase power of the 2010 dollar. This purchase power indicates a more direct comparison in land prices from 1950-2007 (see Figure 5).

FIGURE 4: Actual Price per Acre in Guilford County

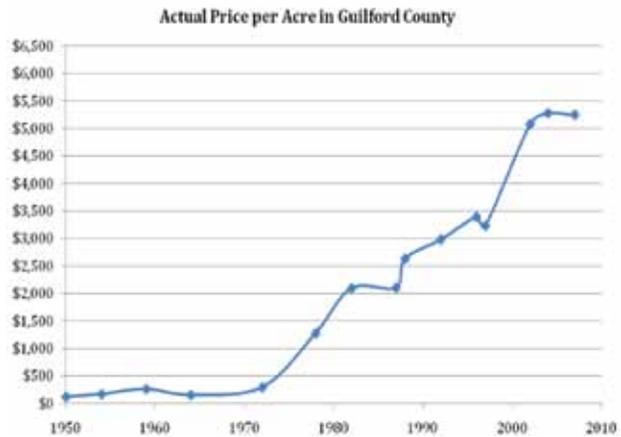
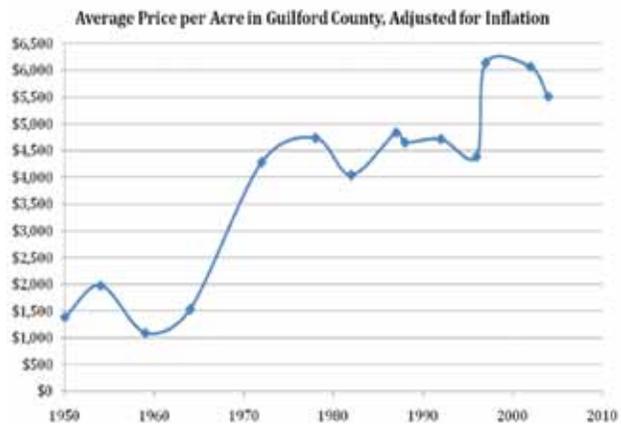
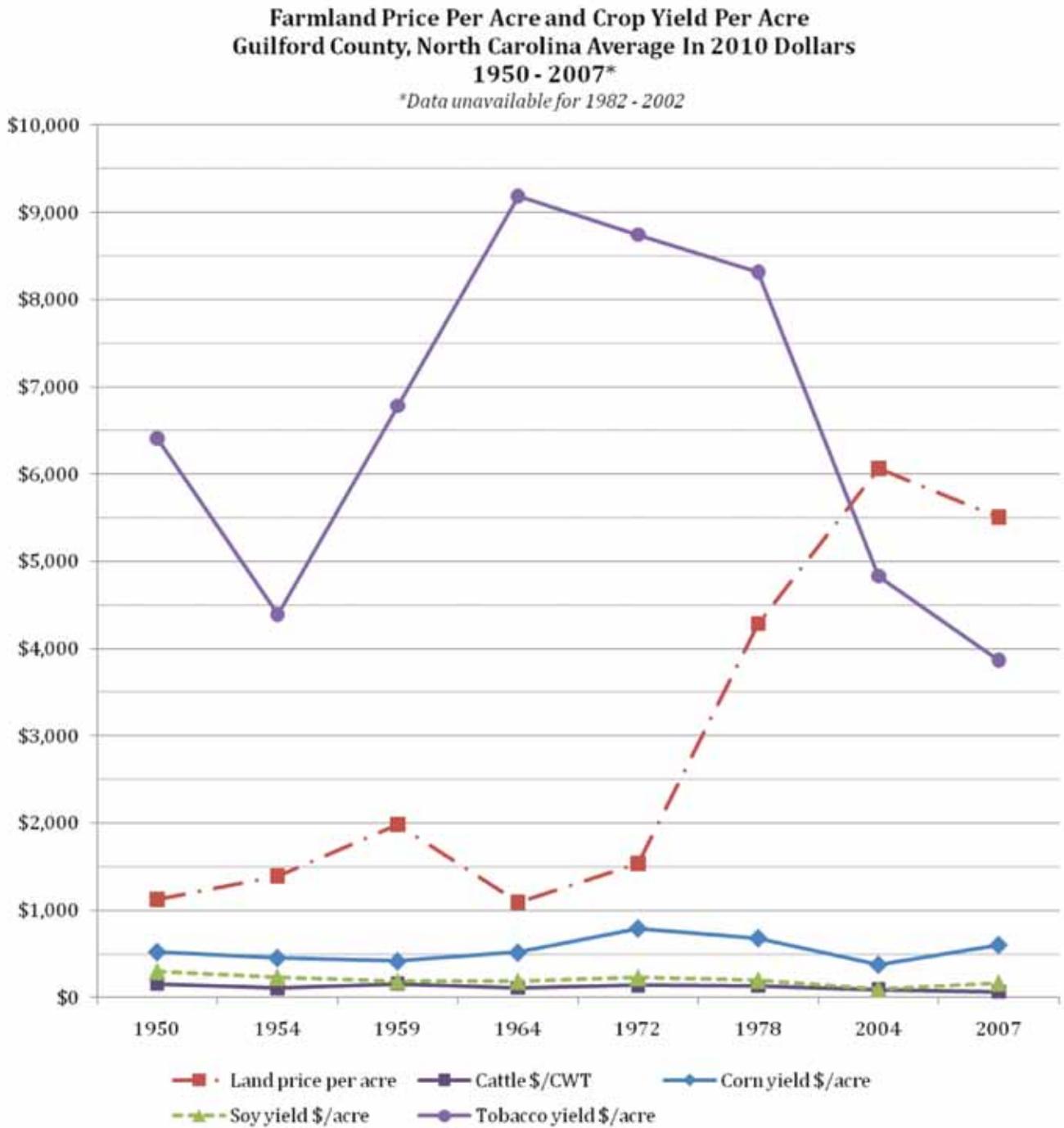


FIGURE 5: Average Price per Acre in Guilford County, Adjusted for Inflation



It is obvious that rural land prices in Guilford County have seen a dramatic rise in the past six decades. Not only have prices increased approximately \$1,500 per acre per decade since 1970, but even when adjusted for inflation, price/acre still increases substantially, showing that inflation outpaces net annual revenue of land for many farm communities. Revenues for agricultural product sales are on the decline, while costs of production are on the rise, all contributing to a decrease in the profit margins for Guilford County’s farmers. The following figure demonstrates this trend.

FIGURE 6: Farmland Price per Acre and Crop Yields



OBSERVED AGRICULTURE ECONOMIC TRENDS

- > Guilford County agribusiness retailers consistently share a common observation: There are fewer farmers, and the ones that remain have grown their businesses into larger farms. Margins are slim, and farmers are required to be better operators and better businessmen. Moreover, in some parts of the County agricultural retail has adjusted to changes in land use, increasing market share in lawn/garden sector (mini-farms of 10-20 acres) and away from commercial agriculture.
- > Agribusinesses are also doing more of the chemical application, as opposed to farmers applying chemicals themselves. Due to the technicalities of spraying, advanced equipment being cheaper to rent than buy, and the legal liabilities of chemical application, many farmers are choosing to outsource application. However, more farmers are also “going organic” due to increased consumer demand for organic products.
- > Strawberries are a growing market, as are vegetables. One seed retailer interviewed for this study stated that they sold twice as many vegetable seeds in 2009 than they did in 2008.
- > Mini-farms and rural residential customers are buying into what is termed as the “rural lifestyle” — and purchasing trends are following. These customers are buying their own chickens and even

canning supplies. Factors that could be attributing to this trend include food safety concerns, desire to grow and store the family’s food, as well as the financial necessity to do so, and the ability to fulfill food preferences locally and affordably.

- > Farmers are retaining and repairing old equipment, versus purchasing new. Many reported using tractors purchased in the 1970s when commodity prices were high.
- > Seed technology is in a constant state of change. There are high oil corns, low oil corns, diabetic seeds, drought tolerant seeds, etc. Genetically modified seeds are the dominant seed being used on Guilford County commercial farms. These seeds are owned by corporations and have proprietary restrictions from the companies that produce them.
- > After the tobacco buyout, agribusiness retailers have noted significant changes in planting trends, including a change to soybeans and wheat crops. Many retailers also diversified into lawn and garden to also meet growing demands from the mini-farms or “rural lifestyle”.
- > More farmers must understand creative marketing skills for their products if they sell locally, especially with respect to specialty products, such as wine, cheese, fruits and local produce, in order to be competitive at the wholesale or direct consumer level.



B. Challenges to the Business of Agriculture

- > **Absence of a Cash Crop:** To Guilford County farmers and agriculture businesses, tobacco always emerges as the first topic of economic discussion. When tobacco was at its peak and the entire farm economy in Guilford County was approximately \$60 million, there were 5500 acres of tobacco, grossing close to \$20.6 million. Still the top crop dollar-wise today, tobacco counts for about 2100 acres for approximately \$8.75 million annually — a significant drop.



- > **High Land Values:** According to some farmers, *“It seems like the only way to make money off our land these days is to plant houses.”* The most common crops grown in Guilford County are corn, soybeans and wheat, typically bringing in \$200-\$450 per acre in gross sales. Without a replacement cash crop that brings farms a similar rate of return on acreage that is higher than the value of the land, farmers will continue to look at the land’s value for development as their only remaining source of income.
- > **Lack of Profitability:** Making a profit on the land is a considerable challenge for the Guilford County agricultural sector, as farm revenues have been in a state of decline over the last decade. Factors that affect farm profitability include declining revenues from farm commodities, rising input costs such as fuel, feed, fertilizer and equipment, and business operating expenses such as labor, maintenance and taxes.

Charting historic trends in farm commodities over time and adjusting for inflation paints a bleak economic picture for the business of making profits off of the land. The average land price per acre for rural farmland in Guilford County sold for

farmland in 2007 was approximately \$5,300 per acre. Today farmers expect to pay about \$6,000 - 8,000 an acre if they want to expand their operations, while intending to get \$8,000-\$10,000 an acre off of the land that they currently own.

Farm net income is tracked as part of the Census of Agriculture, and has gone from an average of \$60,000 in 1999 to \$44,200 in 2008. In Guilford County, it costs about \$350-\$400 an acre of input costs for corn, including seed purchase, fertilization and crop maintenance. With a good crop of corn bringing in about 100 bushels per acre and selling for \$4.00 a bushel, the math is easy: Farmers are just breaking even. Many farmers have to seek other forms of income off the farm in order to survive.

Livestock has also been impacted by declining revenue. In 1973, and again in 1979, a 500-pound cow was worth over \$1700 (adjusted for inflation for 2010 dollar comparison). In 2009 a 500-pound cow sold for \$700.

- > **Dairies in Decline:** In 1987 there were 57 registered dairies; in 2010 there were only six. When adjusting for inflation, bulk milk prices have been on the decline since 1985 (with the exception of 2007 when milk prices spiked to historic highs, then rapidly fell in 2008 and again in 2009 to their lowest in 25 years). Variances in fuel, feed, processing technologies, labor, cow prices, waste, etc., all factor into profitability.
- > **Farm Infrastructure is Less Local:** The infrastructure associated with the business of farming is dwindling. Local markets to sell commodities have closed, forcing farmers to haul their goods to other parts of North Carolina and Virginia. Livestock producers must travel to Siler City or Mount Airy to sell their cattle. Grain can be sold in the County, but there is limited demand and storage; most farmers take their corn, soybeans and small grains to Raleigh and other locations outside Guilford County. As transportation costs increase, long distance travel to market commodities could make farming even less profitable.

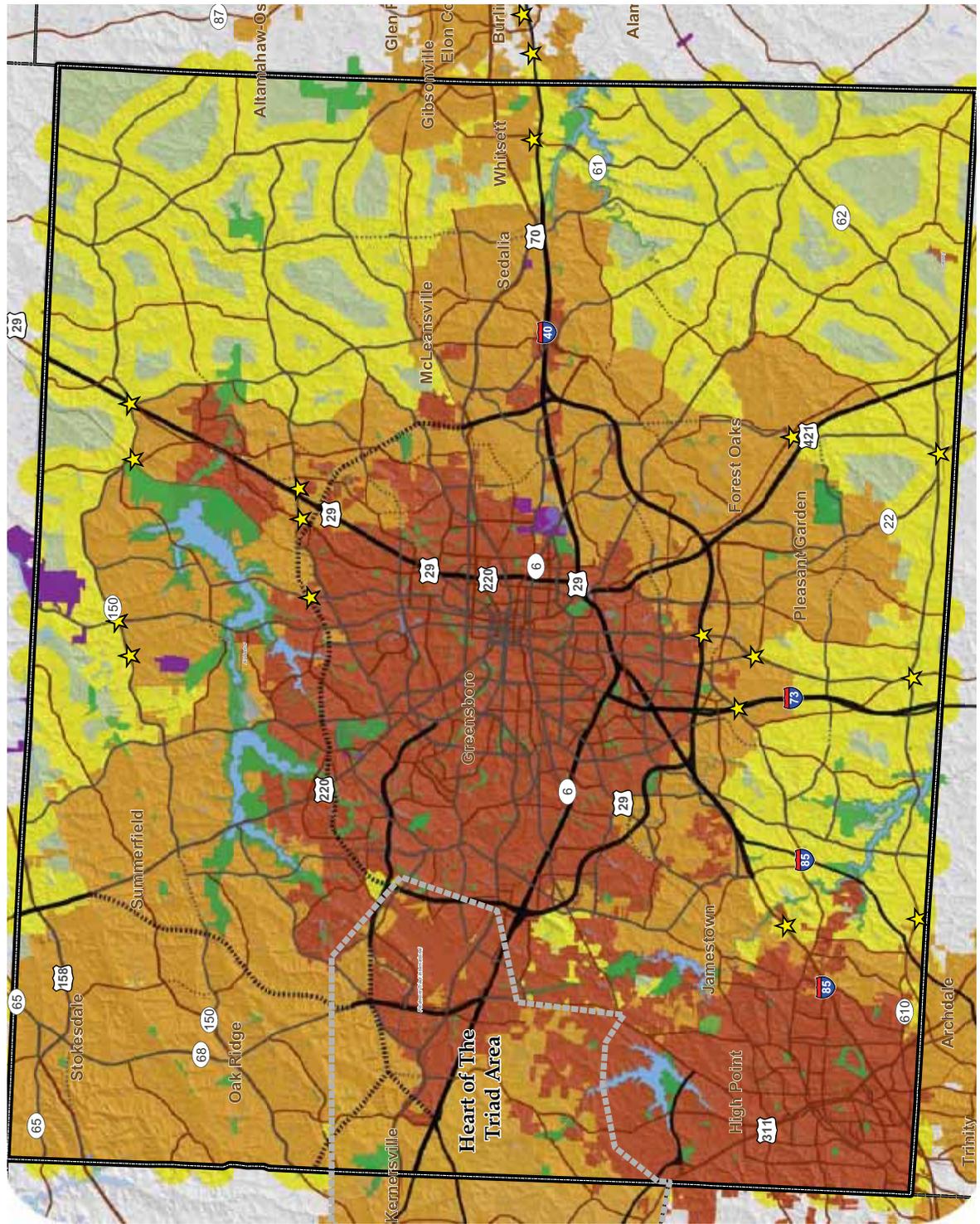
- > **Farm Management:** Farm management is becoming increasingly complex. Farmers have to look at input costs, spend time analyzing federal programs, assess their eligibility, evaluate disaster programs, make sure insurance is adequate, etc. Even with access to the global marketplace and commodity information via the Internet, it remains difficult to calculate all the variables associated with farming, especially with respect to weather and pests.
- > **Global Economy:** With an increasing international demand for potash, phosphate and other chemicals (from China, for example), supply becomes more limited, leading to higher fertilizer costs. High fuel costs also drive fertilizer costs higher. In recent years, fertilizer has doubled in price, and this will continue to put increasing pressure on profit margins. Larger farms have more control over input costs, but there are very few farms in excess of 600 acres in Guilford County.

- > **Urban/Residential Encroachment:** In many cases farmers could make sufficient income off of a few acres of tobacco; however grain, corn and soybeans require more land to turn a profit. Farmers in Guilford County may not have sufficient landmass to maximize their economy of scale. The growth of residential neighbors also poses liabilities, including increasingly dangerous roadways, complaints about odors from chemical or waste application, and trespassing dangers.

The map (right) depicts the threat of farm conversion for land in Guilford County. The map was created using ranking criteria for farmland conversion based on areas of existing and future potential development. A larger map and summary of the ranking process is available in Appendix C.



FIGURE 7: Threat of Farm Conversion Ranking Map



Guilford County Farm Preservation

Threat of Farm Conversion Ranking Map

Legend

- Federal and State Land
- County Parks, Conservation Land and Open Space
- Commercial Nodes

Farm Conversion Ranking

- Fully Developed
- Higher Conversion Potential
- Moderate Conversion Potential

The ranking criteria for farmland conversion is based on areas of existing and future potential development and is based on the following:

Highly Developed:

- > Greensboro and High Point city limits

Higher Conversion Potential

- > Within City or ETJ limits
- > Heart of the Triad area
- > Areas with water and sewer services

Moderate Conversion Potential

- > Areas outside of city limits, zoned for development but with out water and sewer, and
- > Areas within 1/2 mile of a major road or thoroughfare.

Criteria of ranking was developed by the Piedmont Conservation Council team.



0 0.5 1 2 Miles

C. Future Economic Opportunities

- > Most agribusiness study participants believe that the local food economy offered the most potential for future economic growth. All agree that diversification is key, but there is shared uncertainty as to exactly what large-scale diversification entails. (There are farms in Guilford County experimenting with or investigating alternatives such as the ornamental landscape market, berries, cotton and wineries.)
- > Horses seemed to be an emerging market; however, the increasing cost of feed has led to a recent drop in grainery sales — and in farmers keeping their horses. Small mammals, such as goats, have increased, and free-range chicken and egg sales are up as a secondary income for some farms.
- > Technology offers a solid opportunity for economic growth. Technologies in seeds and chemicals are increasing yields. As input costs increase and commodity prices stay stagnant, yield increases stand as one of the few opportunities to support economic growth.

III. LAND-USE DECISIONS: THE COST OF COMMUNITY SERVICES

In counties that surround or are near rapidly growing urban areas, there is considerable debate over the desirable mix of land uses and the role that local government can and should play in affecting the rate at which new land uses supplant traditional ones. This has become a national discussion — a discussion in which Guilford County has become engaged. Guilford County's desire for continued economic growth, as well as that of the adjoining counties of the Piedmont Triad, has created unprecedented demands for residential and commercial development, particularly in Guilford County's rural areas.

Development pressure has created heated debate around the nation, the state and Guilford County. One side welcomes residential and commercial growth because it has created significant economic development opportunities for Guilford County's citizens. The other side, however is concerned that the



cost of community services needed to accommodate accelerated residential development exceeds the contribution of that development to Guilford County's revenue base. Plus, commercial/retail centers tend to have a limited lifespan. Some study participants noted that suburban retail shopping centers blight their communities because newer shopping areas have shifted retail. The old shopping centers are often vacant or interspersed with lower rent retailers. Many of these shopping centers were built on farmland between 1960 and the mid-1980s.

One important element of public debate over appropriate land use policies is whether or not increased Guilford County government expenditures on community services needed to accommodate residential development exceed the contribution of that development to the County's revenue stream. As part of the preparation for this Plan, a study and subsequent Report "The Cost of Community Services in Guilford County" were completed to assess this specific issue (see *Appendix D for full study*). The research quantifies the contribution to local government revenues of various types of land uses (residential, commercial/industrial and agricultural), and the demands on local government financial resources of those same land uses. This "snapshot" of current revenues and expenditures allows an assessment of the costs and benefits of different land uses from the perspective of local government finance.

The analysis presented in the Study and summarized here employs a methodology established by the American Farmland Trust, one that has been used in numerous Cost of Community Services (COCS) studies

throughout the U.S. Like those studies, the current research was motivated by two questions: (1) Do the property taxes and other revenues generated by residential land uses exceed the amount of publicly provided services supplied to them? (2) Does the fact that farm and forest lands are taxed on the basis of their Present Use Value — instead of their potential value in residential or commercial uses — mean that they are contributing less in tax revenues than the value of publicly provided services they receive?

As has been found in other North Carolina COCS studies, the answer for Guilford County to each of these questions is a resounding “no”. The residential sector costs the County more in services than it brings in from tax revenue. For each dollar’s worth of services that it receives, the County spends \$1.35 servicing residential taxpayers. Commercial and industrial land uses are the largest net contributors to the public purse, contributing \$3.44 in revenues for each dollar of publicly provided services that they receive. Despite being taxed on the basis of current land uses, property in agricultural land uses is found to be a net contributor to the local budget, generating \$1.62 in revenues for every dollar of public services that it receives.



A. Key Findings

For Guilford County, the total general fund revenues for fiscal year 2007-2008 were \$542.5 million. About 54.9% of this money came from ad valorem property taxes, while another 15.8% came from sales taxes. Table 2 (below) summarizes the overall breakdown of County expenditures for the 2007-2008 fiscal year.

TABLE 2: Guilford County Expenditures for 2007-2008

Item	Expenditure	%
Education (including school debt)	226,834,437	42.1%
Human Services	172,861,739	32.1%
Public Safety	80,919,267	15.0%
General Government	21,400,998	4.0%
Support Services	14,889,794	2.8%
Non-school Debt Service	12,519,167	2.3%
Community Services	9,236,108	1.7%

Table 3 summarizes revenues and expenditures by land use category. It can be clearly noted that expenditures exceeded revenues for the residential land use category, while revenues exceeded expenditures for the commercial and agricultural land use categories. The computed revenue/expenditure ratios quantify the extent to which each of the three land use categories is either a net contributor or a net drain on Guilford County’s financial resources. (For comparative purposes, the bottom of the table provides the results from some 103 other Cost of Community Services studies that have been conducted throughout the U.S., as well as five North Carolina studies that were conducted in Chatham, Wake, Alamance, Orange, Gaston, Henderson and Franklin Counties over the course of the past decade.)

TABLE 3: Revenues vs. Expenditures in Guilford County

	Residential	Commercial	Agricultural
Revenues	\$360,550,408 (66.93%)	\$177,442,355 (32.94%)	\$668,747 (0.13%)
Expenditures	\$486,634,851 (90.34%)	\$51,614,331 (9.58%)	\$412,328 (0.08%)
Revenues/Expenditures ratio^a	0.74	3.44	1.62
	Revenue/Expenditure ratios from national studies^b		
Minimum	0.47	0.96	1.01
Median	0.87	3.57	2.78
Maximum	0.99	20.00	50.00
	Revenue/Expenditure ratios from local studies		
Chatham County (1998)	0.90	2.13	1.09
Wake County (2001)	0.65	5.63	2.12
Alamance County (2006)	0.68	4.29	1.69
Orange County (2006)	0.76	4.21	1.38
Chatham County (2007)	0.87	3.01	1.72
Gaston County (2008)	0.81	2.41	1.13
Henderson County (2008)	0.86	2.52	1.03
Franklin County (2009)	0.89	1.90	1.32

a. This ratio measures the amount of county revenue contributed by a given land use sector for each dollar in public services used by that sector.

b. These figures are derived from 103 Cost of Community Services summarized on the American Farmland Trust website (http://farmlandinfo.org/documents/27757/FS_COS_8-04.pdf).

For each dollar in property tax and other revenues generated by residential land uses, Guilford County spends \$1.35 to provide services supporting those land uses. On the other hand, the other two land use categories are net contributors to local fiscal resources. For agriculture, every dollar earned in revenue takes just 62¢ cents in services. In the commercial land use category stands, Guilford County spends only 29¢ on services benefiting commercial and industrial establishments for every public dollar generated by those establishments.

It is important to recognize two important limitations of such COCS studies. First, COCS studies highlight the relative demands of various land uses on local fiscal resources *given the current pattern of development*. As such, one should be cautious in extrapolating from the results of studies such as this in order to gauge the impact of future patterns of development on local public finance. Nonetheless, the results of studies such as this are useful in informing debates over such issues as whether or not alternative types of land uses are likely to contribute more in tax dollars than they demand in the way of services. Second, the current focus does not address the *social value* of each of these forms of development — i.e., their contribution (positive or negative) to the wellbeing of the County's citizens. Rather it centers on the more narrow issue of whether or not these land uses “pay their own way” with regard to County revenues and expenditures. It is important to note that there is nothing sacred about an exact balance between revenues and expenditures associated with a particular land use, even when balancing the local budget is an overriding priority. Indeed, one of the primary functions of a local government is to redistribute local financial resources such that services desired by citizens are supplied, even when those services cannot pay for themselves. Determining the optimal distribution of those resources is a public policy issue to be resolved in the political arena.

Unabated residential growth without a balance of commercial land uses and agricultural land uses might lead to challenges in County revenues versus expenditures to service the bulging population. This could force citizens to pay higher taxes as a way to raise revenue to sustain services to residential land uses. Commercial/retail alone will not balance the books. Agriculture land use offers an important balance to the County's budget. As residential developments are considered for zoning, consideration should be taken by the zoning committees on the strain that more housing units will place on the budget over time.

This Plan provides a map for guiding these important land use decisions during the rezoning process. This policy tool shows areas of the County that are most important to preserve as agricultural land. With the understanding that some agricultural land will be converted to other uses, decision makers can use this map to guide residential development away from priority agricultural areas. (See Figure 8.) *For full map collection and summaries, see Appendix C.*



FIGURE 8: Farm Preservation/Land Conservation Priority Map

Guilford County Farm Preservation/ Land Conservation Priority Map

Legend

-  Federal and State Land
-  County Parks, Conservation Land and Open Space

Priority Ranking

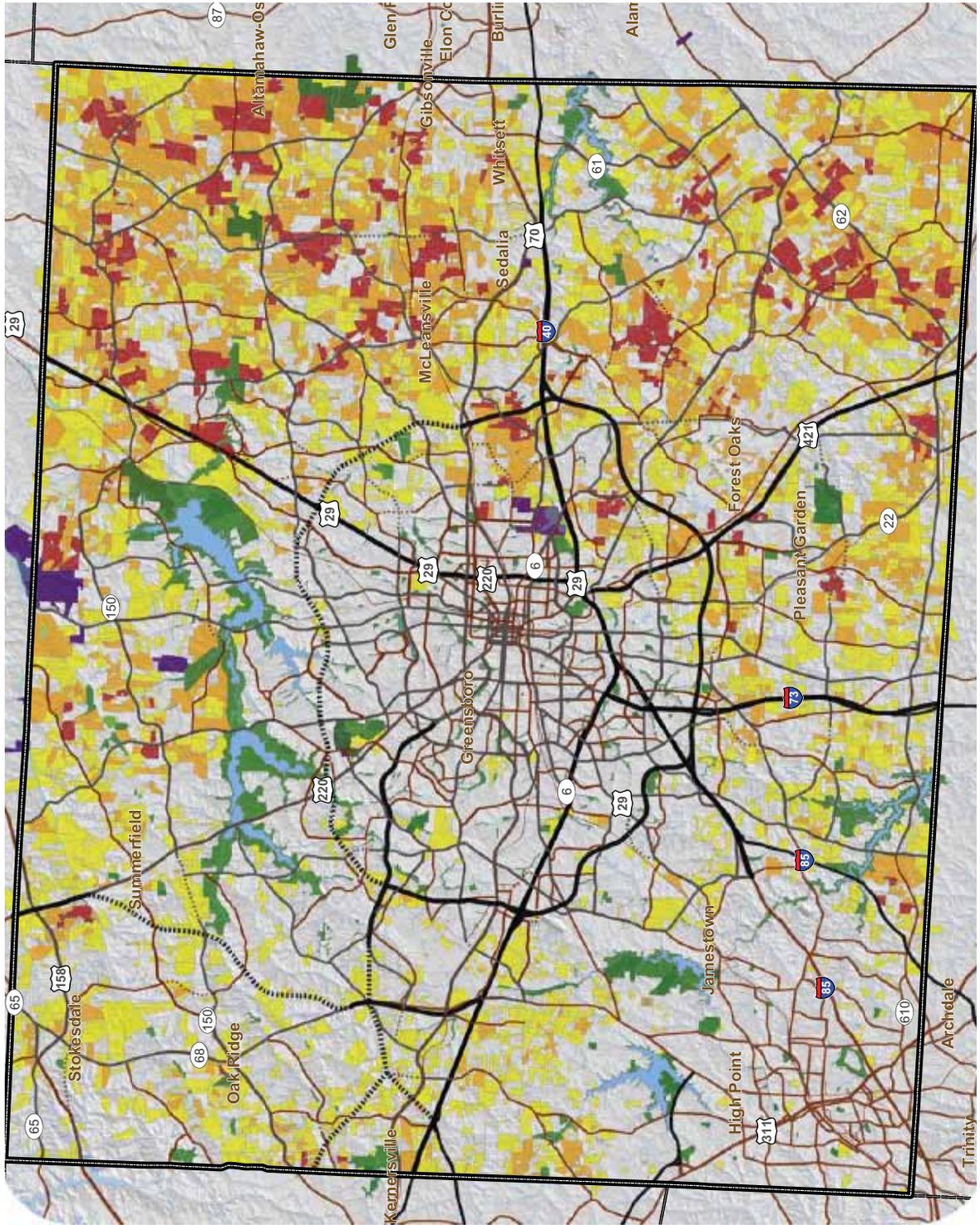
-  Lower Priority
-  Moderate Priority
-  Highest Priority

Parcels* were ranked on a number of different factors. Those tracts with the highest number of acres, proximity or significance of ecological features, ranked the highest.

Ranking attributes included:

- > Size of farm in production
- > Amount of stream buffer on each tract
- > Amount of Prime Soils on each tract
- > Proximity to Voluntary Ag Districts
- > Proximity to Open Space/Protected Land
- > Occurrence/ranking of rare species
- > Ranking of State Natural Heritage Area

* Parcels must have at least two or more acres of FSA agricultural land units or NC GAP Land Cover Data classified as pasture lands or fallow fields to be included in this ranking study.





IV. THE STATE OF AGRICULTURE & FARMLAND PRESERVATION: THE FARMERS' PERSPECTIVE

As part of the development of this Plan, a report was prepared to describe agricultural activity in Guilford County from the perspective the farmers themselves. Fifty face-to-face and/or on-farm interviews were conducted, and the data were compiled, analyzed and condensed (see the full Report in Appendix E). Farmers provided their valuable insight on the key issues such as: farmland development; the availability of wholesale and retail opportunities; the economic viability of farms; the need for public outreach and agricultural education (for farmers and the public); and the importance and difficulties of bringing new farmers to the profession.

A. Key Findings

- > **Agricultural lands are being sold for development.** This national trend is clearly occurring in Guilford County. Farmers are able to make more profit from their land by selling it to developers than they are by farming. And many farmers believe that this route is their only chance for a comfortable retirement, as their agricultural efforts have, in many cases, stopped generating profits.
- > **Lack of wholesale opportunities in Guilford County limits competition for grains and beef.** Farmers must travel considerable distances to find wholesale markets for their products, often out of the County. For example, there is a single grain elevator in Whitsett; but when it fills farmers must go farther to sell their grain. Beef producers, similarly, are driving to Mt. Airy or Siler City to sell or process their livestock.
- > **It is difficult for farmers to profit from wholesale.** Most of the farmers in Guilford County are producing grains, beef and/or tobacco; all report overall difficulties making a profit. Farmers who are diversified (with seasonal vegetables or specialty crop production) are more satisfied with their ability to make a living wage from retail sales, both on farm and at local farmers' markets, restaurants and other venues. Similarly, the only dairy farm that reported continual growth and a profitable business is directly marketing retail from local venues.
- > **There are too few local markets.** A few Guilford County vegetable and specialty crop farmers report selling at local farmers' markets around the County, and some expressed the desire for more opportunities to sell locally. Several farmers are moving toward vegetable production to diversify, but worry that current local farmers' markets will not be sufficient to support them.
- > **Public outreach and food education is lacking.** More outreach and education programs must be implemented to help consumers reconnect with their food, gaining a better understanding of where it comes from and appreciating the work that goes into it.
- > **Farmers are not aware of all their options with regard to farmland preservation.** Many farmers in the County are interested in farmland preservation and are scaling back their operations as they age and prepare to work less. When there is an interest in keeping land in production, there is uncertainty about how best to protect it. Farmers also expressed an interest in leasing their land to young farmers, who are just getting started.
- > **The average age of farmers is on the rise, and it is difficult to entice young farmers into agriculture.** High land prices, expensive inputs and low profits

make it difficult for newcomers to begin farming enterprises. When asked for advice on attracting young people to farming, existing farmers expressed disbelief in the possibility, given the present obstacles. Replacement farmers for the current ones aging out of farming will be critical to industry success.

B. Summary

Maintaining farmland, keeping it in production and attracting new farmers is a work of interconnectedness between the economic, social, cultural and political factors that affect the success of existing farms. It was determined by this study of farmers' perspectives that a successful plan to protect farmland must incorporate a community-wide approach and take into account the complexities of a viable, local agricultural economy.

V. FARMLAND PRESERVATION: PARTNERS & TOOLS

A. Conservation Partnerships

Protection of Guilford's natural resources occurs through partnerships public agencies and private organizations provide technical information and a broad range of incentives and options for landowners. These collaborations leverage local and private funding toward state and federal land conservation funding sources that require a local match. Conservation partners for Guilford County are listed here. *For further details regarding the differences of each partner's missions, Board appointments, project selection criterion and/or other contributing roles in conservation, see the full report in Appendix F or go to their websites.*

- > The **Guilford Soil and Water Conservation District** (SWCD) provides technical assistance to landowners and uses county, state and federal resources to implement local conservation priorities. www.co.guilford.nc.us/planning_cms/soils.html



- > The **North Carolina Cooperative Extension Service** shares university research results and provides educational programming on a wide range of production and land management issues, including farmland preservation tools and generational transition. www.guilford.ces.ncsu.edu
- > The **North Carolina Division of Forest Resources** helps private landowners manage their forestlands to achieve individual goals of timber production, wildlife habitat and recreational enjoyment, while protecting soil and water quality for all of the County's citizens. www.dfr.state.nc.us/Contacts/d10.htm/
- > The **Agricultural Districts Advisory Board** (ADAB) has the primary responsibility of administering the Voluntary Agricultural District (VAD) program. State and County staff serving the SWCD and Cooperative Extension also provide facilitative support. The ADAB shares information on local, state and federal issues impacting agriculture, and provides feedback to the County Commission on ways to strengthen Guilford's farming sector. <http://www.agdistrict.com>
- > The **Guilford Open Space Program** has been the primary government entity that the County has tasked to protect land from development. Established by the County Commission in 2000, it grew out of a citizens' advocacy group that desired the protection of open space. www.gcms0004.co.guilford.nc.us/webapps/parks/default.asp

- > The **Piedmont Conservation Council** (PCC) is part of a network of regional Resource Conservation and Development non-profit organizations, whose mission is *“leveraging resources and people for innovative community and conservation projects throughout the Piedmont Region,”* which includes Guilford County. Their expertise is in acquiring funding for special project initiatives.
- > The **Piedmont Land Conservancy** (PLC) is a non-profit, grassroots land trust serving Guilford County with a mission to *“permanently protect important lands to conserve our region’s rivers and streams, natural and scenic areas, wildlife habitat, and farm land that make the Piedmont a healthy and vibrant place to live, work, and visit for present and future generations.”* www.piedmontland.org
- > **Greensboro Beautiful** is a non-profit that works in partnership with the City of Greensboro to bring private businesses, citizens and community organizations together to conserve and enhance the beauty and ecology of the community. www.greensborobeautiful.org
- > **North Carolina Farm Bureau** is a grassroots non-profit organization that acts as a unified voice for promoting the agricultural industry and farmers’ needs in the U.S. Congress, the NC Legislature and in local matters. The Guilford County chapter is active in their efforts to educate the Guilford County Commission on the current state of local agricultural production and the benefits of continuing to support the County’s agricultural sector, highlighting farmland preservation. www.ncfb.org/counties/countyProfile.cfm?countyID=041
- > **North Carolina Agricultural and Technical University (NC A&T)** — NC A&T University is located in Greensboro. The University is committed to exemplary teaching and learning, scholarly and creative research, and effective engagement and public service. Specifically, the School of Agriculture has a rich history of innovation and application of cutting-edge technology. The School boasts strong Laboratory Animal Science and

Landscape Architecture programs, as well as award-winning Cooperative Extension and Agricultural Research programs.

B. Toolbox

There is no silver bullet for protecting farmland. A wide variety of farms are owned by an even wider variety of families, full of individuals with differing needs and goals. An effective farmland protection strategy must offer a broad spectrum of tools that can be used to keep land in agriculture.

North Carolina and Guilford County offer a range of voluntary programs for landowners to ensure that their land will not be converted to non-farm uses. These programs require energetic public- and private-sector partners to help landowners achieve their goals, and they can also help the County meet public goals of managing growth wisely, protecting natural resources and supporting local economic development through agricultural businesses. Seeing where these programs are most heavily utilized also gives local government a good sense of where their stable agricultural communities are located, helping them craft policies to guiding appropriate services towards those areas and steer development elsewhere.

Various farmland protection tools are available to Guilford County landowners. These programs vary by eligibility requirements and length of commitment, and many of them can be combined and overlapped on an individual property. *For more detailed information about these tools, see Appendix F.*

1. Tax Policy

A. PROPERTY TAX INCENTIVES

Present Use Value (PUV) tax assessment allows for agricultural and forested land to be taxed at its use value for farming, rather than its market value for development. Minimum acreage to participate is five acres of horticultural land, 10 acres of agricultural land and 20 acres of forested land. There are also specific state-mandated participation requirements regarding ownership, income and management. The Guilford County Tax Department has produced a user-friendly brochure

explaining the program requirements to landowners. http://www.co.guilford.nc.us/departments/tax/docs/present-use%20_value_brochure.pdf

A total of 8,452 farms, covering 121,642.18 acres, were enrolled in the PUV program in Guilford County in 2009. Approximately 61,659.41 of these acres were classified as agriculture, 132.75 as horticulture, and 59,850.02 as forestry. *Note: The County tax office typically revises their figures on the program in November of each year. These are the figures from November of 2009. Please see PUV map of Guilford County Enrollment as of August 2010 in Appendix C.*

Staff from the County tax office feels that the PUV program is operating well in Guilford County. As properties change hands (whether through sale or inheritance), it is important for new owners to be familiar with specific requirements to keep land in the program, as specified by state statute.

B. SALES TAX INCENTIVES

Commercial farms can receive an exemption from sales tax on certain items used in their farming operations. Farm machinery, containers, tobacco-drying equipment, grain-storage facilities, fuel, potting soil, feed, seed and fertilizer are completely exempt from state and local sales taxes. To utilize the exemption, farmers must obtain an exemption number from the NC Department of Revenue.

C. INCOME TAX INCENTIVES

Farmers report agricultural income on IRS Schedule F. An experienced agricultural tax provider can provide enormous savings by understanding deductions, depreciation and other tools to keep taxes in check.

Donated agricultural conservation easements offer tremendous state and federal income tax benefits. See the section on easements below.

The federal tax code offers federal income tax credits of 20% of the cost for the rehabilitation of historic farm buildings. The building must be part

of a historic district or listed on the National Register of Historic Places.

2. Authorized Programs & Concepts

A. VOLUNTARY AGRICULTURAL DISTRICTS

Local Voluntary Agricultural Districts (VAD) programs allow farmers to establish areas where commercial agriculture is encouraged and protected. Authorized by the North Carolina General Assembly in the 1985 Farmland Preservation Enabling Act (N.C.G.S. 106: 735-744) and implemented at the county level, VADs facilitate partnerships between farmers, county commissioners and land use planners. Guilford County first passed a Voluntary Agricultural District Ordinance in 2000 (Guilford County Code Ch. 15 Art. III).

As of August 2010, 272 farms are enrolled, a total of 13,700 acres in the Guilford Voluntary Agricultural District Program. *Please see map of current Guilford County VAD enrollment as of August 2010 in Appendix C.*

Guilford County's VAD ordinance offers a set of benefits authorized in the state Farmland Preservation Enabling Act for landowners participating in the VAD. The benefits are in exchange for a voluntary commitment to restrict development on their land for a 10-year period. Landowners maintain the right to withdraw from the program at any time without penalty. Benefits include protection from nuisance lawsuits, waiver from water/sewer connections, 10-year restriction on development, eligibility for more conservation funds, and community recognition.

The VAD program is administered by the Guilford Soil and Water Conservation District, which processes applications and helps create a map of enrolled farms for display in County offices. This establishes a visual and quantifiable presence for local farms, raises public awareness of agricultural activity and helps leaders plan future development that will support and encourage the continued viability of local agriculture.

B. ENHANCED VOLUNTARY AGRICULTURAL DISTRICTS

Revisions to the state farmland preservation legislation in 2005 authorized a new Enhanced Voluntary Agricultural Districts (EVAD) option that counties and cities can add to their local Farmland Preservation ordinances. This EVAD option created a new category that would offer landowners an additional tier of benefits if they were willing to waive their right to withdraw from the VAD program at any time. Those landowners who wished to retain their right for immediate withdrawal could continue under current guidelines. As of August 2010, 20 North Carolina counties had adopted EVAD ordinances.

Benefits are the same as the VAD, but landowners receive a higher cost-share percentage on USDA and NC farm programs.

Guilford County has not yet adopted an Enhanced Voluntary Agricultural District program; thus, this offers a new farmland protection tool to be considered in the near future.

Development of this farmland protection plan has revealed several possible additional EVAD benefits, which could be added to the toolbox to help support agriculture and guide development away from active farming communities.

C. AGRICULTURAL CONSERVATION EASEMENTS

An Agricultural Conservation Easement (ACE) is a voluntary deed restriction that landowners can place on their land. It can be permanent or have a term limit, and it restricts non-agricultural development. Landowners retain ownership of the property and can continue to farm as they choose. Public access is not required, and the land can be sold or passed along to heirs. However, future owners must abide by the terms set by the original granting landowner of the easement. This ensures that the land always will be available for agricultural use. An ACE may legally be held by a non-profit land trust such as Piedmont Land Conservancy or by a local government.

1. **Donated Agricultural Conservation Easements**
Landowners who *donate* an agricultural conservation easement may receive a federal income tax charitable deduction, as well as a reduction in the value of the property for estate tax purposes. North Carolina also has a unique state conservation tax credit, available for donations of property or easements for conservation purposes. The federal and state tax incentive available depends on the tax year, as tax laws are constantly manipulated by the legislatures, but depending on the law during the year the donation takes place, the land owners deduction or tax credit is based on the value of the development rights donated to the grantee.

2. Purchase of Agricultural Conservation Easements

A powerful tool used with increasing frequency around the country is to provide direct financial compensation to landowners interested in placing an ACE on their farms. This is known as the **Purchase of Agricultural Conservation Easements (PACE)** or **Purchase of Development Rights (PDR)**. Funding for these purchases comes from local, state, federal and private sources. Demand for these funds generally outstrips supply, and conservation partners must use considerable creativity and persistence in leveraging different funding sources on individual projects.

D. RANKING SYSTEM

In counties where the County Commission or other local government body provides funding for the purchase of ACE, the Agricultural District Advisory Board, with assistance from any open space program and Soil and Water Conservation District Board, typically develops a numerical ranking system to prioritize farmland protection spending and efforts. This system creates an objective and transparent selection process to reflect the county's unique priorities and values. It looks at a broad range of factors relating to a farm's location, productivity and public benefit, and how this can contribute to the long-term viability of the property. The ranking system also typically considers any

factors given priority on applications to federal and state farmland grant programs to increase a farm's likelihood to acquire matching funds.

Scoring systems openly advertise the objective criteria used to weigh worthy projects competing for limited funding, demonstrating to the public a fair and transparent process, and assuring that top candidates for matching state and federal funds will rank highly in those scoring systems. Perhaps most importantly, creating/revising a ranking system engages the agricultural community to determine how best to preserve an agricultural future.

3. Current Funding

A. LOCAL FUNDING

As of 2010, Guilford County has provided no local funding for the purchase of agricultural conservation easements, while surrounding counties have been statewide leaders in this area. Alamance County provided \$100,000 through its VAD program to support applications to state and federal funding sources in 2007 and 2008. From 2004 to 2007, Orange County protected 716 acres on seven working farms through its Land Legacy Program; their 2001 bond measure included \$3 million for the purchase of agricultural conservation easements. Forsyth County created one of the country's first PACE programs in 1984; although funding support has lagged in recent years, the county has been able to protect a total of 1600 acres. Rowan County protected 2400 acres of productive farmland since 2003, in partnership with the Land Trust for Central North Carolina and the local SWCD.

B. STATE MATCHING FUNDS

Since North Carolina's original farmland preservation legislation was passed in 1985, the North Carolina Department of Agriculture and Consumer Services has operated the **Agricultural Development and Farmland Preservation Trust Fund** (ADFPTF), the primary statewide fund for the purchase of agricultural conservation easements. From 1998 to 2002, the ADFPTF gave out a total of \$2.4 million in five grant cycles, protecting

4,412 acres on 33 farms. No Guilford County farms were protected in this first phase of funding.

The passage of NC **House Bill 607** in 2005 revamped and revived the fund, which is now guided by a 19-member advisory committee providing recommendations to the Commissioner of Agriculture. Its mandate also has been expanded to fund a range of conservation agreements and enterprise programs that could improve long-term viability for the farming operation, with particular emphasis on supporting local VAD programs.

Guilford County submitted an application to the ADFPTF in 2008 to protect a county Dairy Farm. Although the project ranked very highly and \$250,000 in funding was approved by the ADFPTF, the Guilford County Commissioners chose not to provide any open space program matching funds to complete this project, citing objections to using public funding to protect privately owned land. They insisted that any Open Space bond funding go towards public ownership of land, rather than the purchase of a conservation easement. Given the risk of losing this large portion of leveraged state funding, the Piedmont Land Conservancy is working to complete this project with the assistance of leveraged local and federal funds.

The Clean Water Management Trust Fund

(CWMTF), funded by annual appropriations from the North Carolina General Assembly, issues grants to local governments, state agencies and qualified conservation nonprofits to help finance projects that specifically address water pollution problems. This funding can be used to purchase very strict no-disturbance conservation easements on portions of farms that serve as riparian buffers on waterways that provide significant water resources to the public.

See Figures 9 and 10. For full map collection and summaries, see Appendix C.

FIGURE 9: Federal/State Farm Preservation Funding Priority Map



**Guilford County
Farm Preservation
Federal/State Farm
Preservation Funding
Priority Map**

Legend

- Federal and State Land
- County Parks,
- Conservation Land
- and Open Space

**Farm Preservation
Funding Ranking**

- Highest Priority
- Medium Priority
- Lower Priority

Voluntary Ag. District (Nov 2010)

The ranking criteria depicts:

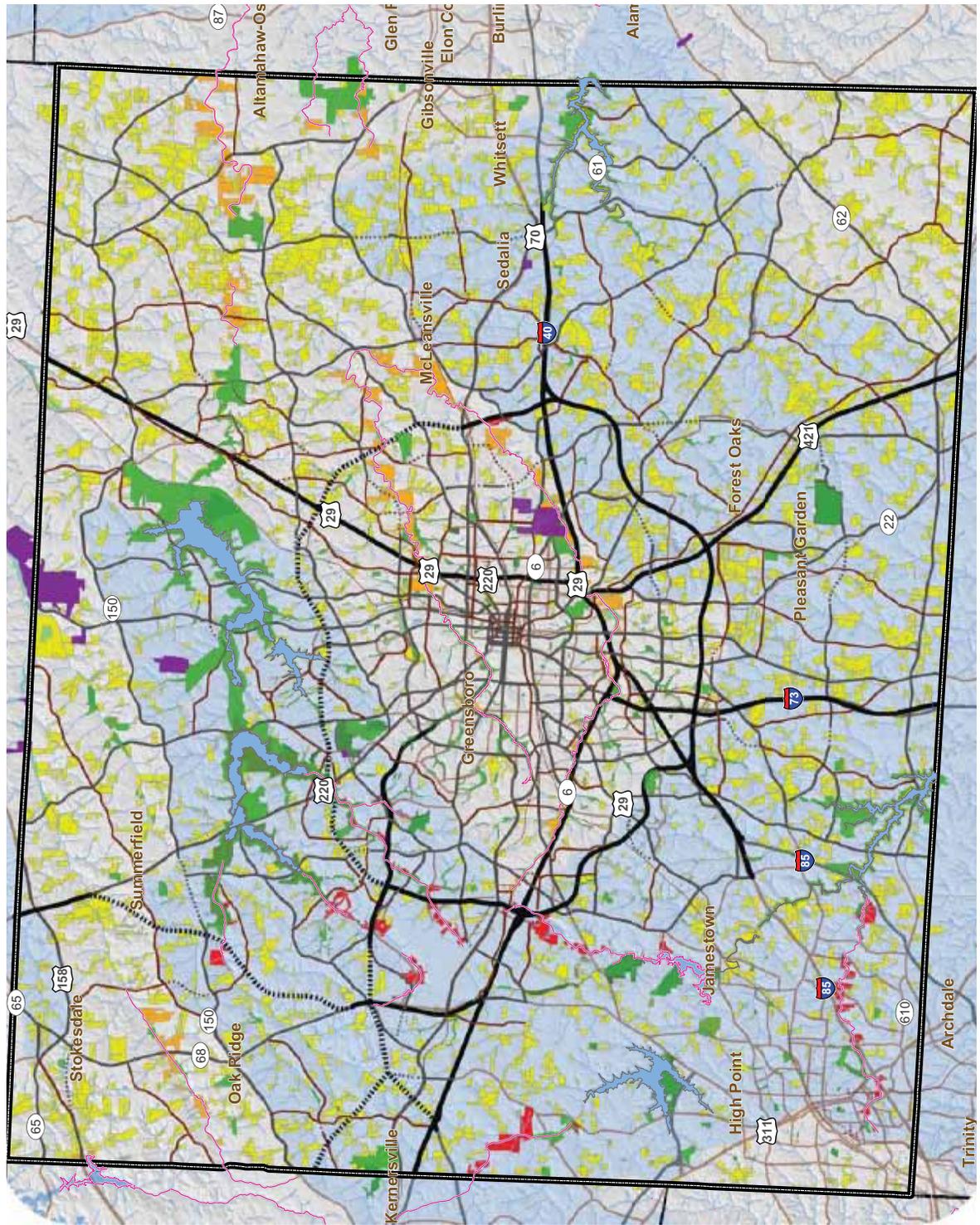
- Lower Priority**
- > Tracts less than 50 acres, and
 - > Tracts w/in 1 mi. of an existing VAD, and
 - > 50%+ ag lands & prime soils
- Medium Priority**
- > Tracts less than 50 acres, and
 - > Tracts within an existing VAD, and
 - > 50%+ ag lands & prime soils, and
- Highest Priority:**
- > Tracts <1 mi of Federal Land, or
 - > Tracts over 50 acres, and
 - > Tracts w/in a Voluntary Ag. Dist. (VAD), &
 - > 50%+ ag lands & prime soils

** Note: To be ranked, parcels have to have at least the lower priority ranking criteria. Even if a parcel is within a VAD, it does not have necessary quality for funding as it may not have 50% or more prime soils or agricultural lands.

Criteria of ranking parcels is derived from applications for State and Federal Farm Preservation Funding.



FIGURE 10: Water Quality Priority Ranking (CWMTF Criteria) Map



Guilford County Farm Preservation

Water Quality Priority Ranking (CWMTF Criteria)

Critical Watershed

303d listed stream (impaired water quality)

Water Supply Watershed

Water Quality Priority Ranking

Lower Priority

Medium Priority

Higher Priority

Protected Lands; State, Federal Lands

Federal and State Land

County Parks, Conservation Land and Open Space

High Priority

> Parcels with over 50% stream buffer

> Adjacent to 303d, impaired waters

> Located within a water supply area

Medium Priority

> Parcels with over 50% stream buffer

> Adjacent to 303d listed streams

Lower Priority

> Parcels with over 50% stream buffer

The above criteria was used when assessing parcels for possible funding through the Clean Water Management Trust Fund. Protection of areas that are highest ranked may be more likely to be awarded funding and help improve impaired water quality.



C. FEDERAL MATCHING FUNDS

The USDA Natural Resources Conservation Service (NRCS) provides matching funds (up to 50% of the value of the development rights) for PACE through its Farm and Ranch Lands Protection Program (FRPP). Only parcels large enough to sustain agricultural production are eligible. With NRCS assistance, participants develop a conservation plan that outlines the management strategies that they propose to use on the enrolled land. The North Carolina NRCS accepts applications from eligible entities during an annual application period.

4. *Additional Funding Options*

North Carolina's counties and municipalities have a limited range of funding options available to finance farmland preservation activities. Most matches for the state and federal programs mentioned above have been done through annual County appropriations process. Even when there is strong public support for farmland preservation on an annual basis, the ups and downs of the budgetary process make it difficult to plan strategically. Private funds have been leveraged in the past, but they are even less predictable as the challenging economy continues to decrease the availability of such donors. It may take two to four years before a project can be completed, and landowners find it difficult to make that commitment in an uncertain funding climate. A dedicated funding stream is much more effective in helping conservation partners plan ahead and access competitive state and federal funds.

A. MUNICIPAL BOND OPTION

The general obligation bond is the steadiest means of funding significant conservation investments at the local level. Bond funding is also useful in providing conservation funds quickly, before lands increase too much more in value. A bond must be approved by a majority of citizens at the voting booth; 85 percent of the local bond referenda for parks and conservation have passed in North Carolina in recent years (including Wake and Orange Counties, in addition to Guilford's successful efforts in 1988, 2000 and 2004), indicating strong citizen support for this method of financing.

B. LAND TRANSFER TAX OPTION

The Land Transfer Tax is a relatively new county funding source. In 1985 the North Carolina General Assembly gave a handful of coastal counties the authority to levy *up to* a 1% tax on the sale of real property (land, structures) within their boundaries, and in 2007 the Assembly gave the remaining counties the authority to levy *up to* a 0.4% tax on the sale of real property. This Land Transfer Tax allows counties to raise revenue from its citizens only in those unusual years that someone sells a house, rather than through an annual rise in the property tax rate. The Land Transfer Tax also ties development pressure closely with the need to preserve farmland, as the amount of revenue available increases as development pressure heats up, offering both practical and philosophical benefits of this source of revenue. Prior to implementing the tax, counties must receive approval through a majority vote of citizens. Twenty-four counties in North Carolina have placed a land transfer tax on the ballot since 2007, and all have failed to pass.

For a full discussion of financing options in North Carolina, see <http://landfortomorrow.org/stuff/contentmgr/files/8b57c8d7afceab2603a88d160af7e380/miscdocs/nclandconservationsurvey.pdf>. For an understanding of the many possible sources of income used for farmland protection around the country, see http://farmlandinfo.org/documents/27750/PACE_Sources_of_Funding_06-11.pdf.



VI. CONCLUSION & DETAILED RECOMMENDATIONS

A tremendous amount of preparation, numerous studies and diligent investigation has gone into creating this Farmland Preservation Plan for Guilford County. The team responsible for this report has looked to the past and evaluated the present in order to create predictions for the future and determine the best courses of action. The following are the plan recommendations and their accompanying tasks.

GUILFORD COUNTY FARMLAND PROTECTION PLAN RECOMMENDATIONS

I. FARMLAND PROTECTION STRATEGIES

- a. Update Voluntary Agricultural District (VAD) ordinance to include Enhanced Voluntary Agriculture Districts (EVAD).
 - i. Task 1: Guilford County to adopt EVAD Ordinance.
 - ii. Task 2: Guilford County Ag Agencies work with farmers to educate them on EVAD opportunity and encourage sign-up.
- b. Promote establishments of municipal VAD/EVAD.
 - i. Task 1: Meet with mayors of municipalities to discuss advantages.
 - ii. Task 2: Work with municipalities and present to Town Councils.
- c. Mitigate the potential for conflicting land uses and nuisance suits by educating the public/realtors about farming on the rural-urban fringe.
 - i. Task 1: Work with GIS department to add VAD/EVAD one-mile impact zones to the publically available online map services.
 - ii. Task 2: Educate realtors/public about availability of new GIS layers.
- d. Create and fund a County Farmland Preservation Program focused on purchasing agricultural conservation easements to leverage state and federal funds that are available.
 - i. Task 1: Create a ranking system to objectively evaluate and prioritize farms for conservation.
 - ii. Task 2: Guilford Ag Agencies and Piedmont Land Conservancy will work with interested landowners of prioritized parcels to identify state and federal grant funds that can be leveraged with County funds.
- e. Protect existing farmland owned by Guilford County with deed restrictions or other legal instruments to preserve it in perpetuity as working farms/productive land.
 - i. Task 1: Identify current farms within Open Space Program in need of protection as working farms.
 - ii. Task 2: Work with Open Space Committee to find solutions to protect working farms.
 - iii. Task 3: Consider the sale of agriculture development rights on the Guilford County Prison Farm to generate revenue for the County and to maintain this land as viable agricultural property, while allowing the County the flexibility for future sale of the land.

II. FARMLAND PROTECTION PLANNING POLICIES

- a. Adopt the Guilford County Farmland Protection Plan as a reference in the Guilford County Comprehensive Plan during its next update. The map that prioritizes farmland protection areas should be used by Planning Staff, the Planning Board and the Board of County Commissioners for future rezoning decisions in Guilford County.
 - i. Task 1: Guilford Ag Agencies will communicate with Planning staff to incorporate Farmland Protection Plan into update.
 - ii. Task 2: Present Cost of Community Services Study to Guilford County Planning Board.
 - iii. Task 3: Guilford Ag Personnel will use the Farmland Protection Plan as an education tool during rezoning decision process.
- b. Have Guilford County Planning staff consider additional ways to measure the net fiscal impact



of County income vs. County services of new residential subdivisions prior to rezoning from agriculture land.

- c. Establish agreements between Guilford County and Greensboro and High Point not to extend public utilities into priority agriculture areas.
- d. Exempt federal- and/or county-registered farms within town and municipality jurisdictions from zoning and building code regulations for agriculture land uses and agriculture structures, per the North Carolina general statutes.

III. FARMLAND PROTECTION PROPOSALS FOR GUILFORD COUNTY DEVELOPMENT ORDINANCE

- a. Consider additional land uses allowed in the Agricultural Zoning District, which support new or alternative agricultural endeavors.
- b. Provide a density incentive to encourage “conservation subdivisions”, where prime soils are protected for food production (e.g., sustainable community farm operations).
- c. Update the Rural Family Occupation provision in order to allow more agriculturally related businesses in rural areas without a Special Use Permit.
- d. Research possible revisions to the Guilford County Development Ordinance to facilitate the development of more farmers’ markets in Guilford County.
- e. Update the agri-tourism section of the Guilford County Development Ordinance to facilitate more agri-tourism business.

IV. ENSURE ECONOMIC OPPORTUNITIES FOR LOCAL AGRICULTURE

- a. Create a County staff position to support the agricultural economic development and implementation of this Plan.
- b. Support the dairies, of which there are only six remaining in Guilford County.
 - Task 1: Focus farmland protection efforts on remaining dairies.
 - Task 2: Assist dairies with product diversification and new local sales opportunities.
- c. Provide more advertising for existing farmers’ markets and other venues that sell local foods and agricultural products; facilitate the creation of more of these venues.



- d. Support additional agriculture infrastructure.
 - i. Task 1: Use the agricultural infrastructure maps and database in this plan to conduct a “gap analysis” to determine the location and type of additional infrastructure needed to support the agricultural economy. This includes identifying food deserts throughout the County where opportunities to buy local foods do not exist.
 - ii. Task 2: Provide incentives for commodity commercial purchasing facilities (grain buyers, cattle auctions, independent hog slaughter facility, etc.).
 - iii. Task 3: Provide incentives for agricultural support sales and service businesses, including tractor parts/repairs, feed and seed stores, etc.
 - iv. Task 4: Conduct a feasibility study for establishing a Community Kitchen for value-added products and services in order to determine the user demand, a location and appropriate size.
- e. Create public composting operations in Greensboro and High Point to collect urban food waste and produce nutrient rich soil amendments for urban agriculture projects.

V. SUPPORT LOCAL FOOD PRODUCERS

- a. Conduct an interdepartmental analysis of existing agriculture community programs to eliminate overlap and promote improved communication.
 - i. Task 1: Facilitate coordination of the Voluntary Agricultural District program between departments.



- b. Recruit young and minority farmers as members and leaders for the Cooperative Extension Advisory Board, the Soil & Water Conservation District Board, the Agricultural District Advisory Board, and other local boards and commissions.
 - i. Task 1: Conduct analysis of existing demographics of local boards and commissions.
 - ii. Task 2: Identify imbalances in professional/livelihood backgrounds of board members.
 - iii. Task 3: Boards and commissions lacking in diversity should be encouraged to recruit for better balance.
- c. Adopt the “10% Campaign” for Guilford County employees and catered events sponsored by the County.
 - i. Task 1: Establish a partnership with Piedmont Local Foods to deliver local produce for Guilford County employees.
 - ii. Task 2: Develop a policy that encourages all County event meals to be comprised of at least 10% locally grown/produced food.
- d. Expand opportunities for urban agriculture, such as community gardens and urban orchards.
 - i. Task 1: Identify publically owned spaces for new community gardens and provide ongoing assistance to established gardens.
 - ii. Task 2: Identify locations for establishing fruit and nut trees and shrubs on public lands/parks for urban orchards.
 - iii. Task 3: Alter landscaping choices to incorporate more edible trees/shrubs in

planting plans so that public gets exposure to what can be grown locally.

- e. Initiate a branding campaign for Triad-grown foods.
- f. Investigate coordinating a regional farm tour that gives area residents the chance to visit local food producers.

VI. EDUCATION & OUTREACH

- a. Establish a County Farmer Transition Program to link aging farmers and landowners with aspiring farmers who need land and instruction about agriculture.
 - i. Task 1: Benchmark other organizations such as Orange County to find best practices for establishing a model program.
- d. Establish a farm incubator to train young farmers.
 - i. Task 1: Conduct a feasibility study/business plan for a farm incubator.
 - ii. Task 2: Establish a farm incubator to assist beginning farmers on either Guilford County's Hines Chapel Preserve or Guilford County Prison Farm.
 - iii. Task 3: Work with graduates of incubator program on building viable agribusinesses.
- c. Provide education for farmers on crop diversification, rotational grazing, agri-tourism and other sustainable farming opportunities.
- d. Provide education for residents on permaculture, xeriscaping, water conservation, and other urban agriculture topics.
- e. Re-establish agriculture education programs in the Guilford County School System.



CREDITS

The 2020 Guilford County Farmland Protection Plan was a collaborative effort. The following organizations are jointly responsible for the completion of this plan:

American Farmland Trust
Community Foundation of Greater Greensboro
Elon University School of Law
Eydo
Guilford County Agricultural Districts Advisory Board
Guilford County Cooperative Extension
Guilford County Farm Bureau
Guilford County Farmers Organization
Guilford County Planning Department
Guilford County Soil & Water Conservation District
League of Women Voters
Mitch Renkow, NCSU Agricultural and Resource Economics
Natural Resource Conservation Service
North Carolina Agricultural Development and Farmland Preservation Trust Fund
Piedmont Conservation Council
Piedmont Land Conservancy
Project Green Leaf
Unique Places, LLC

